8/2 42.98 (9)

## TABLE OF CONTENTS.

						Fage.
Report by Mr. Hamilton on Public Credit	-	-	- 9	January.	1790	a age.
Report by Mr. Hamilton on a National Bank	-	-	-	December,	1790	54
Report by Mr. Hamilton on Manufactures	-	-	-	December,	1791	78
Report by Mr. Hamilton on Establishing a N	lint	-	-	May,	1791	133
Report by Mr Hamilton on Dublis Carlin	-	-	-	January,	1795	157
Report by Mr. Gallatin on the Finances			-	December.	1801	216
report by Mr. Gallatin on the Finances	-	-	-	December,	1802	252
accountry Mir. Gallatin on the Finances	-	-	-	October,	1803	262
Report by Mr. Gallatin on the Finances	-	-	-	November,	the state of the	285
Report by Mr. Gallatin on the Finances	-	-	-	December.	1805	297
Report by Mr. Gallatin on the Finances	-	-	-	December,	1806	331
Report by Mr. Gallatin on the Finances	-	-	-	November,	1807	356
Report by Mr. Gallatin on the Finances	-	-	-	December,	1808	373
report by Mr. Gallatin on the Finances	-	-	1	June.	1809	391
Report by Mr. Gallatin on the Finances	-	-	-	December,	1809	398
Report by Mr. Gallatin on the Finances	-	-	-	December,	1810	421
Report by Mr. Gallatin on the Finances		-	-	November.	1811	443
Report by Mr. Gallatin on the Finances	-	-	-		1812	468
Report by William Jones, (Acting Secretary)	on the	Finance	5	June.	1813	488
Report by William Jones, (Acting Secretary)	on the	Finance	s	December,	1813 -	499
Report by G. W. Campbell on the Finances	-	-	-	December.	1814	523
3						0.20
· ·						
-						
· Var a 1						

Vol. 1.-1

20



## DECEMBER, 1791.

The Secretary of the Treasury, in obedience to the order of the House of Representatives, of the 15th day of January, 1790, has applied his attention, at as early a period as his other duties would permit, to the subject of manufactures; and particularly to the means of promoting such as will tend to render the United States independent on foreign nations for military and other essential supplies; and he thereupon respectfully submits the following report:

The expediency of encouraging manufactures in the United States, which was not long since deemed very questionable, appears at this time to be pretty generally admitted. The embarrassments which have obstructed the progress of our external trade, have led to serious reflections on the necessity of enlarging the sphere of our domestic commerce. The restrictive regulations, which, in foreign markets, abridge the vent of the increasing surplus of our agricultural produce, serve to beget an earnest desire that a more extensive demand for that surplus may be created at home; and the complete success which has rewarded manufacturing enterprise, in some valuable branches, conspiring with the promising symptoms which attend some less mature essays in others, justify a hope that the obstacles to the growth of this species of industry are less formidable than they were apprehended to be; and that it is not difficult to find, in its further extension, a full indemnification for any external disadvantages which are or may be experienced, as well as an accession of resources, favorable to national independence and safety.

There still are, nevertheless, respectable patrons of opinions unfriendly to the encouragement of manufactures. The following are, substantially, the arguments by which these opinions are defended.

"In every country, (say those who entertain them,) agriculture is the most beneficial and productive object of human industry. This position, generally, if not universally true, applies with peculiar emphasis to the United States, on account of their immense tracts of fertile territory uninment for capital and labor, as the conversion of this extensive wilderness into cultivated farms. Nothing, equally with this, can contribute to the population, strength, and real riches of the country.

"To endeavor, by the extraordinary patronage of Government, to accelerate the growth of manufactures, is, in fact, to endeavor by force and art to transfer the natural current of industry from a more to a less beneficial deed, it can hardly ever has such a tendency, must necessarily be unwise; inrection to the industry of its citizens. This, under the quicksighted guidance of private interest, will, if left to itself, infallibly find its own way to the most profitable employment; and it is by such employment that the public prosperity will be most effectually promoted. To leave industry to itself, therefore, is, in almost every case, the soundest as well as the simplest policy.

"This policy is not only recommended to the United States by considerations which affect all nations; it is, in a manner, dictated to them by the imperious force of a very peculiar situation. The smallness of their population, compared with their territory; the constant allurements to emigration from the settled to the unsettled parts of the country; the facility with which the less independent condition of an artisan can be exchanged for the more independent condition of a farmer: these, and similar causes, conspire to produce, and for a length of time must continue to occasion, a scarcity of hands for manufacturing occupation, and dearness of labor generally. To these disadvantages for the prospect of a successful competition with the manufactures of Europe must be regarded as little less than desperate. Extensive manufactures can only be the offspring of a redundant—at least of a full population. Till the latter shall characterize the situation of this country, it is vain to hope for the former.

"If, contrary to the natural course of things, an unseasonable and premature spring can be given to certain fabrics, by heavy duties, prohibitions, bounties, or by other forced expedients, this will only be to sacrifice the interests of the community to those of particular classes. Besides the misdirection of labor, a virtual monopoly will be given to the persons employed on such fabrics; and an enhancement of price, the inevitable consequence of every monopoly, must be defrayed at the expense of the other parts of the society. It is far preferable that those persons should be engaged in the cultivation of the earth; and that we should procure, in exchange for its productions, the commodities with which foreigners are able to supply us in greater perfection, and upon better terms."

This mode of reasoning is founded upon facts and principles, which have certainly respectable pretensions. If it had governed the conduct of nations more generally than it has done, there is room to suppose that it might have carried them faster to prosperity and greatness than they have attained by the pursuit of maxims too widely opposite. Most general theories, however, admit of numerous exceptions; and there are few, if any, of the political kind, which do not blend a considerable portion of error with the truths they inculcate.

In order to an accurate judgment how far that which has been just stated ought to be deemed liable to a similar imputation, it is necessary to advert carefully to the considerations which plead in favor of manufactures, and which appear to recommend the special and positive encouragement of them in certain cases, and under certain reasonable limitations.

It ought readily to be conceded that the cultivation of the earth, as the primary and most certain source of national supply, as the immediate and chief source of subsistence to man, as the principal source of those materials which constitute the nutriment of other kinds of labor, as including a state most favorable to the freedom and independence of the human mind—one, perhaps, most conducive to the multiplication of the human species—has intrinsically a strong claim to pre-eminence over every other kind of industry. But that it has a title to any thing like an exclusive predilection, in any country, ought to be admitted with great caution; that it is even more productive than every other branch of industry, requires more evidence than has yet been given in support of the position. That its real interests, prej

1791.]

cious and important as (without the help of exaggeration) they truly are, will be advanced, rather than injured, by the due encouragement of manufactures, may, it is believed, be satisfactorily demonstrated. And it is also believed that the expediency of such encouragement, in a general view, may be shown to be recommended by the most cogent and persuasive motives of national policy.

It has been maintained that agriculture is not only the most productive, but the only productive species of industry. The reality of this suggestion, in either respect, has, however, not been verified by any accurate detail of facts and calculations; and the general arguments which are adduced to prove it, are rather subtile and paradoxical, than solid or convincing.

Those which maintain its exclusive productiveness are to this effect :

Labor bestowed upon the cultivation of land, produces enough not only to replace all the necessary expenses incurred in the business, and to maintain the persons who are employed in it, but to afford, together with the ordinary profit on the stock or capital of the farmer, a nett surplus or rent for the landlord or proprietor of the soil. But the labor of artificers does nothing more than replace the stock which employs them, (or which furnishes materials, tools, and wages,) and yield the ordinary profit upon that stock. It yields nothing equivalent to the rent of the land; neither does it add any thing to the total value of the whole annual produce of the land and labor of the country. The additional value given to those parts of the produce of land which are wrought into manufactures, is counterbalanced by the value of those other parts of that produce which are consumed by the manufacturers. It can, therefore, only be by saving or parsimony, not by the positive productiveness of their labor, that the classes of artificers can, in any degree, augment the revenue of the society.

To this it has been answered-

I. "That inasmuch as it is acknowledged that manufacturing labor reproduces a value equal to that which is expended or consumed in carrying it on, and continues in existence the original stock or capital employed, it ought, on that account alone, to escape being considered as wholly unproductive. That though it should be admitted, as alleged, that the consumption of the produce of the soil, by the classes of artificers or manufacturers, is exactly equal to the value added by their labor to the materials upon which it is exerted, yet it would not thence follow that it added nothing to the revenue of the society, or to the aggregate value of the annual produce of its land and labor. If the consumption for any given period amounted to a given sum, and the increased value of the produce manufactured, in the same period, to a like sum, the total amount of the consumption and production, during that period, would be equal to the two sums, and consequently double the value of the agricultural produce consumed; and though the increment of value produced by the classes of artificers should, at no time, exceed the value of the produce of the land consumed by them, yet there would be, at every moment, in consequence of their labor, a greater value of goods in the market than would exist independent of it." district the set further than of the

2. "That the position, that artificers can augment the revenue of a society only by parsimony, is true in no other sense than in one which is equally applicable to husbandmen or cultivators. It may be alike affirmed of all these classes, that the fund acquired by their labor, and destined for their support, is not, in an ordinary way, more than equal to it. And hence it will follow, that augmentation of the wealth or capital of the community, (except in the instances of some extraordinary dexterity or skill,) can only proceed, with respect to any of them, from the savings of the more thrifty and parsimonious."

3. "That the annual produce of the land and labor of a country can only be increased in two ways—by some improvement in the productive powers of the useful labor which actually exists within it, or by some increase in the quantity of such labor. That, with regard to the first, the labor of artificers being capable of greater subdivision and simplicity of operation than that of cultivators, it is susceptible, in a proportionably greater degree, of improvement in its productive powers, whether to be derived from an accession of skill or from the application of ingenious machinery: in which particular, therefore, the labor employed in the culture of land can pretend to no advantage over that engaged in manufactures. That, with regard to an augmentation of the quantity of useful labor, this, excluding adventitious circumstances, must depend essentially upon an increase of capital, which again must depend upon the savings made out of the revenues of those who furnish or manage that which is at any time employed, whether in agriculture or in manufactures, or in any other way."

But while the exclusive productiveness of agricultural labor has been thus denied and refuted, the superiority of its productiveness has been conceded without hesitation. As this concession involves a point of considerable magnitude, in relation to maxims of public administration, the grounds on which it rests are worthy of a distinct and particular examination.

One of the arguments made use of in support of the idea, may be pronounced both quaint and superficial: it amounts to this—That in the productions of the soil, nature co-operates with man; and that the effect of their joint labor must be greater than that of the labor of man alone.

This, however, is far from being a necessary inference. It is very conceivable that the labor of man alone, laid out upon a work requiring great skill and art to bring it to perfection, may be more productive, in value, than the labor of nature and man combined, when directed towards more simple operations and objects; and when it is recollected to what an extent the agency of nature, in the application of the mechanical powers, is made auxiliary to the prosecution of manufactures, the suggestion which has been noticed loses even the appearance of plausibility.

It might also be observed, with a contrary view, that the labor employed in agriculture is, in a great measure, periodical and occasional, depending on seasons, and liable to various and long intermissions; while that occupied in many manufactures is constant and regular, extending through the year, embracing, in some instances, night as well as day. It is also probable that there are among the cultivators of land more examples of remissness than among artificers. The farmer, from the peculiar fertility of his land, or some other favorable circumstance, may frequently obtain a livelihood, even with a considerable degree of carelessness in the mode of cultivation; but the artisan can with difficulty effect the same object, without exerting himself pretty equally with all those who are engaged in the same pursuit. And if it may likewise be assumed as a fact, that manufactures open a wider field to exertions of ingenuity than agriculture, it would not be a strained conjecture, that the labor employed in the former, being at once more constant, more uniform, and more ingenious, that that which is employed in the latter, will be found, at the same time, more productive.

Vol. 1.-6

But it is not meant to lay stress on observations of this nature; they ought only to serve as a counterbalance to those of a similar complexion. Circumstances so vague and general, as well as so abstract, can afford little instruction in a matter of this kind.

Another, and that which seems to be the principal argument offered for the superior productiveness of agricultural labor, turns upon the allegation, that labor employed on manufactures yields nothing equivalent to the rent of land; or to that nett surplus, as it is called, which accrues to the proprietor of the soil.

But this distinction, important as it has been deemed, appears rather verbal than substantial.

It is easily discernible, that what in the first instance is divided into two parts, under the denominations of the ordinary profit of the stock of the farmer and rent to the landlord, is, in the second instance, united under the general appellation of the ordinary profit on the stock of the undertaker; and that this formal or verbal distribution constitutes the whole difference in the two cases. It seems to have been overlooked, that the land is itself a stock or capital, advanced or lent by its owner to the occupier or tenant, and that the rent he receives is only the ordinary profit of a certain stock in land, not managed by the proprietor himself, but by another, to whom he lends or lets it, and who, on his part, advances a second capital to stock and improve the land, upon which he also receives the usual profit. The rent of the landlord and the profit of the farmer are, therefore, nothing more than the ordinary profits of two capitals belonging to two different persons, and united in the cultivation of a farm: as, in the other case, the surplus which arises upon any manufactory, after replacing the expenses of carrying it on, answers to the ordinary profits of one or more capitals engaged in the prosecution of such manufactory. It is said one or more capitals, because, in fact, the same thing which is contemplated in the case of the farm, sometimes happens in that of a manufactory. There is one who furnishes a part of the capital, or lends a part of the money by which it is carried on, and another who carries it on with the addition of his own capital. Out of the surplus which remains after defraying expenses, an interest is paid to the money-lender, for the portion of the capital furnished by him, which exactly agrees with the rent paid to the landlord; and the residue of that surplus constitutes the profit of the undertaker or manufacturer, and agrees with what is denominated the ordinary profits on the stock of the farmer. Both together make the ordinary profits of two capitals employed in a manufactory; as, in the other case, the rent of the landlord and the revenue of the farmer compose the ordinary profits of two capitals employed in the cultivation of a farm.

The rent, therefore, accruing to the proprietor of the land, far from being a criterion of exclusive productiveness, as has been argued, is no criterion even of superior productiveness. The question must still be, whether the surplus, after defraying expenses of a given capital employed in the purchase and improvement of a piece of land, is greater or less than that of a like capital employed in the prosecution of a manufactory; or whether the employed in one way, be greater or less than the whole value produced from an equal capital and an equal quantity of labor employed in the other way; or rather, perhaps, whether the business of agriculture or that of manufactures will yield the greatest product, according to a compound ratio of the quantity of the capital, and the quantity of labor, which are employed in the one or in the other.

The solution of either of these questions is not easy; it involves numerous and complicated details, depending on an accurate knowledge of the objects to be compared. It is not known that the comparison has ever yet been made upon sufficient data, properly ascertained and analyzed. To be able to make it on the present occasion, with satisfactory precision, would demand more previous inquiry and investigation than there has been hitherto either leisure or opportunity to accomplish.

Some essays, however, have been made towards acquiring the requisite information; which have rather served to throw doubt upon, than to confirm, the hypothesis under examination. But it ought to be acknowledged, that they have been too little diversified, and are too imperfect to authorize a definitive conclusion either way; leading rather to probable conjecture than to certain deduction. They render it probable that there are various branches of manufactures, in which a given capital will yield a greater total product, and a considerably greater nett product, than an equal capital invested in the purchase and improvement of lands; and that there are also some branches, in which both the gross and the nett produce will exceed that of agricultural industry, according to a compound ratio of capital and labor. But it is on this last point that there appears to be the greatest room for doubt. It is far less difficult to infer, generally, that the nett produce of capital engaged in manufacturing enterprises is greater than that of capital engaged in agriculture.

The foregoing suggestions are not designed to inculcate an opinion that manufacturing industry is more productive than that of agriculture. They are intended rather to show that the reverse of this proposition is not ascertained; that the general arguments, which are brought to establish it, are not satisfactory; and, consequently, that a supposition of the superior productiveness of tillage ought to be no obstacle to listening to any substantial inducements to the encouragement of manufactures, which may be otherwise perceived to exist, through an apprehension that they may have a tendency to divert labor from a more to a less profitable employment.

It is extremely probable that on a full and accurate development of the matter, on the ground of fact and calculation, it would be discovered that there is no material difference between the aggregate productiveness of the one and of the other kind of industry; and that the propriety of the encouragements which may, in any case, be proposed to be given to either, ought to be determined upon considerations irrelative to any comparison of that nature.

II. But without contending for the superior productiveness of manufacturing industry, it may conduce to a better judgment of the policy which ought to be pursued respecting its encouragement, to contemplate the subject under some additional aspects, tending not only to confirm the idea that this kind of industry has been improperly represented as unproductive in itself, but to evince, in addition, that the establishment and diffusion of manufactures have the effect of rendering the total mass of useful and productive labor in a community greater than it would otherwise be. In prosecuting this discussion, it may be necessary briefly to resume and review some of the topics which have been already touched.

To affirm that the labor of the manufacturer is unproductive, because he consumes as much of the produce of land as he adds value to the raw material which he manufactures, is not better founded than it would be to affirm that the labor of the farmer, which furnishes materials to the manufacturer, is unproductive, because he consumes an equal value of manufactured articles. Each furnishes a certain portion of the produce of his labor to the other, and each destroys a correspondent portion of the produce of the labor of the other. In the mean time, the maintenance of two citizens, instead of one, is going on; the State has two members instead of one; and they, together, consume twice the value of what is produced from the land.

If, instead of a farmer and artificer, there were a farmer only, he would be under the necessity of devoting a part of his labor to the fabrication of clothing, and other articles, which he would procure of the artificer, in the case of there being such a person; and of course he would be able to devote less labor to the cultivation of his farm, and would draw from it a proportionably less product. The whole quantity of production in this state of things, in provisions, raw materials, and manufactures, would certainly not exceed in value the amount of what would be produced in provisions and raw materials only, if there were an artificer as well as a farmer.

Again :—if there were both an artificer and a farmer, the latter would be left at liberty to pursue exclusively the cultivation of his farm. A greater quantity of provisions and raw materials would, of course, be produced, equal, at least, as has been already observed, to the whole amount of the provisions, raw materials, and manufactures, which would exist on a contrary supposition. The artificer, at the same time, would be going on in the production of manufactured commodities, to an amount sufficient not only to repay the farmer in those commodities, for the provisions and materials which were procured from him, but to furnish the artificer himself with a supply of similar commodities for his own use. Thus, then, there would be two quantities or values in existence, instead of one; and the revenue and consumption would be double in one case what it would be in the other.

If, in place of both these suppositions, there were supposed to be two farmers and no artificer, each of whom applied a part of his labor to the culture of land, and another part to the fabrication of manufactures; in this case, the portion of the labor of both bestowed upon land would produce the same quantity of provisions and raw materials only as would be produced by the entire sum of the labor of one applied in the same manner; and the portion of the labor of both bestowed upon manufactures would produce the same quantity of manufactures only, as would be produced by the entire sum of the labor of one applied in the same manner. Hence, the produce of the labor of the two farmers would not be greater than the produce of the labor of the farmer and artificer; and hence it results, that the labor of the artificer is as positively productive as that of the farmer, and as positively augments the revenue of the society.

The labor of the artificer replaces to the farmer that portion of his labor with which he provides the materials of exchange with the artificer, and which he would otherwise have been compelled to apply to manufactures; and while the artificer thus enables the farmer to enlarge his stock of agricultural industry, a portion of which he purchases for his own use, he also supplies himself with the manufactured articles of which he stands in need. He does still more. Besides this equivalent which he gives for the portion of agricultural labor consumed by him, and this supply of manufactured commodities for his own consumption, he furnishes still a surplus, which compensates for the use of the capital advanced, either by himself or some other person, for carrying on the business. This is the ordinary profit of the stock employed in the manufactory, and is, in every sense, as effective an addition to the income of the society as the rent of land.

The produce of the labor of the artificer, consequently, may be regarded as composed of three parts : one, by which the provisions for his subsistence and the materials for his work are purchased of the farmer; one, by which he supplies himself with manufactured necessaries; and a third, which constitutes the profit on the stock employed. The two last portions seem to have been overlooked in the system which represents manufacturing industry as barren and unproductive.

In the course of the preceding illustrations, the products of equal quantities of the labor of the farmer and artificer have been treated as if equal to each other; but this is not to be understood as intending to assert any such precise equality. It is merely a manner of expression, adopted for the sake of simplicity and perspicuity. Whether the value of the produce of the labor of the farmer be somewhat more or less than that of the artificer, is not material to the main scope of the argument, which hitherto has only aimed at showing that the one, as well as the other, occasions a positive augmentation of the total produce and revenue of the society.

It is now proper to proceed a step further, and to enumerate the principal circumstances, from which it may be inferred that manufacturing establishments not only occasion a positive augmentation of the produce and revenue of the society, but that they contribute essentially to rendering them greater than they could possibly be without such establishments. These circumstances are —

1. The division of labor.

2. An extension of the use of machinery.

3. Additional employment to classes of the community not ordinarily engaged in the business.

4. The promoting of emigration from foreign countries.

5. The furnishing greater scope for the diversity of talents and dispositions, which discriminate men from each other.

6. The affording a more ample and various field for enterprise.

7. The creating, in some instances, a new, and securing, in all, a more certain and steady demand for the surplus produce of the soil.

Each of these circumstances has a considerable influence upon the total mass of industrious effort in a community; together, they add to it a degree of energy and effect which is not easily conceived. Some comments upon each of them, in the order in which they have been stated, may serve to explain their importance.

I. As to the division of labor.

It has justly been observed, that there is scarcely any thing of greater moment in the economy of a nation than the proper division of labor. The separation of occupations causes each to be carried to a much greater perfection than it could possibly acquire if they were blended. This arises principally from three circumstances.

Ist. The greater skill and dexterity naturally resulting from a constant and undivided application to a single object. It is evident that these properties must increase in proportion to the separation and simplification of objects, and the steadiness of the attention devoted to each; and must be less in proportion to the complication of objects, and the number among which the attention is distracted.

85

1791.]

2d. The economy of time, by avoiding the loss of it, incident to a frequent transition from one operation to another of a different nature. This depends on various circumstances: the transition itself; the orderly disposition of the implements, machines, and materials employed in the operation to be relinquished; the preparatory steps to the commencement of a new one; the interruption of the impulse which the mind of the workman acquires from being engaged in a particular operation; the distractions, hesitations, and reluctances which attend the passage from one kind of business to another.

3d. An extension of the use of machinery. A man occupied on a single object will have it more in his power, and will be more naturally led to exert his imagination in devising methods to facilitate and abridge labor, than if he were perplexed by a variety of independent and dissimilar operations. Besides this, the fabrication of machines, in numerous instances, becoming itself a distinct trade, the artist who follows it has all the advantages which have been enumerated for improvement in his particular art; and, in both ways, the invention and application of machinery are extended.

And, from these causes united, the mere separation of the occupation of the cultivator from that of the artificer, has the effect of augmenting the productive powers of labor, and, with them, the total mass of the produce or revenue of a country. In this single view of the subject, therefore, the utility of artificers or manufacturers, towards promoting an increase of productive industry, is apparent.

## II. As to an extension of the use of machinery ; a point which, though partly anticipated, requires to be placed in one or two additional lights.

The employment of machinery forms an item of great importance in the general mass of national industry. It is an artificial force brought in aid of the natural force of man; and, to all the purposes of labor, is an increase of hands—an accession of strength, unencumbered, too, by the expense of maintaining the laborer. May it not, therefore, be fairly inferred that those occupations which give greatest scope to the use of this auxiliary contribute most to the general stock of industrious effort, and, in consequence, to the general product of industry?

It shall be taken for granted, (and the truth of the position referred to observation,) that manufacturing pursuits are susceptible, in a greater degree, of the application of machinery than those of agriculture. If so, all the difference is lost to a community which, instead of manufacturing for itself, procures the fabrics requisite to its supply from other countries. The substitution of foreign for domestic manufactures, is a transfer to foreign nations of the advantages accruing from the employment of machinery, in the modes in which it is capable of being employed with most utility and to the greatest extent.

The cotton-mill, invented in England within the last twenty years, is a signal illustration of the general proposition which has been just advanced. In consequence of it, all the different processes for spinning cotton are performed by means of machines which are put in motion by water, and attended chiefly by women and children; and by a smaller number of persons, in the whole, than are requisite in the ordinary mode of spinning. And it is an advantage of great moment that the operations of this mill continue, with convenience, during the night as well as through the day. The prodigious effect of such a machine is easily conceived. To this invention is to be attributed, essentially, the immense progress which has been so suddenly made in Great Britain in the various fabrics of cotton. 1791.

III. As to the additional employment of classes of the community not originally engaged in the particular business.

This is not among the least valuable of the means by which manufacturing institutions contribute to augment the general stock of industry and production. In places where those institutions prevail, besides the persons regularly engaged in them, they afford occasional and extra employment to industrious individuals and families, who are willing to devote the leisure resulting from the intermissions of their ordinary pursuits to collateral labors, as a resource for multiplying their acquisitions or their enjoyments. The husbandman himself experiences a new source of profit and support from the increased industry of his wife and daughters, invited and stimulated by the demands of the neighboring manufactories.

Besides this advantage of occasional employment to classes having different occupations, there is another, of a nature allied to it, and of a similar tendency. This is the employment of persons who would otherwise be idle, and, in many cases, a burden on the community, either from the bias of temper, habit, infirmity of body, or some other cause, indisposing or disqualifying them for the toils of the country. It is worthy of particular remark, that, in general, women and children are rendered more useful, and the latter more early useful, by manufacturing establishments, than they would otherwise be. Of the number of persons employed in the cotton manufactories of Great Britain, it is computed that four-sevenths, nearly, are women and children; of whom the greatest proportion are children, and many of them of a tender age.

And thus it appears to be one of the attributes of manufactures, and one of no small consequence, to give occasion to the exertion of a greater quantity of industry, even by the same number of persons, where they happen to prevail, than would exist if there were no such establishments.

IV. As to the promoting of emigration from foreign countries.

Men reluctantly quit one course of occupation and livelihood for another, unless invited to it by very apparent and proximate advantages. Many who would go from one country to another, if they had a prospect of continuing with more benefit the callings to which they have been educated, will often not be tempted to change their situation by the hope of doing better in some other way. Manufacturers who, listening to the powerful invitations of a better price for their fabrics or their labor; of greater cheapness of provisions and raw materials: of an exemption from the chief part of the taxes, burdens, and restraints which they endure in the old world; of greater personal independence and consequence, under the operation of a more equal government; and of what is far more precious than mere religious toleration-a perfect equality of religious privileges, would probably flock from Europe to the United States, to pursue their own trades or professions, if they were once made sensible of the advantages they would enjoy, and were inspired with an assurance of encouragement and employment, will with difficulty be induced to transplant themselves, with a view to becoming cultivators of land.

If it be true, then, that it is the interest of the United States to open every possible avenue to emigration from abroad, it affords a weighty argument for the encouragement of manufactures; which, for the reasons just assigned, will have the strongest tendency to multiply the inducements to it.

Here is perceived an important resource, not only for extending the population, and, with it, the useful and productive labor of the country, but likewise for the prosecution of manufactures, without deducting from the number of hands which might otherwise be drawn to tillage; and even for the indemnification of agriculture, for such as might happen to be diverted from it. Many, whom manufacturing views would induce to emigrate, would afterwards yield to the temptations which the particular situation of this country holds out to agricultural pursuits; and while agriculture would, in other respects, derive many signal and unmingled advantages from the growth of manufactures, it is a problem whether it would gain or lose, as to the article of the number of persons employed in carrying it on.

V. As to the furnishing greater scope for the diversity of talents and dispositions, which discriminate men from each other.

This is a much more powerful mean of augmenting the fund of national industry than may at first sight appear. It is a just observation, that minds of the strongest and most active powers for their proper objects fall below mediocrity, and labor without effect, if confined to uncongenial pursuits; and it is thence to be inferred that the results of human exertion may be immensely increased by diversifying its objects. When all the different kinds of industry obtain in a community, each individual can find his proper element, and can call into activity the whole vigor of his nature; and the community is benefited by the services of its respective members, in the manner in which each can serve it with most effect.

If there be any thing in a remark often to be met with, namely, that there is, in the genius of the people of this country, a peculiar aptitude for mechanic improvements, it would operate as a forcible reason for giving opportunities to the exercise of that species of talent, by the propagation of manufactures.

VI. As to the affording a more ample and various field for enterprise. This also is of greater consequence in the general scale of national exertion than might perhaps, on a superficial view, be supposed, and has effects not altogether dissimilar from those of the circumstance last noticed. To cherish and stimulate the activity of the human mind, by multiplying the objects of enterprise, is not among the least considerable of the expedients by which the wealth of a nation may be promoted. Even things in themselves not positively advantageous, sometimes become so by their tendency to provoke exertion. Every new scene which is opened to the busy nature of man to rouse and exert itself, is the addition of a new energy to the general stock of effort.

The spirit of enterprise, useful and prolific as it is, must necessarily be contracted or expanded, in proportion to the simplicity or variety of the occupations and productions which are to be found in a society. It must be less in a nation of mere cultivators than in a nation of cultivators and merchants; less in a nation of cultivators and merchants than in a nation of cultivators, artificers, and merchants.

VII. As to the creating, in some instances, a new, and securing, in all, a more certain and steady demand for the surplus produce of the soil.

This is among the most important of the circumstances which have been indicated. It is a principal mean by which the establishment of manufactures contributes to an augmentation of the produce or revenue of a country, and has an immediate and direct relation to the prosperity of agriculture.

It is evident that the exertions of the husbandman will be steady or fluctuating, vigorous or feeble, in proportion to the steadiness or fluctuation, adequateness or inadequateness, of the markets on which he must depend for the vent of the surplus which may be produced by his labor; and that such surplus, in the ordinary course of things, will be greater or less in the same proportion.

For the purpose of this vent, a domestic market is greatly to be preferred to a foreign one; because it is, in the nature of things, far more to be relied upon.

It is a primary object of the policy of nations, to be able to supply themselves with subsistence from their own soils; and manufacturing nations, as far as circumstances permit, endeavor to procure from the same source the raw materials necessary for their own fabrics. This disposition, urged by the spirit of monopoly, is sometimes even carried to an injudicious extreme. It seems not always to be recollected, that nations, who have neither mines nor manufactures, can only obtain the manufactured articles of which they stand in need by an exchange of the products of their soils; and that, if those who can best furnish them with such articles are unwilling to give a due course to this exchange, they must, of necessity, make every possible effort to manufacture for themselves; the effect of which is, that the manufacturing nations abridge the natural advantages of their situation, through an unwillingness to permit the agricultural countries to enjoy the advantages of theirs, and sacrifice the interests of a mutually beneficial intercourse to the vain project of selling every thing and buying nothing.

But it is also a consequence of the policy which has been noted, that the foreign demands for the products of agricultural countries is, in a great degree, rather casual and occasional, than certain or constant. To what extent injurious interruptions of the demand for some of the staple commodities of the United States may have been experienced from that cause, must be referred to the judgment of those who are engaged in carrying on the commerce of the country; but it may be safely affirmed, that such interruptions are, at times, very inconveniently felt, and that cases not unfrequently occur, in which markets are so confined and restricted, as to render the demand very unequal to the supply.

Independently, likewise, of the artificial impediments which are created by the policy in question, there are natural causes tending to render the external demand for the surplus of agricultural nations a precarious reliance. The differences of seasons in the countries which are the consumers, make immense differences in the produce of their own soils in different years, and, consequently, in the degrees of their necessity for foreign supply. Plentiful harvests with them, especially if similar ones occur at the same time in the countries which are the furnishers, occasion, of course, a glut in the markets of the latter.

Considering how fast, and how much the progress of new settlements in the United States, must increase the surplus produce of the soil, and weighing seriously the tendency of the system which prevails among most of the commercial nations of Europe; whatever dependance may be placed on the force of natural circumstances to counteract the effects of an artificial policy, there appear strong reasons to regard the foreign demand for that surplus as too uncertain a reliance, and to desire a substitute for it, in an extensive domestic market.

To secure such a market there is no other expedient than to promote manufacturing establishments. Manufacturers, who constitute the most numerous class, after the cultivators of land, are for that reason the principal consumers of the surplus of their labor.

This idea of an extensive domestic market for the surplus produce of the

soil, is of the first consequence. It is, of all things, that which most effectually conduces to a flourishing state of agriculture. If the effect of manufactories should be to detach a portion of the hands which would otherwise be engaged in tillage, it might possibly cause a smaller quantity of lands to be under cultivation; but by their tendency to procure a more certain demand for the surplus produce of the soil, they would, at the same time, cause the lands which were in cultivation to be better improved and more productive. And while, by their influence, the condition of each individual farmer would be meliorated, the total mass of agricultural production would probably be increased; for this must evidently depend as much upon the degree of improvement, if not more, than upon the number of acres under culture.

It merits particular observation, that the multiplication of manufactories not only furnishes a market for those articles which have been accustomed to be produced in abundance in a country, but it likewise creates a demand for such as were either unknown, or produced in inconsiderable quantities. The bowels, as well as the surface of the earth, are ransacked for articles which were before neglected. Animals, plants, and minerals, acquire a utility and value which were before unexplored.

The foregoing considerations seem sufficient to establish, as general propositions, that it is the interest of nations to diversify the industrious pursuits of the individuals who compose them; that the establishment of manufactures is calculated not only to increase the general stock of useful and productive labor, but even to improve the state of agriculture in particular; certainly to advance the interests of those who are engaged in it. There are other views that will be hereafter taken of the subject, which it is conceived will serve to confirm these inferences.

III. Previously to a further discussion of the objections to the encouragement of manufactures, which have been stated, it will be of use to see what can be said in reference to the particular situation of the United States, against the conclusions appearing to result from what has been already offered. It may be observed, (and the idea is of no inconsiderable weight,) that however true it might be, that a State which, possessing large tracts of vacant and fertile territory, was, at the same time, secluded from foreign commerce, would find its interest and the interest of agriculture in diverting a part of its population from tillage to manufactures; yet it will not follow that the same is true of a State which, having such vacant and fertile territory, has, at the same time, ample opportunity of procuring from abroad, on good terms, all the fabrics of which it stands in need, for the supply of its inhabitants. The power of doing this at least secures the great advantage of a division of labor, leaving the farmer free to pursue, exclusively, the culture of his land, and enabling him to procure with its products the manufactured supplies requisite either to his wants or to his enjoyments. And though it should be true that, in settled countries, the diversification of industry is conducive to an increase in the productive powers of labor, and to an augmentation of revenue and capital ; yet it is scarcely conceivable that there can be any thing of so solid and permanent advantage to an uncultivated and unpeopled country, as to convert its wastes into cultivated and inhabited districts. If the revenue, in the mean time, should be less, the capital, in the event, must be greater.

To these observations, the following appears to be a satisfactory answerlst. If the system of perfect liberty to industry and commerce were the

prevailing system of nations, the arguments which dissuade a country in the

predicament of the United States from the zealous pursuit of manufactures, would doubtless have great force. It will not be affirmed that they might not be permitted, with few exceptions, to serve as a rule of national conduct. In such a state of things, each country would have the full benefit of its peculiar advantages to compensate for its deficiencies or disadvantages. one nation were in a condition to supply manufactured articles on better terms than another, that other might find an abundant indemnification in a superior capacity to furnish the produce of the soil. And a free exchange, mutually beneficial, of the commodities which each was able to supply, on the best terms, might be carried on between them, supporting, in full vigor, the industry of each. And though the circumstances which have been mentioned, and others which will be unfolded hereafter, render it probable that nations, merely agricultural, would not enjoy the same degree of opulence, in proportion to their numbers, as those which united manufactures with agriculture; yet the progressive improvement of the lands of the former might, in the end, atone for an inferior degree of opulence in the mean time; and in a case in which opposite considerations are pretty equally balanced, the option ought, perhaps, always to be in favor of leaving industry to its own direction.

But the system which has been mentioned is far from characterizing the general policy of nations. The prevalent one has been regulated by an opposite spirit. The consequence of it is, that the United States are, to a certain extent, in the situation of a country precluded from foreign commerce. They can, indeed, without difficulty, obtain from abroad the manufactured supplies of which they are in want; but they experience numerous and very injurious impediments to the emission and vent of their own commodities. Nor is this the case in reference to a single foreign nation only. The regulations of several countries, with which we have the most extensive intercourse, throw serious obstructions in the way of the principal staples of the United States.

In such a position of things, the United States cannot exchange with Europe on equal terms; and the want of reciprocity would render them the victim of a system which should induce them to confine their views to agriculture, and refrain from manufactures. A constant and increasing necessity, on their part, for the commodities of Europe, and only a partial and occasional demand for their own in return, could not but expose them to a state of impoverishment, compared with the opulence to which their political and natural advantages authorize them to aspire.

Remarks of this kind are not made in the spirit of complaint. It is for the nations, whose regulations are alluded to, to judge for themselves, whether, by aiming at too much, they do not lose more than they gain. It is for the United States to consider by what means they can render themselves least dependant on the combinations, right or wrong, of foreign policy.

It is no small consolation, that already the measures which have embarrassed our trade have accelerated internal improvements, which, upon the whole, have bettered our affairs. To diversify and extend these improvements is the surest and safest method of indemnifying ourselves for any inconveniences which those or similar measures have a tendency to beget. If Europe will not take from us the products of our soil, upon terms consistent with our interest, the natural remedy is to contract, as fast as possible, our wants of her.

2d. The conversion of their waste into cultivated lands is certainly a point

of great moment in the political calculations of the United States. But the degree in which this may possibly be retarded, by the encouragement of manufactories, does not appear to countervail the powerful inducements to affording that encouragement.

An observation made in another place is of a nature to have great influence upon this question. If it cannot be denied that the interests, even of agriculture, may be advanced more by having such of the lands of a State as are occupied; under good cultivation, than by having a greater quantity occupied under a much inferior cultivation; and if manufactories, for the reasons assigned, must be admitted to have a tendency to promote a more steady and vigorous cultivation of the lands occupied, than would happen without them, it will follow that they are capable of indemnifying a country for a diminution of the progress of new settlements; and may serve to increase both the capital value and the income of its lands, even though they should abridge the number of acres under tillage.

But it does by no means follow, that the progress of new settlements would be retarded by the extension of manufactures. The desire of being an independent proprietor of land is founded on such strong principles in the human breast, that where the opportunity of becoming so is as great as it is in the United States, the proportion will be small of those whose situations would otherwise lead to it, who would be diverted from it towards manufactures. And it is highly probable, as already intimated, that the accessions of foreigners, who, originally drawn over by manufacturing views, would afterwards abandon them for agricultural, would be more than an equivalent for those of our own citizens who might happen to be detached from them.

The remaining objections to a particular encouragement of manufactures in the United States now require to be examined.

One of these turns on the proposition, that industry, if left to itself, will naturally find its way to the most useful and profitable employment. Whence it is inferred that manufactures, without the aid of Government, will grow up as soon and as fast as the natural state of things and the interest of the community may require.

Against the solidity of this hypothesis, in the full latitude of the terms, very cogent reasons may be offered. These have relation to the strong influence of habit and the spirit of imitation; the fear of want of success in untried enterprises; the intrinsic difficulties incident to first essays towards a competition with those who have previously attained to perfection in the business to be attempted; the bounties, premiums, and other artificial encouragements, with which foreign nations second the exertions of their own citizens, in the branches in which they are to be rivalled.

Experience teaches that men are often so much governed by what they are accustomed to see and practise, that the simplest and most obvious improvements, in the most ordinary occupations, are adopted with hesitation, reluctance, and by slow gradations. The spontaneous transition to new pursuits in a community long habituated to different ones, may be expected to be attended with proportionably greater difficulty. When former occupations ceased to yield a profit adequate to the subsistence of their followers, or when there was an absolute deficiency of employment in them, owing to the superabundance of hands, changes would ensue; but these changes would be likely to be more tardy than might consist with the interest either of individuals or of the society. In many cases they would not happen, while a bare support could be insured by an adherence to ancient courses, though a resort to a

[1791.

more profitable employment might be practicable. To produce the desirable changes as early as may be expedient, may therefore require the incitement and patronage of Government.

The apprehension of failing in new attempts is, perhaps, a more serious impediment. There are dispositions apt to be attracted by the mere novelty of an undertaking; but these are not always those best calculated to give it success. To this, it is of importance that the confidence of cautious, sagacious capitalists, both citizens and foreigners, should be excited. And to inspire this description of persons with confidence, it is essential that they should be made to see, in any project which is new, and for that reason alone, if for no other, precarious, the prospect of such a degree of countenance and support from Government as may be capable of overcoming the obstacles inseparable from the first experiments.

The superiority antecedently enjoyed by nations who have preoccupied and perfected a branch of industry, constitutes a more formidable obstacle than either of those which have been mentioned, to the introduction of the same branch into a country in which it did not before exist. To maintain, between the recent establishments of one country, and the long-matured establishments of another country, a competition upon equal terms, both as to quality and price, is, in most cases, impracticable. The disparity, in the one or in the other, or in both, must necessarily be so considerable as to forbid a successful rivalship, without the extraordinary aid and protection of Government.

But the greatest obstacle of all to the successful prosecution of a new branch of industry in a country in which it was before unknown, consists, as far as the instances apply, in the bounties, premiums, and other aids which are granted, in a variety of cases, by the nations in which the establishments to be imitated are previously introduced. It is well known (and particular examples in the course of this report will be cited) that certain nations grant bounties on the exportation of particular commodities, to enable their own workmen to undersell and supplant all competitors in the countries to which those commodities are sent. Hence, the undertakers of a new manufacture have to contend not only with the natural disadvantages of a new undertaking, but with the gratuities and remunerations which other Governments bestow. To be enabled to contend with success, it is evident that the interference and aid of their own Governments are indispensable.

Combinations by those engaged in a particular branch of business in one country, to frustrate the first efforts to introduce it into another, by temporary sacrifices, (recompensed, perhaps, by extraordinary indemnifications of the Government of such country,) are believed to have existed, and are not to be regarded as destitute of probability. The existence or assurance of aid from the Government of the country in which the business is to be introduced, may be essential to fortify adventurers against the dread of such combinations; to defeat their effects, if formed; and to prevent their being formed, by demonstrating that they must, in the end, prove fruitless.

Whatever room there may be for an expectation that the industry of a people, under the direction of private interest, will, upon equal terms, find out the most beneficial employment for itself, there is none for a reliance that it will struggle against the force of unequal terms, or will, of itself, surmount all the adventitious barriers to a successful competition which may have been erected, either by the advantages naturally acquired from practice, and previous possession of the ground, or by those which may have sprung from positive regulations and an artificial policy. This general reflection might alone suffice as an answer to the objection under examination, exclusively of the weighty considerations which have been particularly urged.

The objections to the pursuit of manufactures in the United States, which next present themselves to discussion, represent an impracticability of success arising from three causes—scarcity of hands, dearness of labor, want of capital.

The first two circumstances are, to a certain extent, real; and, within due limits, ought to be admitted as obstacles to the success of manufacturing enterprise in the United States. But there are various considerations which lessen their force, and tend to afford an assurance that they are not sufficient to prevent the advantageous prosecution of many very useful and extensive manufactories.

With regard to scarcity of hands, the fact itself must be applied with no small qualification to certain parts of the United States. There are large districts which may be considered as pretty fully peopled; and which, notwithstanding a continual drain for distant settlement, are thickly interspersed with flourishing and increasing towns. If these districts have not already reached the point at which the complaint of scarcity of hands ceases, they are not remote from it, and are approaching fast towards it; and having, perhaps, fewer attractions to agriculture than some other parts of the Union, they exhibit a proportionably stronger tendency towards other kinds of industry. In these districts may be discerned no inconsiderable maturity for manufacturing establishments.

But there are circumstances which have been already noticed, with another view, that materially diminish, every where, the effect of a scarcity of hands. These circumstances are, the great use which can be made of women and children-on which point a very pregnant and instructive fact has been mentioned; the vast extension given by late improvements to the employment of machines, which, substituting the agency of fire and water, has prodigiously lessened the necessity for manual labor; the employment of persons ordinarily engaged in other occupations during the seasons or hours of leisure, which, besides giving occasion to the exertion of a greater quantity of labor by the same number of persons, and thereby increasing the general stock of labor, as has been elsewhere remarked, may also be taken into the calculation, as a resource for obviating the scarcity of hands ; lastly, the attraction of foreign emigrants. Whoever inspects, with a careful eye, the composition of our towns, will be made sensible to what an extent this resource may be relied upon. This exhibits a large proportion of ingenious and valuable workmen in different arts and trades, who, by expatriating from Europe, have improved their own condition, and added to the industry and wealth of the United States. It is a natural inference from the experience we have already had, that as soon as the United States shall present the countenance of a serious prosecution of manufactures; as soon as foreign artists shall be made sensible that the state of things here affords a moral certainty of employment and encouragement, competent numbers of European workmen will transplant themselves effectually to insure the success of the design. How, indeed, can it otherwise happen, considering the various and powerful inducements which the situation of this country offers; addressing themselves to so many strong passions and feelings, to so many general and particular interests?

It may be affirmed, therefore, in respect to hands for carrying on manu-

1791.]

factures, that we shall, in a great measure, trade upon a foreign stock, reserving our own for the cultivation of our lands and the manning of our ships, as far as character and circumstances shall incline. It is not unworthy of remark, that the objection to the success of manufactures deduced from the scarcity of hands, is alike applicable to trade and navigation; and yet these are perceived to flourish, without any sensible impediment from that cause.

As to the dearness of labor, (another of the obstacles alleged,) this has relation principally to two circumstances: one, that which has just been discussed, or the scarcity of hands; the other, the greatness of profits.

As far as it is a consequence of the scarcity of hands, it is mitigated by all the considerations which have been adduced as lessening that deficiency. It is certain, too, that the disparity in this respect, between some of the most manufacturing parts of Europe, and a large proportion of the United States, is not nearly so great as is commonly imagined. It is also much less in regard to artificers and manufacturers, than in regard to country laborers; and while a careful comparison shows that there is, in this particular, much exaggeration; it is also evident that the effect of the degree of disparity, which does truly exist, is diminished in proportion to the use which can be made of machinery.

To illustrate this last idea, let it be supposed that the difference of price, in two countries, of a given quantity of manual labor requisite to the fabrication of a givea article, is as ten; and that some mechanic power is introduced into both countries, which, performing half the necessary labor, leaves only half to be done by hand: it is evident that the difference in the cost of the fabrication of the article in question, in the two countries, as far as it is connected with the price of labor, will be reduced from ten to five, in consequence of the introduction of that power.

This circumstance is worthy of the most particular attention. It diminishes immensely one of the objections most strenuously urged against the success of manufactures in the United States.

To procure all such machines as are known in any part of Europe, can only require a proper provision and due pains. The knowledge of several of the most important of them is already possessed. The preparation of them here is, in most cases, practicable on nearly equal terms. As far as they depend on water, some superiority of advantages may be claimed, from the uncommon variety and greater cheapness of situations adapted to millseats, with which different parts of the United States abound.

So far as the dearness of labor may be a consequence of the greatness of profits in any branch of business, it is no obstacle to its success. The undertaker can afford to pay the price.

There are grounds to conclude that undertakers of manufactures in this country can, at this time, afford to pay higher wages to the workmen they may employ, than are paid to similar workmen in Europe. The prices of foreign fabrics, in the markets of the United States, which will, for a long time, regulate the prices of the domestic ones, may be considered as compounded of the following ingredients : the first cost of materials, including the taxes, if any, which are paid upon them where they are made; the expense of grounds, buildings, machinery, and tools; the wages of the persons employed in the manufactory; the profits on the capital or stock employed; the commissions of agents to purchase them where they are made; the expense of transportation to the United States, including insurance and other incidental charges; the taxes or duties, if any, and fees of office, which are paid on their exportation; the taxes or duties, and fees of office, which are paid on their importation.

As to the first of these items, the cost of materials, the advantage, upon the whole, is at present on the side of the United States; and the difference in their favor must increase, in proportion as a certain and extensive domestic demand shall induce the proprietors of land to devote more of their attention to the production of those materials. It ought not to escape observation, in a comparison on this point, that some of the principal manufacturing countries of Europe are much more dependent on foreign supply for the materials of their manufactures, than would be the United States, who are capable of supplying themselves with a greater abundance, as well as a greater variety of the requisite materials.

As to the second item, (the expense of grounds, buildings, machinery, and tools,) an equality, at least, may be assumed; since advantages, in some particulars, will counterbalance temporary disadvantages in others.

As to the third item, or the article of wages, the comparison certainly turns against the United States; though, as before observed, not in so great a degree as is commonly supposed.

The fourth item is alike applicable to the foreign and to the domestic manufacture. It is, indeed, more properly a result, than a particular to be compared.

But with respect to all the remaining items, they are alone applicable to the foreign manufacture, and, in the strictest sense, extraordinaries; constituting a sum of extra charge on the foreign fabric, which cannot be estimated at less than from fifteen to thirty per cent. on the cost of it at the manufactory.

This sum of extra charge may confidently be regarded as more than a counterpoise for the real difference in the price of labor; and is a satisfactory proof that manufactures may prosper, in defiance of it, in the United States.

To the general allegation, connected with the circumstances of scarcity of hands and dearness of labor, that extensive manufactures can only grow out of a redundant or full population, it will be sufficient to answer, generally, that the fact has been otherwise; that the situation alleged to be an essential condition of success, has not been that of several nations, at periods when they had already attained to maturity in a variety of manufactures.

The supposed want of capital for the prosecution of manufactures in the United States, is the most indefinite of the objections which are usually opposed to it.

It is very difficult to pronounce any thing precise concerning the real extent of the moneyed capital of a country, and still more concerning the proportion which it bears to the objects that invite the employment of capital. It is not less difficult to pronounce how far the effect of any given quantity of money, as capital, or, in other words, as a medium for circulating the industry and property of a nation, may be increased by the very circumstance of the additional motion which is given to it by new objects of employment. That effect, like the momentum of descending bodies, may not improperly be represented as in a compound ratio to mass and velocity. It seems pretty certain that a given sum of money, in a situation in which the quick impulses of commercial activity were little felt, would appear inadequate to the circulation of as great a quantity of industry and property; as in one in which their full influence was experienced. 1791.]

It is not obvious why the same objection might not as well be made to external commerce, as to manufactures; since it is manifest that our immense tracts of land, occupied and unoccupied, are capable of giving employment to more capital than is actually bestowed on them. It is certain that the United States offer a vast field for the advantageous employment of capital; but it does not follow that there will not be found, in one way or another, a sufficient fund for the successful prosecution of any species of industry which is likely to prove truly beneficial.

The following considerations are of a nature to remove all inquietude on the score of want of capital.

The introduction of banks, as has been shown on another occasion, has a powerful tendency to extend the active capital of a country. Experience of the utility of these institutions is multiplying them in the United States. It is probable that they will be established wherever they can exist with advantage; and wherever they can be supported, if administered with prudence, they will add new energies to all pecuniary operations.

The aid of foreign capital may safely, and with considerable latitude, be taken into calculation. Its instrumentality has been long experienced in our external commerce; and it has begun to be felt in various other modes. Not only our funds, but our agriculture, and other internal improvements, have been animated by it. It has already, in a few instances, extended even to our manufactures.

It is a well known fact, that there are parts of Europe which have more capital than profitable domestic objects of employment ; hence, among other proofs, the large loans continually furnished to foreign States. And it is equally certain, that the capital of other parts may find more profitable employment in the United States than at home. And, notwithstanding there are weighty inducements to prefer the employment of capital at home, even at less profit to an investment of it abroad, though with greater gain, yet these inducements are overruled, either by a deficiency of employment, or by a very material difference in profit. Both these causes operate to produce a transfer of foreign capital to the United States. It is certain that various objects in this country hold out advantages, which are with difficulty to be equalled elsewhere ; and under the increasingly favorable impressions which are entertained of our Government, the attractions will become more and more strong. These impressions will prove a rich mine of prosperity to the country, if they are confirmed and strengthened by the progress of our affairs. And, to secure this advantage, little more is necessary, than to foster industry, and cultivate order and tranquillity at home and abroad.

It is not impossible that there may be persons disposed to look with a jealous eye on the introduction of foreign capital, as if it were an instrument to deprive our own citizens of the profits of our own industry; but, perhaps, there never could be a more unreasonable jealousy. Instead of being viewed as a rival, it ought to be considered as a most valuable auxiliary; conducing to put in motion a greater quantity of productive labor, and a greater portion of useful enterprise, than could exist without it. It is at least evident, that in a country situated like the United States, with an infinite fund of resources yet to be unfolded, every farthing of foreign capital which is laid out in internal meliorations, and in industrious establishments of a permanent nature, is a precious acquisition.

And, whatever be the objects which originally attract foreign capital,

Vol. 1.-7

when once introduced, it may be directed towards any purpose of beneficial exertion which is desired. And to detain it among us, there can be no expedient so effectual, as to enlarge the sphere within which it may be usefully employed: though introduced merely with views to speculations in the funds, it may afterwards be rendered subservient to the interests of agriculture, commerce, and manufactures.

But the attraction of foreign capital for the direct purpose of manufactures, ought not to be deemed a chimerical expectation. There are already examples of it, as remarked in another place. And the examples, if the disposition be cultivated, can hardly fail to multiply. There are also instances of another kind, which serve to strengthen the expectation; enterprises for improving the public communications, by cutting canals, opening the obstructions in rivers, and erecting bridges, have received very material aid from the same source.

When the manufacturing capitalist of Europe shall advert to the many important advantages which have been intimated in the course of this report, he cannot but perceive very powerful inducements to a transfer of himself and his capital to the United States. Among the reflections which a most interesting peculiarity of situation is calculated to suggest, it cannot escape his observation, as a circumstance of moment in the calculation, that the progressive population and improvement of the United States insure a continually increasing domestic demand for the fabrics which he shall produce, not to be affected by any external casualties or vicissitudes.

But, while there are circumstances sufficiently strong to authorize a considerable degree of reliance on the aid of foreign capital towards the attainment of the object in view, it is satisfactory to have good grounds of assurance that there are domestic resources of themselves adequate to it. It happens that there is a species of capital, actually existing with the United States, which relieves from all inquietude on the score of want of capital. This is the funded debt.

The effect of a funded debt, as a species of capital, has been noticed upon a former occasion; but a more particular elucidation of the point seems to be required by the stress which is here laid upon it. This shall, accordingly, be attempted.

Public funds answer the purpose of capital, from the estimation in which they are usually held by moneyed men; and, consequently, from the ease and despatch with which they can be turned into money. This capacity of prompt convertibility into money, causes a transfer of stock to be, in a great number of cases, equivalent to a payment in coin. And where it does not happen to suit the party who is to receive, to accept a transfer of stock, the party who is to pay is never at a loss to find, elsewhere, a purchaser of his stock, who will furnish him, in lieu of it, with the coin of which he stands in need.

Hence, in a sound and settled state of the public funds, a man possessed of a sum in them can embrace any scheme of business which offers, with as much confidence as if he were possessed of an equal sum in coin.

This operation of public funds as capital is too obvious to be denied; but it is objected to the idea of their operating as an augmentation of the capital of the community, that they serve to occasion the destruction of some other capital, to an equal amount.

The capital, which alone they can be supposed to destroy, must consist of-The annual revenue, which is applied to the payment of interest on the debt, and to the gradual redemption of the principal—the amount of the coin, which is employed in circulating the funds, or, in other words, in effecting the different alienations which they undergo.

But the following appears to be the true and accurate view of this matter : 1st. As to the point of the annual revenue requisite for payment of interest and redemption of principal.

As a determinate proportion will tend to perspicuity in the reasoning, let it be supposed that the annual revenue to be applied, corresponding with the modification of the six per cent. stock of the United States, is in the ratio of eight upon the hundred; that is, in the first instance, six on account of interest, and two on account of principal.

Thus far, it is evident that the capital destroyed to the capital created, would bear no greater proportion than eight to one hundred. There would be withdrawn from the total mass of other capitals a sum of eight dollars, to be paid to the public creditor; while he would be possessed of a sum of one hundred dollars, ready to be applied to any purpose, to be embarked in any enterprise which might appear to him eligible. Here, then, the augmentation of capital, or the excess of that which is produced beyond that which is destroyed, is equal to ninety-two dollars.

To this conclusion it may be objected, that the sum of eight dollars is to be withdrawn annually, until the whole hundred is extinguished; and it may be inferred that, in process of time, a capital will be destroyed equal to that which is at first created.

But it is nevertheless true, that, during the whole of the interval between the creation of the capital of one hundred dollars, and its reduction to a sum not greater than that of the annual revenue appropriated to its redemption, there will be a greater active capital in existence than if no debt had been contracted. The sum drawn from other capitals in any one year will not exceed eight dollars ; but there will be, at every instant of time during the whole period in question, a sum corresponding with so much of the principal as remains unredeemed, in the hands of some person or other, employed, or ready to be employed, in some profitable undertaking. There will, therefore, constantly be more capital in capacity to be employed, than capital taken from employment. The excess, for the first year, has been stated to be ninety-two dollars ; it will diminish yearly; but there always will be an excess, until the principal of the debt is brought to a level with the redeeming annuity; that is, in the case which has been assumed, by way of example, to eight dollars. The reality of this excess becomes palpable, if it be supposed, as often happens, that the citizen of a foreign country imports into the United States one hundred dollars for the purchase of an equal sum of public debt ; here is an absolute augmentation of the mass of circulating coin to the extent of one hundred dollars. At the end of a year, the foreigner is presumed to draw back eight dollars on account of his principal and interest, but he still leaves ninety-two of his original deposite in circulation ; as he, in like manner, leaves eighty-four at the end of the second year, drawing back then also the annuity of eight dollars. And thus the matter proceeds : the capital left in circulation diminishing each year, and coming nearer to the level of the annuity drawn back. There are, however, some differences in the ultimate operation of the part of the debt which is purchased by foreigners, and that which remains in the hands of citizens; but the general effect, in each case, though in different degrees, is to add to the active capital of the country.

114 . 4 W 26

99

1791.]

Hitherto, the reasoning has proceeded on a concession of the position, that there is a destruction of some other capital, to the extent of the annuity appropriated to the payment of the interest, and the redemption of the principal of the debt; but in this too much has been conceded. There is, at most, a temporary transfer of some other capital, to the amount of the annuity, from those who pay to the creditor, who receives; which he again restores to the circulation, to resume the offices of a capital. This he does, either immediately, by employing the money in some branch of industry, or mediately, by lending it to some other person, who does so employ it, or by spending it on his own maintenance. In either supposition, there is no destruction of capital; there is nothing more than a suspension of its motion for a time ; that is, while it is passing from the hands of those who pay into the public coffers, and thence, through the public creditor, into some other channel of circulation. When the payments of interest are periodical and quick, and made by the instrumentality of banks, the diversion or suspension of capital may almost be denominated momentary. Hence the deduction, on this account, is far less than it at first sight appears to be.

There is evidently, as far as regards the annuity, no destruction nor transfer of any other capital than that portion of the income of each individual which goes to make up the annuity. The land which furnishes the farmer with the sum which he is to contribute, remains the same ; and the like may be observed of other capitals. Indeed, as far as the tax, which is the object of contribution, (as frequently happens, when it does not oppress by its weight,) may have been a motive to greater exertion in any occupation, it may even serve to increase the contributory capital. This idea is not without importance in the general view of the subject.

It remains to see what further deduction ought to be made from the capital which is created, by the existence of the debt, on account of the coin which is employed in its circulation. This is susceptible of much less precise calculation than the article which has been just discussed. It is impossible to say what proportion of coin is necessary to carry on the alienations which any species of property usually undergoes; the quantity, indeed, varies according to circumstances. But it may still, without hesitation, be pronounced, from the quickness of the rotation, or rather of the transitions, that the medium of circulation always bears but a small proportion to the amount of the property circulated. And it is thence satisfactorily deducible, that the coin employed in the negotiations of the funds, and which serves to give them activity, as capital, is incomparably less than the sum of the debt negotiated for the purpose of business.

It ought not, however, to be omitted, that the negotiation of the funds becomes itself a distinct business; which employs, and, by employing, diverts a portion of the circulating coin from other pursuits. But making due allowance for this circumstance, there is no reason to conclude that the effect of the diversion of coin, in the whole operation, bears any considerable proportion to the amount of the capital to which it gives activity. The sum of the debt in circulation is continually at the command of any useful enterprise: the coin itself, which circulates it, is never more than momentarily suspended from its ordinary functions. It experiences an incessant and rapid flux and reflux, to and from the channels of industry to those of speculations in the funds.

There are strong circumstances in confirmation of this theory. The force of moneyed capital which has been displayed in Great Britain, and the height to which every species of industry has grown up under it, defy a solution from the quantity of coin which that kingdom has ever possessed. Accordingly, it has been, coeval with its funding system, the prevailing opinion of the men of business, and of the generality of the most sagacious theorists of that country, that the operation of the public funds, as capital, has contributed to the effect in question. Among ourselves, appearances thus far favor the same conclusion. Industry, in general, seems to have been reanimated. There are symptoms indicating an extension of our commerce. Our navigation has certainly, of late, had a considerable spring; and there appears to be, in many parts of the Union, a command of capital, which, till lately, since the revolution at least, was unknown. But it is at the same time to be acknowledged, that other circumstances have concurred (and in a great degree) in producing the present state of things, and that the appearances are not yet sufficiently decisive to be entirely relied upon.

In the question under discussion, it is important to distinguish between an absolute increase of capital, or an accession of real wealth, and an artificial increase of capital, as an engine of business, or as an instrument of industry and commerce. In the first sense, a funded debt has no pretensions to being deemed an increase of capital; in the last, it has pretensions which are not easy to be controverted. Of a similar nature is bank credit; and, in an inferior degree, every species of private credit.

But though a funded debt is not, in the first instance, an absolute increase of capital, or an augmentation of real wealth, yet, by serving as a new power in the operations of industry, it has, within certain bounds, a tendency to increase the real wealth of a community; in like manner, as money borrowed by a thrifty farmer, to be laid out in the improvement of his farm, may, in the end, add to his stock of real riches.

There are respectable individuals, who, from a just aversion to an accumulation of public debt, are unwilling to concede to it any kind of utility, who can discern no good to alleviate the ill with which they suppose it pregnant; who cannot be persuaded that it ought, in any sense, to be viewed as an increase of capital, lest it should be inferred that the more debt the more capital, the greater the burdens the greater the blessings of the community.

But it interests the public councils to estimate every object as it truly is; to appreciate how far the good, in any measure, is compensated by the ill, or the ill by the good: either of them is seldom unmixed.

Neither will it follow that an accumulation of debt is desirable, because a certain degree of it operates as capital. There may be a plethora in the political as in the natural body; there may be a state of things in which any such artificial capital is unnecessary. The debt, too, may be swelled to such a size as that the greatest part of it may cease to be useful as a capital, serving only to pamper the dissipation of idle and dissolute individuals; as that the sums required to pay the interest upon it may become oppressive, and beyond the means which a Government can employ, consistently with its tranquillity, to raise them; as that the resources of taxation to face the debt may have been strained too far to admit of extensions adequate to exigencies, which regard the public safety.

Where this critical point is, cannot be pronounced; but it is impossible to believe that there is not such a point.

And as the vicissitudes of nations beget a perpetual tendency to the accumulation of debt, there ought to be, in every Government, a perpetual, anxious, and unceasing effort to reduce that which at any time exists, as fast as shall be practicable, consistently with integrity and good faith. Reasonings on a subject comprehending ideas so abstract and complex, so little reducible to a precise calculation, as those which enter into the question just discussed, are always attended with a danger of running into fallacies. Due allowance ought, therefore, to be made for this possibility. But, as far as the nature of the subject admits of it, there appears to be satisfactory ground for a belief that the public funds operate as a resource of capital to the citizens of the United States; and, if they are a resource at all, it is an extensive one.

To all the arguments which are brought to evince the impracticability of success in manufacturing establishments in the United States, it might have been a sufficient answer to have referred to the experience of what has been already done. It is certain that several important branches have grown up and flourished with a rapidity which surprises, affording an encouraging assurance of success in future attempts: of these, it may not be improper to enumerate the most considerable.

I. Of skins.—Tanned and tawed leather, dressed skins, shoes, boots, and slippers, harness, and saddlery of all kinds, portmanteaus and trunks, leather breeches, gloves, muffs and tippets, parchment and glue.

II. Of iron.—Bar and sheet iron, steel nail rods and nails, implements of husbandry, stoves, pots, and other household utensils, the steel and iron work of carriages, and for ship building, anchors, scale-beams and weights, and various tools of artificers, arms of different kinds; though the manufacture of these last has of late diminished for want of demand.

III. Of wood.—Ships, cabinet wares, and turnery, wool and cotton cards, and other machinery for manufactures and husbandry, mathematical instruments, and coopers' wares of every kind.

IV. Of flax and hemp.-Cables, sail-cloth, cordage, twine, and pack-thread.

V. Bricks and coarse tiles, and potters' wares.

VI. Ardent spirits and malt liquors.

VII. Writing and printing paper, sheathing and wrapping paper, pasteboards, fullers' or press papers, paper hangings.

VIII. Hats, of fur and wool, and of mixtures of both; women's stuff and silk shoes.

1X. Refined sugars.

X. Oils of animals and seeds, soap, spermaceti and tallow candles.

XI. Copper and brass wires, particularly utensils for distillers, sugar refiners, and brewers; andirons and other articles for household use; philosophical apparatus.

XII. Tin wares for most purposes of ordinary use.

XIII. Carriages of all kinds.

XIV. Snuff, chewing and smoking tobacco.

XV. Starch and hair-powder.

XVI. Lampblack and other painters' colors.

XVII. Gunpowder.

Besides manufactories of these articles, which are carried on as regular trades, and have attained to a considerable degree of maturity, there is a vast scene of household manufacturing, which contributes more largely to the supply of the community than could be imagined, without having made it an object of particular inquiry. This observation is the pleasing result of the investigation to which the subject of this report has led, and is applicable as well to the southern as to the middle and northern States. Great quantities of coarse cloths, coatings, serges, and flannels, linsey woolseys, hosiery of wool, cotton, and thread, coarse fustians, jeans and muslins, checked and striped cotton and linen goods, bed ticks, coverlets and counterpanes, tow linens, coarse shirtings, sheetings, towelling and table linen, and various mixtures of wool and cotton, and of cotton and flax, are made in the household way, and, in many instances, to an extent not only sufficient for the supply of the families in which they are made, but for sale, and even, in some cases, for exportation. It is computed in a number of districts that two-thirds, three-fourths, and even four-fifths, of all the clothing of the inhabitants are made by themselves. The importance of so great a progress as appears to have been made in family manufactures within a few years, both in a moral and political view, renders the fact highly interesting.

Neither does the above enumeration comprehend all the articles that are manufactured as regular trades. Many others occur which are equally well established, but which, not being of equal importance, have been omitted. And there are many attempts still in their infancy, which, though attended with very favorable appearances, could not have been properly comprised in an enumeration of manufactories already established. There are other articles, also, of great importance, which, though strictly speaking, manufactures, are omitted, as being immediately connected with husbandry: such are flour, pot and pearl ash, pitch, tar, turpentine, and the like.

There remains to be noticed an objection to the encouragement of manufactures, of a nature different from those which question the probability of success. This is derived from its supposed tendency to give a monopoly of advantages to particular classes, at the expense of the rest of the community, who, it is affirmed, would be able to procure the requisite supplies of manufactured articles on better terms from foreigners than from our own citizens ; and who, it is alleged, are reduced to the necessity of paying an enhanced price for whatever they want, by every measure which obstructs the free competition of foreign commodities.

It is not an unreasonable supposition, that measures which serve to abridge the free competition of foreign articles have a tendency to occasion an enhancement of prices; and it is not to be denied that such is the effect in a number of cases; but the fact does not uniformly correspond with the theory. A reduction of prices has, in several instances, immediately succeeded the establishment of a domestic manufacture. Whether it be that foreign manufacturers endeavor to supplant by underselling our own, or whatever else be the cause, the effect has been such as is stated, and the reverse of what might have been expected.

But, though it were true that the immediate and certain effect of regulations controlling the competition of foreign with domestic fabrics was an increase of price, it is universally true that the contrary is the ultimate effect with every successful manufacture. When a domestic manufacture has attained to perfection, and has engaged in the prosecution of it a competent number of persons, it invariably becomes cheaper. Being free from the heavy charges which attend the importation of foreign commodities, it can be afforded, and accordingly seldom or never fails to be sold cheaper, in process of time, than was the foreign article for which it is a substitute. The internal competition which takes place soon does away every thing like monopoly, and, by degrees, reduces the price of the article to the minimum of a reasonable profit on the capital employed. This accords with the reason of the thing, and with experience.

to mate anichty and same by all and

103

1791.]

Whence it follows, that it is the interest of a community, with a view to eventual and permanent economy, to encourage the growth of manufactures. In a national view, a temporary enhancement of price must always be well compensated by a permanent reduction of it.

It is a reflection which may with propriety be indulged here, that this eventual diminution of the prices of manufactured articles which is the result of internal manufacturing establishments, has a direct and very important tendency to benefit agriculture. It enables the farmer to procure, with a smaller quantity of his labor, the manufactured produce of which he stands in need, and consequently increases the value of his income and property.

The objections which are commonly made to the expediency of encouraging, and to the probability of succeeding in manufacturing pursuits in the United States, having now been discussed, the considerations which have appeared in the course of the discussion, recommending that species of industry to the patronage of the Government, will be materially strengthened by a few general, and some particular topics, which have been naturally reserved for subsequent notice.

1. There seems to be a moral certainty that the trade of a country which is both manufacturing and agricultural, will be more lucrative and prosperous than that of a country which is merely agricultural.

One reason for this is found in that general effort of nations (which has been already mentioned) to procure from their own soils the articles of prime necessity requisite to their own consumption and use, and which serves to render their demand for a foreign supply of such articles, in a great degree, occasional and contingent. Hence, while the necessities of nations exclusively devoted to agriculture, for the fabrics of manufacturing States, are constant and regular; the wants of the latter for the products of the former are liable to very considerable fluctuations and interruptions. The great inequalities resulting from difference of seasons have been elsewhere remarked. This uniformity of demand on one side, and unsteadiness of it on the other, must necessarily have a tendency to cause the general course of the exchange of commodities between the parties to turn to the disadvantage of the merely agricultural States. Peculiarity of situation, a climate and soil adapted to the production of peculiar commodities, may sometimes contradict the rule ; but there is every reason to believe that it will be found, in the main, a just one.

Another circumstance which gives a superiority of commercial advantages to States that manufacture as well as cultivate, consists in the more numerous attractions which a more diversified market offers to foreign customers, and in the greater scope which it affords to mercantile enterprise. It is a position of indisputable truth, in commerce, depending too on very obvious reasons, that the greatest resort will ever be to those marts where commodities, while equally abundant, are most various. Each difference of kind holds out an additional inducement : and it is a position not less clear, that the field of enterprise must be enlarged to the merchants of a country, in proportion to the variety as well as the abundance of commodities which they find at home, for exportation to foreign markets.

A third circumstance, perhaps not inferior to either of the other two, conferring the superiority which has been stated, has relation to the stagnations of demand for certain commodities, which, at some time or other, interfere more or less with the sale of all. The nation which can bring to market but few articles, is likely to be more quickly and sensibly affected by such stagnations, than one which is always possessed of a great variety of commodities. The former frequently finds too great a portion of its stock of materials for sale or exchange lying on hand, or is obliged to make injurious sacrifices to supply its wants of foreign articles, which are numerous and urgent, in proportion to the smallness of the number of its own. The latter commonly finds itself indemnified by the high prices of some articles, for the low prices of others; and the prompt and advantageous sale of those articles which are in demand enables its merchants the better to wait for a favorable change in respect to those which are not. There is ground to believe that a difference of situation in this particular has immensely different effects upon the wealth and prosperity of nations.

From these circumstances, collectively, two important inferences are to be drawn: one, that there is always a higher probability of a favorable balance of trade, in regard to countries in which manufactures founded on the basis of a thriving agriculture flourish, than in regard to those which are confined wholly, or almost wholly, to agriculture; the other, (which is also a consequence of the first,) that countries of the former description are likely to possess more pecuniary wealth, or money, than those of the latter.

Facts appear to correspond with this conclusion. The importations of manufactured supplies seem invariably to drain the merely agricultural people of their wealth. Let the situation of the manufacturing countries of Europe be compared, in this particular, with that of countries which only cultivate, and the disparity will be striking. Other causes, it is true, help to account for this disparity between some of them, and, among these causes, the relative state of agriculture; but between others of them, the most prominent circumstance of dissimilitude arises from the comparative state of manufactures. In corroboration of the same idea, it ought not to escape remark, that the West India islands, the soils of which are the most fertile, and the nation which, in the greatest degree, supplies the rest of the world with the precious metals, exchange to a loss with almost every other country.

As far as experience at home may guide, it will lead to the same conclusion. Previous to the revolution, the quantity of coin possessed by the colonies which now compose the United States, appeared to be inadequate to their circulation; and their debt to Great Britain was progressive. Since the revolution, the States in which manufactures have most increased have recovered fastest from the injuries of the late war, and abound most in pecuniary resources.

It ought to be admitted, however, in this, as in the preceding case, that causes irrelative to the state of manufactures account, in a degree, for the phenomena remarked. The continual progress of new settlements has a natural tendency to occasion an unfavorable balance of trade, though it indemnifies for the inconvenience, by that increase of the national capital which flows from the conversion of waste into improved lands; and the different degrees of external commerce which are carried on by the different States may make material differences in the comparative state of their wealth. The first circumstance has reference to the deficiency of coin and the increase of debt previous to the revolution; the last, to the advantages which the most manufacturing States appear to have enjoyed over the others since the termination of the late war.

But the uniform appearance of an abundance of specie, as the concomitant of a flourishing state of manufactures, and of the reverse, where they do not prevail, afford a strong presumption of their favorable operation upon the wealth of a country.

1791.]

Not only the wealth, but the independence and security of a country, appear to be materially connected with the prosperity of manufactures. Every nation, with a view to those great objects, ought to endeavor to possess within itself all the essentials of national supply. These comprise the means of subsistence, habitation, clothing, and defence.

The possession of these is necessary to the perfection of the body politic, to the safety as well as to the welfare of the society; the want of either is the want of an important organ of political life and motion; and in the various crises which await a State, it must severely feel the effects of any such deficiency. The extreme embarrassments of the United States during the late war, from an incapacity of supplying themselves, are still matter of keen recollection: a future war might be expected again to exemplify the mischiefs and dangers of a situation to which that incapacity is still, in too great a degree, applicable, unless changed by timely and vigorous exertions. To effect this change as fast as shall be prudent, merits all the attention and all the zeal of our public councils: it is the next great work to be accomplished.

The want of a navy to protect our external commerce, as long as it shall continue, must render it a peculiarly precarious reliance for the supply of essential articles, and must serve to strengthen prodigiously the arguments in favor of manufactures.

To these general considerations are added some of a more particular nature.

Our distance from Europe, the great fountain of manufactured supply, subjects us, in the existing state of things, to inconvenience and loss, in two ways.

The bulkiness of those commodities which are the chief productions of the soil necessarily imposes very heavy charges on their transportation to distant markets. These charges, in the cases in which the nations to whom our products are sent maintain a competition in the supply of their own markets, principally fall upon us, and form material deductions from the primitive value of the articles furnished. The charges on manufactured supplies brought from Europe are greatly enhanced by the same circumstance of distance. These charges again, in the cases in which our own industry maintains no competition in our own markets, also principally fall upon us, and are an additional cause of extraordinary deduction from the primitive value of our own products; these being the materials of exchange for the foreign fabrics which we consume.

The equality and moderation of individual property, and the growing settlements of new districts, occasion in this country an unusual demand for coarse manufactures; the charges of which being greater, in proportion to their greater bulk, augment the disadvantage which has been just described.

As in most countries domestic supplies maintain a very considerable competition with such foreign productions of the soil as are imported for sale, if the extensive establishment of manufactories in the United States does not create a similar competition in respect to manufactured articles, it appears to be clearly deducible, from the considerations which have been mentioned, that they must sustain a double loss in their exchanges with foreign nations, strongly conducive to an unfavorable balance of trade, and very prejudicial to their interests.

These disadvantages press, with no small weight, on the landed interest of the country. In seasons of peace, they cause a serious deduction from the intrinsic value of the products of the soil. In the time of a war, which should either involve ourselves, or another nation possessing a considerable share of our carrying trade, the charges on the transportation of our commodities, bulky as most of them are, could hardly fail to prove a grievous burden to the farmer, while obliged to depend, in so great a degree as he now does, upon foreign markets, for the vent of the surplus of his labor.

As far as the prosperity of the fisheries of the United States is impeded by the want of an adequate market, there arises another special reason for desiring the extension of manufactures. Besides the fish, which in many places would be likely to make a part of the subsistence of the persons employed, it is known that the oils, bones, and skins of marine animals, are of extensive use in various manufactures. Hence the prospect of an additional demand for the produce of the fisheries.

One more point of view only remains, in which to consider the expediency of encouraging manufactures in the United States.

It is not uncommon to meet with an opinion, that, though the promoting of manufactures may be the interest of a part of the Union, it is contrary to that of another part. The northern and southern regions are sometimes represented as having adverse interests in this respect. Those are called manufacturing, these agricultural States; and a species of opposition is imagined to subsist between the manufacturing and agricultural interests.

This idea of an opposition between those two interests is the common error of the early periods of every country; but experience gradually dissipates it. Indeed, they are perceived so often to succor and to befriend each other, that they come at length to be considered as one; a supposition which has been frequently abused, and is not universally true. Particular encouragements of particular manufactures may be of a nature to sacrifice the interests of landholders to those of manufacturers; but it is nevertheless a maxim, well established by experience, and generally acknowledged, where there has been sufficient experience, that the aggregate prosperity of manufactures, and the aggregate prosperity of agriculture, are intimately connected. In the course of the discussion which has had place, various weighty considerations have been adduced, operating in support of that maxim. Perhaps the superior steadiness of the demand of a domestic market, for the surplus produce of the soil, is, alone, a convincing argument of its truth.

Ideas of a contrariety of interests between the northern and southern regions of the Union are, in the main, as unfounded as they are mischievous. The diversity of circumstances on which such contrariety is usually predicated, authorizes a directly contrary conclusion. Mutual wants constitute one of the strongest links of political connexion; and the extent of these bears a natural proportion to the diversity in the means of mutual supply.

Suggestions of an opposite complexion are ever to be deplored, as unfriendly to the steady pursuit of one great common cause, and to the perfect harmony of all the parts.

In proportion as the mind is accustomed to trace the intimate connexion of interest which subsists between all the parts of a society united under the same Government, the infinite variety of channels which serve to circulate the prosperity of each, to and through the rest; in that proportion will it be little apt to be disturbed by solicitudes and apprehensions, which originate in local discriminations.

It is a truth, as important as it is agreeable, and one to which it is not

easy to imagine exceptions, that every thing tending to establish substantial and permanent order in the affairs of a country, to increase the total mass of industry and opulence, is ultimately beneficial to every part of it. On the credit of this great truth, an acquiescence may safely be accorded, from every quarter, to all institutions and arrangements which promise a confirmation of public order and an augmentation of national resource.

But there are more particular considerations, which serve to fortify the idea that the encouragement of manufactures is the interest of all parts of the Union. If the northern and middle States should be the principal scenes of such establishments, they would immediately benefit the more southern, by creating a demand for productions, some of which they have in common with the other States, and others of which are either peculiar to them, or more abundant, or of better quality, than elsewhere. These productions, principally, are timber, flax, hemp, cotton, wool, raw silk, indigo, iron, lead, furs, hides, skins, and coals : of these articles, cotton and indigo are peculiar to the southern States; as are, hitherto, lead and coal : flax and hemp are, or may be, raised in greater abundance there, than in the more northern States, and the wool of Virginia is said to be of better quality than that of any other State ; a circumstance rendered the more probable, by the reflection that Virginia embraces the same latitudes with the finest wool countries of Europe. The climate of the south is also better adapted to the production of silk.

The extensive cultivation of cotton can, perhaps, hardly be expected, but from the previous establishment of domestic manufactories of the article; and the surest encouragement and vent for the others would result from similar establishments in respect to them.

If, then, it satisfactorily appears that it is the interest of the United States, generally, to encourage manufactures, it merits particular attention, that there are circumstances which render the present a critical moment for entering with zeal upon the important business. The effort cannot fail to be materially seconded by a considerable and increasing influx of money, in consequence of foreign speculations in the funds, and by the disorders which exist in different parts of Europe.

The first circumstance not only facilitates the execution of manufacturing enterprises, but it indicates them as a necessary mean to turn the thing itself to advantage, and to prevent its being eventually an evil. If useful employment be not found for the money of foreigners, brought to the country to be invested in purchases of the public debt, it will quickly be re-exported to defray the expense of an extraordinary consumption of foreign luxuries; and distressing drains of our specie may hereafter be experienced, to pay the interest and redeem the principal of the purchased debt.

This useful employment, too, ought to be of a nature to produce solid and permanent improvements. If the money merely serves to give a temporary spring to foreign commerce, as it cannot procure new and lasting outlets for the products of the country, there will be no real or durable advantage gained. As far as it shall find its way in agricultural meliorations, in opening canals, and in similar improvements, it will be productive of substantial utility. But there is reason to doubt whether, in such channels, it is likely to find sufficient employment; and still more, whether many of those who possess it would be as readily attracted to objects of this nature, as to manufacturing pursuits, which bear greater analogy to those to which they are accustomed, and to the spirit generated by them. 1791.]

To open the one field, as well as the other, will at least secure a better prospect of useful employment for whatever accession of money there has been or may be.

There is, at the present juncture, a certain fermentation of mind, a certain activity of speculation and enterprise, which, if properly directed, may be made subservient to useful purposes; but which, if left entirely to itself, may be attended with pernicious effects.

The disturbed state of Europe inclining its citizens to emigration, the requisite workmen will be more easily acquired than at another time; and the effect of multiplying the opportunities of employment to those who emigrate, may be an increase of the number and extent of valuable acquisitions to the population, arts, and industry of the country.

To find pleasure in the calamities of other nations would be criminal; but to benefit ourselves, by opening an asylum to those who suffer in consequence of them, is as justifiable as it is politic.

A full view having now been taken of the inducements to the promotion of manufactures in the United States, accompanied with an examination of the principal objections which are commonly urged in opposition, it is proper, in the next place, to consider the means by which it may be effected, as introductory to a specification of the objects which, in the present state of things, appear the most fit to be encouraged, and of the particular measures which it may be advisable to adopt, in respect to each.

In order to a better judgment of the means proper to be resorted to by the United States, it will be of use to advert to those which have been employed with success in other countries. The principal of these are:

1. Protecting duties, or duties on those foreign articles which are the rivals of the domestic ones intended to be encouraged.

Duties of this nature evidently amount to a virtual bounty on the domestic fabrics; since, by enhancing the charges on foreign articles, they enable the national manufacturers to undersell all their foreign competitors. The propriety of this species of encouragement need not be dwelt upon; as it is not only a clear result from the numerous topics which have been suggested, but is sanctioned by the laws of the United States, in a variety of instances; it has the additional recommendation of being a resource of revenue. Indeed, all the duties imposed on imported articles, though with an exclusive view to revenue, have the effect in contemplation, and, except where they fall on raw materials, wear a beneficent aspect towards the manufacturers of the country.

II. Prohibitions of rival articles, or duties equivalent to prohibitions.

This is another and an efficacious mean of encouraging national manufactures; but, in general, it is only fit to be employed when a manufacture has made such a progress, and is in so many hands, as to insure a due competition, and an adequate supply on reasonable terms. Of duties equivalent to prohibitions, there are examples in the laws of the United States; and there are other cases to which the principle may be advantageously extended, but they are not numerous.

Considering a monopoly of the domestic market to its own manufacturers as the reigning policy of manufacturing nations, a similar policy on the part of the United States, in every proper instance, is dictated, it might almost be said, by the principles of distributive justice; certainly by the duty of endeavoring to secure to their own citizens a reciprocity of advantages. III. Prohibitions of the exportation of the materials of manufactures.

The desire of securing a cheap and plentiful supply for the national workmen, and where the article is either peculiar to the country, or of peculiar quality there, the jealousy of enabling foreign workmen to rival those of the nation with its own materials, are the leading motives to this species of regulation. It ought not to be affirmed that it is in no instance proper; but it is certainly one which ought to be adopted with great circumspection, and only in very plain cases. It is seen, at once, that its immediate operation is to abridge the demand, and keep down the price of the produce of some other branch of industry, (generally speaking, of agriculture,) to the prejudice of those who carry it on; and though, if it be really essential to the prosperity of any very important national manufacture, it may happen that those who are injured in the first instance, may be eventually indemnified by the superior steadiness of an extensive domestic market, depending on that prosperity; yet, in a matter in which there is so much room for nice and difficult combinations, in which such opposite considerations combat each other, prudence seems to dictate that the expedient in question ought to be indulged with a sparing hand.

IV. Pecuniary bounties.

This has been found one of the most efficacious means of encouraging manufactures, and it is, in some views, the best. Though it has not yet been practised upon by the Government of the United States, (unless the allowance on the exportation of dried and pickled fish and salted meat could be considered as a bounty,) and though it is less favored by public opinion than some other modes, its advantages are these:

1. It is a species of encouragement more positive and direct than any other; and, for that very reason, has a more immediate tendency to stimulate and uphold new enterprises, increasing the chances of profit, and diminishing the risks of loss, in the first attempts.

2. It avoids the inconvenience of a temporary augmentation of price, which is incident to some other modes; or it produces it to a less degree; either by making no addition to the charges on the rival foreign article, as in the case of protecting duties, or by making a smaller addition. The first happens when the fund for the bounty is derived from a different object, (which may or may not increase the price of some other article, according to the nature of that object;) the second, when the fund is derived from the same, or a similar object of foreign manufacture. One per cent. duty on the foreign article, converted into a bounty on the domestic, will have an equal effect with a duty of two per cent. exclusive of such bounty; and the price of the foreign commodity is liable to be raised, in the one case, in the proportion of one per cent.; in the other, in that of two per cent. Indeed, the bounty, when drawn from another source, is calculated to promote a reduction of price; because, without laying any new charge on the foreign article, it serves to introduce a competition with it, and to increase the total quantity of the article in the market.

3. Bounties have not, like high protecting duties, a tendency to produce scarcity. An increase of price is not always the immediate, though, where the progress of a domestic manufacture does not counteract a rise, it is commonly the ultimate, effect of an additional duty. In the interval between the laying of the duty and the proportional increase of price, it may discourage importation, by interfering with the profits to be expected from the sale of the article.

4. Bounties are sometimes not only the best, but the only proper expedient for uniting the encouragement of a new object of agriculture with that of a new object of manufacture. It is the interest of the farmer to have the production of the raw material promoted, by counteracting the interference of the foreign material of the same kind. It is the interest of the manufacturer to have the material abundant and cheap. If, prior to the domestic production of the material in sufficient quantity to supply the manufacturer on good terms, a duty be laid upon the importation of it from abroad, with a view to promote the raising of it at home, the interest both of the farmer and manufacturer will be disserved. By either destroying the requisite supply, or raising the price of the article beyond what can be afforded to be given for it by the conductor of an infant manufacture, it is abandoned or fails; and there being no domestic manufactories to create a demand for the raw material which is raised by the farmer, it is in vain that the competition of the like foreign article may have been destroyed.

It cannot escape notice that a duty upon the importation of an article can no otherwise aid the domestic production of it, than by giving the latter greater advantages in the home market. It can have no influence upon the advantageous sale of the article produced in foreign markets; no tendency, therefore, to promote its exportation.

The true way to conciliate these two interests is to lay a duty on foreign manufactures of the material, the growth of which is desired to be encouraged, and to apply the produce of that duty, by way of bounty, either upon the production of the material itself, or upon its manufacture at home, or upon both. In this disposition of the thing, the manufacturer commences his enterprise, under every advantage which is attainable, as to quantity or price of the raw material; and the farmer, if the bounty be immediately to him, is enabled by it to enter into a successful competition with the foreign material. If the bounty be to the manufacturer on so much of the domestic material as he consumes, the operation is nearly the same : he has a motive of interest to prefer the domestic commodity, if of equal quality, even at a higher price than the foreign, so long as the difference of price is any thing short of the bounty which is allowed upon the article.

Except the simple and ordinary kinds of household manufacture, or those for which there are very commanding local advantages, pecuniary bounties are, in most cases, indispensable to the introduction of a new branch. A stimulus and a support not less powerful and direct, is, generally speaking, essential to the overcoming of the obstacles which arise from the competitions of superior skill and maturity elsewhere. Bounties are especially essential in regard to articles upon which those foreigners, who have been accustomed to supply a country, are in the practice of granting them.

The continuance of bounties on manufactures long established must almost always be of questionable policy, because a presumption would arise, in every such case, that there were natural and inherent impediments to success. But, in new undertakings, they are as justifiable as they are oftentimes necessary.

There is a degree of prejudice against bounties, from an appearance of giving away the public money without an immediate consideration, and from a supposition that they serve to enrich particular classes at the expense of the community. But neither of these sources of dislike will bear a serious examination. There is no purpose to which public money can be more beneficially applied

than to the acquisition of a new and useful branch of industry; no consideration more valuable than a permanent addition to the general stock of productive labor.

As to the second source of objection, it equally lies against other modes of encouragement which are admitted to be eligible. As often as a duty upon a foreign article makes an addition to its price, it causes an extra expense to the community for the benefit of the domestic manufacturer. A bounty does no more. But it is the interest of the society, in each case, to submit to a temporary expense, which is more than compensated by an increase of industry and wealth, by an augmentation of resources and independence, and by the circumstance of eventual cheapness, which has been noticed in another place.

It would deserve attention, however, in the employment of this species of encouragement in the United States, as a reason for moderating the degree of it in the instances in which it might be deemed eligible, that the great distance of this country from Europe imposes very heavy charges on all the fabrics which are brought from thence, amounting from fifteen to thirty per cent. on their value, according to their bulk.

A question has been made concerning the constitutional right of the Government of the United States to apply this species of encouragement, but there is certainly no good foundation for such a question. The national legislature has express authority " to lay and collect taxes, duties, imposts, and excises ; to pay the debts, and provide for the common defence and general welfare," with no other qualifications than that " all duties, imposts, and excises shall be uniform throughout the United States ; that no capitation or other direct tax shall be laid, unless in proportion to numbers ascertained by a census or enumeration taken on the principles prescribed in the constitution ;" and that " no tax or duty shall be laid on articles exported from any State."

These three qualifications excepted, the power to raise money is plenary and indefinite; and the objects to which it may be appropriated are no less comprehensive than the payment of the public debts, and the providing for the common defence and general welfare. The terms "general welfare" were doubtless intended to signify more than was expressed or imported in those which preceded, otherwise numerous exigencies incident to the affairs of a nation would have been left without a provision. The phrase is as comprehensive as any that could have been used, because it was not fit that the constitutional authority of the Union to appropriate its revenues should have been restricted within narrower limits than the "general welfare," and because this necessarily embraces a vast variety of particulars, which are susceptible neither of specification nor of definition.

It is, therefore, of necessity, left to the discretion of the national legislature to pronounce upon the objects which concern the general welfare, and for which, under that description, an appropriation of money is requisite and proper. And there seems to be no room for a doubt, that whatever concerns the general interests of learning, of agriculture, of manufactures, and of commerce, are within the sphere of the national councils, as far as regards an application of money.

The only qualification of the generality of the phrase in question, which seems to be admissible, is this: That the object, to which an appropriation of money is to be made, be general and not local; its operation extending, in
fact, or by possibility, throughout the Union, and not being confined to a particular spot.

No objection ought to arise to this construction, from a supposition that it would imply a power to do whatever else should appear to Congress conducive to the general warfare. A power to appropriate money with this latitude, which is granted too in express terms, would not carry a power to do any other thing not authorized in the constitution, either expressly or by fair implication.

V. Premiums.

These are of a nature allied to bounties, though distinguishable from them in some important features.

Bounties are applicable to the whole quantity of an article produced, or manufactured, or exported, and involve a correspondent expense. Premiums serve to reward some particular excellence or superiority, some extraordinary exertion or skill, and are dispensed only in a small number of cases. But their effect is to stimulate general effort; contrived so as to be both honorary and lucrative, they address themselves to different passions; touching the chords as well of emulation as of interest. They are, accordingly, a very economical mean of exciting the enterprise of a whole community.

There are various societies in different countries, whose object is the dispensation of premiums for the encouragement of agriculture, arts, manufactures, and commerce; and though they are, for the most part, voluntary associations, with comparatively slender funds, their utility has been immense. Much has been done by this mean in Great Britain. Scotland, in particular, owes materially to it a prodigious melioration of condition. From a similar establishment in the United States, supplied and supported by the Government of the Union, vast benefits might reasonably be expected. Some further ideas on this head shall accordingly be submitted, in the conclusion of this report.

VI. The exemption of the materials of manufactures from duty.

The policy of that exemption, as a general rule, particularly in reference to new establishments, is obvious. It can hardly ever be advisable to add the obstructions of fiscal burdens to the difficulties which naturally embarrass a new manufacture; and where it is matured, and in condition to become an object of revenue, it is, generally speaking, better that the fabric than the material should be the subject of taxation. Ideas of proportion between the quantum of the tax and the value of the article, can be more easily adjusted in the former than in the latter case. An argument for exemptions of this kind, in the United States, is to be derived from the practice, as far as their necessities have permitted, of those nations whom we are to meet as competitors in our own and in foreign markets.

There are, however, exceptions to it, of which some examples will be given under the next head.

The laws of the Union afford instances of the observance of the policy here recommended, but it will probably be found advisable to extend it to some other cases. Of a nature bearing some affinity to that policy, is the regulation which exempts from duty the tools and implements, as well as the books, clothes, and household furniture of foreign artists, who come to reside in the United States: an advantage already secured to them by the laws of the Union, and which it is in every view proper to continue.

Vol. I.-S Date of Man

improvements of printary magnitude might be promoted, by an anthony,

VII. Drawbacks of the duties which are imposed on the materials of manufactures.

It has already been observed, as a general rule, that duties on those materials ought, with certain exceptions, to be forborne. Of these exceptions, three cases occur, which may serve as examples : one, where the material is itself an object of general or extensive consumption, and a fit and productive source of revenue; another, where a manufacture of a simpler kind, the competition of which with a like domestic article is desired to be restrained, partakes of the nature of a raw material, from being capable, by a farther process, to be converted into a manufacture of a different kind, the introduction or growth of which is desired to be encouraged; a third, where the material itself is a production of the country, and in sufficient abundance to furnish a cheap and plentiful supply to the national manufacturers.

Under the first description comes the article of molasses. It is not only a fair object of revenue, but, being a sweet, it is just that the consumers of it should pay a duty as well as the consumers of sugar.

Cottons and linen, in their white state, fall under the second description. A duty upon such as are imported is proper, to promote the domestic manufacture of similar articles in the same state. A drawback of that duty is proper, to encourage the printing and staining at home of those which are brought from abroad. When the first of these manufactures has attained sufficient maturity in a country to furnish a full supply for the second, the utility of the drawback ceases.

The article of hemp either now does, or may be expected soon, to exemplify the third case in the United States.

Where duties on the materials of manufactures are not laid for the purpose of preventing a competition with some domestic production, the same reasons which recommend, as a general rule, the exemption of those materials from duties, would recommend, as a like general rule, the allowance of drawbacks in favor of the manufacturer. Accordingly, such drawbacks are familiar in countries which systematically pursue the business of manufactures, which furnishes an argument for the observance of a similar policy in the United States; and the idea has been adopted by the laws of the Union, in the instances of salt and molasses. It is believed that it will be found advantageous to extend it to some other articles.

VIII. The encouragement of new inventions and discoveries at home, and of the introduction into the United States of such as may have been made in other countries; particularly those which relate to muchinery.

This is among the most useful and unexceptionable of the aids which can be given to manufactures. The usual means of that encouragement are pecuniary rewards, and, for a time, exclusive privileges. The first must be employed, according to the occasion, and the utility of the invention of discovery. For the last, so far as respects "authors and inventors," provision has been made by law. But it is desirable, in regard to improvements, and secrets of extraordinary value, to be able to extend the same benefit to introducers, as well as authors and inventors ; a policy which has been practised with advantage in other countries. Here, however, as in some other cases, there is cause to regret that the competency of the authority of the National Government to the good which might be done, is not without a question. Many aids might be given to industry, many internal improvements of primary magnitude might be promoted, by an authority operating throughout the Union, which cannot be effected as well, if at all, by an authority confined within the limits of a single State.

But if the Legislature of the Union cannot do all the good that might be wished, it is at least desirable that all may be done which is practicable. Means for promoting the introduction of foreign improvements, though less efficaciously than might be accomplished with more adequate authority, will form a part of the plan intended to be submitted in the close of this report.

It is customary with manufacturing nations to prohibit, under severe penalties, the exportation of implements and machines which they have either invented or improved. ' There are already objects for a similar regulation in the United States; and others may be expected to occur, from time to time. The adoption of it seems to be dictated by the principle of reciprocity. Greater liberality, in such respects, might better comport with the general spirit of the country; but a selfish and exclusive policy, in other quarters, will not always permit the free indulgence of a spirit which would place us upon an equal footing. As far as prohibitions tend to prevent foreign competitors from deriving the benefit of the improvements made at home, they tend to increase the advantages of those by whom they may have been introduced, and operate as an encouragement to exertion.

IX. Judicious regulations for the inspection of manufactured commodities.

This is not among the least important of the means by which the prosperity of manufactures may be promoted. It is, indeed, in many cases, one of the most essential. Contributing to prevent frauds upon consumers at home, and exporters to foreign countries-to improve the quality and preserve the character of the national manufactures, it cannot fail to aid the expeditious and advantageous sale of them, and to serve as a guard against successful competition from other quarters. / The reputation of the flour and lumber of some States, and of the potash of others, has been established by an attention to this point. And the like grod name might be procured for those articles, wheresoever produced, by "judicious and uniform system of inspection throughout the ports of the United States. A like system might also be extended with advantage to other commodities.

X. The facilitating of pecuniary remittances from place to place-

Is a point of considerable moment to trade in general, and to manufactures in particular, by rendering more easy the purchase of raw materials and provisions, and the payment for manufactured supplies. A general circulation of bank paper, which is to be expected from the institution lately established, will be a most valuable mean to this end. But much good would also accrue from some additional provisions respecting inland bills of exchange. If those drawn in one State, payable in another, were made negotiable every where, and interest and damages allowed in case of protest, it would greatly promote negotiations between the citizens of different States, by rendering them more secure ; and, with it, the convenience and advantage of the merchants and manufacturers of each.

XI. The facilitating of the transportation of commodities.

Improvements favoring this object intimately concern all the domestic interests of a community; but they may, without impropriety, be mentioned as having an important relation to manufactures. There is, perhaps, scarcely any thing which has been better calculated to assist the manufactures of

1791.]

Great Britain, than the meliorations of the public roads of that kingdom, and the great progress which has been of late made in opening canals. Of the former, the United States stand much in need; for the latter, they present uncommon facilities.

The symptoms of attention to the improvement of inland navigation, which have lately appeared in some quarters, must fill with pleasure every breast warmed with a true zeal for the prosperity of the country. These examples, it is to be hoped, will stimulate the exertions of the Government and citizens of every State. There can certainly be no object more worthy of the cares of the local administrations; and it were to be wished that there was no doubt of the power of the National Government to lend its direct aid on a comprehensive plan. This is one of those improvements which could be prosecuted with more efficacy by the whole, than by any part or parts of the Union. There are cases in which the general interest will be in danger to be sacrificed to the collision of some supposed local interests. Jealousies, in matters of this kind, are as apt to exist, as they are apt to be erroneous.

The following remarks are sufficiently judicious and pertinent to deserve a literal quotation : " Good roads, canals, and navigable rivers, by diminishing the expense of carriage, put the remote parts of a country more nearly upon a level with those in the neighborhood of the town. They are, upon that account, the greatest of all improvements. They encourage the cultivation of the remote, which must always be the most extensive circle of the country. They are advantageous to the town, by breaking down the monopoly of the country in its neighborhood. They are advantageous even to that part of the country. Though they introduce some rival commodities into the old market, they open many new markets to its produce. Monopoly, besides, is a great enemy to good management, which can never be universally established, but in consequence of that free and universal competition, which forces every body to have recourse to it for the sake of self-defence. It is not more than fifty years ago that some of the counties in the neighborhood of London petitioned the Parliament against the extension of the turnpike roads into the remoter counties. Those remoter counties, they pretended, from the cheapless of labor, would be able to sell their grass and corn cheaper in the London market, than themselves; and they would thereby reduce their rents, and run their cultivation. Their rents, however, have risen, and their cultivation has been improved since that

Specimens of a spirit similar to that which governed the counties here spoken of, present themselves too frequently to the eye of an impartial observer, and render it a wish of patriotism that the body in this country in whose councils a local or partial spirit is least likely to predominate, were at liberty to pursue and promote the general interest in those instances in which there might be danger of the interference of such a spirit.

The foregoing are the principal of the means by which the growth of manufactures is ordinarily promoted. It is, however, not merely necessary that the measures of Government, which have a direct view to manufactures, should be calculated to assist and protect them, but that those which only collaterally affect them in the general course of the administration, should be guarded from any peculiar tendency to injure them.

There are certain species of taxes, which are apt to be oppressive to different parts of the community, and, among other ill effects, have a very unfriendly aspect towards manufactures. All poll or capitation taxes are of this nature. They either proceed according to a fixed rate, which operates unequally and injuriously to the industrious poor; or they vest a discretion in certain officers to make estimates and assessments, which are, necessarily, vague, conjectural, and liable to abuse. They ought, therefore, to be abstained from in all but cases of distressing emergency.

All such taxes (including all taxes on occupations) which proceed according to the amount of capital supposed to be employed in a business, or of profits supposed to be made in it, are unavoidably hurtful to industry. It is in vain that the evil may be endeavored to be mitigated, by leaving it, in the first instance, in the option of the party to be taxed to declare the amount of his capital or profits.

Men engaged in any trade or business have commonly weighty reasons to avoid disclosures, which would expose, with any thing like accuracy, the real state of their affairs. They most frequently find it better to risk oppression, than to avail themselves of so inconvenient a refuge; and the consequence is, that they often suffer oppression.

When the disclosure, too, if made, is not definitive, but controllable by the discretion, or, in other words, by the passions and prejudices of the revenue officers, it is not only an ineffectual protection, but the possibility of its being so is an additional reason for not resorting to it.

Allowing to the public officers the most equitable dispositions, yet, where they are to exercise a discretion without certain data, they cannot fail to be often misled by appearances. The quantity of business which seems to be going on, is, in a vast number of cases, a very deceitful criterion of the profits which are made; yet it is, perhaps, the best they can have, and it is the one on which they will most naturally rely. A business, therefore, which may rather require aid from the Government, than be in a capacity to be contributory to it, may find itself crushed by the mistaken conjectures of the assessors of taxes.

Arbitrary taxes, under which denomination are comprised all those that leave the quantum of the tax to be raised on each person to the discretion of certain officers, are as contrary to the genius of liberty as to the maxims ot industry. In this light they have been viewed by the most judicious observers on government, who have bestowed upon them the severest epithets of reprobation, as constituting one of the worst features usually to be met with in the practice of despotic Governments.

It is certain, at least, that such taxes are particularly inimical to the success of manufacturing industry, and ought carefully to be avoided by a Government which desires to promote it.

The great copiousness of the subject of this report has insensibly led to a more lengthy preliminary discussion than was originally contemplated or intended. It appeared proper to investigate principles, to consider objections, and to endeavor to establish the utility of the thing proposed to be encouraged, previous to a specification of the objects which might occur, as meriting or requiring encouragement, and of the measures which might be proper in respect to each. The first purpose having been fulfilled, it remains to pursue the second.

In the selection of objects, five circumstances seem entitled to particular attention: the capacity of the country to furnish the raw material; the degree in which the nature of the manufacture admits of a substitute for manual labor in machinery; the facility of execution; the extensiveness of the uses to which the article can be applied; its subserviency to other interests, particularly the great one of national defence. There are, however, objects to which these circumstances are little applicable, which, for some special reasons, may have a claim to encouragement.

A designation of the principal raw material of which each manufacture is composed, will serve to introduce the remarks upon it; as, in the first place,

#### IRON.

The manufactures of this article are entitled to pre-eminent rank. None are more essential in their kinds, nor so extensive in their uses. They constitute, in whole or in part, the implements or the materials, or both, of almost every useful occupation. Their instrumentality is every where conspicuous.

It is fortunate for the United States that they have peculiar advantages for deriving the full benefit of this most valuable material, and they have every motive to improve it with systematic care. It is to be found in various parts of the United States, in great abundance, and of almost every quality; and fuel, the chief instrument in manufacturing it, is both cheap and plenty. This particularly applies to charcoal; but there are productive coal mines already in operation, and strong indications that the material is to be found in abundance in a variety of other places.

The inquiries to which the subject of this report has led have been answered with proofs, that manufactories of iron, though generally understood to be extensive, are far more so than is commonly supposed. The kinds in which the greatest progress has been made have been mentioned in another place, and need not be repeated; but there is little doubt that every other kind, with due cultivation, will rapidly succeed. It is worthy of remark, that several of the particular trades, of which it is the basis, are capable of being carried on without the aid of large capitals.

Iron-works have greatly increased in the United States, and are prosecuted with much more advantage than formerly. The average price, before the revolution, was about sixty-four dollars per ton; at present, it is about eighty; a rise which is chiefly to be attributed to the increase of manufactures of the material.

The still further extension and multiplication of such manufactures will have the double effect of promoting the extraction of the metal itself, and of converting it to a greater number of profitable purposes.

Those manufactures, too, unite, in a greater degree than almost any others, the several requisites which have been mentioned as proper to be consulted in the selection of objects.

The only further encouragement of manufactories of this article, the propriety of which may be considered as unquestionable, seems to be an increase of the duties on foreign rival commodities.

Steel is a branch which has already made a considerable progress, and it is ascertained that some new enterprises, on a more extensive scale, have been lately set on foot. The facility of carrying it to an extent which will supply all internal demands, and furnish a considerable surplus for exportation, cannot be doubted. The duty upon the importation of this article, which is at present seventy-five cents per cwt., may, it is conceived, be safely and advantageously extended to one hundred cents. It is desirable, by decisive arrangements, to second the efforts which are making in so very valuable a branch. 1791.] SECF

The United States already, in a great measure, supply themselves with nails and spikes. They are able, and ought certainly to do it entirely. The first and most laborious operation, in this manufacture, is performed by water-mills; and of the persons afterwards employed, a great proportion are boys, whose early habits of industry are of importance to the community, to the present support of their families, and to their own future comfort. It is not less curious than true, that in certain parts of the country the making of nails is an occasional family manufacture.

The expediency of an additional duty on these articles is indicated by an important fact. About 1,800,000 pounds of them were imported into the United States in the course of a year ending the 30th of September, 1790. A duty of two cents per pound would, it is presumable, speedily put an end to so considerable an importation; and it is, in every view, proper that an end should be put to it.

The manufacture of these articles, like that of some others, suffers from the carelessness and dishonesty of a part of those who carry it on. An inspection in certain cases might tend to correct the evil. It will deserve consideration, whether a regulation of this sort cannot be applied, without inconvenience, to the exportation of the articles, either to foreign countries, or from one State to another.

The implements of husbandry are made in several States in great abundance. In many places, it is done by the common blacksmiths; and there is no doubt that an ample supply for the whole country can, with great ease, be procured among ourselves.

Various kinds of edged tools, for the use of mechanics, are also made; and a considerable quantity of hollow wares. Though the business of castings has not yet attained the perfection which might be wished, it is, however, improving; and as there are respectable capitals, in good hands, embarked in the prosecution of those branches of iron manufactories which are yet in their infancy, they may all be contemplated as objects not difficult to be acquired.

To insure the end, it seems equally safe and prudent to extend the duty ad valorem upon all manufactures of iron, or of which iron is the article of chief value, to ten per cent.

Fire-arms and other military weapons may, it is conceived, he placed, without inconvenience, in the class of articles rated at fifteen per cent. There exist already manufactories of these articles, which only require the stimulus of a certain demand to render them adequate to the supply of the United States.

It would also be a material aid to manufactures of this nature, as well as a mean of public security, if provision should be made for an annual purchase of military weapons of home manufacture, to a certain determinate extent, in order to the formation of arsenals; and to replace, from time to time, such as should be withdrawn for use, so as always to have in store the quantity of each kind which should be deemed a competent supply.

But it may hereafter deserve legislative consideration, whether manufactories of all the necessary weapons of war ought not to be established on account of the Government itself. Such establishments are agreeable to the usual practice of nations, and that practice seems founded on sufficient reason.

There appears to be an improvidence in leaving these essential instruments of national defence to the casual speculations of individual adventure ; a resource which can less be relied upon in this case than in most others; the articles in question not being objects of ordinary and indispensable private consumption or use. As a general rule, manufactories on the immediate account of Government are to be avoided; but this seems to be one of the few exceptions which that rule admits, depending on very special reasons.

Manufactures of steel, generally, or of which steel is the article of chief value, may with advantage be placed in the class of goods rated at seven and a half per cent. As manufactures of this kind have not yet made any considerable progress, it is a reason for not rating them as high as those of iron; but as this material is the basis of them, and as their extension is not less practicable than important, it is desirable to promote it by a somewhat higher duty than the present. A question arises, how far it might be expedient to permit the importa-

A question arises, how far it might be expedient to permit the importation of iron in pigs and bars free from duty. It would certainly be favorable to manufacturers of the article; but the doubt is, whether it might not interfere with its production.

Two circumstances, however, abate, if they do not remove, apprehension on this score : one is, the considerable increase of price, which has already been remarked, and which renders it probable that the free admission of foreign iron would not be inconsistent with an adequate profit to the proprietors of iron works; the other is, the augmentation of demand which would be likely to attend the increase of manufactures of the article, in consequence of the additional encouragements proposed to be given. But caution, nevertheless, in a matter of this kind, is most advisable. The measure suggested ought, perhaps, rather to be contemplated, subject to the lights of further experience, than immediately adopted.

#### COPPER.

The manufactures of which this article is susceptible, are also of great extent and utility. Under this description, those of brass, of which it is the principal ingredient, are intended to be included.

The material is a natural production of the country. Mines of copper have actually been wrought, and with profit to the undertakers, though it is not known that any are now in this condition; and nothing is easier than the introduction of it from other countries, on moderate terms and in great plenty.

Coppersmiths and brassfounders, particularly the former, are numerous in the United States—some of whom carry on business to a respectable extent.

To multiply and extend manufactories of the materials in question, is worthy of attention and effort. In order to this, it is desirable to facilitate a plentiful supply of the materials; and a proper mean to this end is to place them in the class of free articles. Copper in plates, and brass, are already in this predicament; but copper in pigs and bars is not; neither is lapis calaminaris, which, together with copper and charcoal, constitute the component ingredients of brass. The exemption from duty, by parity of reason, ought to embrace all such of these articles as are objects of importation.

An additional duty on brass wares will tend to the general end in view. These now stand at five per cent., while those of tin, pewter, and copper are rated at seven and a half. There appears to be a propriety, in every view, in placing brass wares upon the same level with them; and it merits

consideration whether the duty upon all of them ought not to be raised to ten per cent.

#### a pleasing, too, to observe th CAEL STREET

There are numerous proofs that this material abounds in the United States, and requires little to unfold it to an extent more than equal to every domestic occasion. A prolific mine of it has long been open in the southwestern parts of Virginia; and under a public administration, during the late war, yielded a considerable supply for military use. This is now in the hands of individuals, who not only carry it on with spirit, but have established manufactories of it at Richmond, in the same State.

The duties already laid upon the importation of this article, either in its unmanufactured or manufactured state, insure it a decisive advantage in the home market, which amounts to considerable encouragement. If the duty on pewter wares should be raised, it would afford a further encouragement. Nothing else occurs as proper to be added.

#### FOSSIL COAL.

This, as an important instrument of manufactures, may, without impropriety, be mentioned among the subjects of this report.

A copious supply of it would be of great consequence to the iron branch. As an article of household fuel, also, it is an interesting production; the utility of which must increase in proportion to the decrease of wood, by the progress of settlement and cultivation. And its importance to navigation, as an immense article of transportation coastwise, is signally exempli-

fied in Great Britain. It is known that there are several coal mines in Virginia now worked, and appearances of their existence are familiar in a number of places.

The expediency of a bounty on all this species of coal of home production, and of premiums on the opening of new mines, under certain qualifications, appears to be worthy of particular examination. The great importance of the article will amply justify a reasonable expense in this way, if it shall appear to be necessary to, and shall be thought likely to answer, the end.

### Woop,

Several manufactures of this article flourish in the United States. Ships are nowhere built in greater perfection; and cabinet wares, generally, are made little, if at all, inferior to those of Europe. Their extent is such, as to have admitted of considerable exportation.

An exemption from duty of the several kinds of wood ordinarily used in these manufactures seems to be all that is requisite, by way of encouragement. It is recommended by the consideration of a similar policy being pursued in other countries, and by the expediency of giving equal advantages to our own workmen in wood. The abundance of timber proper for ship building in the United States, does not appear to be any objection to it. The increasing scarcity, and growing importance of that article in the European countries, admonish the United States to commence, and systematically to pursue, measures for the preservation of their stock. Whatever may promote the regular establishment of magazines of ship timber, is, in various views, desirable.

#### SKINS.

onesi hojimina ovo

There are scarcely any manufactories of greater importance than of this article. Their direct and very happy influence upon agriculture, by promoting the raising of cattle of different kinds, is a very material recommendation.

It is pleasing, too, to observe the extensive progress they have made in their principal branches, which are so far matured as almost to defy foreign competition. Tanneries, in particular, are not only carried on as a regular business, in numerous instances, and in various parts of the country, but they constitute, in some places, a valuable item of incidental family manufactures.

Representations, however, have been made, importing the expediency of further encouragement to the leather branch, in two ways: one, by increasing the duty on the manufactures of it, which are imported; the other, by prohibiting the exportation of bark. In support of the latter, it is alleged that the price of bark, chiefly in consequence of large exportations, has risen, within a few years, from about three dollars to four and a half per cord.

These suggestions are submitted, rather as intimations which merit consideration, than as matters the propriety of which is manifest. It is not clear that an increase of duty is necessary; and in regard to the prohibition desired, there is no evidence of any considerable exportation hitherto; and it is most probable that, whatever augmentation of price may have taken place, is to be attributed to an extension of the home demand, from the increase of manufactures, and to a decrease of the supply, in consequence of the progress of settlement, rather than to the quantities which have been exported.

It is mentioned, however, as an additional reason for the prohibition, that one species of the bark usually exported is, in some sort, peculiar to the country, and the material of a very valuable die, of great use in some other manufactures, in which the United States have begun a competition.

There may also be this argument in favor of an increase of duty. The object is of importance enough to claim decisive encouragement, and the progress which has been made leaves no room to apprehend any inconvenience on the score of supply, from such an increase.

It would be of benefit to this branch, if glue, which is now rated at five per cent., were made the object of an excluding duty. It is already made in large quantities at various tanneries, and, like paper, is an entire economy of materials, which, if not manufactured, would be left to perish. It may be placed, with advantage, in the class of articles paying fifteen per cent.

#### GRAIN.

Manufactures of the several species of this article have a title to peculiar favor; not only because they are, most of them, immediately connected with the subsistence of the citizens, but because they enlarge the demand for the most precious products of the soil.

Though flour may, with propriety, be noticed as a manufacture of grain, it were useless to do it, but for the purpose of submitting the expediency of a general system of inspection, throughout the ports of the United States; which, if established upon proper principles, would be likely to improve the quality of our flour every where, and to raise its reputation in foreign markets. There are, however, considerations which stand in the way of such an arrangement.

Ardent spirits and malt liquors are, next to flour, the two principal manufactures of grain. The first has made a very extensive, the last a considerable progress in the United States. In respect to both, an exclusive possession of the home market ought to be secured to the domestic manufacturers as fast as circumstances will admit. Nothing is more practicable, and nothing more desirable.

The existing laws of the United States have done much towards attaining this valuable object; but some additions to the present duties on foreign distilled spirits and foreign malt liquors, and perhaps an abatement of those on home made spirits, would more effectually secure it; and there does not occur any very weighty objection to either.

An augmentation of the duties on imported spirits would favor as well the distillation of spirits from molasses, as that from grain. And to secure to the nation the benefit of a manufacture, even of foreign materials, is always of great, though perhaps of secondary importance.

A strong impression prevails in the minds of those concerned in distilleries, (including, too, the most candid and enlightened,) that greater differences in the rates of duty on foreign and domestic spirits are necessary, completely to secure the successful manufacture of the latter; and there are facts which entitle this impression to attention.

It is known that the price of molasses, for some years past, has been successively rising in the West India markets, owing partly to a competition which did not formerly exist, and partly to an extension of demand in this country; and it is evident, that the late disturbances in those islands from which we draw our principal supply, must so far interfere with the production of the article, as to occasion a material enhancement of price. The destruction and devastation attendant on the insurrection in Hispaniola, in particular, must not only contribute very much to that effect, but may be expected to give it some duration. These circumstances, and the duty of three cents per gallon on molasses, may render it difficult for the distillers of that material to maintain, with adequate profit, a competition with the rum brought from the West Indies, the quality of which is so considerably superior.

The consumption of geneva, or gin, in this country, is extensive. It is not long since distilleries of it have grown up among us to any importance. They are now becoming of consequence, but, being still in their infancy, they require protection.

It is represented that the price of some of the materials is greater here than in Holland, from which place large quantities are brought; the price of labor considerably greater; the capitals engaged in the business there, much larger than those which are employed here; the rate of profits at which the undertakers can afford to carry it on, much less; the prejudices in favor of imported gin, strong. These circumstances are alleged to outweigh the charges which attend the bringing of the article from Europe to the United States, and the present difference of duty, so as to obstruct the prosecution of the manufacture with due advantage.

Experiment could, perhaps, alone decide, with certainty, the justness of the suggestions which are made; but, in relation to branches of manufacture so important, it would seem inexpedient to hazard an unfavorable issue, and better to err on the side of too great, than of too small a difference in the particular in question.

It is therefore submitted, that an addition of two cents per gallon be made to the duty on imported spirits of the first class of proof, with a proportionable increase on those of higher proof; and that a deduction of one cent per gallon be made from the duty on spirits distilled within the United

[1791

It is ascertained that by far the greatest part of the malt liquors consumed in the United States are the produce of domestic breweries. It is desirable, and in all likelihood attainable, that the whole consumption should be supplied by ourselves.

The malt liquors made at home, though inferior to the best, are equal to a great part of those which have been usually imported. The progress already made is an earnest of what may be accomplished. The growing competition is an assurance of improvement. This will be accelerated by measures tending to invite a greater capital into this channel of employment.

To render the encouragement of domestic breweries decisive, it may be advisable to substitute to the present rates of duty eight cents per gallon, generally; and it will deserve to be considered as a guard against invasions, whether there ought not to be a prohibition of their importation, except in casks of considerable capacity. It is to be hoped that such a duty would banish from the market foreign malt liquors of inferior quality, and that the best kind only would continue to be imported, till it should be supplanted by the efforts of equal skill or care at home.

\* Until that period, the importation, so qualified, would be a useful stimulus to improvement, and, in the mean time, the payment of the increased price for the enjoyment of a luxury, in order to the encouragement of a most useful branch of domestic industry, could not reasonably be deemed a hardship. All or nothermani eth no mabin

As a further aid to manufacturers of grain, though upon a smaller scale, the articles of starch, hair-powder, and wafers, may with great propriety be placed among those which are rated at fifteen per cent. No manufactures are more simple, nor more completely within the reach of a full supply from domestic sources; and it is a policy as common as it is obvious, to make them the objects either of prohibitory duties or of express prohibition. ne consumption of "scheve, of our, in this contribution is est

### FLAX AND HEMP.

The none besonation of consequence. Manufactures of these articles have so much affinity to each other, and they are so often blended, that they may, with advantage, be considered in conjunction. The importance of the linen branch to agriculture-its precious effects upon household industry-the ease with which the materials can be produced at home, to any requisite extent-the great advances which have been already made in the coarser fabrics of them, especially in the family way, constitute claims of peculiar force to the patronage of Govern-

This patronage may be afforded in various ways: by promoting the growth of the materials; by increasing the impediments to an advantageous competition of rival foreign articles; by direct bounties or premiums upon

First. As to promoting the growth of the materials.

In respect to hemp, something has been already done by the high duty upon foreign hemp. If the facilities for domestic production were not unusually great, the policy of the duty on the foreign raw material would be highly questionable, as interfering with the growth of manufactures of it. But making the proper allowances for those facilities, and with an eye to the future and natural progress of the country, the measure does not appear, upon the whole, exceptionable.

A strong wish naturally suggests itself, that some method could be devised of affording a more direct encouragement to the growth both of flax and hemp; such as would be effectual, and, at the same time, not attended with too great inconveniences. To this end, bounties and premiums offer themselves to consideration; but no modification of them has yet occurred, which would not either hazard too much expense, or operate unequally, in reference to the circumstances of different parts of the Union, and which would not be attended with very great difficulties in the execution.

Secondly. As to increasing the impediments to an advantageous competition of rival foreign articles.

To this purpose, an augmentation of the duties on importation is the obvious expedient which, in regard to certain articles, appears to be recommended by sufficient reasons.

The principal of these articles is sail-cloth; one intimately connected with navigation and defence; and of which a flourishing manufactory is established at Boston, and very premising ones at several other places.

It is presumed to be both safe and advisable to place this in the class of articles rated at ten per cent. A strong reason for it results from the consideration that a bounty of two pence sterling per ell is allowed in Great Britain, upon the exportation of the sail-cloth manufactured in that kingdom.

It would likewise appear to be good policy to raise the duty to  $7\frac{1}{2}$  per cent. on the following articles: Drillings, osnaburgs, ticklenburgs, dowlas, canvass, brown rolls, bagging, and upon all other linens, the first cost of which, at the place of exportation, does not exceed thirty-five cents per yard. A bounty of twelve and a half per cent., upon an average, on the exportation of such or similar linens from Great Britain, encourages the manufacture of them in that country, and increases the obstacles to a successful competition in the countries to which they are sent.

The quantities of tow and other household linens manufactured in different parts of the United States, and the expectations, which are derived from some late experiments, of being able to extend the use of labor-saving machines in the coarser fabrics of linen, obviate the danger of inconvenience from an increase of the duty upon such articles, and authorize a hope of speedy and complete success to the endeavors which may be used for procuring an internal supply.

Thirdly. As to direct bounties or premiums upon the manufactured articles. To afford more effectual encouragement to the manufacture, and at the same time to promote the cheapness of the article, for the benefit of navigation, it will be of great use to allow a bounty of two cents per yard on all sail-cloth which is made in the United States from materials of their own growth. This would also assist the culture of those materials. An encouragement of this kind, if adopted, ought to be established for a moderate term of years, to invite to new undertakings, and to an extension of the old. This is an article of importance enough to warrant the employment of extraordinary means in its favor.

## COTTON.

There is something in the texture of this material which adapts it, in a peculiar degree, to the application of machines. The signal utility of the mill for spinning of cotton, not long since invented in England, has been noticed in another place; but there are other machines scarcely inferior in utility, which, in the different manufactories of this article, are employed either exclusively or with more than ordinary effect. This very important

1791.]

circumstance recommends the fabrics of cotton, in a more particular manner, to a country in which a defect of hands constitutes the greatest obstacle to success.

The variety and extent of the uses to which the manufactures of this article are applicable, is another powerful argument in their favor.

And the faculty of the United States to produce the raw material in abundance, and of a quality which, though alleged to be inferior to some that is produced in other quarters, is nevertheless capable of being used with advantage in many fabrics, and is probably susceptible of being carried by a more experienced culture to much greater perfection, suggests an additional and a very cogent inducement to the vigorous pursuit of the cotton branch in its several subdivisions.

How much has been already done, has been stated in a preceding part of this report.

In addition to this, it may be announced that a society is forming, with a capital which is expected to be extended to at least half a million of dollars; on behalf of which, measures are already in train for prosecuting, on a large scale, the making and printing of cotton goods.

These circumstances conspire to indicate the expediency of removing any obstructions which may happen to exist to the advantageous prosecution of the manufactories in question, and of adding such encouragements as may appear necessary and proper.

The present duty of three cents per pound on the foreign raw material is undoubtedly a very serious impediment to the progress of those manufactories.

The injurious tendency of similar duties, either prior to the establishment, or in the infancy of the domestic manufacture of the article, as it regards the manufacture, and their worse than inutility in relation to the home production of the material itself, have been anticipated, particularly in discussing the subject of pecuniary bounties.

Cotton has not the same pretensions with hemp, to form an exception to the general rule.

Not being, like hemp, a universal production of the country, it affords less assurance of an adequate internal supply; but the chief objection arises from the doubts which are entertained concerning the quality of the national cotton. It is alleged that the fibre of it is considerably shorter and weaker than that of some other places; and it has been observed, as a general rule, that the nearer the place of growth to the equator, the better the quality of the cotton. That which comes from Cayenne, Surinam, and Demarara, is said to be preferable, even at a material difference of price, to the cotton of the islands.

While a hope may reasonably be indulged that, with due care and attention, the national cotton may be made to approach nearer than it now does to that of regions somewhat more favored by climate; and while facts authorize an opinion that very great use may be made of it, and that it is a resource which gives greater security to the cotton fabrics of this country than can be enjoyed by any which depends wholly on external supply, it will certainly be wise, in every view, to let our infant manufactures have the full benefit of the best materials on the cheapest terms. It is obvious that the necessity of having such materials is proportioned to the unskilfulness and inexperience of the workmen employed, who, if inexpert, will not fail to commit great waste, where the materials they are to work with are of an indifferent kind. To secure to the national manufacturers so essential an advantage, a repeal of the present duty on imported cotton is indispensable.

A substitute for this, far more encouraging to domestic production, will be to grant a bounty on the national cotton, when wrought at a home manufactory; to which a bounty on the exportation of it may be added. Either, or both, would do much more towards promoting the growth of the article than the merely nominal encouragement which it is proposed to abolish. The first would also have a direct influence in encouraging the manufacture.

The bounty which has been mentioned, as existing in Great Britain, upon the exportation of coarse linens not exceeding a certain value, applies, also, to certain descriptions of cotton goods of similar value.

This furnishes an additional argument for allowing to the national manufacturers the species of encouragement just suggested, and, indeed, for adding some other aid.

One cent per yard, not less than of a given width, on all goods of cotton, or of cotton and linen mixed, which are manufactured in the United States, with the addition of one cent per pound weight of the material, if made of national cotton, would amount to an aid of considerable importance, both to the production and to the manufacture of that valuable article. And it is conceived that the expense would be well justified by the magnitude of the object.

The printing and staining of cotton goods is known to be a distinct business from the fabrication of them. It is one easily accomplished; and which, as it adds materially to the value of the article in its white state, and prepares it for a variety of new uses, is of importance to be promoted.

As imported cottons, equally with those which are made at home, may be the objects of this manufacture, it will merit consideration, whether the whole, or a part, of the duty on the white goods ought not to be allowed to be drawn back in favor of those who print or stain them. This measure would certainly operate as a powerful encouragement to the business; and though it may, in a degree, counteract the original fabrication of the articles, it would probably more than compensate for this disadvantage in the rapid growth of a collateral branch, which is of a nature sooner to attain to maturity. When a sufficient progress shall have been made, the drawback may be abrogated; and, by that time, the domestic supply of the articles to be printed or stained will have been extended.

If the duty of seven and a half per cent. on certain kinds of cotton goods were extended to all goods of cotton, or of which it is the principal material, it would probably more than counterbalance the effect of the drawback proposed in relation to the fabrication of the article. And no material objection occurs to such an extension. The duty, then, considering all the circumstances which attend goods of this description, could not be deemed inconveniently high; and it may be inferred, from various causes, that the prices of them would still continue moderate.

Manufactories of cotton goods, not long since established at Beverly, in Massachusetts, and at Providence, in the State of Rhode Island, and conducted with a perseverance corresponding with the patriotic motives which began them, seem to have overcome the first obstacles to success: producing corderoys, velverets, fustians, jeans, and other similar articles, of a quality which will bear a comparison with the like articles brought from Manchester. The one at Providence has the merit of being the first in introducing into the United States the celebrated cotton mill, which not only furnishes materials for that manufactory itself, but for the supply of private families for household manufactures.

Other manufactories of the same material, as regular businesses, have also been begun at different places in the State of Connecticut, but all upon a smaller scale than those above mentioned. Some essays are also making in the printing and staining of cotton goods; there are several small establishments of this kind already on foot.

#### WOOL.

In a country, the climate of which partakes of so considerable a proportion of winter as that of a great part of the United States, the woollen branch cannot be regarded as inferior to any which relates to the clothing of the inhabitants.

Household manufactures of this material are carried on in different parts of the United States to a very interesting extent; but there is only one branch which, as a regular business, can be said to have acquired maturity: this is the making of hats.

Hats of wool, and of wool mixed with fur, are made in large quantities in different States; and nothing seems wanting but an adequate supply of materials to render the manufacture commensurate with the demand.

A promising essay towards the fabrication of cloths, cassimeres, and other woollen goods, is likewise going on at Hartford, in Connecticut. Specimens of the different kinds which are made, in the possession of the Secretary, evince that these fabrics have attained a very considerable degree of perfection. Their quality certainly surpasses any thing that could have been looked for in so short a time, and under so great disadvantages ; and conspires, with the scantiness of the means which have been at the command of the directors, to form the eulogium of that public spirit, perseverance, and judgment which have been able to accomplish so much.

To cherish and bring to maturity this precious embryo must engage the most ardent wishes, and proportionable regret, as far as the means of doing it may appear difficult or uncertain.

Measures which should tend to promote an abundant supply of wool of good quality, would probably afford the most efficacious aid that present circumstances permit.

To encourage the raising and improving the breed of sheep at home, would certainly be the most desirable expedient for that purpose; but it may not be alone sufficient, especially as it is yet a problem, whether our wool be capable of such a degree of improvement as to render it fit for the finer fabrics.

Premiums would probably be found the best means of promoting the domestic, and bounties the foreign supply. The first may be within the compass of the institution hereafter to be submitted; the last would require a specific legislative provision. If any bounties are granted, they ought, of course, to be adjusted with an eye to quality as well as quantity.

A fund for this purpose may be derived from the addition of two and a half per cent. to the present rate of duty on carpets and carpeting; an increase to which the nature of the articles suggests no objection, and which may, at the same time, furnish a motive the more to the fabrication of them at home, towards which some beginnings have been made.

#### SILK.

The production of this article is attended with great facility in most parts of the United States. Some pleasing essays are making in Connecticut as well towards that as towards the manufacture of what is produced. Stockings, handkerchiefs, ribands, and buttons are made, though as yet but in small quantities.

A manufactory of lace, upon a scale not very extensive, has been long memorable at Ipswich, in the State of Massachusetts.

An exemption of the material from the duty which it now pays on importation, and premiums upon the production, to be dispensed under the direction of the institution before alluded to, seem to be the only species of encouragement advisable at so early a stage of the thing.

#### GLASS.

The materials for making glass are found every where. In the United States there is no deficiency of them. The sands and stones called *tarso*, which include flinty and crystalline substances generally, and the salts of various plants, particularly of the sea-weed kali, or kelp, constitute the essential ingredients. An extraordinary abundance of fuel is a particular advantage enjoyed by this country for such manufactures. They, however, require large capitals, and involve much manual labor.

Different manufactories of glass are now on foot in the United States. The present duty of twelve and a half per cent. on all imported articles of glass, amounts to a considerable encouragement to those manufactories. If any thing in addition is judged eligible, the most proper would appear to be a direct bounty on window-glass and black bottles.

The first recommends itself as an object of general convenience; the last adds to that character the circumstance of being an important item in breweries. A complaint is made of great deficiency in this respect.

#### GUNPOWDER.

No small progress has been of late made in the manufacture of this very important article. It may, indeed, be considered as already established, but its high importance renders its further extension very desirable.

The encouragements which it already enjoys are, a duty of ten per cent. on the foreign rival article, and an exemption of saltpetrs, one of the principal ingredients of which it is composed, from duty. A like exemption of sulphur, another chief ingredient, would appear to be equally proper. No quantity of this article has yet been produced from internal sources. The use made of it in finishing the bottoms of ships, is an additional inducement to placing it in the class of free goods. Regulations for the careful inspection of the article would have a favorable tendency.

#### PAPER.

Manufactories of paper are among those which are arrived at the greatest maturity in the United States, and are post adequate to national supply. That of paper-hangings is a branch in which respectable progress has been made.

Nothing material seems wanting to the further success of this valuable branch, which is already protected by a competent duty on similar imported articles.

In the enumeration of the several kinds made subject to that duty, sheathing and cartridge paper have been omitted. These being the most simple manufactures of the sort, and necessary to military supply, as well as shipbuilding, recommend themselves equally with those of other descriptions,

VOL. 1.-9

to encouragement, and appear to be as fully within the compass of domestic exertions.

#### PRINTED BOOKS.

The great number of presses disseminated throughout the Union, seem to afford an assurance that there is no need of being indebted to foreign countries for the printing of the books which are used in the United States. A duty of ten per cent., instead of five, which is now charged upon the article, would have a tendency to aid the business internally.

It occurs, as an objection to this, that it may have an unfavorable aspect towards literature, by raising the prices of books in universal use in private families, schools, and other seminaries of learning; but the difference, it is conceived, would be without effect.

As to books which usually fill the libraries of the wealthier classes, and of professional men, such an augmentation of prices as might be occasioned by an additional duty of five per cent., would be too little felt to be an impediment to the acquisition.

And with regard to books which may be specially imported for the use of particular seminaries of learning, and of public libraries, a total exemption from duty would be advisable, which would go towards obviating the objection just mentioned. They are now subject to a duty of five per cent.

As to the books in most general family use, the constancy and universality of the demand would insure exertions to furnish them at home, and the means are completely adequate. It may also be expected ultimately, in this, as in other cases, that the extension of the domestic manufacture would conduce to the cheapness of the article.

It ought not to pass unremarked, that to encourage the printing of books, is to encourage the manufacture of paper.

#### REFINED SUGARS AND CHOCOLATE

Are among the number of extensive and prosperous domestic manufactures.

Drawbacks of the duties upon the materials of which they are respectively made, in cases of exportation, would have a beneficial influence upon the manufacture, and would conform to a precedent which has been already furnished in the instance of molasses, on the exportation of distilled spirits.

Cocoa, the raw material, now pays a duty of one cent per pound, while chocolate, which is a prevailing and very simple manufacture, is comprised in the mass of articles rated at no more than five per cent.

There would appear to be a propriety in encouraging the manufacture by a somewhat higher duty on its foreign rival than is paid on the raw material. Two cents per pound on imported chocolate would, it is presumed, be without inconvenience.

The foregoing heads comprise the most important of the several kinds of manufactures which have occurred as requiring, and, at the same time, as most proper for public encouragement; and such measures for affording it, as have appeared best calculated to answer the end, have been suggested.

The observations which have accompanied this delineation of objects supersede the necessity of many supplementary remarks. One or two, however, may not be altogether superfluous.

Bounties are, in various instances, proposed as one species of encouragement. 1791.]

It is a familiar objection to them, that they are difficult to be managed, and liable to frauds; but neither that difficulty nor this danger seems sufficiently great to countervail the advantages of which they are productive, when rightly applied; and it is presumed to have been shown that they are, in some cases, particularly in the infancy of new enterprises, indispensable.

It will, however, be necessary to guard, with extraordinary circumspection, the manner of dispensing them. The requisite precautions have been thought of; but to enter into the detail would swell this report, already voluminous, to a size too inconvenient.

If the principle shall not be deemed inadmissible, the means of avoiding an abuse of it will not be likely to present insurmountable obstacles. There are useful guides from practice in other quarters.

It shall, therefore, only be remarked here, in relation to this point, that any bounty which may be applied to the manufacture of an article, cannot, with safety, extend beyond those manufactories at which the making of the article is a regular trade. It would be impossible to annex adequate precautions to a benefit of that nature, if extended to every private family in which the manufacture was incidentally carried on; and its being a merely incidental occupation which engages a portion of time that would otherwise be lost, it can be advantageously carried on without so special an aid.

The possibility of a diminution of the revenue may also present itself as an objection to the arrangements which have been submitted.

But there is no truth which may be more firmly relied upon, than that the interests of the revenue are promoted by whatever promotes an increase of national industry and wealth.

In proportion to the degree of these, is the capacity of every country to contribute to the public treasury; and where the capacity to pay is increased, or even is not decreased, the only consequence of measures which diminish any particular resource, is a change of the object. If, by encouraging the manufacture of an article at home, the revenue which has been wont to accrue from its importation should be lessened, an indemnification can easily be found, either out of the manufacture itself, or from some other object which may be deemed more convenient.

The measures, however, which have been submitted, taken aggregately, will, for a long time to come, rather augment than decrease the public revenue.

There is little room to hope that the progress of manufactures will so equally keep pace with the progress of population as to prevent even a gradual augmentation of the product of the duties on imported articles.

As, nevertheless, an abolition, in some instances, and a reduction, in others, of duties which have been pledged for the public debt, is proposed, it is essential that it should be accompanied with a competent substitute. In order to this, it is requisite that all the additional duties which shall be laid be appropriated, in the first instance, to replace all defalcations which may proceed from any such abolition or diminution. It is evident, at first gence, that they will not only be adequate to this, but will yield a considerable surplus. This surplus will serve—

First. To constitute a fund for paying the bounties which have been decreed.

Secondly. To constitute a fund for the operations of a board to be established for promoting arts, agriculture, manufactures, and commerce. Of

this advante. They are woly invaluable.

this institution, different intimations have been given in the course of this report. An outline of a plan for it shall now be submitted.

Let a certain annual sum be set apart, and placed under the management of commissioners, not less than three, to consist of certain officers of the Government, and their successors in office.

Let these commissioners be empowered to apply the fund confided to them to defray the expenses of the emigration of artists, and manufacturers in particular branches of extraordinary importance; to induce the prosecution and introduction of useful discoveries, inventions, and improvements, by proportionate rewards, judiciously held out and applied; to encourage by premiums, both honorable and lucrative, the exertions of individuals and of classes, in relation to the several objects they are charged with promoting; and to afford such other aids to those objects as may be generally designated by law.

The commissioners to render to the Legislature an annual account of their transactions and disbursements; and all such sums as shall not have been applied to the purposes of their trust, at the end of every three years, to revert to the Treasury. It may also be enjoined upon them not to draw out the money, but for the purpose of some specific disbursement.

It may, moreover, be of use to authorize them to receive voluntary contributions, making it their duty to apply them to the particular objects for which they may have been made, if any shall have been designated by the donors.

There is reason to believe that the progress of particular manufactures has been much retarded by the want of skilful workmen; and it often happens that the capitals employed are not equal to the purposes of bringing from abroad workmen of a superior kind. Here, in cases worthy of it, the auxiliary agency of Government would, in all probability, be useful. There are also valuable workmen in every branch who are prevented from emigrating solely by the want of means. Occasional aids to such persons, properly administered, might be a source of valuable acquisitions to the country.

The propriety of stimulating by rewards the invention and introduction of useful improvements, is admitted without difficulty; but the success of attempts in this way must evidently depend much on the manner of conducting them. It is probable that the placing of the dispensation of those rewards under some proper discretionary direction, where they may be accompanied by collateral expedients, will serve to give them the surest efficacy. It seems impracticable to apportion, by general rules, specific compensations for discoveries of unknown and disproportionate utility.

The great use which may be made of a fund of this nature, to procure and import foreign improvements, is particularly obvious. Among these, the article of machines would form a most important item.

The operation and utility of premiums have been adverted to, together with the advantages which have resulted from their dispensation, under the direction of certain public and private societies. Of this, some experience has been had in the instance of the Pennsylvania Society for the Promotion of Manufactures and Useful Arts; but the funds of that association have been too contracted to produce more than a very small portion of the good to which the principles of it would have led. It may confidently be affirmed that there is scarcely any thing which has been devised, better calculated to excite a general spirit of improvement than the institutions of this nature. They are truly invaluable.

#### 1791.]

#### SECRETARY OF THE TREASURY.

In countries where there is great private wealth, much may be effected by the voluntary contributions of patriotic individuals; but in a community situated like that of the United States, the public purse must supply the deficiency of private resource. In what can it be so useful, as in prompting and improving the efforts of industry?

All which is humbly submitted.

ASSESSMENT THEY TON TONT

ALEXANDER HAMILTON, Secretary of the Treasury. TREASURY DEPARTMENT, December 5, 1791.

argurosent to prove time a pattor ought for

a different parts of the Timon, to come of

# ON THE ESTABLISHMENT OF A MINT.

# JANUARY, 1791.

In the House of Representatives of the United States.

# SATURDAY, MAY 5, 1791.

On motion,

Ordered, That the report of the Secretary of the Treasury, relatively to the establishment of a mint, which was made to this House on Friday, the 28th ultimo, be sent to the Senate for their information. Extract from the Journal. JOHN BECKLEY, Clerk.

The Secretary of the Treasury, having attentively considered the subject referred to him by the order of the House of Representatives, of the 15th day of April last, relative to the establishment of a mint, most respectfully submits the result of his inquiries and reflections.

A plan for an establishment of this nature involves a great variety of considerations, intricate, nice, and important. The general state of debtor and creditor ; all the relations and consequences of price ; the essential interests of trade and industry; the value of all property; the whole income, both of the State and of individuals, are liable to be sensibly influenced, beneficially or otherwise, by the judicious or injudicious regulation of this interesting object.

It is one, likewise, not more necessary than difficult to be rightly adjusted; one which has frequently occupied the reflections and researches of politicians, without having harmonized their opinions on some of the most important of the principles which enter into its discussion. Accordingly, different systems continue to be advocated, and the systems of different nations, after much investigation, continue to differ from each other.

But if a right adjustment of the matter be truly of such nicety and difficulty, a question naturally arises, whether it may not be most advisable to leave things, in this respect, in the state in which they are? Why, might it be asked, since they have so long proceeded in a train which has caused no general sensation of inconvenience, should alterations be attempted, the precise effect of which cannot with certainty be calculated ?

The answer to this question is not perplexing. The immense disorder which actually reigns in so delicate and important a concern, and the still greater disorder which is every moment possible, call loudly for a reform. The dollar originally contemplated in the money transactions of this country, by successive diminutions of its weight and fineness, has sustained a depreciation of five per cent.; and yet the new dollar has a currency, in all payments in place of the old, with scarcely any attention to the difference between them. The operation of this in depreciating the value of property depending upon past contracts, and (as far as inattention to the alteration in the coin may be supposed to leave prices stationary) of all other property, is apparent. Nor can it require argument to prove that a nation ought not to suffer the value of the property of its citizens to fluctuate with the fluctuations of a foreign mint, and to change with the changes in the regulations of a foreign sovereign. This, nevertheless, is the condition of one which, having no coins of its own, adopts with implicit confidence those of other countries.

The unequal values allowed, in different parts of the Union, to coins of the same intrinsic worth; the defective species of them which embarrass the circulation of some of the States; and the dissimilarity in their several moneys of account, are inconveniences which, if not to be ascribed to the want of a national coinage, will at least be most effectually remedied by the establishment of one : a measure that will, at the same time, give additional security against impositions by counterfeit as well as by base currencies.

It was with great reason, therefore, that the attention of Congress, under the late confederation, was repeatedly drawn to the establishment of a mint; and it is with equal reason that the subject has been resumed, now that the favorable change which has taken place in the situation of public affairs admits of its being carried into execution.

But, though the difficulty of devising a proper establishment ought not to deter from undertaking so necessary a work, yet it cannot but inspire diffidence in one, whose duty it is made to propose a plan for the purpose, and may perhaps be permitted to be relied upon as some excuse for any errors which may be chargeable upon it, or for any deviations from sounder principles which may have been suggested by others, or even in part acted upon by the former Government of the United States.

In order to a right judgment of what ought to be done, the following particulars require to be discussed :

1st. What ought to be the nature of the money unit of the United States? 2d. What the proportion between gold and silver, if coins of both metals are to be established?

3d. What the proportion and composition of alloy in each kind?

4th. Whether the expense of coinage shall be defrayed by the Government, or out of the material itself?

5th. What shall be the number, denominations, sizes, and devices of the coins?

6th. Whether foreign coins shall be permitted to be current or not; if the former, at what rate, and for what period?

A prerequisite to determining with propriety what ought to be the money unit of the United States, is to endeavor to form as accurate an idea as the nature of the case will admit of what it actually is. The pound, though of various value, is the unit in the money of account of all the States. But it is not equally easy to pronounce what is to be considered as the unit in the coins. There being no formal regulation on the point, (the resolutions of Congress of the 6th of July, 1785, and Sth of August, 1786, having never yet been carried into operation,) it can only be inferred from usage or practice. The manner of adjusting foreign exchanges would seem to indicate the dollar as best entitled to that character. In these, the old piastre of Spain, or old Seville piece of eight *rials*, of the value of four shillings and six-pence sterling, is evidently contemplated. The computed par between Great Britain and Pennsylvania will serve as an example. According to that, one hundred pounds sterling is equal to one hundred and sixty-six pounds and two-thirds of a pound, Pennsylvania currency; which corresponds with the proportion between 4s. 6d. sterling, and 7s. 6d. the current value of the dollar in that State, by invariable usage. And, as far as the information of the Secretary goes, the same comparison holds in the other States.

But this circumstance in favor of the dollar loses much of its weight from two considerations. That species of coin has never had any settled or standard value, according to weight or fineness, but has been permitted to circulate by tale, without regard to either, very much as a mere money of convenience; while gold has had a fixed price by weight, and with an eye to its fineness. This greater stability of value of the gold coins, is an argument of force for regarding the money unit as having been hitherto virtually attached to gold, rather than to silver.

Twenty-four grains and six-eighths of a grain of fine gold have corresponded with the nominal value of the dollar in the several States, without regard to the successive diminutions of its intrinsic worth.

But, if the dollar should, notwithstanding, be supposed to have the best title to being considered as the present unit in the coins, it would remain to determine what kind of dollar ought to be understood; or, in other words, what precise quantity of fine silver.

The old piastre of Spain, which appears to have regulated our foreign exchanges, weighed 17 dwt. 12 grains, and contained 386 grains and 15 mites of fine silver. But this piece has been long since out of circulation. The dollars now in common currency are of recent date, and much inferior to that, both in weight and fineness. The average weight of them, upon different trials, in large masses, has been found to be 17 dwt. 8 grains. Their fineness is less precisely ascertained ; the results of various assays made by different persons, under the direction of the late Superintendent of the Finances, and of the Secretary, being as various as the assays themselves. The difference between their extremes is not less than 24 grains in a dollar of the same weight and age; which is too much for any probable differences in the pieces. It is rather to be presumed, that a degree of inaccuracy has been occasioned by the want of proper apparatus, and, in general, of practice. The experiment which appears to have the best pretensions to exactness, would make the new dollar to contain 370 grains and 933 thousand parts of a grain of pure silver.

According to an authority on which the Secretary places reliance, the standard of Spain for its silver coin, in the year 1761, was 261 parts fine, and 27 parts alloy; at which proportion, a dollar of 17 dwt. 8 grains would consist of 377 grains of fine silver, and 39 grains of alloy. But there is no question that this standard has been since altered considerably for the worse; to what precise point, is not as well ascertained as could be wished; but, from a computation of the value of dollars in the markets both of Amsterdam and London, (a criterion which cannot materially mislead,) the new dollar appears to contain about 368 grains of fine silver and that which immediately preceded it about 374 grains.

In this state of things, there is some difficulty in defining the dollar, which is to be understood as constituting the present money unit, on the supposition of its being most applicable to that species of coin. The old Seville piece of 386 grains and 15 mites fine, comports best with the computations of foreign exchanges, and with the more ancient contracts respecting landed property; but far the greater number of contracts still in operation concerning that kind of property, and all those of a merely personal nature, now in force, must be referred to a dollar of a different kind. The actual dollar at the time of contracting, is the only one which can be supposed to have been intended; and it has been seen that, as long ago as the year 1761, there had been a material degradation of the standard. And even in regard to the more ancient contracts, no person has ever had any idea of a scruple about receiving the dollar of the day as a full equivalent for the nominal sum which the dollar originally imported.

A recurrence, therefore, to the ancient dollar, would be in the greatest number of cases an innovation *in fact*, and, in all, an innovation in respect to opinion. The actual dollar in common circulation has evidently a much better claim to be regarded as the actual money unit.

The mean intrinsic value of the different kinds of known dollars has been intimated as affording the proper criterion. But, when it is recollected that the more ancient and more valuable ones are not now to be met with at all in circulation, and that the mass of those generally current is composed of the newest and most inferior kinds, it will be perceived that even an equation of that nature would be a considerable innovation upon the real present state of things; which it will certainly be prudent to approach, as far as may be consistent with the permanent order designed to be introduced.

An additional reason for considering the prevailing dollar as the standard of the present money unit, rather than the ancient one, is, that it will not only be conformable to the true existing proportion between the two metals in this country, but will be more conformable to that which obtains in the commercial world generally.

The difference established by custom in the United States between coined gold and coined silver has been stated, upon another occasion, to be nearly as 1 to 15.6. This, if truly the case, would imply that gold was extremely overvalued in the United States; for the highest actual proportion, in any part of Europe, very little, if at all, exceeds 1 to 15; and the average proportion throughout Europe is probably not more than about 1 to 14.8. But that statement has proceeded upon the idea of the ancient dollar. One pennyweight of gold of twenty-two carats fine, at 6s. 8d., and the old Seville piece of 386 grains and 15 mites of pure silver, at 7s. 6d., furnish the exact ratio of 1 to 15.6262. But this does not coincide with the real difference between the metals in our market, or, which is with us the same thing, in our currency. To determine this, the quantity of fine silver in the general mass of the dollars now in circulation must afford the rule. Taking the rate of the late dollar of 374 grains, the proportion would be as 1 to 15.11. Taking the rate of the newest dollar, the proportion would then be as 1 to 14.87. The mean of the two would give the proportion of 1 to 15, very nearly; less than the legal proportion in the coins of Great Britain, which is as 1 to 15.2; but somewhat more than the actual or market proportion, which is not quite 1 to 15.

The preceding view of the subject does not indeed afford a precise or certain definition of the present unit in the coins, but it furnishes data which will serve as guides in the progress of the investigation. It ascertains, at least, that the sum in the money of account of each State, corresponding with the nominal value of the dollar in such State, corresponds also with 24 grains and  $\frac{a}{6}$  of a grain of fine gold; and with something between 368 and 374 grains of fine silver.

The next inquiry towards a right determination of what ought to be the future money unit of the United States, turns upon these questions: Whether it ought to be peculiarly attached to either of the metals, in preference to the other or not? and, if to either, to which of them?

The suggestions and proceedings hitherto have had for their object the annexing of it emphatically to the silver dollar. A resolution of Congress of the 6th of July, 1785, declares that the money unit of the United States shall be a dollar; and another resolution of the Sth of August, 1786, fixes that dollar at 375 grains and 64 hundredths of a grain of fine silver. The same resolution, however, determines that there shall also be two gold coins: one of 246 grains and 268 parts of a grain of pure gold, equal to ten dollars; and the other, of half that quantity of pure gold, equal to five dollars. And it is not explained whether either of the two species of coins, of gold or silver, shall have any greater legality in payments than the other. Yet it would seem that a preference in this particular is necessary to execute the idea of attaching the unit exclusively to one kind. If each of them be as valid as the other, in payments to any amount, it is not obvious in what effectual sense either of them can be deemed the money unit, rather than the other.

If the general declaration, that the dollar shall be the money unit of the United States, could be understood to give it a superior legality in payments, the institution of coins of gold, and the declaration that each of them shall be *equal* to a certain number of dollars, would appear to destroy that inference. And the circumstance of making the dollar the unit in the money of account, seems to be rather matter of form than of substance.

Contrary to the ideas which have heretofore prevailed, in the suggestions concerning a coinage for the United States, though not without much hesitation, arising from a deference for those ideas, the Secretary is, upon the whole, strongly inclined to the opinion, that a preference ought to be given to neither of the metals for the money unit. Perhaps, if either were to be preferred, it ought to be gold rather than silver.

The reasons are these:

The inducement to such a preference is, to render the unit as little variable as possible; because on this depends the steady value of all contracts, and, in a certain sense, of all other property. And it is truly observed, that if the unit belong indiscriminately to both the metals, it is subject to all the fluctuations that happen in the relative value which they bear to each other. But the same reason would lead to annexing it to that particular one, which is itself the least liable to variation; if there be, in this respect, any discernible difference between the two.

Gold may, perhaps, in certain senses, be said to have greater stability than silver; as, being of superior value, less liberties have been taken with it, in the regulations of different countries. Its standard has remained more uniform, and it has, in other respects, undergone fewer changes; as, being not so much an article of merchandise, owing to the use made of silver in the trade

1791.]

with the East Indies and China, it is less liable to be influenced by circumstances of commercial demand. And if, reasoning by analogy, it could be affirmed that there is a physical probability of greater proportional increase in the quantity of silver than in that of gold, it would afford an additional reason for calculating on greater steadiness in the value of the latter.

As long as gold, either from its intrinsic superiority as a metal, from its greater rarity, or from the prejudices of mankind, retains so considerable a pre-eminence in value over silver as it has hitherto had, a natural consequence of this seems to be, that its condition will be more stationary. The revolutions, therefore, which may take place in the comparative value of gold and silver, will be changes in the state of the latter, rather than in that of the former.

If there should be an appearance of too much abstraction in any of these ideas, it may be remarked that the first and most simple impressions do not naturally incline to giving a preference to the inferior or least valuable of the two metals.

It is sometimes observed, that silver ought to be encouraged rather than gold, as being more conducive to the extension of bank circulation, from the greater difficulty and inconvenience which its greater bulk, compared with its value, occasions in the transportation of it. But bank circulation is desirable, rather as an auxiliary to, than as a substitute for, that of the precious metals, and ought to be left to its natural course. Artificial expedients to extend it, by opposing obstacles to the other, are at least not recommended by any very obvious advantages. And, in general, it is the safest rule to regulate every particular institution or object, according to the principles which, in relation to itself, appear the most sound. In addition to this, it may be observed, that the inconvenience of transporting either of the metals is sufficiently great to induce a preference of bank paper, whenever it can be made to answer the purpose equally well.

But, upon the whole, it seems to be most advisable, as has been observed, not to attach the unit exclusively to either of the metals; because this cannot be done effectually, without destroying the office and character of one of them as money, and reducing it to the situation of a mere merchandise; which, accordingly, at different times, has been proposed from different and very respectable quarters; but which would probably be a greater evil than occasional variations in the unit, from the fluctuations in the relative value of the metals; especially if care be taken to regulate the proportion between them, with an eye to their average commercial value.

To annul the use of either of the metals as money, is to abridge the quantity of circulating medium, and is liable to all the objections which arise from a comparison of the benefits of a full, with the evils of a scarty, circulation,

It is not a satisfactory answer to say that none but the favored metal would, in this case, find its way into the country, as in that all balances must be paid. The practicability of this would, in some measure, depend on the abundance or scarcity of it in the country paying. Where there was but little, it either would not be procurable at all, or it would cost a premium to obtain it; which, in every case of a competition with others, in a branch of reade, would constitute a deduction from the profits of the party receiving. Perhaps, too, the embarrassments which such a circumstance might sometimes create, in the pecuniary liquidation of balances, might lead to additional efforts to find a substitute in commodities, and might so far impede the introduction of the metals. Neither could the exclusion of either of them be deemed, in other respects, favorable to commerce. It is often, in the course of trade, as desirable to possess the kind of money, as the kind of commodities best adapted to a foreign market.

It seems, however, most probable, that the chief, if not the sole, effect of such a regulation, would be to diminish the utility of one of the metals. It could hardly prove an obstacle to the introduction of that which was excluded in the natural course of trade, because it would always command a ready sale for the purpose of exportation to foreign markets. But such an effect, if the only one, is not to be regarded as a trivial inconvenience.

If, then, the unit ought not to be attached exclusively to either of the metals, the proportion which ought to subsist between them, in the coins, becomes a preliminary inquiry, in order to its proper adjustment. This proportion appears to be, in several views, of no inconsiderable moment.

One consequence of overvaluing either metal, in respect to the other, is the banishment of that which is undervalued. If two countries are supposed, in one of which the proportion of gold to silver is as 1 to 16, in the other as 1 to 15, gold being worth more, silver less, in one than in the other, it is manifest that, in their reciprocal payments, each will select that species which it values least, to pay to the other where it is valued most. Besides this, the dealers in money will, from the same cause, often find a profitable traffic in an exchange of the metals between the two countries. And hence it would come to pass, if other things were equal, that the greatest part of the gold would be collected in one, and the greatest part of the silver in the other. The course of trade might in some degree counteract the tendency of the difference in the legal proportions by the market value; but this is so far and so often influenced by the legal rates, that it does not prevent their producing the effect which is inferred. Facts, too, verify the inference. In Spain and England, where gold is rated higher than in other parts of Europe, there is a scarcity of silver; while it is found to abound in France and Holland, where it is rated higher in proportion to gold than in the neighboring nations. And it is continually flowing from Europe to China and the East Indies, owing to the comparative cheapness of it in the former, and dearness of it in the latter.

This consequence is deemed by some not very material; and there are even persons who, from a fanciful predilection to gold, are willing to invite it, even by a higher price. But general utility will best be promoted by a due proportion of both metals. If gold be most convenient in large payments, silver is best adapted to the more minute and ordinary circulation. But it is to be suspected that there is another consequence, more serious than the one which has been mentioned. This is the diminution of the

total quantity of specie which a country would naturally possess. It is evident that as often as a country, which overrates either of the metals, receives a payment in that metal, it gets a less actual quantity than it ought to do, or than it would do if the rate were a just one.

It is also equally evident, that there will be a continual effort to make payment to it in that species to which it has annexed an exaggerated estimation, wherever it is current at a less proportional value. And it would seem to be a very natural effect of these two causes, not only that the mass of the precious metals in the country in question would consist chiefly of that kind to which it had given an extraordinary *value*, but that it would be absolutely less than if they had been duly proportioned to each other.

A conclusion of this sort, however, is to be drawn with great caution. In

such matters, there are always some local, and many other particalar circumstances, which qualify and vary the operation of general principles, even where they are just; and there are endless combinations, very difficult to be analyzed, which often render principles, that have the most plausible pretensions, unsound and delusive.

There ought, for instance, according to those which have been stated, to have been formerly a greater quantity of gold in proportion to silver in the United States than there has been; because the actual value of gold in this country, compared with silver, was perhaps higher than in any other. But our situation in regard to the West India islands, into some of which there is a large influx of silver directly from the mines of South America, occasions an extraordinary supply of that metal, and consequently a greater proportion of it in our circulation than might have been expected from its relative value.

What influence the proportion under consideration may have upon the state of prices, and how far this may counteract its tendency to increase or lessen the quantity of the metals, are points not easy to be developed; and yet they are very necessary to an accurate judgment of the true operation of the thing.

But however impossible it may be to pronounce, with certainty, that the possession of a less quantity of specie is a consequence of overvaluing either of the metals, there is enough of probability in the considerations which seem to indicate it, to form an argument of weight against such overvaluation.

A third ill consequence resulting from it is, a greater and more frequent disturbance of the state of the money unit, by a greater and more frequent diversity between the legal and market proportions of the metals. This has not hitherto been experienced in the United States, but it has been experenced elsewhere; and from its not having been felt by us hitherto, it does not follow that this will not be the case hereafter, when our commerce shall have attained a maturity, which will place it under the influence of more fixed principles.

In establishing a proportion between the metals, there seems to be an option of one or two things-

To approach, as nearly as it can be ascertained, the mean or average proportion, in what may be called the commercial world; or,

To retain that which now exists in the United States. As far as these happen to coincide, they will render the course to be pursued more plain and more certain.

To ascertain the first, with precision, would require better materials than are possessed, or than could be obtained without an inconvenient delay.

Sir Isaac Newton, in a representation to the Treasury of Great Britain, in the year 1717, after stating the particular proportions in the different countries of Europe, concludes thus:—"By the course of trade and exchange between nation and nation, in all Europe, fine gold is to fine silver as  $14\frac{4}{3}$ , or 15 to 1."

But however accurate and decisive this authority may be deemed, in relation to the period to which it applies, it cannot be taken, at the distance of more than seventy years, as a rule for determining the existing proportion. Alterations have been since made in the regulations of their coins by several nations; which, as well as the course of trade, have an influence upon the market values. Nevertheless, there is reason to believe that the state of the matter, as represented by Sir Isaac Newton, is not very remote from its actual state.

In Holland, the greatest money market of Europe, gold was to silver, in December, 1789, as 1 to 14.88; and in that of London it has been, for some time past, but little different, approaching perhaps something nearer 1 to 15.

It has been seen that the existing proportion between the two metals in this country is about as 1 to 15.

It is fortunate, in this respect, that the innovations of the Spanish mint have imperceptibly introduced a proportion so analogous as this is to that which prevails among the principal commercial nations, as it greatly facilitates a proper regulation of the matter.

This proportion of 1 to 15 is recommended by the particular situation of our trade, as being very nearly that which obtains in the market of Great Britain; to which nation our specie is principally exported. A lower rate for either of the metals, in our market, than in hers, might not only afford a motive the more, in certain cases, to remit in specie rather than in commodities; but it might, in some others, cause us to pay a greater quantity of it for a given sum than we should otherwise do. If the effect should rather be to occasion a premium to be given for the metal which was underrated, this would obviate those disadvantages; but it would involve another, a customary difference between the market and legal proportions, which would amount to a species of disorder in the national coinage.

Looking forward to the payments of interest hereafter to be made to Holland, the same proportion does not appear ineligible. The present legal proportion in the coins of Holland is stated at 1 to  $14\frac{9}{10}$ . That of the market varies somewhat at different times, but seldom very widely from this point.

There can hardly be a better rule in any country, for the legal, than the market proportion, if this can be supposed to have been produced by the free and steady course of commercial principles. The presumption in such case is, that each metal finds its true level, according to its intrinsic utility, in the general system of money operations.

But it must be admitted that this argument in favor of continuing the existing proportion is not applicable to the state of the coins with us. There have been too many artificial and heterogeneous ingredients-too much want of order in the pecuniary transactions of this country-to authorize the attributing the effects which have appeared to the regular operations of commerce. A proof of this is to be drawn from the alterations which have happened in the proportion between the metals merely by the successive degradations of the dollar, in consequence of the mutability of a foreign mint. The value of gold to silver appears to have declined, wholly from this cause, from 15, to about 15 to 1; yet, as this last proportion, however produced, coincides so nearly with what may be deemed the commercial average, it may be supposed to furnish as good a rule as can be pursued.

The only question seems to be, whether the value of gold ought not to be a little lowered, to bring it to a more exact level with the two markets which have been mentioned; but, as the ratio of 1 to 15 is so nearly conformable to the state of those markets, and best agrees with that of our own, it will probably be found the most eligible. If the market of Spain continues to give a higher value to gold (as it has done in time past) than that which is recommended, there may be some advantage in a middle station.

A further preliminary to the adjustment of the future money unit is, to determine what shall be the proportion and composition of alloy in each species of the coins.

1791.]

The first, by the resolution of the Sth of August, 1786, before referred to, is regulated at one-twelfth, or, in other words, at 1 part alloy to 11 parts fine, whether gold or silver; which appears to be a convenient rule, unless there should be some collateral consideration which may dictate a departure from it. Its correspondency in regard to both metals is a recommendation of it, because a difference could answer no purpose of pecuniary or commercial utility; and uniformity is favorable to order.

This ratio, as it regards gold, coincides with the proportion, real or professed, in the coins of Portugal, England, France, and Spain. In those of the two former, it is real; in those of the two latter, there is a deduction for what is called *remedy of weight and alloy*; which is in the nature of an allowance to the master of the mint for errors and imperfections in the process, rendering the coin either lighter or baser than it ought to be. The same thing is known in the theory of the English mint, where <sup>1</sup> of a carat is allowed. But the difference seems to be, that *there* it is merely an occasional indemnity, within a certain limit, for real and unavoidable errors and imperfections; whereas, in the practice of the mints of France and Spain, it appears to amount to a stated and regular deviation from the nominal standard. Accordingly, the real standards of France and Spain are something worse than 22 carats, or 11 parts in 12 fine.

The principal gold coins in Germany, Holland, Sweden, Denmark, Poland, and Italy, are finer than those of England and Portugal, in different degrees, from 1 carat and  $\frac{1}{4}$  to 1 carat and  $\frac{7}{8}$ ; which last is within  $\frac{1}{8}$  of a carat of pure gold.

There are similar diversities in the standards of the silver coins of the different countries of Europe. That of Great Britain is 222 parts fine to 18 alloy; those of the other European nations vary from that of Great Britain as widely as from about 17 of the same parts better to 75 worse.

The principal reasons assigned for the use of alloy, are, the saving of expense in the refining of the metals, (which, in their natural state, are usually mixed with a portion of the coarser kinds;) and the rendering of them harder, as a security against too great waste by friction or wearing. The first reason, drawn from the original composition of the metals, is strengthened at present by the practice of alloying their coins, which has obtained among so many nations. The reality of the effect to which the last reason is applicable has been denied; and experience has been appealed to as proving that the more alloyed coins wear faster than the purer. The true state of this matter may be worthy of future investigation, though first appearances are in favor of alloy. In the mean time, the saving of trouble and expense is a sufficient inducement to following those examples which suppose its expediency : and the same considerations lead to taking as our models those nations with whom we have most intercourse, and whose coins are most prevalent in our circulation. These are Spain, Portugal, England, and France. The relation which the proposed proportion bears to their gold coins has been explained. In respect to their silver coins, it will not be very remote from the mean of their several standards.

The component ingredients of the alloy in each metal will also require to be regulated. In silver, copper is the only kind in use, and it is doubtless the only proper one. In gold, there is a mixture of silver and copper: in the English coins, consisting of equal parts; in the coins of some other countries, varying from  $\frac{1}{3}$  to  $\frac{2}{3}$  silver.

The reason of this union of silver with copper is this: the silver coun-

teracts the tendency of the copper to injure the color or beauty of the coin, by giving it too much redness, or rather a coppery hue, which a small quantity will produce; and the copper prevents the too great whiteness which silver alone would confer. It is apprehended that there are considerations which may render it prudent to establish, by law, that the proportion of silver to copper in the gold coins of the United States shall not be more than  $\frac{1}{2}$ , nor less than  $\frac{1}{3}$ ; vesting a discretion in some proper place to regulate the matter within those limits, as experience in the execution may recommend.

A third point remains to be discussed, as a prerequisite to the determination of the money unit, which is, whether the expense of coining shall be defrayed by the public, or out of the material itself; or, as it is sometimes stated, whether coinage shall be free, or shall be subject to a duty or imposition? This forms, perhaps, one of the nicest questions in the doctrine of money.

The practice of different nations is dissimilar in this particular. In England, coinage is said to be entirely free; the mint price of the metals in bullion being the same with the value of them in coin. In France, there is a duty, which has been, if it is not now, eight per cent. In Holland, there is a difference between the mint price and the value in the coins, which has been computed at .96, or something less than one per cent. upon gold; at 1.48, or something less than one and a half per cent. upon silver. The resolution of the 8th of August, 1786, proceeds upon the idea of a deduction of half per cent. from gold, and of two per cent. from silver, as an indemnification for the expense of coining. This is inferred from a report of the late board of treasury, upon which that resolution appears to have been founded.

Upon the supposition that the expense of coinage ought to be defrayed out of the metals, there are two ways in which it may be effected : one, by a reduction of the quantity of fine gold and silver in the coins; the other, by establishing a difference between the value of those metals in the coins, and the mint price of them in bullion.

The first method appears to the Secretary inadmissible. He is unable to distinguish an operation of this sort from that of raising the denomination of the coin; a measure which has been disapproved by the wisest men of the nations in which it has been practised, and condemned by the rest of the world. To declare that a less weight of gold or silver shall pass for the same sum, which before represented a greater weight; or to ordain that the same weight shall pass for a greater sum, are things substantially of one nature. The consequence of either of them, if the change can be realized, is to degrade the money unit; obliging creditors to receive less than their just dues, and depreciating property of every kind; for it is manifest that every thing would, in this case, be represented by a less quantity of gold and silver than before.

It is sometimes observed, on this head, that though any article of property might, in fact, be represented by a less actual quantity of pure metal, it would nevertheless be represented by something of the same intrinsic value. Every fabric, it is remarked, is worth intrinsically the price of the raw material and the expense of fabrication; a truth not less applicable to a piece of coin than to a yard of cloth.

This position, well founded in itself, is here misapplied. It supposes that the coins now in circulation are to be considered as bullion, or, in other words, as a raw material; but the fact is, that the adoption of them as

1791.]

money has caused them to become the fabric; it has invested them with the character and office of coins, and has given them a sanction and efficacy equivalent to that of the stamp of the sovereign. The prices of all our commodities at home and abroad, and of all foreign commodities in our markets, have found their level in conformity to this principle. The foreign coins may be *divested* of the privilege they have hitherto been permitted to enjoy, and may of course be *left* to find their value in the market as a raw material; but the quantity of gold and silver in the national coins, corresponding with a given sum, cannot be made less than heretofore, without disturbing the balance of intrinsic value, and making every acre of land, as well as every bushel of wheat, of less actual worth than in time past. If the United States were isolated, and cut off from all intercourse with the rest of mankind, this reasoning would not be equally conclusive; but it appears decisive when considered with a view to the relations which commerce has created between us and other countries.

It is, however, not improbable that the effect meditated would be defeated by a rise of prices proportioned to the diminution of the intrinsic value of the coins. This might be looked for in every enlightened commercial country; but, perhaps, in none with greater certainty than in this, because in none are men less liable to be the dupes of sounds; in none has authority so little resource for substituting names for things.

A general revolution in prices, though only nominally, and in appearance, could not fail to distract the ideas of the community; and would be apt to breed discontents, as well among all those who live on the income of their money, as among the poorer classes of the people, to whom the necessaries of life would seem to have become dearer. In the confusion of such a state of things, ideas of value would not improbably adhere to the old coins, which, from that circumstance, instead of feeling the effect of the loss of their privilege as money, would perhaps bear a price in the market relatively to the new ones, in exact proportion to weight. The frequency of the demand for the metals, to pay foreign balances, would contribute to this effect.

Among the evils attendant on such an operation, are these: creditors, both of the public and of individuals, would lose a part of their property; public and private credit would receive a wound; the effective revenues of the Government would be diminished. There is scarcely any point in the economy of national affairs, of greater moment than the uniform preservation of the intrinsic value of the money unit; on this, the security and steady value of property essentially depend.

The second method, therefore, of defraying the expense of the coinage out of the metals, is greatly to be preferred to the other. This is to let the same sum of money continue to represent in the new coins exactly the same quantity of gold and silver as it does in those now current; to allow at the mint such a price only for those metals as will admit of profit just sufficient to satisfy the expense of coinage; to abolish the legal currency of the foreign coins, both in public and private payments; and of course to leave the superior utility of the national coins, for domestic purposes, to operate the difference of market value which is necessary to induce the bringing of bullion to the mint. In this case, all property and labor will still be represented by the same quantity of gold and silver as formerly; and the only change which will be wrought, will consist in annexing the office of money exclusively to the national coins; consequently, withdrawing it from those of foreign countries, and suffering them to become, as they ought to be, mere articles of merchandise. The arguments in favor of a regulation of this kind are : First. That the want of it is a cause of extra expense : there being then no motive of individual interest to distinguish between the national coins and bullion, they are, it is alleged, indiscriminately melted down for domestic manufactures, and exported for the purposes of foreign trade; and it is added, that when the coins become light by wearing, the same quantity of fine gold or silver bears a higher price in bullion than in the coins; in which state of things, the melting down of the coins to be sold as bullion is attended with profit; and from both causes, the expense of the mint, or, in other words, the expense of maintaining the specie capital of the nation, is materially augmented.

Secondly. That the existence of such a regulation promotes a favorable course of exchange, and benefits trade; not only by that circumstance, but by obliging foreigners, in certain cases, to pay dearer for domestic commodities, and to sell their own cheaper.

As far as relates to the tendency of a free coinage to produce an increase of expense in the different ways that have been stated, the argument must be allowed to have foundation, both in reason and in experience. It describes what has been exemplified in Great Britain.

The effect of giving an artificial value to bullion, is not at first sight obvious; but it actually happened at the period immediately preceding the late reformation in the gold coin of the country just named. A pound troy in gold bullion, of standard fineness, was then from 19s. 6d. to 25s. sterling dearer than an equal weight of guineas, as delivered at the mint. The phenomenon is thus accounted for—the old guineas were more than two per cent. lighter than their *standard weight*. This *weight*, therefore, in bullion, was truly worth two per cent. more than those guineas. It consequently had, in respect to them, a correspondent rise in the market.

And as guineas were then current by *tale*, the new ones, as they issued from the mint, were confounded in circulation with the old ones; and, by the association, were depreciated below their intrinsic value, in comparison with bullion. It became, of course, a profitable traffic to sell bullion for coin, to select the light pieces, and re-issue them in currency, and to melt down the heavy ones, and sell them again as bullion. This practice, besides other inconvenience at the first sector.

inconveniences, cost the Government large sums in the renewal of the coins. But the remainder of the argument stands upon ground far more questionable. It depends upon very numerous and very complex combinations, in which there is infinite latitude for fallacy and error.

The most plausible part of it is that which relates to the course of exchange. Experience in France has shown that the market price of bullion has been influenced by the mint difference between that and coin—sometimes to the full extent of the difference; and it would seem to be a clear inference, that whenever that difference materially exceeded the charges of remitting bullion from the country where it existed, to another in which coinage was free, exchange would be in favor of the former.

If, for instance, the balance of trade between France and England were at any time equal, their merchants would naturally have reciprocal payments to make to an equal amount, which, as usual, would be liquidated by means of bills of exchange. If, in this situation, the difference between coin and bullion should be in the market, as at the mint of France, eight per cent.; if, also, the charges of transporting money from France to England should not be above two per cent.; and if exchange should be at par, it is evident that a profit of six per cent. might be made, by sending bullion from France

1791.]

VOL. 1.-10

to England, and drawing bills for the amount. One hundred louis d'ors in coin, would purchase the weight of one hundred and eight in bullion; one hundred of which, remitted to England, would suffice to pay a debt of an equal amount; and two being paid for the charges of insurance and transportation, there would remain six for the benefit of the person who should manage the negotiation. But as so large a profit could not fail to produce competition, the bills, in consequence of this, would decrease in price, till the profit was reduced to the *minimum* of an adequate recompense for the trouble and risk. And, as the amount of one hundred louis-d'ors in England might be afforded for ninety-six in France, with a profit of more than one and a half per cent., bills upon England might fall in France to four per cent. below par; one per cent. being a sufficient profit to the exchanger or broker for the management of the business.

But it is *admitted* that this advantage is lost, when the balance of trade is against the nation which imposes the duty in question; because, by increasing the demand for bullion, it brings this to a par with the coins; and it is to be *suspected*, that where commercial principles have their free scope, and are well understood, the market difference between the metals in coin and bullion will seldom approximate to that of the mint, if the latter be considerable. It must be not a little difficult to keep the money of the world, which can be employed to an equal purpose in the commerce of the world, in a state of degradation, in comparison with the money of a particular country.

This alone would seem sufficient to prevent it: whenever the price of coin to bullion in the market, materially exceeded the par of the metals, it would become an object to send the bullion abroad, if not to pay a foreign balance, to be invested in some other way in foreign countries, where it bore a superior value; an operation by which immense fortunes might be amassed, if it were not that the exportation of the bullion would, of itself, restore the intrinsic par. But, as it would naturally have this effect, the advantage supposed would contain in itself the principle of its own destruction. As long, however, as the exportation of bullion could be made with profit, (which is as long as exchange could remain below par,) there would be a drain of the gold and silver of the country.

If any thing can maintain, for a length of time, a material difference between the value of the metals in coin and in bullion, it must be a constant and considerable balance of trade in favor of the country in which it is maintained. In one situated like the United States, it would in all probability be a hopeless attempt. The frequent demand for gold and silver, to pay balances to foreigners, would tend powerfully to preserve the equilibrium of intrinsic value.

The prospect is, that it would occasion foreign coins to circulate, by common consent, nearly at par with the national.

To say that as far as the effect of lowering exchange is produced, though it be only occasional and momentary, there is a benefit the more thrown into the scale of public prosperity, is not satisfactory. It has been seen, that it may be productive of one evil—the investment of a part of the national capital in foreign countries; which can hardly be beneficial but in a situation like that of the United Netherlands, where an immense capital, and a decrease of internal demand, render it necessary to find employment for money in the wants of other nations; and, perhaps, on a close examination, other evils may be descried.

147

One allied to that which has been mentioned, is this—taking France, for the sake of more concise illustration, as the scene. Whenever it happens that French louis-d'ors are sent abroad, from whatever cause, if there be a considerable difference between coin and bullion in the market of France, it will constitute an advantageous traffic to send back these louis-d'ors, and bring away bullion in lieu of them; upon all which exchanges, France must sustain an actual loss of a part of its gold and silver.

Again : such a difference between coin and bullion may tend to counteract a favorable balance of trade. Whenever a foreign merchant is the carrier of his own commodities to France for sale, he has a strong inducement to bring back specie, instead of French commodities; because a return in the latter may afford no profit, may even be attended with loss; in the former, it will afford a certain profit. The same principle must be supposed to operate in the general course of remittances from France to other countries. The principal question with a merchant naturally is, in what manner can I realize a given sum, with most advantage, where I wish to place it? And, in cases in which other commodities are not likely to produce equal profit with bullion, it may be expected that this will be preferred; to which, the greater certainty attending the operation must be an additional incitement. There can hardly be imagined a circumstance less friendly to trade, than the existence of an extra inducement arising from the possibility of a profitable speculation upon the articles themselves, to export from a country its gold and silver, rather than the products of its land and labor.

The other advantages supposed, of obliging foreigners to pay dearer for domestic commodities, and to sell their own cheaper, are applied to a situation which includes a favorable balance of trade. It is understood in this sense : the prices of domestic, commodities (such, at least, as are peculiar to the country) remain attached to the denominations of the coins. When a favorable balance of trade realizes in the market the mint difference between coin and bullion, foreigners, who must pay in the latter, are obliged to give more of it for such commodities than they otherwise would do. Again : the bullion, which is now obtained at a cheaper rate in the home market, will procure the same quantity of goods in the foreign market as before, which is said to render foreign commodities cheaper. In this reasoning, much fallacy is to be suspected. If it be true that foreigners pay more for domestic commodities, it must be equally true that they get more for their own when they bring them themselves to market. If peculiar, or other domestic commodities adhere to the denominations of the coins, no reason occurs why foreign commodities of a like character should not do the same thing; and in this case, the foreigner, though he receive only the same value in coin for his merchandise as formerly, can convert it into a greater quantity of bullion. Whence the nation is liable to lose more of its gold and silver than if their intrinsic value in relation to the coins were preserved. And whether the gain or the loss will, on the whole, preponderate, would appear to depend on the comparative proportion of active commerce of the one country with the other.

It is evident, also, that the nation must pay as much gold and silver as before, for the commodities which it procures *abroad*; and whether it obtains this gold and silver cheaper, or not, turns upon the solution of the question just intimated, respecting the relative proportion of active commerce between the two countries.

Besides these considerations, it is admitted in the reasoning, that the ad-

vantages supposed, which depend on a 'favorable balance of trade, have a tendency to affect that balance disadvantageously. Foreigners, it is allowed, will in this case seek some other vent for their commodities, and some other market where they can supply their wants at an easier rate. A tendency of this kind, if real, would be a sufficient objection to the regulation. Nothing, which contributes to change a beneficial current of trade, can well compensate, by particular advantages, for so injurious an effect. It is far more easy to transfer trade from a less to a more favorable channel, than, when once transferred, to bring it back to its old one. Every source of artificial interruption to an advantageous current is, therefore, cautiously to be avoided.

It merits attention, that the able minister who lately and so long presided over the finances of France does not attribute to the duty of coinage in that country any particular advantages in relation to exchange and trade. Though he rather appears an advocate for it, it is on the sole ground of the revenue it affords, which he represents as in the nature of a very moderate duty on the general mass of exportation.

And it is not improbable that, to the singular felicity of situation of that kingdom, is to be attributed its not having been sensible of the evils which seem incident to the regulation. There is, perhaps, no part of Europe which has so little need of other countries as France. Comprehending a variety of soils and climates, an immense population, its agriculture in a state of mature improvement, it possesses within its own bosom most, if not all, the productions of the earth, which any of its most favored neighbors can boast. The variety, abundance, and excellence of its wines, constitute a peculiar advantage in its favor. Arts and manufactures are there also in a very advanced state; some of them, of considerable importance, in higher perfection than elsewhere. Its contiguity to Spain; the intimate nature of its connexion with that country; a country with few fabrics of its own, consequently numerous wants, and the principal receptacle of the treasures of the new world: these circumstances concur in securing to France so uniform and so considerable a balance of trade, as in a great measure to counteract the natural tendency of any errors which may exist in the system of her mint; and to render inferences from the operation of that system there, in reference to this country, more liable to mislead than to instruct. Nor ought it to pass unnoticed, that, with all these advantages, the Government of France has found it necessary, on some occasions, to employ very violent methods to compel the bringing of bullion to the mint; a circumstance which affords a strong presumption of the inexpediency of the regulation, and of the impracticability of executing it in the United States.

This point has been the longer dwelt upon, not only because there is a diversity of opinion among speculative men concerning it, and a diversity in the practice of the most considerable commercial nations, but because the acts of our own Government, under the confederation, have not only admitted the expediency of defraying the expense of coinage out of the metals themselves, but upon this idea have both made a deduction from the weight of the coins, and established a difference between their regulated value and the mint price of bullion, greater than would result from that deduction. This double operation in favor of a principle so questionable in itself, has made a more particular investigation of it a duty.

The intention, however, of the preceding remarks, is rather to show that the expectation of commercial advantages ought not to decide in favor of a
duty of coinage, and that, if it should be adopted, it ought not to be in the form of a deduction from the intrinsic value of the coins, than absolutely to exclude the idea of any difference whatever between the value of the metals in coin and in bullion. It is not clearly discerned that a small difference between the mint price of bullion, and the regulated value of the coins, would be pernicious, or that it might not even be advisable, in the first instance, by way of experiment, merely as a preventive to the melting down and exportation of the coins. This will now be somewhat more particularly considered.

The arguments for a coinage entirely free, are, that it preserves the intrinsic value of the metals; that it makes the expense of fabrication a general instead of a partial tax; and that it tends to promote the abundance of gold and silver, which, it is alleged, will flow to that place where they find the best price, and from that place where they are in any degree undervalued.

The first consideration has not much weight, as an objection to a plan which, without diminishing the quantity of metals in the coins, merely allows a less price for them in bullion at the national factory or mint. No rule of intrinsic value is violated, by considering the raw material as worth less than the fabric, in proportion to the expense of fabrication. And by divesting foreign coins of the privilege of circulating as money, they become the raw material.

The second consideration has perhaps greater weight. But it may not amount to an objection, if it be the best method of preventing disorders in the coins, which it is in a particular manner the interest of those on whom the tax would fall to prevent. The practice of taking gold by weight, which has of late years obtained in Great Britian, has been found, in some degree, a remedy; but this is inconvenient, and may on that account fall into disuse. Another circumstance has had a remedial operation. This is the delays of the mint. It appears to be the practice there, not to make payment for the bullion which is brought to be exchanged for coin, till it either has in fact, or is pretended to have, undergone the process of recoining.

The necessity of fulfilling prior engagements is a cause or pretext for postponing the delivery of the coin in lieu of the bullion. And this delay creates a difference in the market price of the two things. Accordingly, for some years past, an ounce of standard gold, which is worth in coin £3 17s.  $10\frac{1}{2}d$ . sterling, has been in the market of London, in bullion, only £3 17s. 6d, which is within a small fraction of one-half per cent. less. Whether this be management in the mint, to accommodate the bank in the purchase of bullion, or to effect indirectly something equivalent to a formal difference of price, or whether it be the natural course of the business, is open to conjecture.

It at the same time indicates that if the mint were to make prompt payment, at about half per cent, less than it does at present, the state of bullion, in respect to coin, would be precisely the same as it now is. And it would be then certain that the Government would save expense in the coinage of gold; since it is not probable that the time actually lost in the course of the year, in converting bullion into coin, can be an equivalent to half per cent. on the advance, and there will generally be at the command of the Treasnry a considerable sum of money waiting for some periodical disbursement, which, without hazard, might be applied to that advance.

In what sense a free coinage can be said to promote the abundance of gold and silver, may be inferred from the instances which have been given of the tendency of a contrary system to promote their exportation. It is, however, not probable that a very small difference of value between coin and bullion can have any effect which ought to enter into calculation. There can be no inducement of positive profit to export the bullion, as long as the difference of price is exceeded by the expense of transportation. And the prospect of smaller loss upon the metals than upon commodities, when the difference is very minute, will be frequently overbalanced by the possibility of doing better with the latter, from a rise of markets. It is, at any rate, certain, that it can be of no consequence, in this view, whether the superiority of coin to bullion in the market be produced, as in England, by the delay of the mint, or by a formal discrimination in the regulated values.

Under an impression that a *small* difference between the value of the coin and the mint price of bullion is the least exceptionable expedient for restraining the melting down or exportation of the former, and not perceiving that, if it be a very moderate one, it can be hurtful in other respects, the Secretary is inclined to an experiment of one-half per cent. on each of the metals. The fact which has been mentioned, with regard to the price of gold bullion in the English market, seems to demonstrate that such a difference may safely be made. In this case, there must be immediate payment for the gold and silver offered to the mint. How far one-half per cent. will go towards defraying the expense of the coinage, cannot be determined before-hand, with accuracy. It is presumed that, on an economical plan, it will suffice in relation to gold. But it is not expected that the same rate on silver will be sufficient to defray the expense attending that metal. Some additional provision may therefore be found necessary, if this limit be adopted.

It does not seem to be advisable to make any greater difference in regard to silver than to gold; because it is desirable that the proportion between the two metals in the market should correspond with that in the coins, which would not be the case if the mint price of one was comparatively lower than that of the other; and because, also, silver being proposed to be rated, in respect to gold, somewhat below its general commercial value, if there should be a disparity to its disadvantage in the mint prices of the two metals, it would obstruct too much the bringing of it to be coined, and would add an inducement to export it. Nor does it appear to the Secretary safe to make a greater difference between the value of coin and bullion than has been mentioned. It will be better to have to increase it hereafter, if this shall be found expedient, than to have to recede from too considerable a difference, in consequence of evils which shall have been experienced.

It is sometimes mentioned, as an expedient which, consistently with a free coinage, may serve to prevent the evils desired to be avoided, to incorporate in the coins a greater proportion of alloy than is usual; regulating their value, nevertheless, according to the quantity of pure metal they contain. This, it is supposed, by adding to the difficulty of refining them, would cause bullion to be preferred both for manufacture and exportation.

But strong objections lie against this scheme:—an augmentation of expense; an actual depreciation of the coin; a danger of still greater depreciation in the public opinion; the facilitating of counterfeits; while it is questionable whether it would have the effect expected from it.

The alloy being esteemed of no value, an increase of it is evidently an increase of expense. This, in relation to the gold coins, particularly, is a matter of moment. It has been noted, that the alloy in them consists partly of silver. If, to avoid expense, the addition should be of copper only, this

would spoil the appearance of the coin, and give it a base countenance. Its beauty would, indeed, be injured, though in a less degree, even if the usual proportions of silver and copper should be maintained in the increased quantity of alloy.

And however inconsiderable an additional expenditure of copper in the coinage of a year may be deemed, in a series of years it would become of consequence. In regulations which contemplate the lapse and operation of ages, a very small item of expense acquires importance.

The actual depreciation of the coin by an increase of alloy, results from the very circumstance which is the motive to it—the greater difficulty of refining. In England, it is customary for those concerned in manufactures of gold to make a deduction in the price of four pence sterling per ounce, of fine gold, for every carat which the mass containing it is below the legal standard. Taking this as a rule, an inferiority of a single carat, or one twenty-fourth part in the gold coins of the United States, compared with the English standard, would cause the *same quantity* of pure gold in them to be worth nearly four-tenths per cent. less than in the coins of Great Britain. This circumstance would be likely, in process of time, to be felt in the market of the United States.

A still greater depreciation, in the public opinion, would be to be apprehended from the *apparent* debasement of the coin. The effects of imagination and prejudice cannot safely be disregarded in any thing that relates to money. If the beauty of the coin be impaired, it may be found difficult to satisfy the generality of the community that what appears worst is not really less valuable; and it is not altogether certain that an impression of its being so may not occasion an unnatural augmentation of prices.

Greater danger of imposition, by counterfeits, is also to be apprehended from the injury which will be done to the appearance of the coin. It is a just observation, that "the perfection of the coins is a great safeguard against counterfeits." And it is evident that the color, as well as the excellence of the workmanship, is an ingredient in that perfection. The intermixture of too much alloy, particularly of copper, in the gold coins at least, must materially lessen the facility of distinguishing, by the eye, the purer from the baser kind, the genuine from the counterfeit.

The inefficacy of the arrangement to the purpose intended to be answered by it, is rendered probable by different considerations. If the standard of plate in the United States should be regulated according to that of the national coins, it is to be expected that the goldsmith would prefer these to the foreign coins, because he would find them prepared to his hand, in the state which he desires; whereas he would have to expend an additional quantity of alloy to bring the foreign coins to that state. If the standard of plate, by law or usage, should be superior to that of the national coins, there would be a possibility of the foreign coins bearing a higher price in the market; and this would not only obstruct their being brought to the mint, but might occasion the exportation of the national coin in preference. It is not understood that the practice of making an abatement of price for the inferiority of standard is applicable to the English mint; and if it be not, this would also contribute to frustrating the expected effect from the increase of alloy. For, in this case, a given quantity of pure metal, in our standard, would be worth as much there as in bullion of the English or any other standard.

Considering, therefore, the uncertainty of the success of the expedient,

1791.]

and the inconveniences which seem incident to it, it would appear preferable to submit to those of a free coinage. It is observable that additional expense, which is one of the principal of these, is also applicable to the proposed remedy.

It is now proper to resume and finish the answer to the first question, in order to which the three succeeding ones have necessarily been anticipated. The conclusion to be drawn from the observations which have been made on the subject, is this: That the unit, in the coins of the United States, ought to correspond with 24 grains and  $\frac{3}{4}$  of a grain of pure gold, and with 371 grains and  $\frac{1}{4}$  of a grain of pure silver, each answering to a dollar in the money of account. The former is exactly agreeable to the present value of gold, and the latter is within a small fraction of the mean of the two last emissions of dollars—the only ones which are now found in common circulation, and of which the newest is in the greatest abundance. The alloy in each case to be one-twelfth of the total weight, which will make the unit 27 grains of standard gold, and 405 grains of standard silver.

Each of these, it has been remarked, will answer to a dollar in the money of account. It is conceived that nothing better can be done in relation to this, than to pursue the track marked out by the resolution of the 8th of August, 1786. This has been approved abroad as well as at home; and it is certain that nothing can be more simple or convenient than the decimal subdivisions. There is every reason to expect that the method will speedily grow into general use, when it shall be seconded by corresponding coins. On this plan, the unit in the money of account will continue to be, as established by that resolution, a dollar; and its multiples, dimes, cents, and mills, or tenths, hundredths, and thousandths.

With regard to the number of different pieces which shall compose the coins of the United States, two things are to be consulted—convenience of circulation, and cheapness of the coinage. The first ought not to be sacrificed to the last; but as far as they can be reconciled to each other, it is desirable to do it. Numerous and small (if not too minute) subdivisions assist circulation; but the multiplication of the smaller kinds increases expense; the same process being necessary to a small as to a large piece.

As it is easy to add, it will be most advisable to begin with a small number, till experience shall decide whether any other kinds are necessary. The following, it is conceived, will be sufficient in the commencement:

One gold piece, equal in weight and value to ten units or dollars.

One gold piece, equal to a tenth part of the former, and which shall be a unit or dollar.

One silver piece, which shall also be a unit or dollar.

One silver piece, which shall be, in weight and value, a tenth part of the silver unit or dollar.

One copper piece, which shall be of the value of a hundredth part of a dollar.

One other copper piece, which shall be half the value of the former.

It is not proposed that the lightest of the two gold coins should be numerous, as, in large payments, the larger the pieces the shorter the process of counting, the less risk of mistake, and, consequently, the greater the safety and the convenience; and, in small payments, it is not perceived that any inconvenience can accrue from an entire dependance on the silver and copper coins. The chief inducement to the establishment of the small gold piece is to have a sensible object in that metal, as well as in silver, to express the unit. Fifty thousand at a time in circulation may suffice for this purpose.

The tenth part of a dollar is but a small piece, and, with the aid of the copper coins, will probably suffice for all the more minute uses of circulalation. It is less than the least of the silver coins now in general currency in England.

The largest copper piece will nearly answer to the half-penny sterling, and the smallest, of course, to the farthing. Pieces of very small value are a great accommodation, and the means of a beneficial economy to the poor, by enabling them to purchase, in small portions, and at a more reasonable rate, the necessaries of which they stand in need. If there are only cents, the lowest price for any portion of a vendible commodity, however inconsiderable in quantity, will be a cent; if there are half cents, it will be a halfcent; and, in a great number of cases, exactly the same things will be sold for a half-cent which, if there were none, would cost a cent. But a halfcent is low enough for the *minimum* of price. Excessive minuteness would defeat its object. To enable the poorer classes to procure necessaries cheap, is to enable them, with more comfort to themselves, to labor for less; the advantages of which need no comment.

The denominations of the silver coins contained in the resolution of the 8th of August, 1786, are conceived to be significant and proper. The dollar is recommended by its correspondency with the present coin of that name, for which it is designed to be a substitute, which will facilitate its ready adoption as such in the minds of the citizens. The dime, or tenth, the cent, or hundredth, the mill, or thousandth, are proper, because they express the proportions which they are intended to designate. It is only to be regretted that the meaning of these terms will not be familiar to those who are not acquainted with the language from which they are borrowed. It were to be wished that the length, and, in some degree, the clumsiness, of some of the corresponding terms in English did not discourage from preferring them. It is useful to have names which signify the things to which they belong; and, in respect to objects of general use, in a manner intelli-gible to all. Perhaps it might be an improvement to let the dollar have the appellation either of dollar or unit, (which last will be the most significant,) and to substitute "tenth" for dime. In time, the unit may succeed to the dollar. The word "cent," being in use in various transactions and instruments, will, without much difficulty, be understood as the hundredth ; and the half-cent, of course, as the two hundredth part.

The eagle is not a very expressive or apt appellation for the largest gold piece; but nothing better occurs. The smallest of the two gold coins may be called the dollar or unit, in common with the silver piece, with which it coincides.

The volume or size of each piece is a matter of more consequence than its denomination. It is evident that the more superficies or surface, the more the piece will be liable to be injured by friction; or, in other words, the faster it will wear. For this reason, it is desirable to render the thickness as great, in proportion to the breadth, as may consist with neatness and good appearance. Hence, the form of the double guinea, or double louis-d'or, is preferable to that of the half johannes for the large gold piece. The small one cannot well be of any other size than the Portuguese piece of eight, of the same metal. As it is of consequence to fortify the idea of the identity of the dollar, it may be best to let the form and size of the new one, as far as the quantity of matter (the alloy being less) permits, agree with the form and size of the present; the diameter may be the same.

The tenth may be in a mean between the Spanish  $\frac{1}{8}$  and  $\frac{1}{16}$  of a dollar. The copper coins may be formed merely with a view to good appearance, as any difference in the wearing that can result from difference of form can be of little consequence in reference to that metal.

It is conceived that the weight of the cent may be eleven pennyweights; which will about correspond with the value of the copper and the expense of coinage. This will be to conform to the rule of intrinsic value, as far as regard to the convenient size of the coins will permit; and the deduction of the expense of coinage in this case will be the more proper, as the copper coins, which have been current hitherto, have passed till lately for much more than their intrinsic value. Taking the weight as has been suggested, the size of the cent may be nearly that of the piece herewith transmitted, which weighs 10dwt. 11grs. 10m. Two-thirds of the diameter of the cent will suffice for the diameter of the half-cent.

It may, perhaps, be thought expedient, according to general practice, to make the copper coinage an object of profit; but, where this is done to any considerable extent, it is hardly possible to have effectual security against counterfeits. This consideration, concurring with the soundness of the principle of preserving the intrinsic value of the money of a country, seems to outweigh the consideration of profit.

The foregoing suggestions, respecting the sizes of the several coins, are made on the supposition that the Legislature may think fit to regulate this matter. Perhaps, however, it may be judged not unadvisable to leave it to executive discretion.

With regard to the proposed size of the cent, it is to be confessed that it is rather greater than might be wished, if it could, with propriety and safety, be made less; and should the value of copper continue to decline, as it has done for some time past, it is very questionable whether it will long remain alone a fit metal for money. This has led to a consideration of the expediency of uniting a small proportion of silver with the copper, in order to be able to lessen the bulk of the inferior coins. For this, there are precedents in several parts of Europe. In France, the composition which is called billon has consisted of one part silver and four parts copper; according to which proportion, a cent might contain seventeen grains, defraying out of the material the expense of coinage. The conveniency of size is a recommendation of such a species of coin ; but the Secretary is deterred from proposing it by the apprehension of counterfeits. The effect of so small a quantity of silver, in comparatively so large a quantity of copper, could easily be imitated by a mixture of other metals of little value, and the temptation to doing it would not be inconsiderable.

The devices of the coins are far from being matters of indifference, as they may be made the vehicles of useful impressions. They ought, therefore, to be emblematical, but without losing sight of simplicity. The fewer sharp points and angles there are, the less will be the loss by wearing. The Secretary thinks it best on this head to confine himself to these concise and general remarks.

The last point to be discussed respects the currency of foreign coins.

The abolition of this, in proper season, is a necessary part of the system contemplated for the national coinage. But this it will be expedient to defer, till some considerable progress has been made in preparing substitutes for them. A gradation may, therefore, be found most convenient.

The foreign coins may be suffered to circulate, precisely upon their present footing, for one year after the mint shall have commenced its operations. The privilege may then be continued for another year, to the gold coins of Portugal, England, and France, and to the silver coins of Spain. And these may still be permitted to be current for one year more, at the rates allowed to be given for them at the mint; after the expiration of which, the circulation of all foreign coins to cease.

The moneys which will be paid into the Treasury during the first year, being re-coined before they are issued anew, will afford a partial substitute, before any interruption is given to the pre-existing supplies of circulation. The revenues of the succeeding year, and the coins which will be brought to the mint, in consequence of the discontinuance of their currency, will materially extend the substitute in the course of that year; and its extension will be so far increased, during the third year, by the facility of procuring the remaining species to be re-coined, which will arise from the diminution of their current values, as probably to enable the dispensing wholly with the circulation of the foreign coins after that period. The progress which the currency of bank bills will be likely to have made, during the same time, will also afford a substitute of another kind.

This arrangement, besides avoiding a sudden stagnation of circulation, will cause a considerable proportion of whatever loss may be incident to the establishment, in the first instance, to fall, as it ought to do, upon the Government, and will probably tend to distribute the remainder of it more equally among the community.

It may, nevertheless, be advisable, in addition to the precautions here suggested, to repose a discretionary authority in the President of the United States to continue the currency of the Spanish dollar, at a value corresponding with the quantity of fine silver contained in it, beyond the period above mentioned, for the cessation of the circulation of the foreign coins. It is possible that an exception in favor of this particular species of coin may be found expedient; and it may tend to obviate inconveniences, if there be a power to make the exception, in a capacity to be exerted when the period shall arrive.

The Secretary for the Department of State, in his report to the House of Representatives, on the subject of establishing a uniformity in the weights, measures, and coins of the United States, has proposed that the weight of the dollar should correspond with the unit of weight. This was done on the supposition that it would require but a very small addition to the quantity of metal which the dollar, independently of the object he had in view, ought to contain; in which he was guided by the resolution of the Sth of August, 1786, fixing the dollar at 375 grains and 64 hundredths of a grain.

Taking this as the proper standard of the dollar, a small alteration, for the sake of incorporating so systematic an idea, would appear desirable. But, if the principles which have been reasoned from, in this report, are just, the execution of that idea becomes more difficult. It would certainly not be advisable to make, on that account, so considerable a change in the money unit, as would be produced by the addition of five grains of silver to the proper weight of the dollar, without a proportional augmentation of its

1791.]

relative value; and to make such an augmentation, would be to abandon the advantage of preserving the identity of the dollar, or, to speak more accurately, of having the proposed one received and considered as a mere substitute for the present.

The end may, however, be obtained, without either of these inconveniences, by increasing the proportion of alloy in the silver coins. But this would destroy the uniformity, in that respect, between the gold and silver coins. It remains, therefore, to elect which of the two systematic ideas shall be pursued or relinquished; and it may be remarked, that it will be more easy to convert the present silver coins into the proposed ones, if these last have the same, or nearly the same, proportion of alloy, than if they have less.

The organization of the mint yet remains to be considered.

This relates to the persons to be employed, and to the services which they are respectively to perform. It is conceived that there ought to be—

A Director of the Mint; to have the general superintendence of the business.

An Assay Master, or Assayer ; to receive the metals brought to the mint, ascertain their fineness, and deliver them to be coined.

A Master Coiner; to conduct the making of the coins.

A Cashier; to receive and pay them out.

An Auditor; to keep and adjust the accounts of the mint.

Clerks; as many as the director of the mint shall deem necessary, to assist the different officers.

Workmen; as many as may be found requisite.

A Porter.

In several of the European mints there are various other officers, but the foregoing are those only who appear to be indispensable. Persons in the capacity of clerks will suffice instead of the others, with the advantage of greater economy.

The number of workmen is left indefinite, because, at certain times, it is requisite to have more than at others. They will, however, never be numerous. The expense of the establishment, in an ordinary year, will probably be from fifteen to twenty thousand dollars.

The remedy for errors in the weight and alloy of the coins must necessarily form a part in the system of a mint; and the manner of applying it will require to be regulated. The following account is given of the practice in England, in this particular:

A certain number of pieces are taken promiscuously out of every fifteen pounds of gold coined at the mint, which are deposited, for safe keeping, in a strong box, called the pix. This box, from time to time, is opened in the presence of the Lord Chancellor, the officers of the Treasury, and others, and portions are selected from the pieces of each coinage, which are melted together, and the mass assayed by a jury of the Company of Goldsmiths. If the imperfection and deficiency, both in fineness and weight, fall short of a sixth of a carat, or 40 grains of pure gold, upon a pound of standard, the master of the mint is held excusable; because it is supposed that no workman can reasonably be answerable for greater exactness. The expediency of some similar regulation seems to be manifest.

All which is humbly submitted.

ALEXANDER HAMILTON,

Secretary of the Treasury.

TREASURY DEPARTMENT, January 28, 1791.

# capital stock of what States T X D Y N I T

proceeds of 317 Agriculture, the effect of funding the public debt on, 6. productiveness of, contrasted with manufactures, 78. promoted by manufactures, 88, 92, 104. Alloy, proportion of, used in gold and silver coinage, 135, 141. Why it is used in coinage, 142. Annuity proposed, as a plan for funding the public debt, 17, 43, 99. Army expenses of 1802, estimated, 222. to mean a sa botobiento solidinol of 1803, do 253. of 1804, do 263. of 1805, do 286. of 1806, do 298. from 1st April, 1801, to 31st March, 1805, 326. of 1807, estimated, 331. and no whole legoittible solled? of 1808, do no 358. handenes had betroquit paid, 374. of 1809, estimated, 375, 392. paid, 399. betaning of from 1802 to 1807, 420. of 1810, estimated, 400. ORI of paid, 421.11 no holebelle groitointeer laiotomme?) of 1811, estimated, 423. ( see board of bethered sorremand) paid, 443, 466. menerative ve balance of 1812, estimated, 444. paid, 468, 484. (avoid) to stanting to not stanged a of 1813. estimated, 470, 489. and a main another and paid, 490, 492, 499. of 1814, estimated, 500. paid, 523, 532. donald tall of 1815, estimated, 530. ..... and the best blog oracly emoteries

B.

Balances in the Treasury, in 1801, 223, 224.

531 -- Sea Revenue, 6°C.

1802, 255. 196bt, amount of interest on the d. 263, 263, 1776 to 1791, 33 1804, 287. Adad alldur ask-adad 1805, 298. and a state of an and a state of an and a state of and 1806, 332. 1807, 357. 1808, 374. \_\_\_\_\_ 1809, 391, 399. 1810, 422. Char at to subtris 1811, 443.04 ( an most signate 1812, 468. of at most sigister 1813, 488, 499. 1814, 525.

Bank, plan of a national, proposed, 54, 72.

capital stock, of what amount, and how composed, 72.

the United States may be a stockholder, 75.

Bank of the United States, a renewal of the charter of, recommended, 359. Bank shares, dividends on, in 1801, 221.

sold, 254.

proceeds of, 317.

Banks, benefits resulting from, 55, 97. It gathers to today out entrinoinga

number of, in the United States in 1790, 65.

objections to, considered, 57. and a second second balance

stock of, how composed, 59. here blog at been to nothogota well.

favor the increase of the precious metals, 61. been at if yd W

Bounties considered as a mean of encouraging manufactures, 110, 130. of 1503, do

#### C

Claims of American citizens against France, amount of, assumed and paid, rom 1st April, 1891, 10 5 tst 264, 266, 288.

Coffee, additional duty on, proposed, 22, Detamine , 7061 16

imported and consumed from 1790 to 1798, quantity of, 241.-See Merchandise imported.

Coins, foreign, comparative value of, 135, 142.

circulation of, to be prohibited, 155.

Coins of the United States, of what to be composed, and how denominated, 152.

Commercial restrictions, effects of, on the revenue in 1807-8, 398, 409. Commerce, benefited by funding the public debt, 5.

promoted by manufactures, 90, 104.

how affected by the French and British decrees, 376.

Compensation of officers of Government in 1790, 45.

Connecticut, claim of, in 1789, 35.

Creditors of the United States, not expedient to discriminate between the classes of the, 7.

Credit.-See Public Credit.

Customs, where paid, and the amount, from 1st April, 1801, to 31st March, 1805, 319.

## Islances in the Treasury, in 1801, IC 224

Debt, amount of interest on the domestic, from 1776 to 1791, 33. Debt.-See Public Debt.

Debts due to States, to be assumed by the United States, 10, 28.

supposititious account of the, 30.

statement of the, 35.

provision for liquidating, 164.

Direct taxes, collected in 1801, 221.

arrears of, in 1803, 263.

receipts from, in 1801 to 1805, 317.

receipts from, in 1814, 524, 526.

an increase of the, recommended, 531 .-- See Revenue, &c.

Drawback of duties, considered in reference to the encouragement of manufactures, 114.

amount of, from 1790 to 1799, 239.

system of, proposed to be modified, 378 .- See Merchandise imported.

Duties, additional, proposed on wines, spirits, teas, and coffee, 22.

Duties on imports, tariff of, proposed to be modified, 218, 227.

cost of collecting the, 218, 227.

an increase of, proposed, 219, 242, 378, 401, 424, 448. Duties on imports and tonnage, estimated for 1790, 53.

for 1795, 170. and any and the second second

Duties.-See Internal Duties, Protecting Duties, Imports, Merchandise. Dutch debt, created in 1790, 166. amount of, in 1794, 206. di vel bonness pettings small sonard

amount of, in 1802, 225. and your work sunsyer all no shus 3

instalments payable to 1809, 250. becalled to meters and the

difficulties in remitting instalments of the, 254, 260. amount of the, in 1803, 276.

field and silver, arround at increase Boy establishing banks, 65, 100

Embargo, its effects upon the revenue considered, 377, 503. Estimates of receipts and expenditures for 1791, 45, 53.

1795, 170, 185, 214. 1801–2, 222. 1802–3, 253. 1803-4, 263. 1805-6, 298. .112,8071 or 0971 mont sates? bothell ada 1806-7, 331. valdsup .888, 868, 908 (meloto) at 008 (meloto) 1807-8, 357. see settal 1808-9, 375.000 Sold Sold Sold 1808-9, 375.000 sold to 1809–10, 399. . TEE , 5084 have 1081 1810-11, 422. 1811–12, 444, 448. 1812–13, 469. 1813–14, 488, 500. 1814–15, 526, 530.

Exemption of materials for manufactures from duty, effect of, 113. Expenditures.—See Receipts and Expenditures. Exportation.-See Re-exportation.

F.

Finances, the effects of a national bank in administering the, considered, 54. Finances, state of the, in 1801, 216. 1802, 252. 1803, 262. 1804, 285. 1805, 297.

1806, 331. 1807, 356.

1808, at being 1808, 373.

1809, (June,) 391.

Finances, state of the, in 1809, (December,) 398.

1810, 421. 1811, 443. 1812, 468. 1813, (June,) 488. menters into 1813, (December,) 499. ASSA. SIR (1814, 523. a beening in hind , shooni ao sailo

Fisheries, benefited by manufactures, 107.

Florida, imports and exports to and from, for the years 1799 to 1802, 265, Daties on impo 281 to 284.

Foreign intercourse, expenses of, from 1801 to 1805, 325 .- See Receipts and Expenditures.

Foreign officers, provision made in 1792, for paying certain, 166. France, claims against, assumed by the United States, and paid, 264-6, 288. Frauds on the revenue, how prevented, 23. Funding system established in 1790, 165.

### differenties in continue a chainearts of the 25

Gold and silver, amount of, increased by establishing banks, 55. proportion of, in the United States, in 1790, estimated, 141.

### Estimates of receipts and expectilitury for 17141 250

Imported articles, and the duty on each .- See Merchandise imported. Imports from Great Britain in 1810, duties accrued on, 456.

a table of duties chargeable on, in 1801, 227.

Imports, value and quantity of, from 1790 to 1800, 229 to 238.

amount of duties accrued on, from 1790 to 1799, 239.

quantity of consumed in the United States from 1790 to 1798, 241. duties accrued on, from October 1800, to October 1802, 259, 268. duties accrued on, in the years 1802 and 1803, 290.

1801 to 1804, 297, 302, 311. 1804 and 1805, 337. 1805 and 1806, 362. 1806 and 1807, 379. 1807 and 1808, 403. 1808 and 1809, 426. 1809 and 1810, 451. 1810 and 1811, 478. 1811 and 1812, 505. 1812 and 1813, 544 .- See Merchan-

dise imported.

Incidental revenues received from 1st April, 1801, to 31st March, 1805, 322. Cinances, state of the, in 1801, 2 -See Revenue.

Internal duties created in 1794, 159.

Internal duties, receipts from in 1800, 218, 243.

cost of collection, 219.

receipts from, in 1801 to 1805, 317.

outstanding, amount of in 1803, 263.

proposed to be increased, 531 .- See Revenue.

Internal improvements, surplus revenue may be applied to, 359.

Inventions and discoveries promote manufactures, 114.

Lands.-See Public Lands.

Laws creating revenue, and providing for the public debt, reviewed, 157. Limitation act, passed in 1793, 167.

Loan recommended to supply a deficiency in the receipts, 392, 400, 423. 448, 471, 491.

Loans, foreign, amount of on 31st December, 1789, 31.

Loans preferred to taxes to meet the exigencies of a war, 377, 401. Loans, amount received from, in 1810, 443. 1812, 468, 486.

1813, 488, 492, 499, 516.

1814, 524, 527.-See Revenue.

Mint, plan for the establishment of e.1 dit.

Loans, terms on which they were obtained, 441, 491, 492 to 498; 519 to 522, 528; 535 to 540.

Louisiana, provision for the purchase of, 264.

imports and exports to and from, for the years 1796 to 1802, 265, 281 to 284.

#### M. The Later Hard Super-

Manufactures benefited by funding the public debt, 6.

expediency of encouraging, 78. advantages of, 85.

encourage emigration, 87.

effects of, on commerce and agriculture, 90.

objections to encouraging, considered, 91, 103, 107.

progress of, in the United States, 102.

necessary to the independence of a country, 106.

sectional jealousies on the subject of, considered, 107.

how to be protected, 109.

materials for, exempted from duty, effect of, 113.

articles of, requiring particular encouragement, 118.

Massachusetts, amount due to, in 1789, 35.

Mediterranean fund, created, and estimated product of the, for 1805, 286. duties constituting the, cease 1st January, 1809, 356. a continuation of the, recommended, 378,401,424,448. annual amount of .- See Merchandise imported, and Revenue.

Merchandise imported and consumed, from 1790 to 1800, 237, 241.

(paying ad valorem duties) in 1795 to 1800, 234. (the quantity re-exported deducted) in 1801, 312.

1802, 270. 1803, 291. 1804, 303. of 0071 at among bourses outsver by fettoens control 1805, 338. toget 1806, 368. 1807, 380. 1808, 404.

### re-exported in 1807 and 1808, 409.

imported, (the quantity re-exported deducted,) in 1809, 427. 1810, 452. 1811, 474.

1812, 506.

1813, 545.

Mint, plan for the establishment of a, 133.

expenses of a, how defrayed, 143, 150.

organization of a, 156.

Molasses, imported and consumed from 1790 to 1798, quantity of, 241.-See Merchandise imported.

448, 471, 491.

Loans, terms, on which the 18 01 223 1898 535 10 64

Losus, fokeigu, amount of on 31st [.M

National bank proposed to be established, 54. ..... fertime international Navy expenses of 1802, estimated, 222.

1803,	do	253.
1804,	do	263.
1805.	do	286.
1806,	do	298.

from 1st April, 1801, to 31st March, 1805, 327. of 1807, estimated, 331. and shorts but shorts

do 358. 1808. 265, 281 to 284.

paid, 374.

1809, estimated, 375, 392.

paid, 399. data and pailantly vd betitanid entroatmald

from 1802 to 1807, 420. of 1810, estimated, 400.

paid, 421. Te nollessing energing

1811, estimated, 423. common do la storita

paid, 443, 466. 1812, estimated, 444.

paid, 468, 484.

1813, estimated, 470, 489.

paid, 490, 492, 499. Attestory of or start

1814, estimated, 500.

paid, 523, 532. 1815, estimated, 530. 2011 and on out to the stread of the

New Jersey, claim of, in 1789, 35.

New York, claim of, in 1789, 35.

Non-importation act, modification of the, proposed, 425.

O.

Merch and iss involved and constanted, from 17.90 to 1990, 967, 811 Officers of Government, compensation allowed to the, in 1790, 45.

aniantity recroated dolarded) in 1801, 212

P.

Paper money, the expediency of emitting, considered, 64. Passports and clearances, amount of revenue derived from, in 1790 to

1798, 241.-See Merchandise imported.

Penalties and forfeitures for infractions of the revenue laws, to be distributed to informers and custom-house officers, 425 .- See Revenue.

Postage of letters, receipts from, in 1801 to 1805, 317 .- See Revenue. Post Office, revenue derived from the, to be applied to the sinking fund, 27. review of the law establishing the, 159.

Premiums, effect of granting, on agriculture and manufactures, 113.

Protecting duties on imports considered as a bounty on domestic fabrics, 109. the constitutional power to levy considered, 112.

Prohibitions of imports and exports may be resorted to for the encouragement and protection of manufactures, 109.

Public credit, plans for the support of, 3, 157, 172.

a national bank necessary to the support of, 54. essential to the prosperity of the nation, 197. defined, 198.

Public debt, advantages of funding the, 5, 98.

nature of the provisions for funding the, 7, 161.

of what it consists, 14, 168, 347.

plans for funding the, 17, 43, 45, 161.

plans for redeeming the, 22, 27, 165.

may constitute a part of the capital of a national bank, 72, 75, 157.

laws relating to the, reviewed, 157.

plan for completing the system for liquidating the, 173.

revenues pledged for the payment of the, 168.

amount of foreign and domestic, in 1790, 14, 22, 31, 33.

1795, 169, 201 to 210.

1802, 223, 248, 250, 279.

when it may be redeemed, estimated, 172, 225, 251, 354. amount paid, in 1802, 254.

1803, 264, 276.

1804, 288, 296.

1805, 299, 310.

from Apr. 1, 1801, to March 31, 1805, 328, 329, 333. in 1806, 333, 345.

plan for consolidating the, proposed, 333, 347 to 355. amount of the, in 1806, 349.

estimated amount that may be paid, in 1809 to 1824, 354, 355. amount paid in 1807, 358, 371.

in 1808, 373, 389.

from April 1, 1801, to Oct., 1809, 399, 415 to 418. 1810, 423, 436.

in 1811, 445, 461.

from April 1, 1801, to January 1, 1812, 463.

amount on January 1, 1812, 446, 464.

amount paid in 1812, 468, 480.

1813, 492, 499, 514.

1814, 534.

Public funds not taxable nor liable to sequestration, 192, 196. Public lands, may be applied, in part, to the payment of the public debt,

MG PHA 117, 18.

proposed as a premium on loans, 449. estimated quantity and product of the, in 1795 and 1801,

18, 3081 et 108 161, 219, 244. proceeds of the, pledged for the public debt, 163.

sold in 1801, 220, 246.

intrusions on the, to be prevented, 221.

sold in 1802, 252, 257.

Public lands, sold in 1803, 262, 274.

1804, 285, 294, 315.

1804, 285, 294, 315. 1805, 297, 308. receipts from, in 1801 to 1805, 317. sold in 1806, 331, 348. 1807, 356, 368. 1808, 373, 385. 1809, 208, 411

1809, 398, 411.

sold from 1800 to 1810, 421, 432. may be applied as a bounty to soldiers enlisting, 448. sold in 1812, 478. 1813, 511. 1814, 550. sold in 1811, 448.

plan for completing the  $\mathbf{R}$  stem for liquidaring revenues plodged for the psymcht of the  $\mathbf{R}$ 

Public vessels sold, 222.

Receipts and expenditures, estimated for 1790, 45, 53.

1795, 170.

Protecting duties on imports consider

comparative view of the, for 1795, 214.

in 1801, 216.

1802, 252. 1803, 262.

1804, 285.

1805, 297. from April 1, 1801, to March 31, 1805, 317 to 330. in 1806, 331.

1806, 351. 1807, 356. 1808, 373.

1809, 391, 395, 398, 419.

1810, 421, 438.

1811, 443, 466.

1812, 468, 482, 486.

1813, 488, 492, 499, 516, 532.

1814, 523, 533.

Re-exportation of foreign merchandise in 1807 and 1808, 409. Revenue, frauds of the, how to be prevented, 23. plan for increasing the, 24.

laws relating to, reviewed, 157. for what purposes pledged, 168. how to be increased in the event of war, 361, 378. and added an increase of, proposed, 219, 242, 378, 401, 424, 448, 504. from what sources derived, and the amount in 1795, 157, 167. 1801, 216.

1801 to 1805, 317, an edit the best set to the best of 322. 1808, 395. 1809, 419. 1810, 438. 1811, 466.

Revenue, from what sources derived, and the amount in 1812, 482, 492. 1813, 492, 516, 518.

1814, 532-3.

#### See Receipts and expenditures.

Tousines proposed as a plan for fun.8 or the public d

Salt imported and exported from 1790 to 1800, 233.

and consumed from 1790 to 1798, quantity of, 241 .- See Merchandise imported.

Salt duty expires 1st January, 1808, 356.

a renewal of the, recommended, 449, 490 .- See Merchandise imported.

Sinking fund, plan of a, proposed, 27.

established in 1790, 165, 171. West in do aminto editionity

made permanent in 1792, 166, 169.

operations of the, to 1st January, 1795, 167, 171, 211.

proceedings of the, in 1802, 260.

state of the, in 1806, 346. bernuance bus hetroren

in 1810, 440.

in 1813, 498.

South Carolina, claim of, in 1789, 36.

Specie increased by the operation of banks, 55.

Specie payments suspended by banks, 529.

Spirits imported in 1792 to 1799, quantity of, paying duties, 235.

and consumed in 1790 to 1798, quantity of, 241 .-- See

Merchandise imported.

Spirits, foreign and domestic, additional duties proposed on, 22.

Stamp duties expire 4th March, 1803, 218, 221 .-- See Revenue.

State debts, ought to be assumed by the Union, 14, 28, 30.

amount of, estimated, 35, 36.

provision for liquidating the, 164.

Stocks of the United States not taxable, 192. Sugar imported and consumed in 1790 to 1798, quantity of, 241 .-- See

Merchandise imported. Surplus revenues may be applied to internal improvements, 359.

#### T.

Taxes, internal, proposed to be levied, 449, 490 .- See Direct taxes. Teas, additional duties on, proposed, 22.

imported in 1790 to 1800, quantity of, paying duties, 236.

estimated quantity of, consumed during the years 1790 to 1798, 241.

-See Merchandise imported. Tonnage, amount of American and foreign, from 1790 to 1799, 240. 1800 to 1802, 269.

in 1803, 290. 1804, 302. 1805, 337. 1806, 362. 1807, 379. 1808, 394, 403.

Tonnage, amount of American and foreign, in 1809, 426.

1810, 451. 1811, 473.

1812, 505.

1813, 544.

Tontine, proposed as a plan for funding the public debt, 20, 45. Treasury notes, amount authorized in 1812, 469, 492. 1813, 492, 499, 518. of antipart of 241-See

1814, 525, 528, 532, 541-2.

Sinking fund, plun of a proposed. St

Specie porments suspended by family, to al

in circulation in 1814, 529.

an increase of the rate of interest on, proposed, 530.

made permanent in W

Virginia, claims of, in 1789, 36.

Wines, additional duties proposed on, 22. imported and consumed, quantity of, from 1790 to 1798, 241 .- See Merchandise imported.

### END OF THE FIRST VOLUME. provision for liquidating and a Stocks of the 198

Spirits imported in 1722 to 17.0% quant in of paging thirdes, \$25.