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AN  
 E S S A Y  
 ON THE  
 NATIONAL DEBT,  
 WITH  
 COPPER PLATE CHARTS,  
 FOR COMPARING  
 ANNUITIES  
 WITH  
 PERPETUAL LOANS.

BY WILLIAM PLAYFAIR.

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If it will please Cæsar,  
 To be so kind to Cæsar, as to hear me,  
 I shall beseech him to befriend himself.

SHAKESPEARE.

L O N D O N :

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To the Right Honourable the  
Marquis of Lansdown, Earl of Shel-  
burne, &c. &c.

Knight of the Most Noble Order of the Garter.

MY LORD,

**T**HE National Debt of England, Great as it is, would have been still greater, had not your Lordship, regardless of political dangers and temporary clamours, stood forth the friend of your country, and put a stop to a career the most ruinous, and the most rapid which Great Britain has yet known.

YOUR Lordship's unremitting attention to the good of your country, and profound knowledge of what constitutes her best interests, led me to solicit from your Lordship's unprejudiced patronage, that protection to the following Essay, which I could not expect to receive under the wings of any party; a protection, indeed, which I esteem much more,

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more, and which, if I have any judgment of mankind, will be considered as of much greater value.

THE marks of approbation with which it has pleased your Lordship to distinguish my endeavours to illustrate Political Subjects by Lineal Arithmetic, will, I hope, be the means of their obtaining at least a candid attention from the Public: At any rate, I shall always consider them as an high honour done to their Author.

I am, my LORD,

With the most perfect respect,

Your Lordship's

Most obliged

And most obedient servant,

WILLIAM PLAYFAIR.

PREFACE

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## P R E F A C E.

THE following Essay was not written under an idea that the Author is qualified to communicate any new information to those who are, or who may be intrusted with the management of the finances of this country. The intention with which it is published is very different; it is only intended to illustrate, by a mode which derives its advantages from its distinctness, a point, which it is of the utmost importance for the people at large to understand. Ministers know well that this country runs a ruinous career; they know that public measures should be altered; they know that the perpetual system of loans is destructive, but they know, and they feel, that till the Public at large can be convinced of the same truths, they are forced on by an irresistible necessity to pursue the pernicious plan that has been adopted and hitherto practised. It is therefore not to the Government alone, but to the common sense of mankind that I have made an appeal;

peal ; and as the jury who are to determine upon this cause, I might venture to instruct them, that if they consider the welfare of this happy country as worth their care, and if they cannot prove that I have reasoned from false principles, or that I have misrepresented the effects of temporary and perpetual loans, they are bound to form the resolution of submitting to the temporary grievance of raising a fund to pay off the next loan. To this they are bound by the value they set upon their country's good, by the reasoning and by the facts here laid before them.

If the different advantages could be weighed in a balance, that familiar mode of estimation would carry conviction to all mankind, and no room would be left for a difference of opinion. I request the favour of those who doubt the justness of this picture of our affairs, to examine it, and whatever value I have for reputation, or for whatever is desirable, I am ready to stake it all upon the justice and conclusiveness of these Lineal Representations. For what I maintain is, that as equal parts of space represent equal sums, through the whole, there cannot possibly be in the principle of the thing any deception.

I KNOW

I KNOW that whoever offers comfort is termed sanguine, and that whoever preaches caution, is by an opposite set of men called gloomy. In this case, I know that I shall *inadvertantly* be called gloomy, by those who in their minds favour perpetual loans, and who think that the prosperity of Britain is too well founded to be undermined by any possible conjuncture of adverse circumstances. I say *inadvertantly*, for I am not delivering any opinion : I am but as the hand of the clock pointing out the hour, and my own opinion has no share in what I have done. It was not in my power to have made the lines upon the paper either higher or lower. My own inclination was competent, indeed, to direct me in the choice of my subject, but there it ended. It was as impossible for me to make the result of these calculations different from what it is, as it would be to alter a proposition in Euclid. The nature of things has led to both, and this it is impossible to alter. With regard to the past time, this is absolutely true and certain : With regard to the future (which is supposed) the supposition is the same both with regard to annuities and loans, therefore it cannot lead to deception ; and it is also with regard to  
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this nation, so far from being a gloomy supposition, that the nature of our affairs does not warrant one so favourable. It is therefore requested that this may not be considered as a work in which fancy has any kind of share, but as being in its nature more like to a mathematical demonstration, which, when right, is not to be contradicted, but, when wrong, is the greatest absurdity.

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&c. &c.

THOSE nations which have at different periods risen to wealth and power, have owed their prosperity to a variety of causes; sometimes the genius or habits of the people, the nature of the climate, or of the soil, have afforded a solid foundation for greatness, and sometimes the genius of an individual, and even his vicious practices, have given a more obscure origin to mighty empires.

THE decline of kingdoms has constantly, though not always immediately, followed their prosperity;  
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and although the history of mankind furnishes many instances of this, yet has it not ever produced one example of a nation, in similar circumstances with those which at this time attend the British empire: we cannot therefore profit much by a comparison between the present times and those that are past.

BRITAIN seems indeed to possess one thing in common with those other nations that have been distinguished by their prosperity; for in proportion as they have become rich and luxurious, patriotism has died away, and the feelings for the public weal have been absorbed in the pursuit of private enjoyment. This has always been one of the symptoms, and perhaps frequently a principal cause of the decline of empires. Britain has already seen this change begun, and it will doubtless sooner or later see it completed; for though we do not perceive the old age of states and kingdoms approach so frequently as we do that of animals, yet it does not seem to be less certain. It appears to be the frequency only that makes the difference.

BESIDES *that* natural decay which we have reason to think is common to all, there are peculiar imperfections which sometimes hasten destruction, and

and which by our own endeavours we might frequently prevent.

THE NATIONAL DEBT has long been looked upon by the reasoning part of mankind as the great disease of our constitution, and as a gulph which may one day swallow up our importance in the scale of nations. It has not indeed been considered as the only disease, but as the disease which might in all probability be the most speedy in its operation, and which therefore might be looked upon as the one that is most dangerous, and against which we ought to employ the most strenuous exertion.

WHEN an impending evil is of an unprecedented kind, men are in general very much divided in their opinions regarding its effects; experience not having furnished us with facts from which we may reason with certainty, room is left for all the different workings of imagination, which fancy or inclination joined with unequal portions of a reasoning capacity can produce; of these the variety is endless, and is bounded on one side only by despair, and on the other by obstinate incredulity.

As the world has not furnished us with any instance of a nation contracting debt upon debt, and mortgaging an additional portion of its industry every new war, in the manner that Britain does, the evil that

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that may finally arise from this new practice, whatever it may be, is yet uncertain, and exists only by anticipation in the minds of men; and those minds have formed very different opinions. There are not wanting men who imagine that good may arise out of this evil, and that the more the debt increases, the greater spring will be given to industry. This however seems only to be a vision, encouraged on account of its ingenuity, and the superior degree of mind which it may seem to manifest, and it is for the honour of the human understanding that the number of the supporters of so wild an opinion is but small. There is a more considerable number of men who think that though the National Debt is an evil, it is but a small one, that no great danger is to be apprehended from that source, and that therefore there is little occasion for anxiety. Those men again who, not trusting to vague notions that their fancies have created, but who condescend to enter fairly into the nature of the subject, to enquire into facts, and to draw deductions from those facts, form a much more gloomy picture of futurity, but unluckily even they do not perfectly agree in opinion.

IN a matter of such high importance, and concerning which the different abilities and dispositions

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of men incline them to very opposite opinions, and where exertion may be necessary to avert the evil, unanimity is the first thing at which men should aim, as it is in all cases the root of great exertion.

IN order to unite if possible the opinions which arise from foreboding discontent, from a generous and a warm zeal for the good of the country, from the cold phlegmatic temper which never believes until it sees or feels, and from the bold and daring mind which never fears at all, let us endeavour to paint, in legible and distinct characters, that form which some rashly despise, and others meanly fear; and we shall see that the evil is yet to be averted, while we shall also discover, that if neglected it will ultimately have bad effects, as bad indeed as the most gloomy mind is able to conceive in idea.

PERHAPS the best mode of finding in what manner the debt affects the nation, is to consider the whole body of the people as being divided into two distinct classes, *the industrious, and the idle*, and that every increase of debt is also attended with an increase in the number of these last, who, it is indisputable, are maintained by the labour, and at the expence of the industrious; and that while the proportion of these two classes is such, that the

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burdens laid upon the industrious are not too heavy for them to bear, they may perhaps act in exciting to greater exertion; but whenever the burthens are above the proportion which the nature of things is fitted to bear, then industry will be crushed, our foreign trade will leave us, and we shall sink down into poverty and insignificance with accelerated rapidity; and we shall become a nation without industry, without power, and without consequence in Europe. *See note (A) at the end.*

THIS is the worst effect that a great National Debt can possibly have, and it is also the last that we have to apprehend. A revolution of government is more likely to be the event that will be brought on by heavy burthens; for when the career of destruction shall fairly have begun, its operation will be severely felt among the industrious and the lower class of people, who are in this as in every other country the most numerous, and whenever they please the most powerful; after they feel themselves begin to sink under a load which they are unable to support, it is probable, that they will refuse to pay the interest of an enormous debt which they did not contract, and which crushes them to support the idle and the indolent. *See note (B) at the end.*

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THE idea of a perfect equality of ranks, though exploded by the good sense of mankind, on account of the impossibility of its existence, has never been entirely banished from the human mind; it is that which is the original principle upon which the ideas of right and wrong, and of liberty are founded; it is that which restrains power, and says to it in Britain, "Thus far shalt thou go, but no farther;" it is that which makes men abhor what they think is unjust, and it is to that we owe the free constitution which we enjoy.

THERE is certainly some propriety and justice in paying the debts that have been contracted by our forefathers, so far as they are balanced by the inheritance which they have left us, whether it is an inheritance of wealth or of liberty, but there is not any justice in it beyond that point; and though habit inures men to bearing of burdens to which they are not naturally inclined, yet it only does so to a certain degree, which, whenever it exceeds, the feelings and innate principles of justice break forth. Liberty we have indeed inherited from our forefathers, and the meanest labourer is not denied his share, but it is his only portion; his labour, the sweat of his brows was mortgaged before he was born. He comes into a world where numbers are in



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in ease and affluence, but of which he has no share; not an inch of the fertile plains which surround him is his, nor a morsel of the bread which they produce; labour, and toil, and care are his portion, but the rewards of labour and toil are not his own; the misconduct of ages that are past, has loaded him with debts that are attached to his existence: nor has he the consolation of reflecting that those debts were incurred to purchase liberty, or that they are applied to preserve it. Before the debt existed, the free constitution was formed by the patriots of the last century, who left it as an unincumbered patrimony to their posterity. The price of a large portion of whatever industry can produce, must now be applied, not for the administration of justice, not for the protection of the state, but for the support of a new order of men, who have an ideal property in the funds; men who, if not the most useful, are at least the most wealthy part of mankind; men who are attired like unto the lily of the valley, without labour and without care.

WHATEVER arguments ingenuity may suggest to some, or interest to others, and in however complicated a manner the National Debt may act, or re-act, upon certain ranks in society, this is the manner

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manner in which it alone affects the tillers and sowers of the ground, and those other labourers whose hands produce that wealth of which they are allowed to enjoy only so small a share; and who, though the lowest rank of subjects, are the most numerous and powerful, and can become the masters whenever they please. (B b)

WE have seen the short period of little more than seven years lay a tax on the industry of our country, to the amount of more than nineteen thousand pounds every labouring day, and fifty years will elapse before this burthen will be ended, before which time also the eyes of most people who labour now will be closed for ever. (C) As the period is long during which we shall be employed in paying off the debts already contracted, there is no reason for doubting that more debt will be contracted in that time, and of consequence that our annual burthens will still increase. If our burthens should continue to increase for fifty years to come, the time when the measure of our patience shall be full may arrive before relief is brought by a sinking fund, and if it does, anarchy and confusion will succeed, and, along with the debt, the illustrious family now upon the throne, and the authority of Parliament, must be at an end.

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The burhen that continues to increase must either break the back on which it is laid, or it must be thrown off. (D)

GOVERNED as we are by a family that we love, and according to a system we revere, enjoying an unexampled degree of wealth and liberty, the preservation of that family, that system, and of that wealth and liberty, is of the utmost importance; and although it may be out of the power of an individual, by any thing that he can say on the subject, to produce any considerable effect, yet the importance of the subject calls forth, and ought to call forth the attempts of every lover of his country.

LET us first consider from what circumstance it is that the National Debt is so dangerous.

IN the first place, it is certain that this nation has encreased in wealth with greater rapidity during this century, than it ever did before at any period. The National Debt has also risen at the same time; *therefore National Debt is not incompatible in its nature with national prosperity*, as they have not only both existed at one time, but have increased at the same time also. The expences or amusements of an individual are not inconsistent with wealth and industry, when only extended to a certain length,

length, but when carried beyond that, they become utterly destructive to both, and the National Debt bears the same relation to national industry, that the expences and avocations of an individual bear to his exertions.

THE cases will seem parallel, if we divide the minutes which compose the life of man into industrious and idle, and the individuals who compose a nation into industrious and idle also. It may depend upon a variety of circumstances how many minutes of industry may be necessary to a man's doing well, and how many he may pass in idleness, without injury to himself; but though the proportion is unknown, yet it is certain, that in any possible case there must be some point before they come to be all idle, which they cannot exceed without occasioning ruin. It is also equally clear, that there must be some point at which national industry will begin to be destroyed, if the number of the idle increase beyond it, and as the increase of the National Debt adds to the number of idle people, there must be *some point* at which it will begin to destroy industry. Though it may be impossible to find exactly when this point is, yet its existence is certain, and it is equally certain, that if the debt continues to encrease, it will come to that point

point at last; and we have therefore just as much reason to apprehend that destruction will attend an encrease of debt, as we have to doubt the prosperity of that man, who, depending upon labour for his bread, daily devotes more and more of his time to idleness.

EXPERIENCE then has proved, that the debt is not in its nature inconsistent altogether with prosperous industry, and reasoning proves very clearly, that if it continues to encrease, it will in the end prove to be so; the conclusion then is, that though it may not be necessary to reduce the debt entirely, yet that it is necessary to *prevent that gradual encrease* which we have hitherto seen take place.

THERE are only two modes of borrowing money; one is the common rate of interest usually paid in the country, in which case the capital sum borrowed is to be repaid at a certain time, or otherwise remains unpaid and undiminished, bearing still the same interest that it did at first.

THE other mode of borrowing is at a higher rate of interest, in which case the capital sum is never repaid, and the annual interest terminates, or as it is called falls in, at a certain day, and the day at which it terminates or falls in, is at a greater

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or a less distance, as the sum annually paid above the rate of common interest is greater or less.

THOUGH the modes of borrowing money are very various, yet in their nature they are all of one or other of these two kinds.

THE first of these modes we shall call by the name of *perpetual loans*, and the second is commonly known by the name of *annuities*.

THE far greater part of our National Debt has been borrowed on perpetual loans, which, like many other things, are both the most alluring and the worst. The interest being the lowest possible, a nation may, by laying on a certain amount of taxes, raise more money by perpetual loans than by annuities. It is indeed rather an unfortunate circumstance, that the advantages arising from our wars are not perpetual, as well as the debts that are thus incurred for carrying them on. This seems to have acted forcibly on the minds of the Ministers, who first borrowed large sums in King William's and Queen Ann's time, and they borrowed considerable sums on annuities, but custom has long reconciled the minds of men to what at first seemed dangerous, and the money borrowed on annuities ever since the year 1739, has been but

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a very small proportion to the whole sums raised since that time.

THE National Debt may be said to have begun in the year 1688, which saw King William ascend the throne, for at that time it only amounted to 664,000*l.* and during his reign it increased to above 16,000,000*l.* During the reign of Queen Ann, which followed, it rose to above 54,000,000*l.*

As part of the money was borrowed on annuities, which fell in during the reign of King George the First, the debt diminished considerably, and continued to do so until the reign of George the Second. In the year 1739, the Spanish war brought on a new increase: Since that time there have been three wars, each of which has added a large sum to the former debt, and in the present year (1786) we find that the whole debt amounts to the sum of two hundred and forty six nominal millions, bearing an interest of *nine millions one hundred and forty-three thousand pounds annually.*

IN order to compare the advantages of the two different modes of borrowing money, the following *Charts* are made, and they represent the annual expence with which each mode has been, or would have been attended:

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EXPLANATION OF THE CHARTS.

IN each of the Charts the lines passing from top to bottom represent years, the first line on the left hand is the year 1688, the next twelve years after is the year 1700, and every tenth year is represented by a line, in the same manner, till the year 1840, by which time we suppose the National Debt that now exists will be reduced by the sinking fund.

The space from the bottom to the top is divided into twenty equal parts by lines passing from right to left, each of these divisions represents a million of pounds English money, as is marked both upon the right and left in figures. The lines representing the increase of interest by passing over these, shew the amount at the different periods; as, for instance, if it were wanted to know the interest that was paid in the year 1740, it is to be found by observing where the line of interest passes the upright line representing that year, in plate 1st, and by looking along the line which represents money, it will be found to be two millions nearly. In the same manner the amount is to be found upon any of the others; at any particular time.

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IN plate 1st, the line A A, the increase of our annual interest, that is to say, it expresses the sums actually paid by Government for the loans, ever since the Revolution in 1688, till this present year 1786, after which it goes on without diminution or encrease, till the sinking fund shall have reduced the whole, by paying off the original.

THE annual expence was encreased this present year, by the establishing of the fund to pay off the debt of one million, and the whole expence at this time amounts to *ten millions one hundred and forty thousand pounds.*

Any future debts that may be occasioned by future wars, will be unconnected with the present debt, except that they will add to the annual expence, and if it should happen that other wars shall occur, that may be as frequent and as expensive as those which followed the year 1727 (concerning the probability of which, *see note (E) at the end*) which we shall suppose will be the case, then the line B B will express the future encrease of expence; so that the line A A continued in B B will express the expence as it has been from the year 1688, and as it probably will be till the year 1840, during which period of one hundred and fifty-two years, the debt will have made, like one of the heavenly  
bodies,

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bodies, one complete revolution, and will be ready to begin another.

THIS plate (1st) when looked at attentively, is to be considered as a map, or as a picture, shewing the rise and progress of the debt, which may be just as distinctly conceived from this, as the shape of Britain or Ireland is seen in the map, which is divided by lines of the longitude and latitude.

PLATE 2d, of which the dimensions and the divisions are exactly the same with the 1st, is a representation of what the expence of the same loans would have been, had all the loans been made on annuities, bearing double the common interest, and determining in 15 years.

THE line C C in this plate, represents what the past loans would have cost, and D D what future ones would cost, upon the same supposition of future wars that was made in the case of perpetual loans.

IN this plate there are thick black lines made, to mark those periods of time in which the annuities would be falling in, at which times the debt would decrease rapidly, if it were peace, and if war, the effect would be, that the new debts would be in the whole, or in part done away by the falling in of the old.

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DURING the first fifteen years, the annual expence would have increased at double the rate which it actually did by perpetual loans, but then 15 years of peace put an end to it altogether, and would do so at any time, however great the debts incurred might be. At this present time the debts would have occasioned an annual expence of nine millions five hundred thousand pounds, which is a higher interest than what we now pay; but in the year 1791, that is, in fifteen years from the beginning of the American war, the annuities would begin to fall in, and in seven years more the debt would be ended altogether, and would begin again, as expressed by the line D D.

THIS chart is then to be considered as the expence of the *very same wars*, and of the *same loans* which the first plate expressed, only with the difference that plate 1st expresses *perpetual loans*, and this shews *annuities of fifteen years*, so that they are both maps or pictures of the same transactions, managed in these two different ways, and this being well understood, what follows will be almost self-evident.

To form an exact comparison between the amount of the sums expressed in plates 1st and 2d, plate 3d is divided by lines into similar spaces with  
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the other two, so that the cross lines in all the three charts are exactly the same in every respect. Upon those lines in plate 3d, both the expence by annuities and by perpetual loans are expressed; this therefore is both the other charts in one, and the lines are marked with the same letters to distinguish them; besides, the more to distinguish them, the line of annuities is a dotted line, and the other is plain.

WHENEVER the dotted line is higher upon the plate than the plain one, the annuities were these years more expensive than the perpetual loans, and whenever the dotted line is lower than the other, the expence of annuities was less than of perpetual loans; so that in this chart we see the difference between the two modes painted in the same manner that the amount of each was in the particular charts.

THE Author begs leave here to remark, that as this is an appeal to the mind through the medium of the eye (the most accurate of all the senses in judging of quantities) and as it is upon an important subject, he has been at great pains to attain accuracy, and has examined it again and again, and wishes it to be considered as it is, *in no degree fanciful*, but that the difference of the expence attending the two modes is as certain as that



THOUGH there may be some little error in this statement, yet there can be none of such magnitude as to \* effect the conclusion, which is, that the same wars would cost 999 millions by perpetual loans, which would only cost about half the sum by annuities of fifteen years.

THIS of itself might be a sufficient reason for preferring annuities to perpetual loans, yet great as this advantage is, it is not the only one that we might expect.

IN the first place, this mode of raising money has a limit, and does not tend, like perpetual loans, constantly to increase; and we already found that it is that *accumulating tendency* that makes our National Debt so dangerous to our prosperity. We were led to think, and we have strong reasons for thinking, that the present illustrious family upon the throne, and our glorious and free constitution, hang by one thread---but even that is not all. Those arts and that commerce which have raised this island, inconsiderable in its extent, to be one of the most powerful nations in the world, together

\* These sums were calculated twice over, and compared a number of times; there appeared an error of  $\frac{1}{450}$  part; and there probably is one to that amount, but if it were greater, it would have no effect upon the conclusion to which this leads.

together with our political importance in the scale of things, depend upon unincumbered finances.

THE decay of the arts of peace are but a natural and an evident consequence of a heavy load of taxes, but the decay of the art of war is not less certain.

WHATEVER the courage of individual Britons may be, the national courage is measured chiefly by the national purse, and by the state we are in to support a war. As matters at present are, and as they hitherto have been, we become less and less able to support the expence every time that we go to war. It is like age taking away vigour of body from an individual soldier. Our neighbours have but to persevere in their attacks, and without ever defeating us in the field, they may ruin us as completely as if they did. We have reduced ourselves to the situation of a besieged city, which may be taken by a blockade, without remedy. Our resources, like theirs, grow less and less, and though we may never be worsted in a war, nor they in an engagement, yet may we both be overcome.

WHILE Britain is yet in its glory, while its lustre is yet undiminished among nations, let us consider attentively and with care, whatever regards the safety of an island, which, when compared with the



the rest of the world, is like gold or diamonds, and which, when its name shall be laid low, future nations will measure with accuracy, regarding with astonishment the small dimensions of a spot, which maintained its dignity in Europe, and governed so many millions of people in Asia and in America. While we exult, among other things, in our wealth, let us consider, that though riches, by whatever means they may have been acquired, will purchase power, and may exalt the nation by whom they are possessed, that all wealth is not equally secure. The importance of France, for instance, is scarcely equal, and certainly not superior to that of Britain, yet it arises from a cause that is in its nature more permanent. France has larger territory, more inhabitants, a better soil, and a better climate; and *France without industry*, is far, very far superior to *Britain without industry*. Without wishing to undervalue the advantages which this country enjoys over others, or to exhibit a flattering view of the stamina of their greatness, we cannot, and we ought not to conceal the fact, that we depend for our greatness upon superior habits of industry and a better government: perhaps the most desirable as well as the most honourable, but certainly not the most permanent possessions,

sions, and we cannot with equal safety make so free with our welfare as France may with hers. We stand chiefly in the place of manufacturers and merchants, and they in that of proprietors of land. We may be equal and even superior in riches, but still we chiefly depend upon industry and credit, which habit or mismanagement may destroy; nay, on the very things which the increase of our debt, when it has gone beyond a certain point, must inevitably destroy.

ALTHOUGH we ventured to make a supposition that future wars might be as expensive as those that have been carried on since the year 1727, yet it is probable they will be *much more* expensive; the expences of wars have increased with the inventions that have been made in that art, and will certainly continue to do so; and though from peculiar circumstances, the American war was much above its due proportion of expence, and although there will be particular causes that may, and certainly will create great deviations from any certain proportion, yet from considering the subject, it is plain that wars become every day more and more expensive. It costs twice the money to besiege a town or to take a ship, that it did in the beginning of this century; and there were more shots fired, and shells thrown in one

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day, at the attack of Gibraltar, last war, than the whole Spanish Armada could have thrown in a week, constant firing. We must therefore consider ourselves as being upon a precipice, and that without wise measures, we shall soon be hurried on to such an extremity, that exertion will be useless.

THE necessity and the advantage of a firm and a steady resolution to reduce the present debt is pretty evident, but to make it the more so, upon plate 1st there is a curved line drawn, in order to represent the rate at which a million annually applied will reduce the present debt. There is another line in the same plate, marked G G, which shews how soon the same sum of one million would have reduced the debt, if it had been established into a sinking fund, in the year 1763, at the end of the last continental war.

THE efforts that have been made to pay off our debts have been rather a disgrace than an honour to us; they have shewn our opinion of the necessity, and they have exhibited our want of steadiness in a good cause.

THE sinking fund of one million which has been established this present year, is certainly upon the plan most likely to relieve our distresses, and will do it, if it is adhered to inviolably. A criticism

ticism upon this plan might appear to arise from motives of party, rather than from a regard to truth, but it is but fair to say, that it has been well conceived, and though it is, perhaps, like most other human undertakings, capable of some improvement, and also liable to mismanagement, yet that to people who have not plans of their own to produce, and who do not expect to meet with any thing that has no fault, it will seem a very *good* plan. One great advantage of the plan adopted at present is, that being perfectly simple, and deriving none of its excellence from those far-fighted transactions and bargains which theory promises, but practice does not always realize, we can be led into no mistake, the nation can be led into no mistake, but may fairly expect those advantages which it exhibits to view. This, though perhaps no recommendation in the opinion of people who think they see very deeply into the nature of affairs, is a very great one in the eye of plain common sense. (F)

IN order to prevent the mischiefs that may attend the accumulation of future debts, it would seem necessary that they should be borrowed in the manner that would have been the best to have been adopted at first, that is, by *annuities*; but in order to do that,

that, we must resolve to encounter a double burden, for the first fifteen years: these charts shew that that will soon be repaid by the falling in which will follow, and we shall from the first have the satisfaction to think, that the affairs of this country *are* not drawing to a crisis which may destroy it forever.

As no Minister may ever probably be found, who will chuse to risque his popularity and his existence as a Minister, for the good of a future day, the only way to do the nation a real service, is to lay it down as a principle, not depending upon the will of a Minister at all, THAT WHATSOEVER MONEY IS BORROWED SHALL HAVE A FUND PROVIDED AT THE TIME, BY TAXES LAID UPON THE PEOPLE FOR THE PURPOSE OF PAYING IT OFF.

THE term of fifteen years may perhaps not be the best possible; and perhaps it might be better not to make all the annuities of one sort. The annuities at the beginning of a war should be at shorter dates than those at the end, because people are more able to bear the expence of borrowing on short annuities at first, and because at the end they will be more able to pay the expence of the longer ones. By this means the fluctuation of the expence might

be

be greatly removed, which would certainly be an advantage. (G)

THOUGH in this Essay the word ANNUITIES has been used in opposition to the term PERPETUAL LOANS, it has only been done for the purpose of giving a distinct idea, because the nature of annuities is generally known.

IT is not however meant that the money should be borrowed upon that scheme, as it would be attended with many disadvantages, from which perpetual loans are free, but which it is needless to enumerate. It is only necessary to observe, that if great sums were borrowed on annuities, as the bulk of the money-holders do not like that method of lending their money, the premium required would soon be very high, and tend in a great measure to counteract those advantages which we have been endeavouring to demonstrate, attend that mode of borrowing.

SUPPOSE 1000l. is to be borrowed upon a perpetual loan, at five per cent. interest, that is, at the expence of 50l. per annum: To borrow the same sum on an annuity that would fall in at the end of 15 years, would require 100l. per annum, for interest and premium, that is double the expence.

I

SUPPOSE

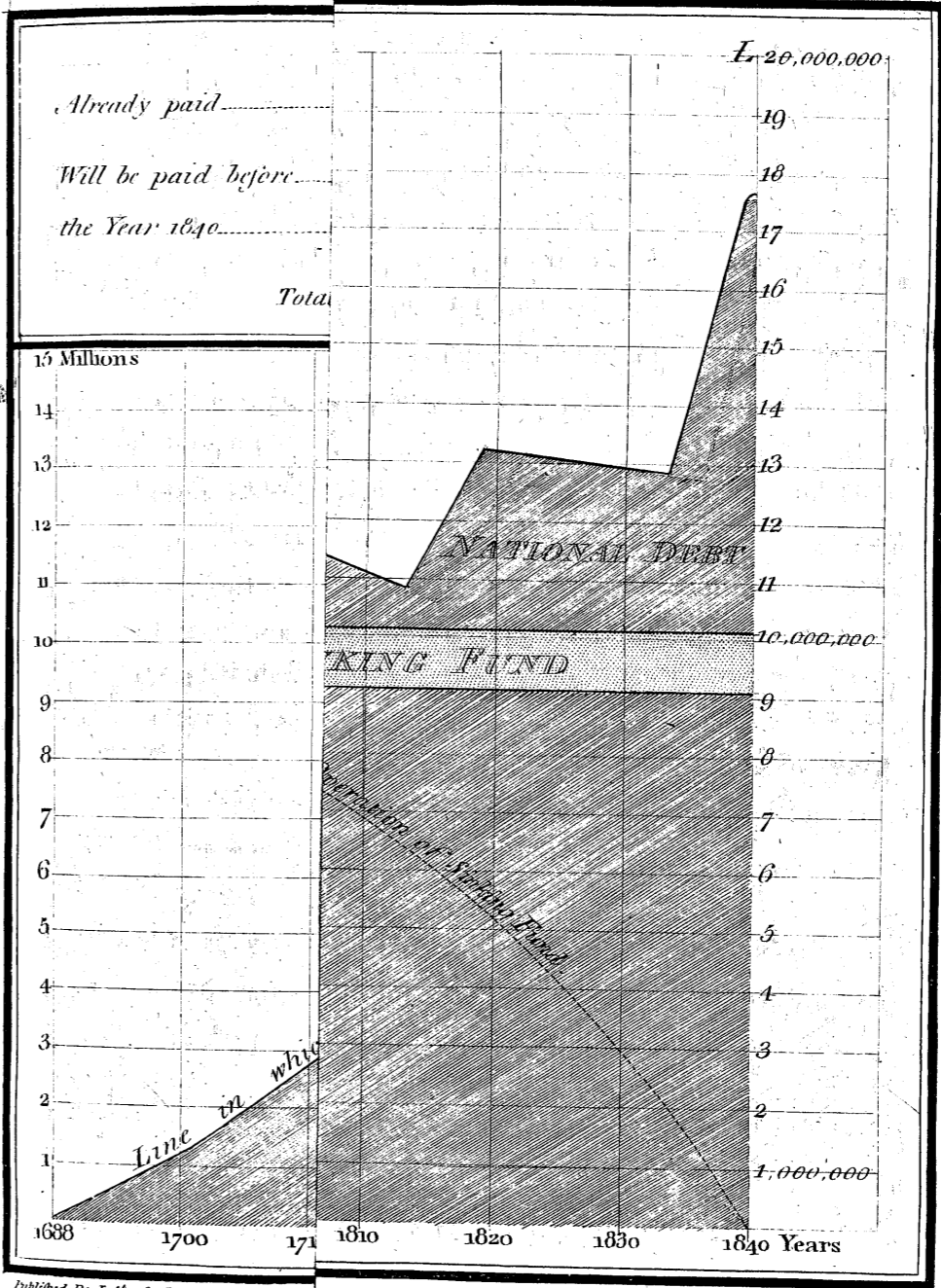
SUPPOSE then that a sinking fund was to be established, that would reduce the debt at the end 15 years, we should find that 50l. per annum of a fund would do, then would the advantage of perpetual loans and annuities be united, for 50l. of interest and 50l. sinking fund make 100l. which is just equal to the interest and premium of the annuity.

By this means, in borrowing the money, Government would have all the advantages that it has in perpetual loans, and in paying it off all the advantages of annuities. The mode then which we would here venture to recommend is not that of Annuities, but of SINKING FUNDS, and the only difficulty consists in laying on taxes when the loans are made, that may enable the Minister to establish a fund for paying off the debt, at the same time that the debt is contracted. (H)

CHART

till 1840

Plate 1<sup>st</sup>



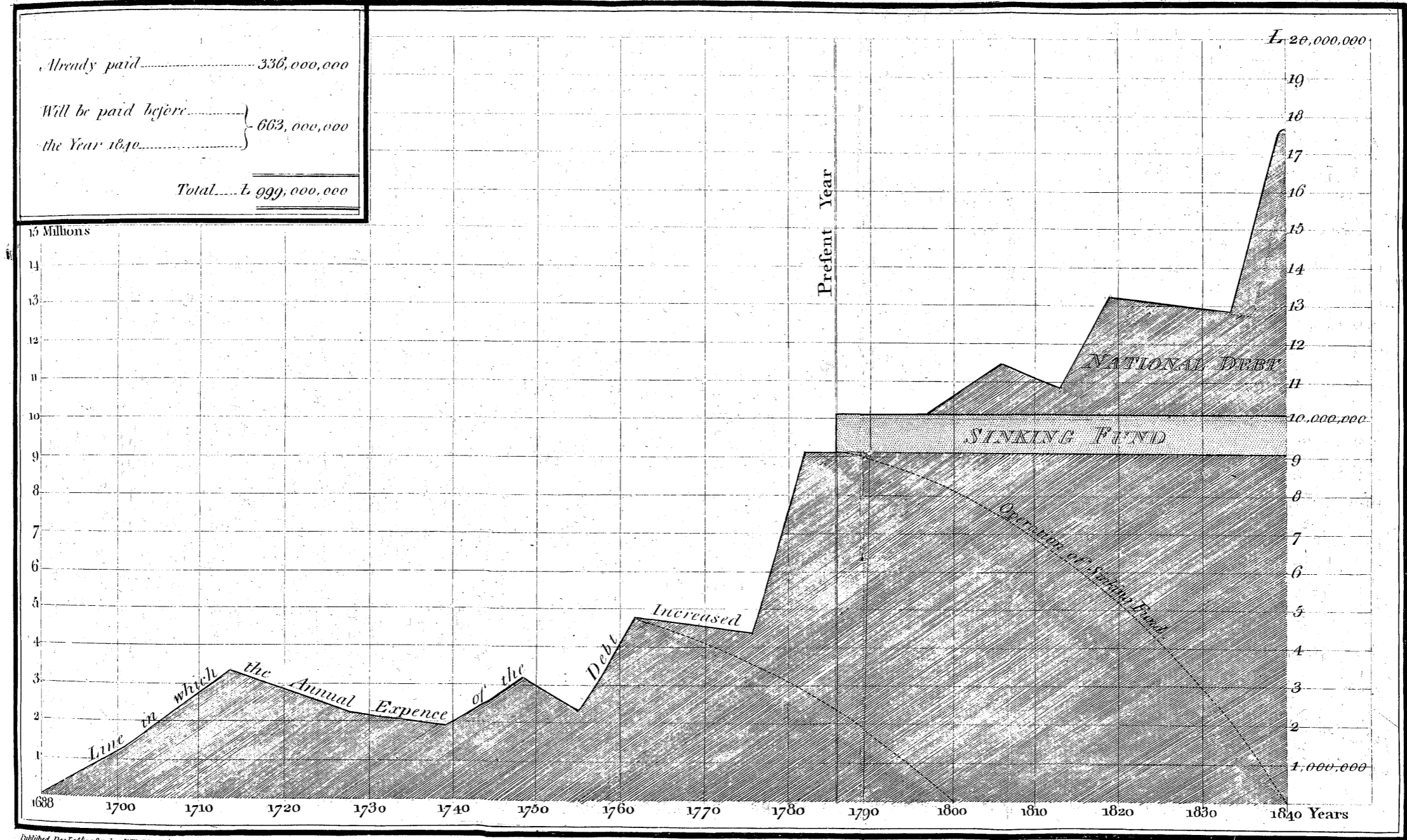
Published Dec. 1<sup>st</sup> 1787, by W<sup>m</sup> Playfair.

Neele, sculp. 352 Strand.

CHART of the INTEREST of the NATIONAL DEBT from 1688 till 1840

Plate 1<sup>st</sup>

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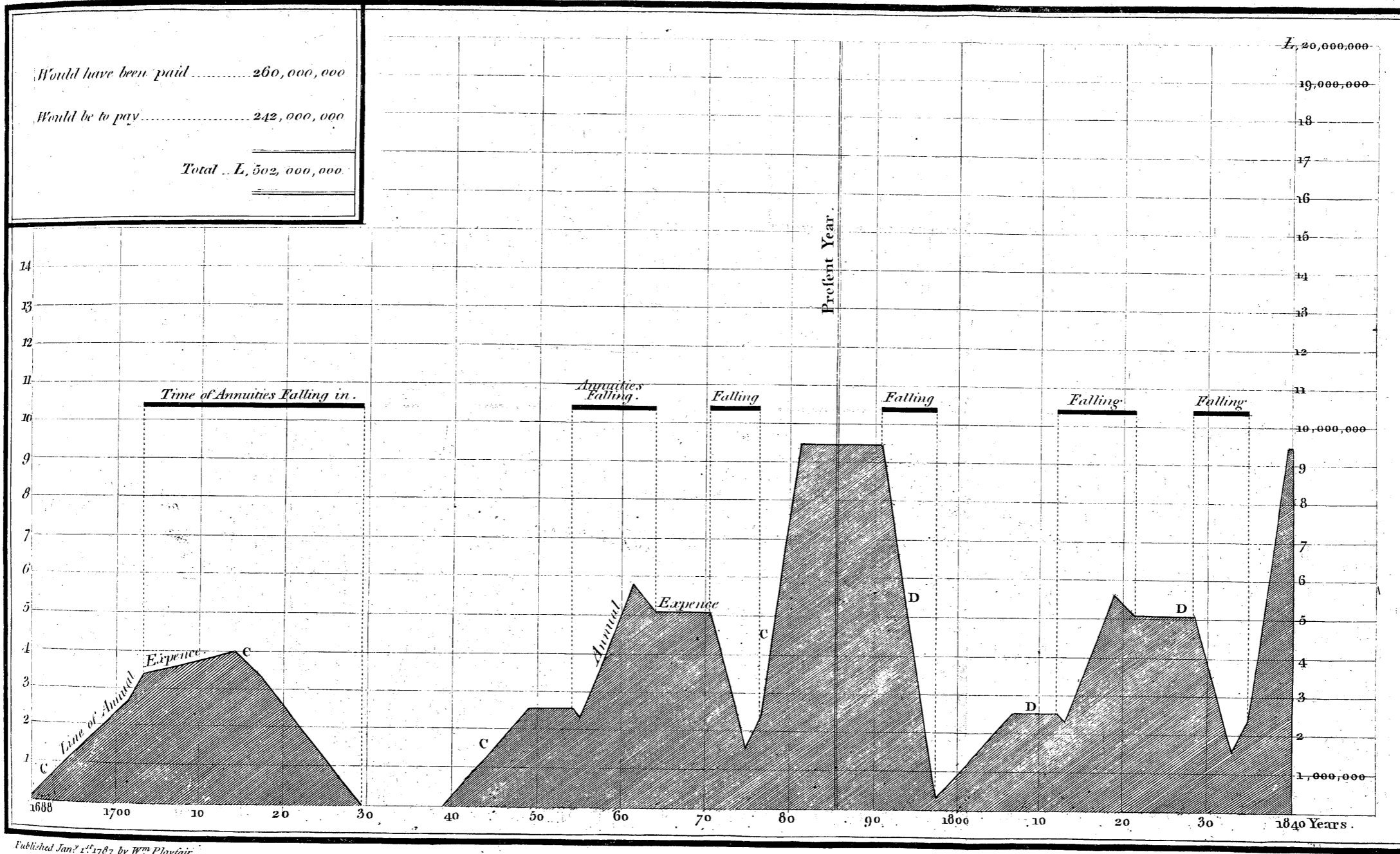
CHART

Published Dec: 1<sup>st</sup> 1787, by W<sup>m</sup> Playfair.

Neele sculp: 352 Strand.

CHART, shewing the Annual Expence, if the Money had all been Borrowed on ANNUITIES of Fifteen Years:

Plate 2<sup>nd</sup>

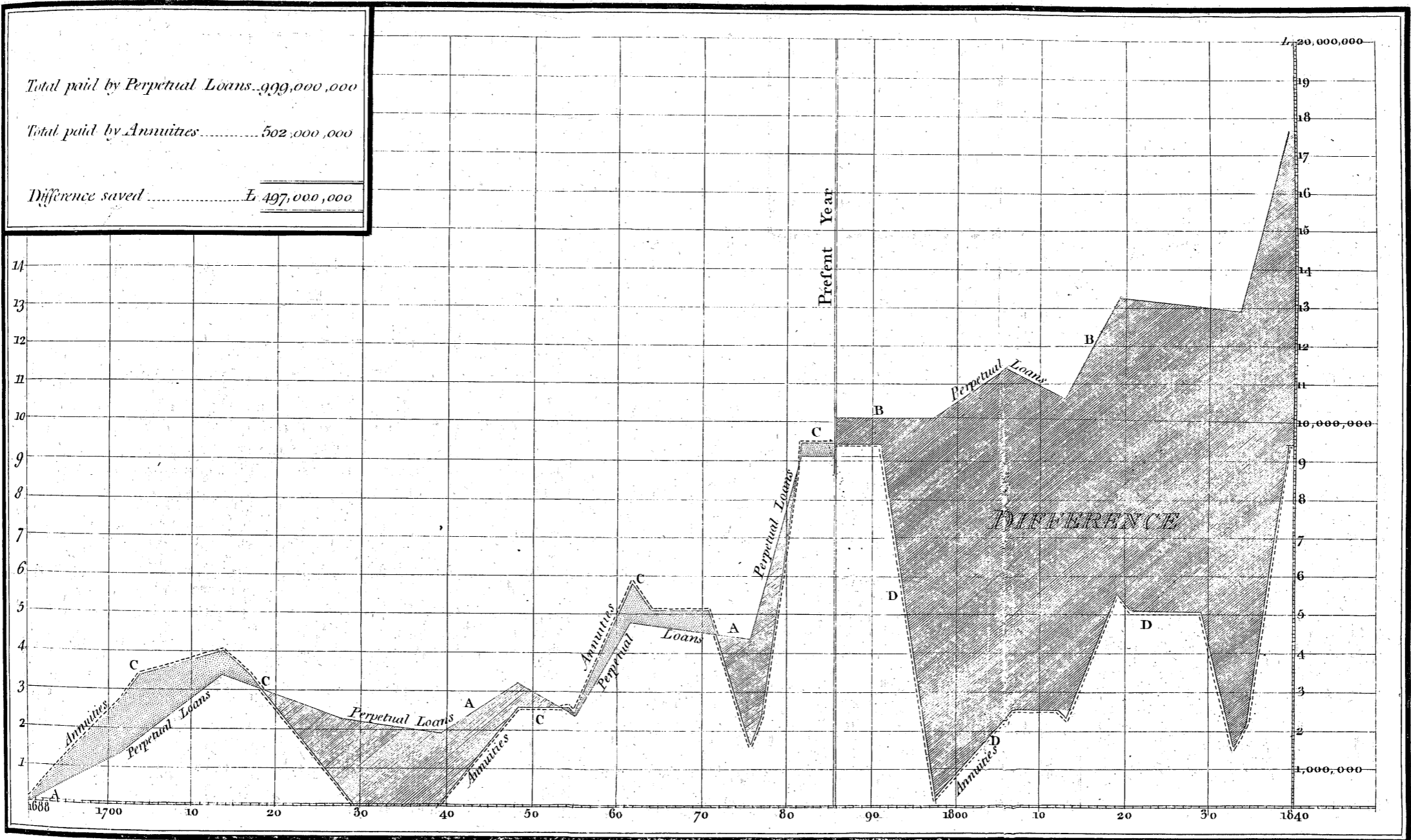


Published Jan<sup>r</sup> 1<sup>st</sup> 1787 by W<sup>m</sup> Playfair.

S. Neale sculp<sup>t</sup>

# CHART comparing ANNUITIES with PERPETUAL LOANS.

Plate 3<sup>d</sup>



Published Jan<sup>r</sup> 1<sup>st</sup> 1787, by W<sup>m</sup> Flaxman.

Nele sculp 352 Strand.

## N O T E S.

(A) **T**HERE are those who maintain that foreign trade is not necessary to the wealth of a nation, and they are certainly right so far as this, that it is possible for a nation to be rich, and very rich too, without any foreign trade. It is not because the goods are carried beyond the ideal boundaries of a kingdom, that they make a people rich. Had the dominions of Alexander the Great remained consolidated into one kingdom for centuries, as it extended over the richest portion of the globe, little or no foreign trade would have been necessary; they did not need to apply to strangers for the necessaries or the luxuries of life, and therefore it would have been unnecessary to supply their wants. The same was the case with the Roman empire; for it is not the importation of gold that constitutes riches, but when a nation is circumscribed in dimension, and defective in those natural or acquired productions which are necessary to the enjoyment of life, as it imports what it wants from other countries, it must give something in exchange. No taxes can ever prevent men from labouring, unless it makes them fairly leave a country; and therefore so far as we are to manufacture and to purchase from each other at home, it is not so bad, because the clothier and the manufacturer of hard-ware are equally taxed, and in exchanging their commodities, they are still as much upon a footing of equality as if there were no taxes at all. With regard to the inhabitants of another country, this is different, for as their labour is not so heavily burthened, they are under no necessity of raising the price of their goods, and will not therefore pay the advance which necessity obliges us to make on ours.

It



It will readily be agreed that Britain would make but a poor figure as a nation, if it were disabled from importing many of the luxuries, and even the necessaries of life, from other countries; yet every thing that makes labour more expensive tends to this, and though in a general sense it is not true that a nation must have foreign trade in order to be rich, yet with regard to this island, it is strictly true; as well as with every other nation which has not within its own extent every article of life, and every material for manufactures which it may want.

(B) It would certainly take a considerable portion of time for the industry of this country to be banished by encreasing expence, and it would be attended with many scenes of distress, which, when we consider the nature of our government and of the people, we have every reason to think would occasion a revolution. When we consider that the debt is like a gradual encroachment of the rich upon the property of the poor, we may expect that like many other sorts of evils, it will at last re-act, and set things right again. There are indeed instances in the history of mankind, of men being so subdued by a base system of government, as to submit to the decrees of kings, as if they were the decrees of fate; but the case is very different in this country, and it is to be hoped will always be so. The people in Britain are capable of thinking and of reasoning upon subjects of right and wrong, and they have not yet learned to consider it as presumption to canvass the actions of their superiors. While this remains to be the case, and while liberty is so entire as to allow general signals to be given from the press, there cannot be a doubt that if any very general and very great grievance existed, they would unite in redressing themselves. This has been the case already, and we have good reason to believe that it may be the case again.

EVERY good member of society must wish that it may never be necessary to unite, in order to throw off debts that are lawfully incurred, and there is some reason to expect it never will be necessary; but if it should, where is the person who can doubt that the spirit and common sense of the nation would lead them to do it? And certainly there is not any

any one who would not rather see that take place, than the decay and poverty which would otherwise be brought on.

PERHAPS there may be some other means by which the nation might get rid of its debts, even if a sinking fund should fail, but it is yet undiscovered what it may be.

SHOULD then the debts become too great to be bore, and the expediency of throwing them off be generally felt, the manner in which it might most likely be done, is a question of some importance.

BANKRUPTCY, when it happens to an individual, is a very simple transaction, and nothing is more readily understood; but the insolvency of a nation, borrowing money from itself, is more complicated. If all the money which this nation owes had been borrowed from another country, there might be a possibility of a bankruptcy, like that which happens to an individual. The nation might become unable to pay the interest of her debts, but, as it is, there is no possibility that we should ever want the actual money to pay the taxes; for as it goes only from the one class to the other, and returns again, an insolvency arising from an actual deficiency, that is, from an absolute impossibility to pay the money, cannot happen. Any insolvency that takes place must therefore be, in some degree, a voluntary one, and it is most likely to be effected by a refusal to pay more taxes. This can only be brought on by a general feeling of the great burdens laid upon industry, and it can only be effected by denying the right of Parliament to lay on more taxes, or, if the right is allowed, refusing to submit. The revolution with which this would be attended would be great; the order of things would be quite destroyed; every species of wealth would alter its value; land would fall to a low price; vast numbers of the opulent would be reduced to beggary; even the industrious, who would be relieved indeed from their heavy burdens, would be unemployed, and a number of years would be necessary to restore order. We might perhaps have more foreign trade than we had before, because our labourers could work much cheaper, but we should not soon have any peace at home, after such a revolution in the affairs of every individual. Yet this convulsion, terrible as it would be to all ranks of men, is the least of two evils,

for it would in time be ended, and the nation might again rise to greatness; whereas if the burdens are allowed to continue till industry is fairly fled, it will be impossible ever to recal it.

WHEN such are the least of the evils that may be expected from a great increase of our debt, is there any exertion which we ought not in wisdom and from regard to future generations, to make?

(B b) SOCIETY is in general divided into the following classes of men. Productive labourers, unproductive labourers, lenders of money to carry on trade, and proprietors of land.

IN any state of civilized society, all those ranks are necessary. Productive labourers are those who cultivate the earth, and the manufacturers who really produce tangible property. Unproductive labourers include all those professions which are necessary to the enjoyment of life, or to the protection of mankind, but who do not really create any thing by their labours; and though for the purpose of distinction styled unproductive, they are absolutely necessary. Under the class of lenders of money may with propriety be ranked, not only those who living free from business, have for a premium or interest lent out their money to trade, but the masters in every line of business, who furnish stock for those who actually labour, so far as their profit arises from that belong to the class of lenders of money; and so far as they acquire riches by conducting business, they are productive labourers. The lands of every civilized country must be in the possession of some other persons than those who labour with their own hands, and therefore the proprietors of land are as necessary, and as any rank of men, those who cultivate the ground *not* excepted.

WITH regard then to these ranks, as they are necessary to every country, they do not by any means afford one an advantage over another. But the proprietors of stock, a new rank, and yet but of a recent date, are not necessary to society; they are an unnatural part, if we may be permitted to use the expression. When the lending of money was first practised among men, it was reprobated upon this principle, that money could not *beget* money, and that therefore it should not entitle the possessor to a yearly income; this argument certainly originated from the crude state of mercantile affairs;

affairs; but what would these old people say, if they were to rise now, and find that we are daily in the practice of selling five per cent. per annum, to a man and his heirs forever, who lent us money to buy gun-powder, which would be blown in the air in a moment.

THE Proprietors of land, who are the only people that have fairly a right to expect to live in idleness, are concerned in the good of mankind: The seasons, the prosperity or the adversity of their tenantry, attract their attention and call forth their feelings. They depend upon the success of the industrious for their revenues, and they are therefore as brethren embarked in one cause; and these classes became mutually the protectors and the supporters of each other; attachment naturally rises in the one, and benevolence and parental care distinguish the other; but it is not so with the proprietor of stock; unconnected with, and unconcerned for any rank of men, his feelings center in himself, and while the nation is not crushed into pieces, he goes regardless of partial or temporary calamity, and receives an unearned dividend at the Bank, which may have been wrested by the unfeeling arm of power, from the indigent and the needy. It may seem to be wrong to represent a set of men, who have certainly got very fairly, and by bargains, what they possess, but it is no particular reproach on the holders of stock. Human nature is such, that whoever is above the calamities of misfortunes to which it is liable, is above its finer feelings too. The only set of beings which this world has ever produced, who are exempted from all care and anxiety about the prosperity of their fellow-creatures, are the proprietors of money in the funds, and they are to the rest of mankind as an excrescence which loads and encumbers, but contributes in no degree to its welfare.

(C) THE increase of expence during last war, with the addition of the sinking fund, will be above 5,4000,000l. a year, which is more than 17,000l. for every labouring day. Millions are sums of money to which we do not annex any very accurate idea; the enormity of the expence is more obvious when it is reduced to a day, and it appears that the daily burden is equal to the yearly revenue of a large

large estate; this is the price that we pay, and must continue to pay, for our hard-headed contest with America. The amount of the whole trade to that Continent, was never at any period equal to this expence, and as for the balance received, it was never equal to one fourth part of the sum. (N. B. In the text there is a mistake, 17,000l. is there printed 19,000l.

(D) SUPPOSE for a moment, as those people must do who think, or at least who say that the wealth and industry of this country are immense (by which, it is to be presumed, they mean immeasurable) that the debt should continue to increase, and the nation continue to bear it, then every thing would be taxed to very nearly its whole value. We should in time pay 10d. for a thing which originally cost only 1d. and the 9d. would go to the proprietors of stock and to excisemen; but it would not stop them, for as the progressive increase went on, the proportion of tax would still be greater, and it would become nothing else but tax, which is impossible, therefore there is some point at which it must stop.

(E) THERE cannot be a doubt that future wars, whenever they do happen, will be more expensive than those that have been. The art of war has become more expensive in its nature, and the value of money grows less; but above all, the nature of our dominion alters the case. The wars of Britain were little expence, until our possessions in America and India rendered them of a different nature from what they were before, and while we retain any foreign and distant possessions, it will continue to be so. We are still vulnerable in the East Indies now, and our West India islands, and whenever we go to war, it will be at a great expence. Twelve millions a year will do very little in maintaining fleets and armies, and wars seldom last less than five years, so that we cannot expect that less than 60 millions will pay for any war: It is much more likely to be 75 millions (at 15 millions a year); but on an average there is one war every 20 years, which is 150 millions in 50 years, at the lowest estimate.

(F) THE principle upon which the National Debt is about to be paid off, namely, that of a *sinking fund*, is certainly unexceptionably the best. Had Ministers, instead of that, converted the whole into annuities

annuities determinable in 50 years, it would not have been so well, even if it had been practicable. Whatever money is now paid goes immediately into trade at once, and if peace should continue, and the sinking fund go on, in 15 years the interest of money would be at three per cent. and will continue to sink probably to much less; whereas, suppose it were upon annuities, it would not have that effect. The case is thus. When 1,000l. is bought up, the sellers lend the money which they receive to trade, or engage it in some sort of business. But when 1,000l. is paid on annuities, it goes distributed as income to the proprietors of perhaps one million of stock and is spent (being considered as income, and being in small sums) by those who receive it, and therefore does not relieve the trading part of mankind, by lowering interest. At the same time that this is to be said in favour of the fund, it must be observed that a great error has been committed in not making it impossible for another Minister to alienate the money; and also it is a wrong intention, that when there is four millions free revenue, the taxes shall be reduced, and only one million applied to pay the debt. As this is inconsistent with the spirit of the thing, we have drawn the curve as if it were not to be done, for if it had been made so, it would have been, instead of the year 1840, above 1860 before it would be paid off; and upon the very reasonable and probable supposition of the increase of future debt, we should be deeper in than now. In fact, as the advantage of the fund consists in operating uninterruptedly, there can be nothing more unwise than to alienate any part, till the business is completed for which it was established; but the period at which that will come to be disputed (when there is a free revenue of four millions) is so distant, that it is not an objection of much importance at present: at least if it is, it is covered by the other objection, *that the whole may be alienated*; for if Ministers chuse to alienate the whole, or any part, they may do it, independent of this, and if they are convinced of the good effects of not alienating, they will not take any advantage, but let the whole fund work out our salvation, without interruption. The only real objection then to the sinking fund is, that it is not absolutely *unalienable*.

I.

(G) SUP-

(G) SUPPOSING that the first year of a war ten millions is borrowed, one million taxes would be necessary to sink the debt in 15 years, which at the beginning, if we are in a condition to go with the war, we might pay, but on the last year of the war, probably 15 millions might be wanted (for a war grows more and more expensive every year, till it is at an end) and instead of 1,500,000. taxes, which we should be ill able to bear, the sum might be less, and a longer time allowed to pay off the debt, and if the nation found itself inclined, after the short annuities of the beginning of the war were paid, there would be a large free revenue, with which the dates of the longer ones might be made shorter; this might accommodate a little, and make us more able to bear a long war.

(H) IN order to prevent the rises of stock, which would counteract, in some degree, the sinking fund, perhaps a loan might be regulated in this manner:

TEN millions are to be borrowed; the interest is 500,000. the fund 500,000. more. Now, in place of buying stock on the quarter day with 125,000. the (value of the sinking fund for one quarter) at the time when the loan is made, 60 bills should be given, value 250,000. each, payable on the different quarter days, that is to say, the first in three months, the second in six, the third in nine months, and so on for 15 years. These bills, which would amount in all to 15 millions, would be exactly equal to 10 millions ready money, and would afford the advantages of annuities and of perpetual loans, in their fullest extent. The bills might be in smaller sums, if it were more convenient, and it is evident, that in a new mode of borrowing we must expect to meet with some difficulties, which are only to be overcome when the business comes to be transacted.

ALTHOUGH in this Essay 15 years has been reckoned the time, it is not exactly so, but is considerably less, as will appear from the following Table, which is added, that the difference may be exactly seen by those who chuse to come to perfect accuracy. The reason for saying 15 years, was to avoid fractional parts of time, and to leave the clear and distinct outline of the plan unincumbered with those minutiae, which though sometimes quite necessary, in a case of this sort, are not only useless, but do a great deal of harm, as one clear and simple outline of an affair, is better than all the minute calculations in the world.

TABLE.

TABLE shewing the Sum to which a Sinking Fund of One Million per annum will increase, for 20 years, at Compound Interest, at 3, 4, 5, and 6 per cent. per annum.

Years.	At 3 per Cent.	At 4 per Cent.	At 5 per Cent.	At 6 per Cent.
1	1,000,000	1,000,000	1,000,000	1,000,000
2	2,030,000	2,040,000	1,050,000	1,060,000
3	3,090,900	3,121,600	3,152,500	3,183,600
4	4,183,627	4,246,464	4,310,125	4,374,616
5	5,309,135	5,416,322	5,525,631	5,637,092
6	6,468,409	6,632,975	6,801,912	6,975,318
7	7,662,462	7,898,294	8,142,008	8,393,837
8	8,892,336	9,214,226	9,549,108	9,897,467
9	10,159,106	10,582,795	11,026,564	11,491,315
10	11,463,879	12,006,107	12,577,892	13,180,794
11	12,807,795	13,486,351	14,206,787	14,971,642
12	14,192,029	15,025,805	15,917,126	16,869,941
13	15,617,790	16,626,837	17,712,982	18,882,137
14	17,086,324	18,291,911	19,598,631	21,015,065
15	18,598,913	20,023,587	21,578,563	23,275,000
16	20,156,881	21,824,531	23,657,491	25,672,528
17	21,761,587	23,697,512	25,840,366	28,212,879
18	23,414,435	25,645,412	28,132,384	30,905,652
19	25,116,868	27,671,229	30,539,003	33,759,991
20	26,870,374	29,778,078	33,065,954	36,785,591

FROM this it plainly appears, that even at 4 per cent. the capital would be redeemed in 15 years, for a sinking fund of one million is 20,023,587. in that time, which is 23,587. more than was wanted. The fund of 5 per cent. is 15,578,563. more than enough, though in this Essay it has been only reckoned at that rate; therefore the reasoning and the charts are so far from leaning to favour that system which they recommend, that the advantage has all along been thrown the other way. This was not altogether from choice, but because, in order to avoid fractional parts, it was thought best to make it even sums, and as by doing so there was a necessity of deviating a little from the exact truth, it was thought proper and candid to lean in favour of *Perpetual Loans*, which it is the sole intention of this work to condemn.

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