THE

MERCHANTS' MAGAZINE,

Established July, 1839,

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VOLUME XXI. DECEMBER, 1849. NUMBER VI.

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MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

DECEMBER, 1849.

Art. I.—A REVIEW OF THE COTTON TRADE.

The price of cotton, during the past season, has been continually upward. About the first of November it reached the lowest point, and, from that time forward, there has been a uniform advance. At first, the rise was slow, with occasionally a backward movement; but recently it has been so rapid, that the rates have already risen (see table I., at the end of this article) from 35 per cent below, to 35 per cent above the average. The causes of this advance are plain and evident. There is no mystery, no combination of planters or sellers, no forced or unnatural efforts of speculators, bringing about the results. The pacification of Europe, the revival of business in France, the fine harvest in England, the large consumption, the small stocks, and the discouraging prospects of the new crop, are all powerful influences favorable to an advance; and it is difficult or impossible to name a single cause in the opposite direction. Of these influences, most powerful is the promise of a short crop. After the largest production ever before known, we see the stocks on hand lower than they were at the beginning of the year. (Table II.) With a decrease in the amount produced, below the wants of the manufacturers, prices necessarily rise above the average, until the high rate of the raw material lessens the consumption and brings the demand within the supply. It is this cause, more than all others combined, that has brought about the recent advance. The triumph of the Austrians in Lombardy, and of the Neapolitans in Sicily; the establishment of order in Paris and Vienna; the cessation of hostilities in Schleswig-Halstein, and in Hungary, have all produced but a slight effect; while the late frost in April, the heavy rains in summer, the rust, the worm, and the caterpillar, in the autumn, have told with great power on the market. The splendid harvest in England has been next in influence; but next only, after a great interval. All have, however, combined to produce the effect, and they have done it fairly, legitimately, and, therefore, permanently. In considering, therefore, the probable supply and demand for the coming year, we must base our calculations on high pri-

ces. This will increase the shipments from India, and, by encouraging late picking, increase the production of the United States. It will, at the same time, discourage consumption, generally, and especially in England. Already have the spinners at Manchester commenced working short time, and this is not to be regarded as a combination to prevent the rise in prices, but the necessary consequence of a short crop. A diminished supply of cotton causes an advance in the price, and a diminished consumption is indispensably necessary to bring up the price of the manufactured article. In this way, the equilibrium between demand and supply is established, and price must be considered, before either the supply or the demand can be properly estimated.

The supply from the United States will this year be undoubtedly small. But small and great are comparative words, having no meaning of themselves. We mean, that the crop will fall off largely from the receipts of last year. It will do this at every principal sea-port, and for two causes. Because the production is less, and because the large stocks in the hands of the planters had much to do with the extraordinary receipts of last season.

The crop of South Carolina and Georgia will be shortened by the late frost in the spring, by the excessive rains in June and July, and by the drought in August. The worm, also, has done considerable damage in some portions of these States. The season is very much protracted, but this was the case last year. The amount planted is not larger, as a greater breadth of land was devoted to wheat than ever was done before. Near Macon, a considerable force was turned to the construction of the South-Western Railroad. These causes have none of them been very fatal, or serious; but they have had their influence. The effect of all may be estimated to produce a falling off of 75,000 bales in these two States. A like decline, compared with last year, may be anticipated, on account of the large supply of old cotton, which was carried forward, to swell the receipts of last season. The amount received at Charleston and Savannah, will thus be reduced from 850,000 bales to 700,000. The extension of railroads further west will attract to these ports some cotton, formerly sent to the Gulf of Mexico, and thus keep up the receipts higher than they would have been in former years, when the prospects of the crop were the same as they now are.

At Apilachicola and Mobile the receipts must fall off largely. Besides the causes operating in the Atlantic States, they have had the rust and the caterpillar in many places. The ball worm has also been much more destructive than in Georgia. On the Tombigbee, the disasters have been greater than in the worst seasons we have ever had. Twenty per cent on the receipts of last year may be deducted for the amount of the new crop. This may seem small, to those who have heard the reports from the western and southern portion of Alabama and Georgia. But when the price is as high as it now is, the planters will keep their hands picking till February. Many a field that would have been ploughed up or neglected, will now be gone over a fourth or a fifth time. This cotton will be poor, but it will swell the receipts as much as any other.

From New Orleans we have more disastrous reports than from any other portion of the cotton region. Besides all the injuries before mentioned, they have suffered from the overflowings of the Mississippi and the Red River. This damage has been especially severe on the Red, where the loss from this cause alone, has been estimated as high as 100,000 bales. This is exaggerated, doubtless, but the injury has been very serious. The prevalence of

cholera in the summer, along the Mississippi, by diminishing the force at work, permitted the grass to grow, and thus injured the prospects of the crop. Throughout Louisiana, Mississippi, and Arkansas, the deficiency will be large; but in Tennessee and North Alabama, it will be slight. A falling off of 20 per cent may be anticipated at New Orleans; but not more than this, because the disasters of last year had already reduced their receipts 10 per cent below those of the preceding year.

Texas, North Carolina, and Virginia, will produce about as much as last year. The increased cultivation in Texas will make up for the ravages of the worm. These estimates bring up the whole production of the United States to 2,250,000 bales. (Table III.)

The supply from India is very much dependant on the price. There has been a report from Bombay of a failure in the crop, but this has not been confirmed by subsequent advices. The discouraging news from the shipments to China will balance the effect of any slight deficiency in the production. A considerable increase may be anticipated over the imports of 1849, on account of the rise in prices; but they will not much exceed the average of the last seven years. This has been 208,000 bales, and I would estimate the imports into England for 1850, at 230,000 bales. (See table IV.)

The receipts from Egypt, Brazil, and the West Indies, are small, and nearly stationary. The rise in prices will probably prevent any falling off from the receipts of 1849. These will doubtless reach 220,000 bales, (table V.,) and the same amount may be expected for the next year.

The summary of these supplies gives a total of 2,700,000 bales, (table VI.,) which is less than the crop of the United States, for the year that has just closed. This falling off in the supply must cause a decrease in the consumption, else all the present stocks would be exhausted—a result which cannot possibly occur.

This decrease will not take place in the United States. It would seem, from the published statements, (table VII.,) that the wants of our manufacturers have declined in the past year. This is, beyond doubt, only apparent. The very low price at which cotton was sold at the close of 1848, induced the manufacturers to lay in large stocks, while the advancing rates of 1849 produced an opposite effect. Hence the extraordinary increase that appeared to take place in 1848, and the apparent decrease in 1849. The advance in the consumption of the United States has been so uniform and unvarying, that no fears need be indulged that this increase will not continue. We have already become the largest consumer of cotton in the world, and this rank we will continue to hold, without dispute, hereafter. Our people now manufacture more cotton, and purchase more cotton goods, than are consumed by Great Britain and all her dependencies, in the four quarters of the globe, (table VIII.,) and the next year will witness no change in this matter. High prices of the raw material have no power to check consumption here. Our people are not so poor as to deny themselves necessary clothing, when prices rise, and almost all cotton goods are necessaries, not luxuries, of life. High prices of cotton, besides, favor our consumption, to some extent, by increasing the ability of the South to buy, and by keeping down the price of exchange, and preventing the exportation of specie. Our consumption for 1850 may safely be put at 550,000 bales, the average for 1847 and 1848 being 520,000. A decline must take place in Great Britain. The favorable prospects presented by a fine harvest, cheap food, and general prosperity, will fail to neutralize the influence of high prices of the raw material. Peace in In-

dia, in Germany, in Italy, in the whole world, cannot enable the European laborers to consume their usual amount of goods, when prices advance beyond their usual limit. The fund out of which the great mass purchase their clothing, is limited, and this constant sum will buy a smaller number of yards, when the cost per yard is increased. With average rates for cotton, the consumption of England would exceed that of any former period. Ireland is quiet; the chartist agitation has ceased; food is abundant; trade is active; the currency in fine order; money at a low rate of interest; the stocks of goods in the hands of manufacturers small; the demand for labor on railroads, mines, and iron works, good; and everywhere the elements of prosperity are visible. The foreign market is not less promising than the home market. From Europe, India, and America, the demand for English exports is alike favorable. But in spite of all these considerations, the advance in the raw material must inevitably check the consumption.

The deliveries to the trade this year have exceeded every former year. The excess over 1845 (table IX.) is slight—over last year it is considerable. The stocks in the hands of manufacturers are now small, because they have been buying, for some time, less than they have consumed. The whole consumption, in 1848, was 1,464,000 bales, and in 1845, it was 1,574,000. For the present year, it will probably reach 1,600,000 bales; but for 1850, it cannot safely be estimated at higher than 1,450,000.

In France the consumption is now largely in advance of last year, and up to the 1st of August it exceeded the amounts of 1845 and 1846. (Table X.) The increased stability of Louis Napoleon's government, for the last half of the present year, promises that this excess will be maintained, and that the close of the year will witness the largest delivery of American cotton ever made. The whole amount of American cotton consumed in France was 351,000 bales, in 1845, and 277,000 in 1848. For 1849, it will probably reach 400,000 bales; and, unless political troubles, not now foreseen, should injure the prospects of trade, the high price of cotton will not bring the demand for 1850 below 350,000 bales.

On other parts of the continent, besides France, the consumption of cotton has been regularly increasing. The average demand, for the last five years, has been 442,000 bales, and this period includes the disastrous harvest of 1847, and the revolutionary excitement of 1848 and 1849. The demand for 1850 cannot fall as low as this average. It will be almost certain to exceed 450,000 bales, even if the present advance in prices is sustained.

We have thus a total demand (table XII.) of 2,800,000 bales, which exceeds the supply (table VI.) 100,000 bales. As the stocks were lower in January last (table XIII.) than they had been for the last ten years, and as they are now lower (table II.) than they were a year ago, this deficiency of the supply must keep up prices much above the average. They are now 30 or 40 per cent above, middling fair being quoted in Charleston (October 19th) at $10\frac{3}{4}$ cents. This advance must be maintained, unless the lateness of the frost should carry up the United States crop above 2,250,000 bales, or unless serious political troubles should arise in Europe, to darken the prospects of business. The day of prosperity to the planters has at last come. The promise for the future is bright. The crop is not small, though much reduced from last year. It is the increased consumption during the last year, as much as the short crop, which has advanced prices. The prospect is, therefore, that even a large crop from the next planting will bring fair prices, while a failure would carry up prices to the high range of 1835 and 1836. The present crop, though small, will bring a much larger amount of money

than the last. The disasters being uniformly distributed, every part of the country will receive the benefit. The planters have deserved this prosperity, and at last they have received their reward. Let them continue their endeavors to divert their labor to other pursuits; let their extra capital be devoted to the building of railroads, mills, and factories; let them extend the cultivation of sugar, wheat, and corn; let them raise at home their own pork, mules, and horses; let them encourage domestic manufactures of all kinds. And, by thus transferring a portion of their labor from the producduction of cotton, it will be easy to keep up the price above the low limits to which it has fallen, for the last few years.

TABLE I.

AMERICAN EXPORTS, VALUE, AND AVERAGE PRICE.

	Exports in lbs.	Value in the Custom-House.	Price in cts.	Whole Crop in lbs.	Value of whole crop.
1840 to 1848.....	6,050,200,000	$478,930,000	8.0	7,451,000,000	$592,041,000
1849.....	.....	.....	ab't 6.0	1,140,000,000	68,400,000
Total for ten years, from 1840 to 1849, inclusive,				8,591,000,000	$660,441,000
Average price.....				7.7 cents.	
35 per cent below, is.....				5 "	
And 35 per cent above, is.....				10.4 "	

TABLE II.

PER CENT STOCKS.

	1849.	1848.
United States, 1st of September, 1849.....bales	155,000	171,000
Liverpool, 5th of October, 1849.....	547,000	533,000
Havre, 1st of August, 1849.....	64,000	95,000
Total, for these three places.....	766,000	799,000

TABLE III.

UNITED STATES CROP.

	Receipts.			Estimate.
	1847.	1848.	1849.	1850.
Texas.....	8,000	40,000	39,000	40,000
New Orleans.....	706,000	1,191,000	1,094,000	900,000
Mobile.....	324,000	436,000	519,000	420,000
Florida.....	128,000	154,000	200,000	170,000
Georgia.....	243,000	255,000	391,000	325,000
South Carolina.....	350,000	262,000	458,000	375,000
Other places.....	20,000	10,000	28,000	20,000
Total.....	1,779,000	2,348,000	2,729,000	2,250,000

TABLE IV.

ENGLISH IMPORTS FROM THE EAST INDIES.

Years.	Import.	Remarks.
1825 to 1833, average bales.....	73,000	Declining prices.
1833 to 1841 " "	140,000	High prices.
1841 to 1843 " "	265,000	Chinese war.
1843 to 1846 " "	192,000	Peace, and low prices.
1841 to 1849 " "	208,000	Moderate prices.
1846.....	50,000	Low prices, and repeal of duty.
1847.....	223,000	Advance in prices.
1848.....	227,000	Moderate prices.
1848, first six months.....	102,000	Moderate prices.
1848, Octo ber 6th, Liverpool.....	93,000	Moderate prices.
1849, first six months.....	38,000	Very low prices.
1849, October 5th, Liverpool.....	69,000	Very low prices.
1849, whole year, about.....	150,000	Very low prices.
1850, " " "	230,000	High prices.

TABLE V.

ENGLISH IMPORTS FROM BRAZIL, EGYPT, ETC.

1844.....bales	197,000	1848, first six months.....	55,000
1845.....	201,000	1848, October 6th, Liverpool.....	93,000
1846.....	153,000	1849, first six months.....	135,000
1847.....	136,000	1849, October 5th, Liverpool.....	180,000
1848.....	137,000	1849, whole year, about.....	220,000
Average.....	165,000	1850, whole year, about.....	220,000

TABLE VI.

SUPPLY.

	1849.	1850.
Crop of the United States.....bales	2,729,000	2,250,000
English import from East Indies, about.....	151,000	230,000
English import from all other places, about.....	220,000	220,000
Total.....	3,100,000	2,700,000

TABLE VII.

AMERICAN CONSUMPTION.

Years.	American consumption.	Average for three years.	Increase per cent.
1844.....bales	347,000	321,000	5.2
1845.....	389,000	354,000	10.3
1846.....	423,000	386,000	9.0
1847.....	428,000	413,000	7.0
1848.....	523,000	458,000	10.9
1849.....	518,000	490,000	7.0

TABLE VIII.

ENGLISH MANUFACTURES—AVERAGE ESTIMATE OF BURNS AND HOLT, IN MILLIONS OF POUNDS.

	1845.	1846.	1847.	1848.	Average.
Weight of manufactured goods.....	511	514	377	509	478
Weight of goods exported.....	348	366	300	335	337
Weight retained at home.....	163	148	77	174	141
Weight exported to British Possessions.....	85	87	67	79	72
Total amount retained for Great Britain and her dependencies.....					213
Add 1¾ ounce for waste in manufacturing each pound.....					26
Total amount of raw material consumed.....					239
Number of bags consumed in the whole United States, in 1849.....					628,000
Weight of these, in millions of pounds, at 417 lbs. per bag.....					262
Excess of United States consumption over English.....					24

TABLE IX.

DELIVERIES TO THE TRADE AT LIVERPOOL.

	1849.	1848.	1845.
October 5.....bales	1,220,000	1,032,000	1,187,000
September 1.....	1,123,000	921,000	1,070,000
August 3.....	989,000	812,000	958,000
July 6.....	835,000	665,000	826,000

TABLE X.

DELIVERIES AT HAVRE.

	1849.	1848.	1847.	1846.	1845.
August 1.....bales	242,000	151,000	142,000	217,000	231,000

TABLE XI.

CONSUMPTION ON THE CONTINENT.

Years.	English exports.	American exports, omitting France and Great Britain.	Stocks on the 31st December.	Apparent consumption.
1844 .....bales	135,000	144,000	120,000	.....
1845.....	121,000	285,000	90,000	436,000
1846.....	194,000	205,000	39,000	450,000
1847.....	208,000	169,000	76,000	340,000
1848.....	190,000	255,000	60,000	461,000
1848, 6th October.....	115,000	.....	.....	.....
1849, 5th October.....	170,000	.....	.....	.....
1849, about.....	240,000	322,000	100,000	522,000

TABLE XII.

DEMAND.

	1849.	1850.
Consumption of the United States.....bales	518,000	550,000
Consumption of Great Britain, about.....	1,600,000	1,450,000
Consumption in France of United States cotton, about....	400,000	350,000
English and American exports to other countries.....	562,000	450,000
Total.....	3,080,000	2,800,000

TABLE XIII.

STOCKS.

	Liverpool.	Great Britain.	France.	Rest of Continent.	Total.
1844, December 31...bales	741,000	903,000	78,000	120,000	1,101,000
1845.....	885,000	1,060,000	69,000	90,000	1,219,000
1846.....	439,000	549,000	30,000	39,000	618,000
1847.....	364,000	452,000	63,000	76,000	591,000
1848.....	393,000	496,000	29,000	60,000	579,000

Art. II.—THE MORAL AND SOCIAL BENEFITS OF CHEAP POSTAGE.

Cheap Postage is no longer an experiment; its success has justified the anticipations of its promoters, and silenced the cavils of incredulity. The principles on which it rests are no longer theoretical. The arguments and calculations, which seemed so conclusive, when only seen on paper, have now been subjected to a trial-process, which must satisfy even those over-cautious minds that believe nothing they do not see. "Rowland Hill's System of Postage" is now as distinct a subject of study and of history, as Professor Morse's System of Electro-Magnetic Telegraphs; and the principles and rules of operation are as necessary to be understood, in order to successful application in practice. Dr. Franklin's system of electricity will afford as much help in one case, as Dr. Franklin's system of postage in the other.

It is Rowland Hill's system which has wrought the wonders of cheap postage in Great Britain; and that will do the same here, if applied according to Rowland Hill's principles. That the expense of postage per letter is inversely as the number of letters, is seen in the fact that in 1839, under the old system, 76,000,000 letters cost, on an average, two-pence half-penny per letter; while in 1840, the first year of the new system, 169,000,000

cost less than a penny—a farthing, per letter; and, in 1847, the whole 322,000,000 cost only three and a half farthings per letter. The distance, greater or less, which a letter is carried, is matter of small consequence. Ten letters carried a hundred miles may cost the government a dollar per letter; when 10,000 letters could be carried the same distance, and the transportation cost only one mill per letter. And if government runs one mail from Boston to New York, and another from New York to Philadelphia, it costs no more to carry the Boston letters to Philadelphia. Hence, distance is laid out of the calculation, and uniformity becomes the rule of postage. Hence, also, the productiveness of the post-office is proportioned to the increase of numbers; and therefore the interest of the department requires it to do everything to increase the number of letters, by increasing the public accommodation. The genius of the new system is public accommodation; and the measure of success in administration is the number of letters it induces the people to write, by the facilities it affords for their conveyance.

The increase of letters in Great Britain, from 76,000,000 in 1839, to 169,000,000 in 1840, and 346,000,000 in 1848, shows something of what the system is capable of doing; while the fact that the addition of 93,000,000 letters the first year added only £101,678 to the expense, which is only at the rate of one farthing per letter, shows that the great increase of expenditure, £528,176, added between 1840 and 1848, was caused by increased public accommodation, rather than the increase in the number of letters.

Our own "reduced postage," established by the act of Congress of 1845, contained only one solitary feature of Rowland Hill's system—that of rating letters solely by weight—a great improvement, it is true. And in regard to letters going not more than thirty miles, which make up one-fifth of the whole, and were before carried for six cents, the reduction to five cents was too trifling to produce any considerable effect in increasing the number sent. And yet the results of the act of 1845 all go to confirm the soundness of Rowland Hill's principles, and show that his system is just as applicable, and will prove quite as successful and beneficial in this country, as in Great Britain.

It is quite remarkable, that while the whole cost of management of the British post-office is $6,712,368, that of the United States is only $4,346,850—a difference of $2,365,518. And the cost of transportation, in which we should naturally expect the difference to be very great, on account of the immense distances traversed by our mails, is $2,229,763 in Great Britain, and $2,448,756 in the United States, which is only $210,993 more. There is, therefore, no shadow of a reason why the rate of postage on letters should be greater here than there.

This system has been in operation for ten years, in Great Britain, before the eyes of the people of the United States. Thousands of our citizens, visiting England, have witnessed its facilities, and experienced its benefits, and have wished that our own country might enjoy the same blessing. Its practicability and adaptedness to this country have been demonstrated over and over again; and yet we do not get cheap postage. None of our leading statesmen have made the cause their own, or have shown that they had taken pains to understand the elementary principles of the system. Congress meets and adjourns, without passing the bill, and the men by whose apathy or opposition so great a good is lost, hold up their heads before the people, and are reëlected. Why does not Congress pass a bill establishing Rowland Hill's system of cheap letter postage? The true and only reason is, that the *people*—the PEOPLE have never willed it, with that energy of purpose which Congressmen always understand and obey.

The truth is, the people at large have hardly begun to be impressed with the real value of cheap postage. They like the idea very well, of sending their letters at a cheaper rate; but the few letters which they now write, do not make their bill for letter postage much of a burden; or, if their business requires many letters, the postage amount is a per centage so small, as to be but little thought of. The public mind has been too much occupied with the financial and pecuniary bearings of the question. On the first introduction of the subject, it found our public men so deeply imbued with the old saw that the "post-office must support itself"—a principle grounded on nothing in the constitution, and contradicted by its own history for two years out of five, that the first objection everywhere to be met was, "Will it pay?" And we were obliged to wait until the department became convinced, by full experiment, that the old system could not be made to pay, before we could get the partial and unskillful reduction of postage, granted by the act of 1845.

That reduction was made, avowedly, not with the idea of copying Rowland Hill's system, but mainly for the purpose of putting down the private mails, by underbidding them. That reduction also relieved the business community so far, that it was impossible, for a time, to obtain the attention of the public to the claims of the true system of cheap postage. And when, at length, the question came up, early last year, in a form to awaken interest, the friends of cheap postage found themselves embarrassed by a strong prejudice, in the people and representatives of the more thinly settled parts of the country, who had imbibed the notion that the call for cheap postage came only from the cities, and was a mere scheme for the great merchants and manufacturers of the East, and in a strong impression, hastily taken up in high quarters, that the length of our routes was a good reason for insisting that cheap postage, in this country, should be three cents, rather than two cents, which is the nearest equivalent for Mr. Hill's penny sterling. In meeting these and other minor difficulties, we have too much lost sight of the real object in view, the grand social and moral benefits of cheap postage, which make it one of the beneficent wonders of the age.

It was a conviction of these benefits which, in the early part of last year, led a few individuals, in Boston and New York, themselves mostly disconnected either with the commercial or the publishing interest, to associate together for the purpose of awakening the public mind to the greatness of the loss which our country is suffering every year that we remain without cheap postage. It is in this light that we wish the people to regard it. And when they once begin to consider what cheap postage will do for society, they will be so earnest in demanding it that their rulers cannot choose but yield and grant the boon.

The post-office is, by its very constitution, a great social machine, intended to weave a net-work of personal intercourse between the people all over the country. The authors of the Federalist so understood it. In their decisive plea for our present constitution, (No. 42,) they argue for the establishment of a post-office by this simple consideration, that "NOTHING WHICH TENDS TO FACILITATE INTERCOURSE BETWEEN THE STATES, CAN BE DEEMED UNWORTHY OF THE PUBLIC CARE." That ought to be the spirit of all legislation and administration for the post-office—to facilitate intercourse. When the post-office does this most effectually, it best subserves the object of its creation.

To facilitate intercourse is to advance society, in all its great interests. The interchange of thought is the advancement of society. Where this inter-

change is hindered or clogged, thought is stifled, inquiry suppressed, affection chilled, enterprise hampered, freedom chained. In proportion to the actual exercise of this interchange, mankind rise, and advance, and grow, in all that constitutes the glory of humanity. To "facilitate intercourse" is about the only positive act for the advancement of society which the constitution empowers our national government to put forth. To this power alone it has interposed no limitations, but those which bound the resources of the government, and the capacities of the people.

Congress has, from the beginning, acted in the spirit of this principle, in one remarkable particular—the postage of newspapers. To "facilitate intercourse among the States," the charge for newspapers has approached to uniformity, and has been fixed at a rate very far below the expense incurred. Even with the very great increase of newspapers, within the last five years, they do not pay above two-thirds of what they cost the department. Yet Congress has carried them from one end of the country to the other, and the sole reason has been, that by this liberality, the government could "facilitate intercourse among the States." Rowland Hill's system itself, glorious as it is, may be considered as little more than an application with a slight emendation of our plan of newspaper postage to the postage on letters. As he has demonstrated, and experience in England has proved, that the application of the same principle to letters is practicable, and within the reasonable ability of the government, what the friends of cheap postage now ask is, that Congress will apply their own principle to letters, as they have always done to newspapers. The chief emendation is the adoption of absolute uniformity of rate, which is grounded on the discovery that there is no practicable difference in the expense.

Cheap postage on newspapers has made us a newspaper-reading people; cheap postage on letters would make us a letter-writing people. The power and practice of writing one's thoughts is itself an advanced stage of education. The mere ability to read the Bible, to write one's name, and to tell the numbers on a bank-note, is an achievement of great value, compared with the absence of that ability. And one reason why so many remain without even this medium of learning, in this land of schools and Bibles, can be no other but the lack of an operating motive to learn, brought to bear upon the mind in early life, when the opportunity was enjoyed. Cheap postage furnishes that motive. All the educational systems in the world cannot be a substitute for it. The proverb says—"A child can lead a horse to the water, but ten men cannot make him drink." Neither can legislation compel the youthful mind to dip and drink at the fountain of knowledge. The expectation of writing letters, to be sent by mail for two cents, will make millions of young eyes glisten with enthusiastic determination to master the mysteries of reading and penmanship. And the practice of writing thus encouraged, and of course commenced with the first ability to shape a letter with a pen, will train, and stimulate, and discipline, and strengthen the minds of a rising generation to a pitch of intellectual advancement far beyond their predecessors.

And then, the practice of writing will keep knowledge always bright, and the intellectual powers continually advancing. Vast multitudes of people never advance in the knowledge of letters beyond their attainments at school. Perhaps at that time they would indite a letter, in tolerable English. But the cost of postage has stood in the way of frequent letter-writing; and, in fact, the man or woman of five-and-thirty finds it an irksome task to write a

few lines of necessary information, and, at sixty, has lost the faculty altogether. Cheap postage would have made them good letter-writers in youth, and would have kept them continually improving in that faculty, even to old age.

Lord Bacon tells us that "Reading makes a full man, conversation a ready man, and writing an exact man." There is no more salutary discipline of the mind than the exercise of mastering its thoughts, and arranging them in order, so as to express them to its own satisfaction with the pen. Conceive of a whole community trained to this exercise, and continuing in it always, and you have the idea of a people more intellectual than ever lived. And cheap postage will do it.

It is impossible to give in books, or magazines, or newspapers, that precision and particularity of information which is necessary for the practical application of the knowledge they disseminate. Individuals have their own questions to ask, and their own difficulties to remove. A single word of personal inquiry would often save much laborious study, preserve from embarrassing mistakes, and make knowledge practically available, in cases where now it comes to no fruit. In the prosecution of philosophical investigations, in historical research, in the construction of machinery, in the application of useful improvements, in looking up evidence for the support of just claims, every facility given to correspondence is of immense value. By cheap postage, the minutiæ of knowledge will be diffused among mankind, as they never can be by printing. And the collection of knowledge will be equally facilitated. The number of seekers and of dispensers will be indefinitely increased. Innumerable researches will be set on foot. Truths, buried in the minds of obscure individuals, will be brought out. Facts that will soon be beyond the reach of human inquiry, will be gathered up and preserved. All the treasures of wisdom—even the golden sands will be collected and added to the common stock of useful knowledge. Who can tell how much of the advancement of science in Great Britain is to be traced to the influence of the 350,000,000 letters annually written there? Cheap postage will do more for us than it has done for them, because it will act upon a more active and inventive people.

Cheap postage is much more essential to the cultivation of the affections than of the intellect. The wise statesman will carefully cherish the social affections among the people, for there courage and honor, patriotism and public spirit, the vital energies of the republic, have their seat. In this eager and money-getting age, we are in no small danger of suffering a deterioration of the kindly sympathies, which bind man to man, and sweeten life, and keep the mind from sinking into sordid avarice, or unrelenting ambition. The government has the power, by the grant of cheap postage, to rekindle and preserve, in glowing freshness, the warm sympathies of millions of hearts towards each other, which are now languishing and ready to die, for the mere want of personal intercourse. Distance, and other difficulties, render visiting impossible. But the frequent interchange of letters, which would certainly take place if the postage was "only two cents," would be a precious and effectual substitute. It would be hazarding nothing to predict that a million of persons, who now write but rarely, would write letters to distant friends within the first week after they became acquainted with the existence of cheap postage. And the still continuing increase of letter-writing in Great Britain, from 169,000,000 the first year, to 195,000,000, to 200,000,000, to 220,000,000, and 242,000,000, and 271,000,000, and 299,000,000, and

322,000,000, and, finally, to 346,000,000 in the ninth year, while the very latest reports show an increase of £100,000 in the *net* revenue of the post-office, for the tenth year ending the 5th of October, requiring an addition of 24,000,000 letters for its production; these facts prove that when once the impulse of cheap postage is begun to be felt, it will go on indefinitely; or, in other words, the more letters people write, the more they wish to write. From writing annually, they will wish to correspond monthly, and from monthly, weekly, and from weekly, daily. When the number of letters shall have increased in this country to 300,000,000, or only four times the present number, what freights of love and friendship will be continually borne from one extremity of the land to another, thrilling every day a million of hearts with kind and pure sympathies! Cheap postage will do this.

A gentleman of eminence in the legal profession, who has been employed professionally in a large number of divorce cases before the courts, remarked that a large proportion of those unhappy marriages originated in some slight interruption of affection, occasioned by temporary absence, during which there was not a constant intercourse kept up by letter. And he had no doubt that the establishment of cheap postage would, in thousands of cases, forestall these little alienations, by the facility it would afford for the continued interchange of sympathies, by frequent correspondence. What father, driven by the demands of business or benevolence, or in the public service, to be absent from his home, would not feel the frequent letters of his sons, his daughters, the childish first scrawls of his little ones, coming by every mail, to be like guardian angels, hovering around him to keep off every contaminating breath, and fanning with their wings the pure flame of domestic love in his heart? Children, too, absent at school, boys put to trades, or in counting-rooms, young persons pushing their fortunes in any of the thousand forms of enterprise created by our busy Anglo-Saxon race, would find that the frequent "letters from home"—the kind greetings of father and mother, of sister and brother, would surround them as with a continual presence of *home*, with all its blessed restraints and genial influences. It would so strengthen the stakes of the paternal tent, that the heart could never be torn from its hold; and it would so lengthen its cords, that it would cover every member of the household, however far removed. The old roof-tree would send its fibres, and spread out its shadow, to embrace and shelter every wanderer who had been born at its root. Preserve the domestic affections, and you have almost a sure guaranty for the domestic virtues, the foundation of all good morals. And even if a young man should be led by temptation away from the path of virtue, these incessant letters from home will find their way to his heart, and win him back to the hallowed circle, because they have never allowed him to sink into the cold isolation of confirmed vice. All this ministry of heavenly beneficene is the effect of cheap postage.

The usefulness of cheap postage, in aiding the various enterprises of benevolence and reform, should not be lost sight of, in this recital. Hundreds of thousands of our citizens are interested in behalf of some one or other of these objects; and will welcome anything as a boon to themselves which will make them more efficient. The power of the newspaper press to advance these enterprises, has apparently reached its acme. We have secured about as much newspaper material as can be read. Nearly every attempt to crowd in new papers to sustain new movements is a failure, or, at best, short lived, and of limited influence. But cheap postage, by making these efforts direct and personal, carrying their message from an individual to an individual, will

open a new surface to the influence of truth; will awaken to activity new and deeper tissues of sensibility; and, by combining as well as arousing, by union as well as action, will reduplicate, to a thousand fold, the benevolent and moral energies thus produced. A pleasant illustration of the working of this sort of "mind-machinery," may be seen in Mr. Burritt's description of the preparatory process which preceded Mr. Cobden's motion in Parliament, in favor of the great Peace measure of international arbitration:—

First of the dynamics of this mind-machinery of popular opinion, planted in "a little upper room," and opened upon the Legislature of the greatest empire in the world, was the PENNY POST. For the six months' "agitation" of the national mind, which the Peace Congress Committee had originated and conducted, in favor of the measure to be brought forward by Mr. Cobden, the Penny Post had been plied with unremitting activity. Nearly 50,000 letters, and other missiles, in manuscript or lithograph, had been sent out in every direction, like radiating veins of thought, through which "the one idea" was kept in lively circulation. Thus it acquired a constituency of earnest minds, in almost every town in the kingdom, which sent a representative to Parliament; and that representative had perhaps been surprised to receive at St. Stephen's by the Penny Post, communications from his own constituents, requesting him, with the emphasis of electors, to give his voice and vote for Mr. Cobden's motion. Then hundreds of thousands of printed leaves, elucidating "the one idea," had been scattered with a sower's hand among the masses of the people, which they had read eagerly on their way to the field or factory; and the silent conviction of myriads of men, women and children of the laboring classes, who had no votes to give or withhold, had strengthened the pressure of the people's mind upon Parliament. Then every night, for six months, a public meeting in some city, town, or village, had given an utterance to "the one idea," which the press echoed and re-echoed among the populations far and near. Thus, one hundred and fifty assemblies of the people, from Land's End to John O'Groat's, embracing the active minds of as many communities, had thrown into the gathering tide of public opinion the force of their sympathies. And the great meeting in Exeter Hall was to give a great voice to these convictions and sympathies of the people, and to speak to Parliament the last words of the nation in favor of the measure to be discussed in the House of Commons on the ensuing evening.

There is one other social interest on which cheap postage will bear with a benign effect, which should secure its speedy adoption, and the favor of every lover of his country and her institutions. It will ensure forever the continuance of our glorious Union. This precious interest has ever been a subject of the most tender solicitude to every patriotic bosom. The Father of his Country, in his Farewell Address to the People of the United States, gives utterance to his solicitude in these memorable words:—

It is of infinite moment, that you should properly estimate the immense value of our National Union; that you should cherish a cordial, habitual, and immovable attachment to it; accustoming yourself to think and speak of it as of the palladium of your political safety and prosperity; watching for its preservation with jealous anxiety; discountenancing whatever may suggest even a suspicion that it can, in any event, be abandoned; and indignantly frowning upon the first dawning of every attempt to alienate any portion of our country from the rest, or to enfeeble the sacred ties which now link together the various parts.

Since these oracular exhortations were given, fifteen States have become thirty, and others are already pressing for admission to the Union. The multiplication of interests, the expansion of our territory to so vast an extent, and the convulsions with which the world is agitated, have multiplied the dangers of disunion, and increased the solicitude of the statesman. One of the

foremost of our senators has not hesitated to commit his reputation to the prophecy, that it is impossible to extend the cords of our Union so as to embrace the new empire which is to rise on the shores of the Pacific. But we must surely try; and no man deserves the confidence of the American people, as a legislator, who is not ready to do all and everything that is within the constitutional power and the reasonable ability of the government, to make our Union as lasting as time, whatever may be its extent. Canals and railroads, commerce and education, the circulation of newspapers, and the habit of meeting by our representatives in the halls of national legislation, may do much to preserve the Union. But no intelligent citizen will affirm that these ties of political connection and pecuniary interest afford a satisfactory guaranty for the perpetuity of the Union in all contingencies, or make it what all wish it to be—INDISSOLUBLE. We need a more intimate intercourse of individuals; such interchange of individual thoughts and feelings as will make our nation "E Pluribus Unum," all one heart. The strength of the three-fold cord, proverbial from the time of Solomon, is derived from the intertwining of innumerable small fibres. And this principle has received a new illustration, in the wire cables, which have just completed a solid communication at Wheeling, between the oldest of the "Old Thirteen," and the "Territory north-west of the Ohio." Where solid bars of iron would fall assunder by their own weight, these twisted wires easily sustain the tread of an army. Cheap postage will strengthen the fibres and twist the cables of living thought and feeling, which will make our Union as lasting as human nature on earth.

Cheap postage, in its various forms of influence, secures our Union from danger, by its operation upon all the causes of danger. The safety-lamp, invented by Sir Humphrey Davy, renders the explosive gases of the coal mine harmless, by dividing them, and forcing them through the fine meshes of the wire screen. The flames that light our city are not dangerous, because the inflammable gas is made to pass through capillary tubes. Cheap postage will perform the same function in regard to all noxious principles, and all enlightening processes in the body politic. The agitations of controversy, the measures of reform, even the machinations of the malcontents of every description, will become innocuous; while the true advancement of society will advance with steady course, aided, not endangered, by every wind that blows, and every wave that rolls and rocks.

This has been its effect in England. While it quickens all the elements of political and social reform, it has made the government and social order of the country stable and secure, while all the rest of Europe has been tossed upon the billows of revolution and civil strife. Cheap postage disarmed Chartism, and brought the friends of the written charter to strive for their object solely by peaceful agitation through the forms of the constitution. Cheap postage repealed the Corn-Laws, and gave the starving millions the blessings of free bread. Cheap postage has just repealed the Navigation Laws. Cheap postage has repeatedly interposed the veto of the minority, and defeated favorite schemes for consolidating the power of the aristocracy, in legislating for the benefit of the few against the many. In the year 1843, the writer of this spent a few weeks in England, where his attention was turned to the examination of the workings of cheap postage. Shortly after his return home, he penned the following description, and published it as an editorial leader, in a daily paper, of which he then had the control. The pledge with which it concludes has never been lost sight of. From that day

to this, he has lost no opportunity of urging upon the community, and upon Congress, by all means in his power, the importance of the adoption of ROWLAND HILL'S SYSTEM OF CHEAP POSTAGE.

(*From the Boston Morning Chronicle.*)

No person can realize the value of the "British system" of postage, who has not experienced its benefits. It is the most beautiful manifestation of pure beneficence in human government, that can be found upon earth. By it, the government comes to every man, every woman, every child, every day in the year, (Sundays excepted,) and for a compensation so small as hardly to differ from mere gratuity, offers to carry all their letters of business, affection, or philanthrophy, to any and every spot in the empire, with the utmost speed and the most unfailing certainty that human ingenuity and power can attain. It is a complete leveler. The poorest peasant, the factory-girl, the match-vender, the beggar, even, enjoy the benefits of the cheap postage, as they do of the vital air, on precisely the same terms with the richest banker, the proudest peer, or royalty itself.

It is the grand conservative power of the realm, as well as one of the most effective instruments of reform. It equalizes excitement in all parts of the body politic. It draws the thunder from every threatening cloud by innumerable conducting points. It allows the blazing gas to burn with complete freedom, because the millions of capillary orifices create no danger of an explosion. It is a system full formed, and all but perfect, at its first trial. No invention, no deduction of science, no experiment in legislation, was ever brought forth so complete in all its results. And then it is so simple, in every one of its parts and movements, bringing out so many effects with so little complication of causes, that in this respect it approximates more nearly to the works of the infinite Creator than any other human device or discovery on record. Indeed, its working and its effects are so much in conformity to the mind of God, that we are bound to place it high among those "good and perfect gifts which are from above, and come down from the Father of rights."

Now the simple question is, whether the people of this republic shall continue to have the channels of business and social intercourse obstructed by an enormous tax, or shall be allowed by our rulers to enjoy the same privileges that the British monarchy allows to its taxed and pitied subjects. We shall aim to hold the public mind to this question. The American system has failed, and cannot be restored. The British system has been tried, and proved to be both practicable and capable of self-support. In Great Britain it is already, in four years, a source of revenue. With our wide-spread territory, but lower salaries, we have no doubt in four years it will support itself, with all the privileges now afforded.

A system which is proved to be so simple, so economical, so perfectly practicable, and fraught with such vast benefits to the highest interests of the nation, ought to enlist the earnest support of every good citizen, both to secure its adoption by Congress, and to aid its working, when it goes into effect. By the uniformity and cheapness of rate, it is made dependent for its success entirely upon the perfect accommodation it affords to the public, so as to induce the greatest possible number of letters to be sent by the mail. And this necessarily leads to the utmost simplicity and economy in the details, the most compact and methodical arrangements in all branches of the service, and inspires every faithful functionary with its own spirit, which is to diffuse its utmost advantages to every citizen, with the fewest possible disappointments and failures.

The British post-office, though very far from perfection, and though loaded still with many cumbrous appendages retained from the old system, is yet in its practical working as a means of conferring benefits upon the people, the most complete piece of governmental machinery ever adopted by man. It is the glory of the government of God, to accomplish numer-

ous and complicated results, by few and simple means—as seen in the manifold operations of electricity, gravitation, &c. Men, on the contrary, are forced to combine numerous and complicated instrumentalities for the production of isolated effects. In the establishment of cheap postage, human government seems to approach toward this glorious model, and shows itself in some measure worthy of its claims to a divine origin, for it presents itself as a wise and benificent dispenser of impartial favors upon all its subjects. It is the best answer that can be given to the allegation that all government is usurped and tyrannical, and will go far to justify the position taken in Scripture, that "the powers that be are ordained of God." Who can limit the good effects of a system, which every day presents the government of the country traversing every village in the land with its visits of kindness, and rendering its services to every family at a rate so cheap as to be all but gratuitous?

Unless the bill to establish cheap postage is passed by Congress early in the session, it will be impossible to complete all the arrangements for working the new system with success, in time for the act to go into operation on the first of July, the beginning of the "fiscal year," as it is termed, by which it is convenient to regulate all the business of the government. What is needed, therefore, is such a general expression of earnest desire, on the part of the people, as shall convince Congress that, in adopting cheap postage, they shall be giving effect to the public will. It is desirable, especially, that all the classes of citizens who take an interest in the advancement of society, in education, in social happiness, in morals and religion, should give utterance to their views through every appropriate channel. The press, and especially those portions of it particularly devoted to the general interests of mankind, should speak out, with fervor and force, with frequency and constancy, as if resolved to be heard and to make an impression. Petitions may well go to Congress from every college, academy, and school, every literary institution, every professional seminary, every learned society, every library and lyceum, every association of men for any purpose of mutual benefit or public improvement, with the simple request that we may have letter postage at two cents for half an ounce. Individual citizens, in every path of life, can help, by addressing letters to their representatives. There is not half pains enough taken in this way to keep members of Congress acquainted with the minds of their constituents. It is for this very purpose that they have the franking privilege, and now is a favorable opportunity for the people to use it for so great an object. Let Congress give us cheap postage for the people, and the continuance or repeal of the franking privilege becomes of small account. A union of effort and influence, to do one thing at a time, cannot fail to succeed. And a new era to our free republic and happy Union, will commence the day that we begin to enjoy

THE MORAL AND SOCIAL BENEFITS OF CHEAP POSTAGE

Art. III.—THE ASTRONOMICAL EXPEDITION TO CHILI.*

THE document whose title we have given below, contains a brief statement of the origin and objects of the astronomical expedition recently prepared by our government, and sent to Chili, under the direction of Lieutenant James M. Gillis, a description of the instruments with which it has been furnished, the observations which are to be made with them, and directions to insure the more satisfactory coöperation of astronomers in other parts of the world. The success of this undertaking concerns both the honor of the country, and the progress of science. We therefore submit such notice of it as our space will allow, and the subject being one with which the majority of our readers may not be familiar, involving, also, scientific principles of some intricacy, we have deemed it not improper to preface our remarks with a brief explanation of the object to be attained, a history of the different expeditions heretofore set on foot for similar purposes, their results, and the reasons which render such an undertaking, at the present time, both desirable and necessary.

Some of the most important elements of astronomy, as it exists at present, have been derived from observations of the two planets of our system which are nearest to us—Venus and Mars. It was from the analysis and discussion of observations previously made upon the last named planet, by Tycho Brahe, that Kepler succeeded in discovering and demonstrating the fact of the motion of the planets in elliptical orbits, and the principal laws by which that motion is governed. The treatise in which these laws (still bearing the name of their sagacious discoverer) were first announced to the world, "Astronomia nova de motibus stellæ Martis," indicates, by its title, the planet whose appearances had been the object of first and most attentive consideration, and the development of whose true motion was to solve forever a long disputed question, and afford a basis for the splendid discoveries which soon after followed. In giving the title of the *new* astronomy to his treatise on the motion of Mars, Kepler seems to have been aware of the extent and character of the superstructure for which he had provided so secure a foundation. In this work he traces, not indistinctly, the course of the investigations which were to follow, and defines, generally, the character of the single force which produces all the apparently complicated motions of the universe.

The earlier astronomers also availed themselves of the appearances presented by this planet, for obtaining the value of the solar parallax, and the distance between the sun and earth—two quantities having a constant relation to each other, and the latter of which is the unit of all lineal measures in the higher astronomy. But it has been from the other planet, Venus, that in later times the more accurate determinations of these values has been derived, and it is for the purpose of arriving at still greater precision in regard to them, that the present expedition to Chili has been planned and appointed.

The word *parallax*, in its technical sense, signifies the angular difference between the position of a body, as seen from the surface of the earth, and the position of the same body, if it had been seen from the center. For a proper estimation of the positions of the heavenly bodies, or such of them as have discernible diameters, it is necessary to refer them to their respective

* Circular prepared by direction of the Hon. W. Ballard Preston, Secretary of the Navy, in relation to the Astronomical Expedition to Chili, by Lieutenant M. F. Maury, Superintendent of National Observatory.

centers, or to suppose their masses condensed into a point, as without this correction, it would be impossible to fix their places with certainty. The difference, therefore, between the observed place of a planet, as seen from the surface of our earth, and its true place referred to the earth's center, is called its parallax. The mean value of this quantity is different for each individual body, depending upon its distance from the earth, being greatest in the bodies which are nearest to us, and least in those which are most remote; so that the parallax of the nearest fixed star has, until recently, been considered altogether immeasurable, and its distance infinite.

Parallax is also affected by the position of the observer upon the surface of the earth, and it is by this difference that its absolute value becomes determinable. It is, except for the moon, always a small quantity, and its greatest value, termed, technically, the horizontal parallax, is the angle which the semi-diameter of the earth subtends at the body whose position is under consideration.

The solar parallax, though amounting, at its maximum, only to eight seconds of a degree, is of constant use in the ordinary operations of practical astronomy; but it is not in this view that its accurate determination is most important, but as affording the only data from which to determine the distance between the sun and earth, the unit in all astronomical computations.

It will be evident that two observers at different points of the earth's surface, would refer the position of a body near them, to different places, among bodies which are more remote. And, when this reference is made to the concave of the starry heavens, considered as at an infinite distance, the angular difference between the two places to which the body is referred, expresses the angular difference at the planet, between the places of the two observers. If, then, the absolute distance between the two observers be known, also, it becomes the base of a triangle, which, with the angle at the planet, and one or both of the other angles which are derivable from the observations, furnish the data requisite for determining the distances between each of the observers and the body observed. This is the general principle used in the determination of parallax and distance. The solution of a plane triangle, one side of which, and all the angles, are known. The question thus simply presented, becomes complicated and laborious in its solution, from the motion of the earth, from its spheroidal figure, from the relative positions of the observers, and from the small proportion which the known side bears to the other two. But these conditions it would exceed our limits to explain, and it is only the more general features of the subject which we wish to present to our readers.

In pursuing the subject, it must be observed that the parallaxes of all bodies have a certain relation to each other; that is, they are inversly in proportion to the distances of the respective bodies from the earth, and are all referred to the same base—the radius of the earth. The relative values of their distances are also known from the theory of planetary motion, so that, from an accurate determination of the parallax of one body, the parallaxes of all the rest are immediately derived. This being the case, and the base being always relatively small, astronomers would naturally direct their attention to that body whose parallax, in any one position, is largest, and most susceptible of determination. This was found to be Mars, near its opposition, when its distance from the earth is to its distance from the sun, as 52 to 152. The efforts of the earlier astronomers, until the middle of the last century, including the labors of Cassini, La Caille, and their distinguished cotemporaries, were all aimed at perfecting the details of this method, and in this

way the horizontal parallax of the sun had been fixed at ten seconds of a degree, exceeding, by about one-fifth, the value derived from subsequent and more accurate determinations.

A new direction was, however, soon to be given to these attempts. Between 1660 and 1742, the transits of Mercury over the disk of the sun, had been observed by the astronomers of different nations, for the purpose of perfecting the theory of that planet, which (from the time of Kepler, who was advised to let Mercury alone, if he wished to preserve his repose, to the time of Le Verrier, who has given us the last paper on this subject) has been the subject of more investigation and labor than any other body of the system. In 1667 the celebrated Edmund Halley was sent to St. Helena, for the express purpose of observing the transit of Mercury of that year. It is probable that the observation of this transit, and the time necessarily spent in its discussion, first suggested to Halley the use which might be made of the transits of the inferior planets in the determination of the solar parallax. For though Mercury, the planet then used, does not present the most favorable conditions for this purpose, still the consideration of the desiderata in this case would naturally suggest where to look for circumstances more favorable. These were found in the transits of Venus, and, though the two phenomena of this kind next succeeding the time of Halley (occurring, as they do, only twice in a century) had been predicted by Kepler, and computed by others, Halley was the first to announce to the world the advantage which might be gained from the use of them in the determination of the parallax of the sun.

The method devised by Halley is one of those happy artifices to which the exact sciences in modern times owe, in a great measure, their so rapid advancement, and the discovery or application of which contributes always so much of enjoyment to the cultivators of these branches of knowledge. It will occur, at once, to every one, that, during the transit of an inferior planet between us and the sun, the planet will present itself upon the sun as a dark, circular spot, and that this dark spot will be referred, by different observers, to different parts of the sun, according to their relative positions on the surface of the earth, thus affording an accurate measure of the parallactic angle upon a bright circular surface of well determined dimensions. But this is not the only advantage of the method of Halley. During the time of the transit, the path of the planet will be sensibly a straight line, and its motion may be regarded as uniform. The apparent paths of the planet, as seen by each observer, become, therefore, two chords of the same circle, determining, by their lengths, the value of the arcs to which they belong. The lengths of these chords are determined by the duration of the transit, or interval between the ingress and egress of the planet, as seen by each observer, and the difference between these arcs thus determined by their chords, gives the value of the angle at the planet, between the two observers. The quantity thus found, after some reductions required by the circumstances already spoken of, gives the absolute difference between the parallax of the planet and the parallax of the sun, and as the theory of planetary motion gives the ratio between these two quantities, they are, therefore, both determined, as two quantities are know when we have their difference and their ratio. Speaking of the method, Herschel says:—(Astron. page 245) "It affords an admirable example of the way in which minute elements in astronomy may become magnified in their effects, and, by being made subject to measurement on a greatly enlarged scale, or by substituting the measure of time for space,

may be ascertained with a degree of precision adequate to every purpose, by only watching favorable opportunities, and taking advantage of nicely adjusted circumstances."

But two transits of Venus have occurred since the announcement of Halley. The first in 1761, and the second in 1769. The two next will happen in 1874 and 1882. Halley's papers on this subject appeared in 1667, 1691, and 1716, so that ample time had been given for the discussion of principles, the perfecting of details, and making the necessary preparations. On the approach of the first transit, in 1761, astronomers were sent by all the nations of Christendom, to the stations the most favorable for observation. Among these, Maskelyne went to St. Helena, Pingrè to Isle Rodriguez—and there were also many other observers. A computation and analysis of these observations, made principally by Maskelyne, Pingrè, and La Lande, gave the limits of the solar parallax at 8″, 5″, and 10″, 2″ and 9″ was adopted as the approximate value.

In the meantime, the transit of 1769 was waited for impatiently, and more extensive preparations made for its proper observation than had been found practicable in 1761. The experience acquired in the first observation, and subsequent interchange of opinion, had enabled the scientific world to accord as to the points requiring the nicest attention. Greater perfection in the instruments had been attained, and, as in the first transit some of the observations, after years of preparation, had been lost by unfavorable weather, such contre temps was, as far as possible, provided against by increasing the number of stations. The results derived were proportionally numerous, and, after long and laborious computations and comparisons, gave the limits of the solar parallax as 8″, 40712, and 8″, 58556. In concluding a detailed exposition of these different results, Delambre says:—(Astron. Tome 2, 506.) "Our first conclusion is, that the parallax is sufficiently well known for all purposes of practical astronomy, and that it is most probably included between the limits 8″, 5, and 8″, 7—we will make it 8″, 6." These same observations have been recalculated with immense labor and improved methods, by the most distinguished astronomers of the present day, the last and most critical discussion having been performed by the celebrated Encke. The value thus arrived at is 8″, 5776.

And here we might suppose the matter to have rested, at least till the occurrence of the next transit of Venus, in 1874. But in this progressive age, no department of science stands still. The labors of Bessel have approximated to a determination of the parallax and distance of the fixed stars. Mædler, by an analysis of their proper motions, has attempted the determination of a central sun to our system, and the one-hundredth part of a second has become a measurable quantity. In such circumstances, it would be derogatory to wait twenty-five years longer, and other methods have been devised as a substitute for the still distant transit of Venus. The expedition to Chili is an important part of the process commenced for a new determination.

Since the last recomputation by Encke, of the observations of 1761 and 1769, the uncertainty still left in the sun's parallax, amounting to about $\frac{1}{300}$ of its whole value, has been regarded as a serious defect, to remove which seems more obligatory upon astronomers of the present day, when we regard the very great improvements which have been made in the construction of telescopes, and all other astronomical instruments since the date of the last observation. To arrive at greater precision, observations have recently been made upon Mars, during its opposition. We have already stated that

the first attempts of Cassini and La Caille, to determine the parallax of the sun, was by means of this planet observation, and the instrumental improvements of the present day, would undoubtedly give much greater precision to results thus derived. To direct attention to this point, and acquire a sufficient number of observations, there have been published, in the Nautical Almanac,* "lists of stars proper to be observed with Mars near its opposition," but, as yet, no results of these observations have been presented, nor do the proper measures seem to have been taken to make them available.

The attempt now about to be commenced, was first proposed by Dr. Gerling, in Schumacher's Astronomical Notices for 1847. It is to be based upon observations made upon Venus, during the inferior opposition, and near her stationary points, by comparing her position with the nearest fixed stars. These observations to be made at stations at the greatest practical distance from each other, or approaching as nearly as possible to a diameter of the earth. And in operations of so much delicacy, the condition of the problem will be much improved by a judicious location of the observers. Thus, observations made at Greenwich might (as is suggested by Dr. Gerling) be combined with similar ones made at Paramatta, in New Holland, the places being nearly antipodal. While Chili, finding its most direct opposite in China, would combine advantageously with any of the observations of the old world—and, joined with Washington, has the advantage of being very nearly in the same meridian, and is more than a semi-diameter distant.

The observations are of the same kind as those for Mars, upon which planet, at its opposition, observations are also to be made, and consist of continued measurements between the planets and the nearest stars, thus determining their places as seen by each observer, and from thence deducing their parallax, from which finally is deduced the parallax of the sun. The conditions are most favorable when the parallax of the planet is greatest, as compared with that of the sun, the quantity to be determined. Dr. Gerling has the following statement of the relative advantages of the different methods. Designating by P the parallax of the planet, and by p that of the sun, we have—

For the opposition of Mars at the mean distance.....	0.52	P = 1.92 p
For the opposition of Mars at the perehelion distance.....	0.365	P = 2.74 p
For the interior conjunction of Venus at the distance.....	0.28	P = 3.57 p
For Venus stationary at the distance.....	0.34	P = 2.94 p

From this it appears that Venus, at its interior conjunction, presents the most favorable condition; but unfortunately, at this stage, the planet is close to the sun, and as it cannot then, even with the best telescopes and clearest, atmospheres, be compared with stars less than the first or second magnitude, observations may be considered, at this point, nearly impracticable. The stationary points afford the next best condition, and it is upon these that the most important observations are to be made.

The advantage of the method now proposed is, that it does not depend upon a single phenomenon, as the transit of Venus, (in which the† effect of

* Such lists are found in the Nationol Almanac, June, 1841. Speaking of observations of Mars, near the opposition, Dr. Gerling says:—"But it appears that, after the brilliant results of the last transit of Venus, or indeed, since 1751, this second method has never seriously been brought into us, although it affords a very proper occasion to test the new methods of observation, and the Nautical Almanac have prepared an Ephemesis for that purpose."—Astron. Nachrichten, No. 599.

† We have heard it stated that either Mr. Rittenhouse, or Mr. Ellicott, both of whom observed the transit of 1769 in America, sent invitations to some of his neighbors to be present on the occasion, and was answered by one of them that he was very much engaged, but would certainly avail himself of the next opportunity.

years of preparation may be lost by a cloud,) but that corresponding observations are continued for months, the accuracy of the final results increasing proportionally to the number of measurements.

Another advantage to be derived from the expedition, will be to awaken interest to the subject, and undo the palsied feeling, which sometimes creeps over even the scientific world, consoling itself, for lack of exertion, with the reflection that the subject is minute—of too little importance, and has been sufficiently settled for all practical purposes. Wherever this feeling becomes paramount, either in great or little masses, the wheels of knowledge are hindered, or stopped altogether.

In the expedition—continuing, as it does, for two years—Lieutenant Gillis will have an opportunity of increasing, very considerably, the catalogues of southern stars—a contribution of no small consequence to the astronomical world. Besides, it is not at all improbable, that, properly managed, the present expedition may result in the establishment of a permanent observatory in Chili, whose climate and atmosphere are said to be of rare purity and clearness.

The circular prepared by Lieutenant Maury, in regard to the expedition and its objects, is brief and perspicuous, stating clearly the part which the government has undertaken in this matter, and the coöperation which it expects from the scientific world. It has the character most appropriate to such papers—is plain, and to the point. The ephemerides and charts prepared by Lieutenant Gillis, and which accompany the circular, supply the necessary details. We sincerely wish him success, and that the results may be such as shall do honor to the country and to himself.

Art. IV.—CONNECTION OF THE ATLANTIC AND PACIFIC OCEANS BY RAILS ACROSS NORTH AMERICA.

From British America in the north, to New Granada, in the south, there are many lines of fair direction, and gentle acclivities, affording practicable routes for railways leading from the waters of one great sea, to the shores of the other. Those lines which are entirely within the United States, need only start from the right bank of the Mississippi, or the western shore of the Gulf of Mexico. But they must all cross the main dividing ridge of the continent through some of those passes of the Rockey Mountains, found between the 39th and 42d parallels of north latitude. One such route, under the auspices of Col. Benton, the indefatigable Senator from Missouri, may, notwithstanding its great length, meet with such patronage and assistance from the Federal Government, as to secure its construction within no very remote time. But this in common with all those routes still further north, will ever prove impassible in winter, from the immense falls of snow which invariably fill up their mountain gorges, at that season of the year. The valley of the Rio Gila, the southern limit of the United States, on the western slope of the continent, can only be rendered partially available for a railway; and that by deflecting its course so far to the southward as to carry it for many miles entirely within Mexican territory. But after all, such a route would find its natural terminus on the Gulf of California; and

being at the head of that long gulf, this terminus will not be as accessible from the ocean, as ports farther down the coast towards Mazatlan.

Between the parallel of the Rio Gila, 32° North, and that of the head stream of the Arkansas, 39° North, all the mountain ranges and vallies on the Pacific side, run transversely to a western course, and present such bold and formidable accidents of ground, as to forbid the hope that even the closest researches might lead to the discovery of a practicable line for a railway running directly across this part of the continent. On the eastern side of the great back bone of America, the vallies of the Arkansas and Nebraska, or Platte Rivers, and those of their numerous tributaries, are alone likely to afford the natural lines of approach to the noted passes of the Rocky Mountains. It is moreover probable, that the most natural debouch from those passes towards the Western Ocean, is that following the emigrants trail, by the Great Salt Lake, into the Valley of St. Mary's, or Humbolt's River, and thence on to the eastern foot of the Sierra Navada, of Alta California, which Sierra will have to be crossed at one of its greatest depressions, so as to enter some one of the vallies which discharge their waters into the Bay of San Francisco. The total distance by such a route from the Mississippi River to the Bay of San Francisco, would not be far from two thousand miles. All routes south of this, and north of either Isthmus, have their natural termini on the respective gulfs of Mexico and California.

The Isthmus routes, Panama, Nicaragua, and Tehuantepec, all present the common advantages of short lines. The first not necessarily exceeding fifty, nor the last two hundred miles in extent. Consequently the first cost of the construction of either of these lines would be relatively small, and the subsequently yearly expense of keeping such a railway in good order, would become a matter of trifling moment. Indeed, the cost of transhipment from ocean to ocean, by such a line, would but little exceed that of unloading one vessel, and transferring its cargo into another, lying at a different dock of the same port. If, therefore, the advantages of a connection by rails between the two oceans were confined to the mere portage across from sea to sea of goods and persons passing between Europe and Asia, then no argument would be necessary to show that the consideration of other routes than the Isthmus ones would be mere waste of time, and that the hope of finding any capitalist willing to venture his money, in such an undertaking, would prove to be a visionary speculation. The railway statistics of any country will show that long lines are not always as profitable from the transportation of things and persons, going through from one extreme to another, as from that only passing between the intermediate points of the railway. Or, in other words, that the way business is often more advantageous than the through business. Should a line of rails be so placed as to afford some profits on the investment from its way business, then such a line might readily enter into competition with a shorter one, for a through business of such a character as to seek either line.

During the long time that the Spaniards owned Florida, Mexico, and South America, and whilst they had the complete control of the trade of the Pacific, it would seem that the galleons from the Philippine Islands, and those from Chili and Peru, would naturally have met at the Isthmus of Panama to tranship their cargoes into the fleet destined to transport them from the eastern shore of America to Spain; yet we know that this short portage, and apparently direct line, was early abandoned for the longer one across the continent, from Acapuleo through the city of Mexico to Vera

Cruz; thereby, at the very least, decupling the distance of the land route. Undoubtedly political as well as economical reasons influenced the Council of the Indies in making such a change. But, assuredly, if all economical reasons should have proved themselves to be opposed to the change, the old Isthmus route must have been again resorted to in the long period which intervened before the Colonies were separated from Spain. It should be further borne in mind, that all vessels crossing from Asia to America, are led by the prevailing winds of the Pacific, to sail so far to the northward as to make the western coast of America along the shores of California; and that the distance thence to Panama is still very great, whereas Panama itself is not as near Europe as Tampico, or any other port on the Gulf of Mexico. Although the most direct and shortest line from China, or Japan, to Europe, would cross the continent north of the United States, still a railway from the Gulf of California to the Gulf of Mexico, would be sufficiently near a direct route to shorten greatly the voyage, and would certainly be enough so to compete with the short portages far to the South, over the Isthmus routes. Such a line would in fact bring Canton and London ten days closer together than can be done by the Panama route.

The character of the population, and that of the government of a country through which a route passes, must have a great influence upon the property value of a railway, both in the security of the investment, and in that part of the regular increase of the local profits of the railway depending upon the advance and progress of the people dwelling along its line. Neither the people nor the government of a pure Mexican race would now offer any of those securities.

As it is not the through business of a railway which is always the most profitable to its owners, neither is it likely that the more remote traffic between Europe and Asia will prove as profitable to a railway across the continent of America, as that arising between the United States and their growing territories on the Pacific. Indeed, but few of those who may be led to investigate this subject, will be found unwilling to admit that the mere shortness of a railway connecting the two oceans, and the cheapness of its first cost, are not such overwhelming advantages as to drive all longer lines from competition with it. However, before the longer one can be adopted, even in this case, it must be shown to combine, in a fair degree, all the advantages of accessibility, directness of course, and perfect freedom from all interruption caused by rigor of climate, and, moreover, to afford that security of property in the investment, without which the most alluring enterprise would fail in attracting the sagacious capitalist.

A great work of this cosmopolitan character, should draw the attention of all Christendom, and can very properly elicit in its support the zeal and enthusiasm of the statesmen of many nations. If such a work could be constructed under the practical guaranty of the pecuniary and commercial interests of the trading people of the two great maritime powers of the world, then retired capitalists would seek its stock as the most secure and profitable investment which could be made of the proceeds of the labor of their early years. The consummation of such an enterprise, would be well worthy the united efforts of the people of America and England. To the British statesman especially, this enterprise should hold forth a great charm; for it may be so conducted as to free a large part of that vast capital which was so confidingly invested, a quarter of a century since, by British subjects in Mexican bonds and mines; but which now, to all appearances, is hopelessly involved,

for the eventual release of this capital seems only to depend upon the means and faith of the insolvent government of a retrogressing race. This retrogression of the Mexican race, before the inroads of the wild and indigenous tribes roaming over their northern frontier, has been so constant and rapid, throughout the last half century, as to attract the attention of all persons familiar with the people or history of Mexico. Intelligent British and American officers without any communication or interchange of opinions with one another, have been led to fix the speedy limit, brought on by these encroachments, which is soon to confine that race to about the 24th parallel of latitude, which is in fact much about the same boundary Cortez found to limit the cultivation of the soil, under the rude application of the arts of husbandry used by the semi-civilized subjects of Montezuma. If this pressure meets with no check from the people of another race, all that great extent of country lying north of Mazatlan, Durango, San Luis Potosi, and Tampico, up to the southern boundary of the United States, will, in a few years be turned into a howling wilderness, left free to the range of the savage, the buffalo, and the deer, and where in equal wildness the ox and horse, every domestic tie to man being sundered, will be seen roaming in countless numbers. Such is the deplorable fate imminently pending over the devoted heads of the people of the Mexican States of Sonora, Chihuahua, and Coahuila, and from which, if left alone to their own resources, nothing short of divine interposition can save them. But the timely introduction of the American and European, would change the scene. Most of this northern part of Mexico, as far as nature's laws alone operate in restraining man, is now, in truth, as fairly open to colonization as any part of North America was, when Sebastian Cabot carried the flag of the first Tudor to its shores; or when that gallant adventurer, Capt. John Smith, put foot on the banks of James River, at the head of his little band of cavaliers. The settlement or colonization of this region by Americans, or Europeans, is the best, if not the only hope for the Mexican race. Indeed, such colonization of their waste and abandoned lands, is of late ardently advocated by some of the best writers and purest patriots of Mexico.

The colonists would soon impress upon the Indians such a correct sense of their power and will, to resent wrongs, as to make the chiefs of the savages dread the ills and dangers attending the existence of a hostile state. After establishing this conviction in the minds of the Indians, the colonists themselves would not only become secure in their possessions, but would find no difficulty in restraining the Indians from making further depredations upon those who should fall under their protection. The Mexican Vaquiero, and Ranchero, returning in safety and quiet to the care of their flocks and herds, would do their humble part in adding to the material wealth and greatness of the Mexican nation. The busy miner, then freed from all alarm for his personal safety, would again delve into the bowels of the earth, turning out the measureless riches now buried in the long unworked mines of Sonora, and Chihuahua, which are as reputedly rich in gold as any other mine in Mexico.

If it were equally practicable to cross the continent at all points, the railways being forced to the southward by the frosts and snows which obstruct the passage of the mountains in the winter, and again to the northward by the great length of the sea voyages to the Isthmus, its best position would, therefore, be about the latitude of Cape San Lucas, the southern extremity of lower California. The distance across from Mazatlan to Tampico, in a

straight line, is between five and six hundred miles; but there are no two points on the opposite shores of the continent, separated by more insurmountable obstacles. The same difficulties offer themselves against the adoption of any other line crossing the southern part of the great wilderness of Northern Mexico, but would not, however be found in going from Tampico to San Blas; which latter points are respectively situated near the outlets of the two great rivers draining both water sheds of this section of the continent. Their sources interlock where all the spurs and branches of the great Sierra Madre, coming from the South, are compressed together, as by a knot, before spreading out again towards the northward. It is the great bifurcation of this Sierra to the northward, which gives the characteristic features to the region styled the Mexican Wilderness. The main chain of the Sierra, sweeping around to overlook the Pacific, tends to the northwestward, whilst the Sierra Garda runs nearly directly north towards Saltillo, Monterey and Linarez, leaving between these mountain ranges that vast table land which is now overrun and desolated by the Camanches. A railway following up one of these rivers from Tampico, and down the other to San Blas, would traverse the famous Bajia, and necessarily pass through some of the richest and most populous districts of Mexico. It would, consequently, be within that region which it is most likely will the longest remain under the control of the Mexican race. To avoid this it will be necessary to go several degrees north to find good posts which can be connected by a railway running a tolerable direct course, and having easy grades. Such a line may, however, be established about latitude 28° North, and will not necessarily exceed in extent one-half of the distance of the great internal route through the United States, from the Mississippi River to San Francisco. It will traverse the American State of Texas, and the Mexican States of Chihuahua and Senora, and will pass over a country, although now almost a perfect wilderness, rich in undeveloped wealth, and one in every aspect adapted to rapid settlement and colonization. Pass Caballo, one of the best inlets on the Gulf of Mexico, will afford the entrance to its eastern port in Matagorda Bay. Guayamas, probably equal to any harbor in the world, will be its western port. From Matagorda Bay, one of several routes would follow up the valley of the Colorado, of Texas, and that of its tributary, San Saba, crossing over into the valley of the Pecos, and thence by one of those characteristic vallies of Northern Mexico, not the *Thalweg* of any drainage, to Presidio del Norte, where the Rio Conchos empties itself from the South into the Rio Grande. Here leaving the territories of the United States, and crossing into those of Mexico, the route would follow up the valley of the Rio Conchos, if necessary, to clear some broken and mountainous country bordering on the Rio Grande, but deflecting westward at the proper time to reach one of the Puertos, or Passes of the Sierra Madre, which would give an easy passage across that summit into a tributary valley of the Rio Hiaqui, and thence tracing down that stream to tide water at Guayamas. The bottoms of the Colorado of Texas are covered with an inexhaustible supply of the finest red cedar in the world. Every engineer will at once appreciate this as one of the most valuable acquisitions possible for a company building a railway.

There are other routes from Matagorda Bay to the Rio Grande, at the mouth of the Conchos; a close examination might prove one of them better fitted than that here designated for a railway. The extreme southern one would cross over to the San Antonio River, and follow up that river and its tributary, the Medina, to the foot of the mountains, thence running parallel

to the mountains along the foot of the slopes, to where the Rio Grande comes forth into the plains of Texas, thence tracing up that river itself. The intermediate routes would naturally present themselves to the observation of the exploring engineer. From the mouth of the Conchos to the Hiaqui, it is by no means certain whether it would be better to turn off directly up the valley of the Conchos, or to trace still further up that of the Rio Grande, before making for the Sierra Madre. A general designation of the direction of the line between the extreme points is now alone pretended to be offered.

A few brief remarks may suffice to show by what combination of divers interests such an extensive work might be undertaken so as to save that unity and harmony in the conduct of it, without which it would be vain to hope for its completion. The State of Texas should in the first place grant the unrestricted right of way over her territories, under a liberal charter, which should at the same time cede to the company a large portion of the unlocated lands along the line of the road. Her people are too sensible of the many advantages they would derive from such a road, to call for any arguments to induce her to make the necessary grant. It will readily be given on any fair evidence of the probability that the railway would be constructed. To get the same right of way privileges, and protection from the Mexican government, State and Central, may prove much more difficult. It is in this, however, that the claims of the Mexican bond holders may be efficiently brought to bear. The sanction of the Central government might be demanded by these claimants, and should be granted by that government as a slight mark evincing a disposition to render to its injured creditors some tangible acknowledgement of their long withheld dues. Some of the separate State governments have heretofore repeatedly made engagements with American hunters and trappers, to defend their people from the inroads of the Indians. A railway company could be so organized as to undertake to discharge the same duty towards the people of the States through which the railway might run, in return for adequate privileges granted to the company by the government of those States.

Whilst the Mexican bond holders obtain the grant of the right of way, &c. for a railway company organized for building the railway, they must secure something more substantial for themselves. This might be effected by getting themselves converted into a company of Empresarios, with the full authority of such over all vacant and abandoned lands, bordering upon the line of railway, and lying to the northward, between it and the south-western boundary of the United States; agreeing for the Mexican government to impose upon the company of Empresarios, the usual obligations of colonizing and settling the lands, and further that of eventually disposing of them at limited rates to the heads of families, and other actual settlers. The bond holders receiving the lands at a low rate, in lieu of their bonds, would turn the present worthless paper of the Mexican government, into real and convertible property.

The charter, the right of way, and lands necessary for stations, and other railway purposes, to be transferred by the company of Empresarios, to the railway company, for no further consideration than the incidental advantages the railway would afford in bringing their other lands more speedily into market.

The foregoing is intended merely as an outline of the most prominent reasons in favor of the selection of the route, herein roughly designated, as the most proper for connecting the two great oceans by rails across North America.

Art. V.—RELATION OF RAILROAD CORPORATIONS TO THE PUBLIC.

The introduction of railroads, is making changes in the business of the world, of which we cannot yet appreciate the importance, or predict the consequences.

The fact, obvious on slight investigation, that in the aggregate, the cost of *distribution* bears a large ratio to the original cost of production, suggests the magnitude of the results which may be expected from this new mode of transportation, and its probable effects on human industry. A change so momentous, in a cardinal department of trade, will probably require some alteration, or some modification in the application of the laws which have heretofore regulated this branch of business. The law of "common carriers," has, however, been so perfected by the thought of profound civillians, aided by the results of long experience, that it now embodies an amount of well settled principles, which will go far to enable the judiciary to meet the emergency created by railroads, though it can hardly be expected that they will meet every case arising under a system so different from that which they were intended to regulate.

A prominent and very important difference, which at once presents itself, is the *absence of competition* on the line of a railroad. This deprives the system of the usual and best means of fixing the rates of charges, and of protecting the public from imposition. A railroad is in *fact* a monopoly of the transportation on and near its line; for it will be long before rival roads will be built side by side, so as to compete for the same local business, and the question arises, in what way shall this inherent difficulty be obviated? It is important to railroad companies, as well as to the public generally, that this problem should be settled with as little delay as possible, or as soon as we shall have obtained the pre-requisite experience.

At present we can only hope that our suggestions may tend to its solution, and direct attention to some collateral questions involved in the inquiry. Among these, there are two arising from claims made by some companies, which we deem it important at once to discuss. First, they alledge that they have the right to manage their roads as they would any other property, solely with a view to making the largest profits, and without any other reference to public accommodation than their own interest dictates. And, secondly, that they can rightfully charge as high rates as they choose, and vary their charges, carrying for some persons at one price, and demanding more or less of others, for similar service.

If these claims are well founded, a legislative grant of a railroad charter confers on the grantees the power of controlling the collective and individual business of the whole section which their road traverses; for railroad facilities have become a part of the general progress of the civilized world, and that portion which only derives a partial benefit from them, cannot compete in business with those which have all the advantages arising from their use. A company with such powers could say, we will do the transportation at such price as will just give our road the preference over the old modes of carriage, so that the advantages to the community shall be the minimum, which will insure to us the maximum of profit. It is evident that in such case the public might be debarred nearly all the advantages consequent on railroad improvements, and the business of a community be destroyed by competition with those more favored by such improvements. And yet it is

seriously argued, that inasmuch as the public will not change from the old mode unless the new be more advantageous, that still the public are benefitted, and the company fulfil their obligations. This argument would be better grounded, if the mechanical improvement, and the right to use it on their route, were the exclusive and earned property of the company, as well as the road itself. But this improvement is the common property of the age, in the advantages of which all have an equal right to participate; and the natural advantages of the route belonged to the community, the right of appropriating them having been granted to the company by the legislative power, which itself had no right to make such grant—and especially when including the power to take individual property for the use of the road—on any other ground than that of public benefit.

In the very nature of the grant, then, there is an obligation on the part of the grantees, to use their franchise for public accommodation. The right of the public in such cases, and, indeed, the whole subject is yet new, and opinions have hardly been reduced to principles. Let us test these claims by analogies presented by older discoveries. As we have before observed, the grant of a railroad charter, is in effect a grant of a monopoly, from the nature of the case. Suppose, then, a legislature should confer upon a company of publishers the exclusive right of furnishing, upon their own terms, printed books and papers to any designated community, and that under this grant, the company should adopt the rule of selling at a price which should just give the printed a preference over manuscript copies—could there be any possible justification for thus cutting off a community from their share of the advantages resulting from the discovery of printing, now the common property of mankind? We can hardly bring ourselves to imagine such an outrage upon the rights of a people; and yet to make the case parallel to that of a railroad company having the power to charge at pleasure, we must give the publishing company the additional power of taking, for the accommodation of their presses and store-houses, the private property of any individual of the community, paying him, not what he may agree to sell for, but what others may award him.

The effect, then, of a grant to a railroad company, with power thus claimed, upon the business of the community *generally*, might be to arrest all progress, or to make any progress merely subservient to the income of the road; for as fast as business sprung up, and particularly business requiring permanent investments, the company could absorb all the profits of labor and capital, in the charges for transportation.

But the exercise of the second claim, of the right to make distinctions in the charges to individuals, or communities, would be attended with consequences still more disastrous and dangerous to the public. This would give the company not only the control of the whole business to be done, but would enable them to say who should do it. They could say to the town of A., disposed to favour them in turn, we will transport for you for one-half the charge to your rivals in the town of B., who do not choose to submit with a good grace to our requisitions. And they can say to any individual of this favored town, who may be disposed to question the propriety of their conduct, we will charge you more for transportation than you can afford to pay, and as the road has now taken the place of all other modes of carriage, you cannot pursue your business at all, unless you submit to our terms, or by a more conciliating course, obtain our favor. They can say to the proprietors of one line of stages running to their road, we will convey your pas-

sengers for less than those of the rival line; and in this way it is manifest that the business must soon fall into the hands of those who would be most subservient to the company holding such extraordinary powers. This control of the business would almost of necessity run into a controlling influence in politics, and the legislators who made the grant, might soon be made sensible that they must become the humble servants of the *board*, perhaps mere stock gamblers whom they have armed with such formidable power, or yield their places to more pliant occupants.

When, during the recent revolution in France, it was proposed that the government should take into its charge the industrial pursuits of the country, did not every one here perceive that it would lead to a despotism of the most intolerable character—to a system under which those in power could always present the alternative of submission or starvation? Against a railroad company exercising a similar control over the industry of the country, we should not even have the doubtful remedy of the ballot-box.

We have already seen one State struggling for supremacy with a company whose road traverses a small portion of its territory. We saw its citizens suddenly awakened to a sense of their danger, by an apprehension that the company would get the control of the judicial appointments. The State trembled, yet made an energetic effort to avert such an overwhelming calamity. But no sooner had they pointed a spear at the iron horse, than they found that the coils of the serpent had already been insidiously thrown around them, and the effort now making by the State to extricate itself and offspring from the crushing embrace of the monster, appears as convulsive and almost as hopeless as that of Laocoon. What then may be the influence of a railroad, or a combination of roads, running so as to control the business of a large portion of a State, and under the management of some talented, energetic, and unprincipled autocrat of Wall street, with his plotting, subtle advisers.

It evidently behooves us, at this early stage of the railroad movement, to seek a remedy, or, rather, a *preventive*, of such dangerous perversion of chartered power; for when it has once gone so far as to control the official appointments of a State, including the judiciary, there is no *remedy* short of revolution. Having reached that point, the company is as absolute as the Emperor Nicholas, and without his responsibilities and ambitious aspirations for the improvement of his dominions. Those who come under the yoke of such petty tyrants, will find themselves in much the same condition as were the natives of the conquered provinces of Hindostan, who, under the direction of the East India Company, were ruled by nabobs, having no feeling in common with the governed, and no love or pride of country, to neutralize their baser feelings, using their power merely to extort from a subjugated people, every shilling which toil and privation could yield, to gratify the rapacity of their principals, who, actuated by the conflicting influences of public indignation and private avarice, instructed their officials to "be merciful, but send the rupees"—"do not treat the cringing natives so cruelly, but *be sure* to send the rupees."

In the case already alluded to, public indignation, long since excited, appears, as yet, to have gained from the company little, if anything, more than a diminution of the rudeness to which passengers have long been subjected, by the agents of the road, but who seem now to be acting under the new orders to "be civil to travelers, but take their money; be less insolent and abusive, but be sure to get the dollars."

We say, then, it behooves us, at this early stage, to seek the *preventive* of such abuses; and this, we apprehend, is to be found only in holding the railroad companies rigorously to the performance of their duties, and to a strict impartiality in fulfilling them. With regard to these duties, the time has, probably, not yet arrived, to fix them with that precision, which longer experience will dictate, but on this point we would remark, that the companies deriving their privileges from the public, on the very ground of public accommodation, makes it their duty to give such accommodation in return; and the grants being in the nature of a monopoly, requires that the interests of the public should be carefully protected. All the circumstances, indeed, seem to point to the necessity of such protection. Individuals who carry for hire, are, more or less, under the influence of those reciprocal, social obligations and moral considerations, which have no little effect in harmonizing conflicting interests, and establishing customs in conformity to justice. Standing face to face with those for whom they perform the services, they are ashamed to be extortionate, even when circumstances would permit them to be so with impunity. The mysterious "board" which constitutes the *soulless activity*, the *unmoralized will* of a corporation, knows no such ameliorating influences.

The measure of accommodation, and the rates of compensation, would, at first, appear to depend very much upon the circumstances of each particular road, as the necessary expenses of construction, the necessity of high grades when constructed, and the amount of business which the location affords. All differences, arising from these circumstances, will, however, be found to be embraced within very narrow limits, for the sagacity of those interested will, and for the greatest benefit of the community ought, to seek out those locations where the business indicates that the expenditure of the same capital will give the greatest return on the most reasonable rates of transportation. A road will not be built through a sparse population, doing little business, unless it connects important points furnishing a large amount of transportation, or makes one of the links of a chain between such points, and to withhold from the residents on such a route the usual accommodation, or to charge them extraordinary prices, would be to take from them the natural and incidental advantages of their position, and transfer them to the railroad company, without any equivalent. Besides the tendency of business to concentrate on the lines of railroads where the proper facilities are given, is such, that the interest of a road so located, would obviously, in the end, be promoted by a liberal policy. If it will not pay at reasonable rates, it probably will not pay very well at higher, and with no chance of improvement by increase of business. The profits of the company, on capital invested, will not always furnish a criterion for compensation, for they may have expended a much larger amount than necessary, and to allow them, in such cases, to charge in proportion to their outlay, would be making their imprudence or extravagance a burthen on the public, or would be allowing them to take and squander a portion of the advantages which of right belong to the community. If, then, the cost is to be an element of charge, it should be with allowances only for such injudicious expenditure, as with ordinary prudence and skill will still enter into the cost of construction. Besides, as we have already intimated, the very reason why the road does not yield a better income, may be, that the small amount of accommodation, and the high charges, as compared with other roads, has destroyed the business on its line, or, at least, prevented its increase.

We do not mean to say that there should be no difference on different

routes, but only that until the routes have been more closely culled, those which capitalists select, will not vary so materially as might at first appear. On some of them, the transit of cars will not be reqired so frequently as on others; and this difference in the expense of the company, for accommodation to the public, furnishes a means of equalizing the rate of compensation, admitting of much latitude in its application, and going far to neutralize the variations in the amount of business. This view is important, as showing that the customs and charges established on roads where there is competition, may properly be used to determine what they should be on roads where no such competion exists. But, whatever the proper amount of accommodation and rates of compensation may be, we apprehend there can be no good reason for allowing the proprietors to make invidious or arbitrary distinctions among those dependent on them for transportation, the injurious and dangerous consequences of which we have already endeavored to point out. Even in the case of common carriers, with all the facilities for competition, it has been found expedient to make it legally obligatory upon them to carry for all persons applying under the same circumstances, and for a reasonable price. In the absence of any specific law on the subject, these, with some additional obligation upon railroad companies, might be inferred from the very nature of their grant. This grant is for the benefit of the community, and to this benefit each individual of the community has the same right. To suppose that the legislative power granted such privileges as an equivalent for benefits to be unequally distributed at the pleasure of the grantees, involves a monstrous absurdity. That all the individuals of a community have equal rights to the advantages given in return for a railroad grant, seems indeed too obvious to require argument or illustration. Some general rules of difference in *articles* requiring, from their nature or quantity, more or less labor to transport, or involving greater or less risk of loss or damage, may be permitted; but all mere arbitrary distinctions are forbidden by public policy, as otherwise a road might often, by a *general rule*, extort from a few persons, or from a single individual, whose business required the transportation of materials different from all others carried on it. We arrive, then, at the conclusion that public policy and justice, both, require that the charges to each person having business done on a road, should, as nearly as practicable, be in proportion to the services rendered, the charge for carriage being in proportion to the distance conveyed, adding a fixed sum for loading and unloading, where this is done at the expense of the road proprietors.

We will now consider how far the great regulating principle of competition may be made available in fixing the amount of accommodation to be given by railroad companies, and the charges for services rendered by them. They have not unfrequently claimed the right of charging much higher rates of compensation for way-travel and freight, than for that carried over the whole road. This distinction has sometimes been carried to the extent of charging more for a portion of the distance, than for the whole. For this they attempt to justify themselves, by saying that competition between the ends of their road reduces the rate, but that no such competion can exist at the intermediate points, and therefore the communities at those points have no claims to the advantages which result from this competition. It is surprising to what an extent reasoning so preposterous has been admitted, and the result acquiesced in.

If a country merchant, having no competitor within several miles, should say to one of his customers, you, having no horse, cannot procure your goods

except from me, and I therefore charge you more than I do your neighbor, who has a good team, would he not shock all our common-sense notions of honesty and propriety? Would not a serious direct avowal of such principles seem to be downright impudence? And yet it would not quite equal the principle avowed by the railroad companies just alluded to, for if *they* made any distinction, it should obviously be in favor of the community whose property has been taken for the convenience of the road, and who, on the other principle, might be compelled to give up the natural advantages of their position for a railroad, and to surrender their private property for its use, to give to others in the same business an advantage over them. But, though such discrimination in favor of those on the line of the road would be more just and reasonable than to vary the charges to their disadvaatage, yet even this is forbidden by liberal views of public policy. It might deprive the public of the most effectual guardianship of its rights, and, with our national organization, would be particularly liable to abuse. A road carrying cheaply for the citizens of the State in which it was located, might be left at liberty to prey on all others at discretion. For the very reason that there can be no competition at each particular point to regulate the rates of charge, public policy, no less than justice, requires that this competition between the two ends of the road where it exists, should regulate the rates for the other points of the route. When it does not exist between the termini of the road, it sometimes exists between the termini of two or more roads taken as one chain, and the price to which this competition reduces the transportation of the competing freight or passage, should govern the price of the local business. In this way, the great governing principle of business competition would be brought into exercise on a very large proportion of the railroads, and these would furnish data from which to deduce the rates proper for those where no competition existed either at their termini, or at intermediate stations. This is the rate which thecompanies themselves fix, as one at which they are willing and desirous to carry; and it is not to be presumed that they will seek the business at less rates than justice to themselves and the public requires, and if they do, public policy demands that they should not be permitted to give those not on the line of the road a business advantage over those whose domain has been taken from them under the pretext of a common benefit. The necessity of direct competition on the lines of the roads being thus obviated, the companies might be protected from such competition with advantage to the public. The rules, then, demanded by public policy and justice, are, that railroad companies should extend all reasonable accommodation to the communities dependent on their roads for transportation; this accommodation to be judged of and regulated by the usages and customs which have been established on those roads where competition exists, due allowance being made for any other difference in the circumstances. That the compensation should be governed, when practicable, by the price received on the same road for freight subject to open competition; and, when this cannot be done, by the price of competing freight on other roads under similar circumstances; and that the benefits of the road should be equally free to every member of the community, on the same terms.

Art. VI.—THE CONDITION AND PROSPECTS OF AMERICAN COTTON MANUFACTURES IN 1849.

In an article in the *Merchants' Magazine* for the last month, upon the "Production and Manufacture of Cotton," there appeared some statements, which, if correct, are new to many persons familiar with the subject to which they relate. If they are incorrect, a brief examination of them may be useful in dispelling the visions of wealth so vividly brought to the view of the Southern planters, now urged to become manufacturers. We hope that nothing will be said or done to discourage manufacturing at the South; far from it: it is legitimate, and must steadily go on increasing. At the same time, we shall consider it to be doing good service to them and to us at the North, if we can bring to light errors which might deceive those who are beginning to inquire into this business, with reference to pursuing it.

Without commenting upon the remarks made at the commencement of the article, in regard to the elements of wealth, and the causes of the unequal distribution of property in Great Britain, about which some of the best informed statesmen have expressed opinions entirely different from those of the writer, we pass to the first suggestion made for a remedy to the great evil under which we now suffer—of sending our cotton to Great Britain for manufacture, instead of securing to the cotton-growing States all the benefits which arise from that process.

The remedy proposed is to withhold the cotton from the European markets, and manufacture it at the South; to curtail the production, until it can all be manufactured where it is grown. We should not have presumed that this is to be done suddenly, and at once, did the writer not tell us that "if we wish for more labor and skill, they can readily be procured, to any amount."

But from what source can the labor and the skill be derived, to set in operation an amount of machinery so vast as is here contemplated? Certainly not from the North, where every good agent, sub-agent, and overseer, is prized and retained, and where operatives are not to be had to run the machinery now built. Agents and overseers may be brought from England; but unless the Southern men and girls, who are to be under their control, have less independence, or, if one choose to call it so, less prejudice, against obeying foreigners than the girls and men in New England, it will be necessary to bring the operatives also from the manufacturing districts of England; not a desirable population at home, much less so here.

But supposing this difficulty were overcome, from what quarter is to proceed the capital required for the enterprise? Have our Southern friends such resources of money now at their command as to create these immense works, or are they borrowers? We have always supposed the latter to be the case. We sell our fabrics, which are made at the North, to the Southern buyers, on a credit of from six to ten months. Neither do we receive a similar credit in return, for the reason that they are not in a condition to grant it. All the great staples sent from the Southern market are sold for cash, or on a credit of sixty days. It is in this way that the foreign and the home manufacturers supply themselves with cotton. Though there are many rich men in the large cotton-growing States, the number of moneyed men is very small, and they are not usually the projectors of new enterprises. The planters are generally in debt, more or less, either from having extended their business

beyond their means, or from the habit of anticipating their incomes, by borrowing of their cotton factors, the banks, or by credits at the stores.

This lack of capital is forcibly shown, in the amount of land still unsold and uncultivated in the great cotton-growing States :—

	Acres.	Unsold.	Owned.
Louisiana has.....	29,715,840	23,052,018	6,263,872
Mississippi.....	30,174,080	14,326,430	15,811,650
Alabama.....	32,462,080	17,450,560	15,911,520
Arkansas.....	33,406,720	27,464,603	5,942,117
Total.....	125,758,720	82,693,611	43,929,109

Or almost two-thirds of the land still laying waste for want of the means and the population to bring it into use.

If it were not an unpleasant subject, we might allude to the State debts of some of them, still unpaid, principal and interest, as another evidence of inability to command the use of money.

To carry out this plan of withholdidg the cotton, it will be necessary to obtain the passage of a law imposing an export duty. Without this, it would be impossible to prevent it from going abroad, as soon as the withdrawal of a portion had produced its effect of raising the price in Europe. This duty must be prohibitive, or it will not answer the purpose in view. Of course this would be met by retaliative duties from other countries. But the scheme appears to be wholly impracticable, and we will not introduce any farther objections to it.

The writer of the article to which we refer, starts upon the supposition that the production of cotton is in excess. "There is too much produced. True, a great deal too much. Make a proper distribution of labor and skill: produce no more cotton than can be manufactured at home." The crop of the United States, in 1843, was 2,378,875 bales; in 1844, 2,030,409; in 1845, 2,394,503; in 1846, 2,100,537; in 1847, 1,778,651; in 1848, 2,347,634; and it has not reached the amount of 1843, (excepting in the year 1845,) until this year of 1849, when the crop is 2,728,596 bales. Meantime, there has been a large increase in the number of manufacturing establishments in Europe, and in this country. Our own factories required, in 1843, 346,744 bales; in 1844, 389,006 bales; in 1845, 422,597 bales; in 1846, 427,967 bales; in 1847, 531,772 bales; in 1848, 518,039 bales; in 1849, if it were not for the depression which exists in this business, and which prevents many new mills from starting, and lessens the product of others, there would have been required more than 600,000 bales for our own use. The increase abroad, though not in the same proportion, has been very great. This explains, in a great measure, the cause of the present high price of cotton,* which, with the large crop of last year, is not sufficient to supply the machinery when in full operation.

The production of cotton, for the last five years, has been 11,323,000 bales; and the consumption has been 11,939,000 bales; showing an excess of consumption of 616,000 bales, which has been supplied by the surplus on hand at the commencement of the time. The present price renders the manufacture of all descriptions of coarse goods impossible, except at a loss; a state of things which cannot continue long, and will be followed, during

* The great rise in the price, since last year, is to be attributed partly to speculation; but this is based upon the fact here referred to. Notwithstanding the immense importations into England, during the past year, the stock on hand (October 27th) was 112,000 bales less than in 1848.

the coming season, by a rise in the price of goods, or by a fall in the raw material; perhaps by both.

The argument which has been used, that the manufacturer receives a very much larger rate of interest on his capital invested, than the cotton-grower, now brought forward by the writer of the article before referred to, will not bear investigation. It is asserted that the cotton planters have received, for that part of their crop sent to Great Britain in 1847, but $29,000,000; whereas, if they had received as much in proportion to their outlay of capital, as the manufacturer, it would have been $150,000,000; leaving a deficit of $121,000,000, which the planter may save, by adopting the plan before named.

It may be useless to undertake to prove that the planters of this country receive and are satisfied with a lower rate of interest than the British manufacturers, or even than our own; but in this case it is easily done. It is asserted that the capital required to raise as much cotton as is used in Great Britain, is $150,000,000, and that it is from this outlay that $29,000,000 only is received; whereas the vast amount of other produce raised on the cotton estates is kept entirely out of view; the corn, potatoes, pork, &c., which comprise almost the whole living of the planter and his hands, and some of which are forwarded in large quantities to New Orleans, and the other markets, are not mentioned. Another error in this calculation is, that the price of cotton is put at 6 cents, when, if we should take the present price, for the purpose of making the comparison, fair cotton as high as 12 a 13 cents,* and middling fair at 11 cents, after deducting the expense of selling, this would leave for the planters $50,000,000, to which add $20,000,000 for farm produce, and we obtain the result of $70,000,000, instead of $29,000,000. If the estimates given of the cost of cotton lands and slaves, and the yield per acre, are as incorrect as the other data, the result will be still more unlike that which is given.

The estimate of the investment in cotton manufactures in Great Britain ($149,600,000) is wholly incorrect. The real capital used in this business is more than $250,000,000; since, besides the investment in buildings and machinery, there is required a large amount of cash capital, which the manufacturer must either own or borrow. In New England, a manufacturing establishment is supposed to require one-third as much cash capital as the amount invested in land, buildings, and machinery. One is called "the floating," and the other the "fixed capital," and the one is as necessary to success as the other. The proportions vary in the different kinds of manufacture; none should have less than one-third in cash, unless they are willing to depend upon facilities granted by their commission merchants, and for which they must pay a high price, or upon banks and money-lenders, who generally call in their loans in times of scarcity, when most wanted by the borrower.

The next comparison introduced by the writer of the article in question, to show the inequality in the compensation received by the cotton planter, and by the manufacturer, is that in which he contrasts the labor of 57,000 persons in the New England factories, in 1839, upon a capital of $42,000,000, with the labor of the planters and their hands, in the same year, (1839,) upon a capital of $150,000,000; and the conclusion drawn from it is that the New England manufacturers and operatives received as much for their

* The price, in 1847, when the estimate was made of the value of British manufactures, averaged rather lower than this.

labor as the planters received for their whole cotton crop of that year, namely, "$27,278,762." But, as the crop of that year was 61,442,900 lbs., and as the price was *fourteen cents* in the Southern ports, or 13 cents to the planter, they must have received $80,005,770. There is another error in the same comparison, in regard to the amount allowed for materials used in manufacturing, which would increase the discrepancy of the results.

The next argument introduced, is to show by figures that a factory requiring an investment of $250,000, is better property, and will yield a larger income than ten plantations, costing, with the hands, $738,000. The net income of the plantations is put at $80,000, or 11 per cent, (a much higher rate of interest than ever has been received, for a series of years, from the best average investments in manufacturing establishments, as we shall hereafter show,) and the net profit of the cotton-mill is stated at $90,000, or 35 per cent per annum. We have never heard of any such rate of profit, and to a manufacturer it would seem to be enough to state this result, to have its correctness doubted.

The first error in the calculation is found in the cost of the mill, and the capital required to run it, which is stated 60 per cent too small; that is, it should be $400,000 instead of $250,000; or $270,000 for the mill, and the balance for floating capital. The *first* cost of a steam mill would be rather less, but not much, with the houses for the operatives, cotton house, and other buildings, &c.*

The cloth produced is valued at 7½ cents a yard, which is a higher price than has been received for No. 14 or 15 plain or twilled cottons, for two years past. For the last nine months it has averaged 5.90 cents for sheetings and drills, which would yield, upon the estimated production, 4,500,000 yards, (a large allowance for 10,000 spindles,) $265,000 instead of $337,500, the sum stated. But we will take the goods at a fair average price—say 7 cents net, and they will yield $315,000. From this we are told to deduct the cost of cotton, labor, steam-power, interest on capital, &c.—"$247,000." Omitting the interest, ($15,000,) this will be 232,000, which, taken from $315,000, leaves $83,000 profit, or 20¾ per cent on a capital of $400,000.

This extraordinary result (which has not been obtained by any of the New England mills making these goods, for the past three years) indicates another error, which we soon discover to be in the price of the cotton, which is again taken at 6 cents, though it has not been as low as that in the New York market for 20 days, during the last twenty years.† Supposing we calculate

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* In reckoning the cost of manufacturing establishments, it is frequently the case that the cost of the mill and machinery only is given, whereas the whole of the buildings required to carry on the business should be included, since they are as necessary as the mill itself. It is this omission which has given rise to much trouble and embarrassment to those who have commenced manufacturing with capital supposed to be ample, but which has been expended in the erection of the works, and it has been necessary to mortgage the establishment, to obtain the means to carry it on, or even to complete it. Where the owners have been in companies incorporated, they have resorted to the creation of new shares, at a half, or even a quarter of the original price. This operation has been, and is now going on, through the whole of New England, to a large extent, not only in manufacturing, but in railroad, and other corporations.

Among the manufacturing establishments, none have been more remarkable for their creation of new stock than those at Newburyport and Salem, for which the estimates were made by General James, the stockholders being unacquainted with manufacturing. The "James Steam Mill," the "Bartlett," and the "Globe," at Newburyport, and the "Naumkeag Mill," at Salem, have all been found without cash capital, and, in some instances, in debt when completed, and all have been obliged to call in more, and they are still deficient, with the exception, perhaps, of the Bartlett.

† If we take the cotton at a fair a average price of 9 cents, $63,000 of the $83,000 profits will be taken away; leaving a profit of 5 per cent per annum, on $400,000, which is as high as the average profits of the present year. The goods are still at a lower price than the average, though higher than they were six months ago.

the cotton at the present price, which is $11\frac{1}{2}$ cents, and the goods at the present price, it would take away all the profit of $83,000, and leave a loss of $16,000, which gives the actual state of *all the cotton-mills working new cotton in this country, at the present time.* The mills with ample capitals have been, and some are still, working cotton bought at a low price, and for the present six months will show a small profit, but all others are making, and must continue to make, a loss, until there is a change.

The profits of manufacturing are so often over-rated, that it is with difficulty that the truth can be believed. The well-managed New England mills have been as successful, during the last ten years, as any in the world—certainly more successful than in any other section of the United States; though for many years after their first establishment, they brought great losses upon the stockholders. The following table will show the results of the business of the best establishments:*—

DIVIDENDS OF THE NEW ENGLAND COTTON MILLS OF THE FIRST CLASS.

Name and location.	Capital.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.
Appleton, Lowell	600,000	5	5	6	o	6	6	12	12	3	5	3 a 6
Atlantic, Lawrence	1,300,000	x	x	x	x	x	x	x	x	x	x	o
Boott, Lowell	1,200,000	11	4	11	3	5	10	18	16	8	5	2
Boston,† Waltham	450,000	6	3	6	o	3	8	5	10	6	4	4
Cocheco,‡ Dover, N. H.	1,300,000	6	o	6	o	o	3	6	6	6	6	6
Cabot, Springfield	690,000	6	3	9	5	11	20	20	16	4	3	6
Chicopee, Springfield	340,000	9	o	3	o	o	7	12	9	3	o	3 a 6
Dwight, Springfield	730,000	x	x	x	3	11	18	20	16	9	6	4 a 8
Great Falls, Somersw'rth, N. H.	1,500,000	o	o	9	5	3	17	20	*a*12	10	8	6
Hamilton, Lowell	1,200,000	o	5	8	o	6	7	14	10	6	5	3 a 6
Jackson, Nashua, N. H.	480,000	5	25	3	2	3	*b*16	20	18¾	9	8	4 a 7
Lawrence, Lowell	1,500,000	10	3	7	2	7	16	14	15	10	3	6
Laconia, Saco, Maine	1,000,000	x	x	x	x	x	x	x	3	3	o	o
Lancaster, Clintonville	1,000,000	x	x	x	x	x	x	x	x	o	o	o
Massachusetts, Lowell	1,800,000	x	x	o	3	4	14	20	20	19	6	6
Manch'ster M'ls,‖ Manch., N. H.	1,200,000	x	x	x	x	x	x	x	..loss		o	o
Merrimac, Lowell	2,500,000	11	8	12	9	16	10	30	16	9	7	*r*25
Nashua, Nashua, N. H.	1,000,000	10	o	8	3	6	8	20	18	6	3	4 a 8
Otis, Ware	450,000	o	o	o	o	10	10	12	8	13	6	18
Palmer, Three Rivers	160,000	20	8	10	6	9	16	25	21	9	3	o
Perkins, Springfield	700,000	5	5	6	o	9	20	20	13	9	6	2 a 6
Salm'n F'lls,§ Salm'n F'ls, N. H.	1,000,000	x	x	x	x	x	x	x	25	8	8	4 a 8
Stark, Manchester, N. H.	1,250,000	x	x	8	2	o	14	18	20	11loss		3
Suffolk, Lowell	600,000	11	8	11	3	6	14	20	18	8	6	5
Thorndike, Three Rivers	375,000	o	o	11	3	5	14	15	15	7	3	6
Tremont, Lowell	600,000	11	7	8	2	6	16	18	16	7	2	3
York, Saco, Maine	1,200,000	16	12	9	7	6	*e*17	18	20	11	6	*f*3

* Almost all these were taken from the books of the companies, or furnished by the treasurers.

† These dividends are upon $1,000 a share. The valuation has been reduced, and the shares are now valued at $750. ‡ The original investment of $1,600,000 was all lost. ‖ Wool is mixed with cotton in the greater part of their goods. § This company became embarrassed and the property was sold to the present proprietors at one-third of the cost.

(*a*) Also a dividend in stock of 25 per cent. The shares in this company were originally $1,000; but, owing to embarrassments, new shares were created at $200, which is now considered par. Upon the cost these dividends would be much smaller. (*b*) Also 10 per cent from profits made previously. (*r*) This was principally in new stock, and was not earned this year. The dividends of this company have been much larger, owing to having reserved their profits in years previous to these. (*e*) Also a dividend from previous profits of 10 per cent. (*f*) And a dividend in stock of 20 per cent. Manufacture fancy wove goods.

The mark "x" in the statement of dividends of New England mills signifies that the mills were not in operation during those years. In many cases there were losses where the mark is "o." There are other establishments as large as these, which have been embarrassed by deficient water and other causes, which prevent their being placed in this list of first class mills.

The following table, prepared by Messrs. Head and Perkins, Stock Brokers, shows the present price of shares, and when there have been no sales, the price they would bring if put into the market. The difference between the par and the present price is just so much loss, which should be subtracted from the dividends, in order to judge fairly of the business.

MARKET AND PAR VALUE OF SHARES IN FIRST CLASS COTTON MANUFACTURING ESTABLISHMENTS.

	Market price.	Par value.		Market price.	Par value.
Appleton	800	1,000	Manchester Mills	750	1,000
Atlantic	670	1,000	Massachusetts	900	1,000
Boott	850	1,000	Merrimac	1,120	1,000
Boston	600	750	Nashua	450	500
Cabot	750	1,000	Otis	1,050	1,000
Chicopeee	600	1,000	Palmer	750	1,000
Cocheco	500	650	Perkins	750	1,000
Dwight	800	1,000	Stark	800	1,000
Great Falls	185	200	Suffolk	900	1,000
Hamilton	770	1,000	Salmon Falls	450	500
Jackson	840	800	Thorndike	650	1,000
Laconia	850	1,000	Tremont	875	1,000
Lancaster	315	450	York	930	1,000
Lawrence	900	1,000			

Many smaller mills have been equally successful, and many have embarrassed the owners, and passed into other hands during the same period.

We defer to another number the examination of some of the other calculations in the article on "Cotton and its Manufacture," and shall hereafter give some facts in regard to the value of water-power at the present time in the coal districts of England, which will show that, after long experience, the English manufacturers prefer to buy water at a higher price than is paid in any part of this country, though they can have coal for their steam-power at from 4 to 5 shillings a ton, certainly as low as in any of the cotton-growing States.

Some facts will also be given, in regard to the steam-mills built under the Superintendence of General James, which will exhibit the unexpected result that they have not yet yielded to their proprietors simple interest upon their investments:—

Art. VII.—THE COTTON GIN.

The names of men distinguished for natural endowments, or for having conferred, by their services or inventions, signal benefits upon their country, form the treasure of which a nation is justly proud. The manner in which those services are requited, not unfrequently becomes its most lasting reproach.

This country is not without some illustrations of this remark, and among them, that of Eli Whitney, the inventor of the Cotton Gin, is most prominent.

Mr. Whitney was a native of Worcester County, Massachusetts, and in 1792 he was a guest in the house of the widow of General Green, near Savannah. He was then about twenty-seven years of age, and one day, when a number of distinguished men were on a visit at the house, a conversation arose on the cotton plant, then recently introduced on their plantations. The soil was well suited to its growth, and the necessity of devoting themselves to the cultivation of something besides rice, tobacco, and indigo, was universally admitted.

The difficulty of separating the seed from the staple, was, however, deemed

inseparable, as it was a day's work for a woman to clean one pound of cotton for market.

As Whitney was well known to have a remarkable genius for mechanics, Mrs. Green recommended the visitors, who were expressing their regret at this obstacle, to apply to her young friend, who, as she expressed herself, "could make anything." This conversation called Whitney's attention to the subject. He procured some cotton in the seed from Savannah, and commenced his task. From the tin of an old coffee-pot, iron wire drawn by himself, and with such tools as a Georgia plantation could furnish, he constructed the first Cotton Gin, and Mrs. Green, who proved a most efficient friend, caused a building to be erected for its exhibition, and invited her friends from different parts of the State to witness its operations.

Its success was complete. The assembled planters saw with astonishment and delight, that more cotton could be cleaned in one day, by a single hand, than in one month in the usual mode. The cultivation of cotton was now placed within the reach of American labor, and visions of wealth were suddenly opened to the planters of the South. It was impossible to have any invention made more susceptible of proof than that of the Cotton Gin. The subject was suggested in a large company, and the first machine constructed and exhibited in the presence of an assemblage of respectable men from different parts of the State.

The obstacle to be overcome was a subject of general remark. The community acknowledged the difficulty that stood in its way. It seemed insuperable to ordinary minds, and mechanical genius was publicly appealed to, to lend its aid to remove it.

Fame and wealth were held out by the laws of the country as the fitting rewards to the intellectual Hercules who should accomplish the task. This appeal was answered in the construction of the Cotton Gin. Steps were taken to obtain a patent, and a factory opened for the construction of the machine.

Before this, however, was accomplished, the first violation of Whitney's right occurred, and this was followed up by a systematic attempt among the planters to possess themselves of the machine, which must always reflect lasting dishonor and reproach upon the people of Georgia. The knowledge of the invention spread through the State, and crowds of people came from all quarters to see the machine, but it was not deemed prudent to gratify their curiosity, until a patent had been obtained. This restraint excited their passions, and they broke open the building in the night, carried off the model, and forthwith commenced to make machines, with some slight deviations from the original, with the hope of avoiding the penalty for violating the patent. This was to be expected, and so far no responsibility could attach to the community. Individuals, regardless of the rights of others, and ready to invade their privileges and property, are to be found in all countries. It is only where no law exists for the punishment of such crimes, or where the courts of justice prove inadequate to the vindication of the law, that society can be justly charged with participating in the offence.

This was the aspect that the State of Georgia soon assumed, in relation to Whitney's invention.

When suits were commenced for violations of the patent, the jurors arrayed themselves against the patentees, and in spite of the charge of the court, acquitted those who violated their rights.

Private interest was now so strongly enlisted against the claims of the inventor—the violations were so multiplied, that public sentiment became cor-

rupted, and arrayed itself on the side of what seemed a general interest. This, however, could not be effected upon the bold footing of a direct invasion of private property, for the benefit of the public. In order to bring this about, the public mind must be deceived, before it could be corrupted. Before the community could be induced to sacrifice its benefactor, it must be taught to believe him an impostor. Great exertions were therefore made to create a belief that Whitney was not the inventor of the Cotton Gin; but that somebody in Switzerland had commenced the idea of it before him, and, especially, that one Hodgin Holmes was entitled to the credit of introducing saws, instead of wire teeth.

Upon these grounds ostensibly, but in reality because the cotton planters in Georgia were unwilling to pay for the use of an invention that had covered the State with cotton plantations, and raised their owners to affluence, Whitney & Miller, who was his partner, were unable to obtain a favorable decision in that State for the infringement of their patent, until December, 1807, when thirteen years of the patent had expired.

Nor was this the whole extent to which this unprincipled opposition was carried.

The States of North and South Carolina had entered into agreements with the patentees for the people of those States. In the honest old North State, a tax of five shillings and sixpence was laid upon every saw employed in ginning cotton, which for five years was collected, and after deducting the expenses of collection, was paid over to the patentee.

The State of South Carolina agreed to give fifty thousand dollars for the use of the patent; but after paying twenty thousand dollars, the Legislature was induced, by representations from the Legislature of Georgia, not only to suspend the payment of the residue, but to commence a suit for the sum paid, and to arrest Whitney until after full examination. Feelings of indignation of the deception practised by the demagogues of Georgia, prompted them to withdraw the suit, and to carry into effect the original contract.

The Legislature of Tennessee also agreed to pay twenty-seven and a half cents for each gin saw used in the State for a period of four years. The State of Georgia, however, did not relax its opposition to Whitney, nor its citizens cease to violate his patent. On the contrary, they sought to prevent the citizens of the adjoining States from making the compensation, that their feelings of justice induced them to offer.

The governor of Georgia, in 1803, in his message to the Legislature, took strong ground against Whitney's right, and a committee of the Legislature recommended resolutions, asking the coöperation of North and South Carolina and Tennessee, in this unprincipled crusade against the legal rights and property of a private citizen.

There is, perhaps, nowhere to be found in the annals of the violation of private rights by public bodies—certainly not in this country—not even in the dark history of repudiation, a more unblushing avowal of the sordid motives, than those avowed by the State of Georgia in the following resolutions:—

"Resolved, that the Senators and Representatives of this State in Congress be, and they hereby are, instructed to use their utmost endeavors to obtain a modification of the act, entitled an act to extend the privilege of obtaining patents for useful discoveries and inventions, to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees, so as to prevent the operation of it to the injury of that most valuable staple, cotton, and the cramping of genius in improvements, in Miller & Whitney's Patent Gin, as well as

to limit the price of obtaining a right of using it, the price at present being unbounded, and the planter and poor artificer altogether at the mercy of the patentees, who may raise the price to any sum they please."

"And, in case the said Senators and Representatives of this State shall find such modification impracticable, that they do then use their best endeavors to induce Congress, from the example of other nations, to make compensation to Miller & Whitney for their discovery, take up the patent-right, and release the Southern States from so burdensome a grievance."

The effect of these resolutions was to induce Tennessee to suspend the payment of the tax laid upon Cotton Gins, and a similar attempt was made in North Carolina. The good old North State proved true to her unstained character. She repudiated not her pledged faith, but the sordid temptation held out to her integrity, and stands, as she always has stood, an example to her neighbors of undeviating fidelity to all her public engagements, whether to individuals, or to the Constitution, which she was slow to approve, and has hitherto shown herself incapable of violating.

In the other States, the example of Georgia prevented Whitney from receiving the just reward of his ingenuity, and although South Carolina afterwards repented of her precipitancy, and carried out her contracts, the inconvenience, embarrassment, and positive loss resulting from this opposition, prevented any decision on the merits of his patent until December, 1807, when in a suit brought against Arthur Frost, on a violation of the right in Georgia, Judge Johnson gave a decision, from which we make the following extracts:—

The defendant, in violation of the patent-right, has constructed, and continues to use, this machine; and the object of this suit is to obtain a perpetual injunction, to prevent a continuance of this infraction of complainants' right.

Defendant admits most of the facts in the bill set forth, but contends that the complainants are not entitled to the benefits of the act of Congress on this subject, because—

1st. The invention is not original.

2d. Is not useful.

3d. That the machine which he uses is materially different from their invention, in the application of an improvement, the invention of another person.

To support the originality of the invention, the complainants have produced a variety of depositions of witnesses, examined under commission, whose examination expressly proves the origin, progress, and completion of the machine by Whitney, one of the co-partners. Persons who were made privy to his first discovery, testify to the several experiments which he made in their presence, before he ventured to expose his invention to the scrutiny of the public eye.

But it is not necessary to resort to such testimony to maintain this point. The jealousy of the artist to maintain that reputation which his ingenuity has justly acquired, has urged him to unnecessary pains on this subject. There are circumstances in the knowledge of all mankind, which prove the originality of this invention more satisfactorily to the mind, than the direct testimony of a host of witnesses. The cotton plant furnished clothing to mankind, before the age of Herodotus. The green seed is a species much more productive than the black, and by nature adapted to a much greater variety of climate. But by reason of the strong adherance of the fibre to

the seed, without the aid of some more powerful machine for separating it than any formerly known among us, the cultivation of it would never have been made an object. The machine, of which Mr .Whitney claims the invention, so facilitates the preparation of this species for use, that the cultivation of it has suddenly become an object of infinitely greater national importance than that of the other species ever can be. Is it, then, to be imagined, that if this machine had been discovered, the use of it would ever have been lost, or could have been confined to any tract or country left unexplored by commercial enterprise? But it is unnecessary to remark further on this subject. A number of years have elapsed since Mr. Whitney took out his patent, and no one has produced or pretended to prove the existence of a machine of similar construction or use.

2d. With regard to the utility of this discovery, the Court would deem it a waste of time to dwell long upon this topic. Is there a man who hears us who has not experienced its utility? The whole interior of the Southern States was languishing, and its inhabitants emigrating, for want of some object to engage their attention, and employ their industry, when the invention of this machine at once opened views to them, which set the whole country in active motion. From childhood to age it has presented to us a lucrative employment. Individuals who were depressed with poverty, and sunk in idleness, have suddenly risen to wealth and respectability. Our debts have been paid off. Our capitals have increased, and our lands trebled themselves in value. We cannot express the weight of the obligation which the country owes to this invention. The extent of it cannot now be seen. Some faint presentiments may be formed, from the reflection that cotton is rapidly supplanting wool, flax, silk, and even furs in manufactures, and may one day profitably supply the use of specie in our East India trade. Our sister States, also, participate in the benefits of this invention; for, besides affording the raw material for their manufactures, the bulkiness and quantity of the article afford a valuable employment of their shipping.

3d. The third and last ground taken by defendant, appears to be that upon which he mostly relies. In the specification, the teeth made use of are of strong wire, inserted into the cylinder. This is certainly a meritorious improvement in the mechanical process of constructing this machine. But, at last, what does it amount to, except a more convenient mode of making the same thing? Every characteristic of Mr. Whitney's machine is preserved. The cylinder, the iron tooth, the rotary motion of the tooth, the breast work and brush, and all the merit that this discovery can assume, is that of a more expeditious mode of attaching the tooth to the cylinder. After being attached, in operation and effect they are entirely the same. Mr. Whitney may not be at liberty to use Mr. Holme's iron plate, but certainly Mr. Holme's improvement does not destroy Mr. Whitney's patent-right. Let the decree of a perpetual injunction be entered.

Out of sixty suits instituted for violations of his patent, this was the first in which a decision was had upon the merits of his invention. This was followed up at the next term, by verdicts for damages in two other cases, of fifteen hundred dollars, and two thousand dollars.

Thirteen years of his patent, however, had now expired, and it was too late for him to expect any remuneration for his invention. The expenses of establishing his right had swallowed up the sums received from those acknowledging their obligation to remunerate him, and the interest against a further extension of his patent was too general to permit him to hope for

success in such an application. The opposition, therefore, had virtually succeeded in depriving him of his property. The combination had triumphed in appropriating the invention, without compensating the inventor. The State of Georgia could boast that she had opened the way to wealth to all the planting States, in preventing the inventor of the Cotton Gin from reaping any substantial reward for his discovery. She had, in the language of her resolutions, "prevented the operation of the patent act, to the injury of that most valuable staple, cotton, and the cramping of genius in improvements in Miller & Whitney's Patent Gin." "The planter and *poor* artificer were no longer at the mercy of their patentees." "The Southern States were released from so burdensome a grievance," without the intervention of Congress. By the energy and unity of her citizens, she had succeeded in trampling upon the patent laws, as a few years later she did upon the Cherokee treaties.

Glorious achievement! Georgia was indeed an independent State; independent not only of all federal obligations, but of all rules that right-minded men obey and reverence.

Let her enjoy that reputation. No other State will claim any share in the achievement. The sole glory must always belong to her, and so long as the invention continues to meliorate the toil of her slaves, and to add to the wealth of her citizens, so long will be the memory of the injustice practised towards the greatest practical benefactor of the Southern States, cast a dark shadow upon the character of the State. The moral of this history should not, however, be confined to Georgia; much may be learned by other States. Everywhere the temptation to oppose the execution of the law, where its enforcement operates against the many, and to the advantage of the few, is too readily listened to. It requires moral principle and self-control to withstand the suggestions of self-interest, especially when public opinion seems on that side. It is the weak point of our institutions. The remonstrances of one seem so insignificant when opposed to the demands of the many, that it requires an incessant guard to prevent injustice, when the rights of an individual come in collision with the temporary interest of the mass. And yet those rights must be vindicated. The permanent interests of the community are best subserved by perfect protection being extended to the rights of the humblest individual—where the laborer and mechanic, denizens of a crowded metropolis, and the industrious cottager, remote from all police and armed sentinels, can repose in safety under the invisible but all-powerful egis of the law. This is the great object of government. It is to guard individual rights that our own constitutions were formed. The provisions relating to the writ of habeas corpus, trial by jury, the restriction of the right of eminent domain, the prohibition of *expost facto* laws, and all laws impairing the obligation of contracts, what are they but muniments erected by our ancestors for the protection of private rights. They form the bulwark of our freedom. The independence of the country, and its protection from foreign aggression and violence, rest upon the valor and strength of the American people, but these are restraints imposed by themselves for the safeguard of personal right. A self-imposed compact, solemnly entered into by the whole community, that it will not exercise that authority which it resumes after centuries of despotic abuse, for the oppression of a private citizen. Armed with that safe-guard, an American citizen may stand on his own domain, and call upon the whole country to protect him in the exercise of his rights, and make his cause its own. Upon the promptitude with

which it responds to that call depends the existence of the government in its pristine spirit. If it heed not the call, if it leave that one man unaided in the assertion of his unquestioned right, if it put not forth its strength when thus invoked, the character of our institutions is changed. It is no longer a government of law, but of power.

The citizen thus suffering unredressed injustice from the majority, no matter under what pretence, whether that his patent checks the growth of cotton, or that his manorial rights extract rents from the hard-working farmer, that man is subjected to an exercise of despotic power as clearly as if he had been sent to the Bastile by the mandate of an arbitrary monarch. The injustice being sanctioned or enjoined by the voice of the community, so far from being a mitigation, is rather an aggravation of his suffering. His sole hope, then, is in the returning reason of the people. When the excitement is over, when the voice of passion is stifled, and the contest has been ended, then it is that justice is vindicated. This, however, is too often postponed, until the immediate actors in the scene have passed from the stage, and another generation appears to sit in judgment upon their motives and actions. Then, when it is too late to mete out practical justice, either by rewarding the benefactors of mankind, or punishing those who slandered and persecuted them, then it is that impartial history assumes the duty of setting forth the facts in their true colors, and stamping upon them the character they must forever hold in the estimation of mankind.

The true interest of Georgia would have been as essentially promoted by her making full compensation for the use of the Cotton Gin, as by the illegal violation of Whitney's patent; but nothing can erase from her records the part taken by the community in the perpetration of that injustice, or remove the stain upon the reputation of the State. J. B.

Art. VIII.—POPULATION OF NEW ENGLAND.

The six States commonly known as New England, comprise a territory of 65,000 square miles, and lie between 41° and 48° 12′ north latitude, and 65° 55′ and 74° 10′ west longitude. The greatest length of this territory is about 575 miles, and its breadth is from 150 to 300 miles. Its area is less than that of Virginia, and but little larger than that of Illinois. This region of country has become, to all who have breathed its air, or been nurtured upon its soil, an object of deep interest. It was among the earliest settled portions of the North American continent—the chosen home of the exiled Puritans, and the place where American independence originated, and was most firmly maintained.

Its growth in population, though less rapid than many other portions of the country, has been constant, and in every period since the settlement at Plymouth, has been increasing, though not at a uniform rate, owing to emigration, wars, and other causes.

The earliest settlers of New England did not find the country abandoned by the natives, nor did they seek a soil entirely fitted or prepared for cultivation, as does the present emigrant to some parts of the West and North; but for more than a century they had to fight, not for an extension of territory, but to maintain even those which have already been made. It was a long and serious struggle between the races, and of such a characrer that, at the end of the first century from the settlement at Plymouth, a large portion

of New England was still in possession of the natives of the soil, the wild Indians and beasts. In 1720, but a small portion of Maine had been settled by the English, and New Hampshire had an English population of only about 10,000, who were mostly settled in a few southern and south-western towns. Vermont was but a wilderness; Massachusetts had hardly been settled beyond Worcester, and that could scarcely be called a permanent settlement; Connecticut had a population of some 40,000, but this was not scattered over half her present territory: and Rhode Island had then no settlement of consequence beyond the borders of Narragansett Bay. The whole number of the inhabitants of New England, at that time, was supposed to number 130,000 or 140,000. The wars with the Eastern and New Hampshire Indians, in 1722 and 1725, and the success of the colonists over them, gave a new impulse to settlements in that direction, and we find that in 1750 the population of New Hampshire had increased to 30,000, and that of Maine to 10,000 or 12,000.

During the early settlements of New England, no accurate census was taken, and though we cannot get the exact amount, yet data do exist, which enable us to estimate pretty nearly its progress. For the first 23 years, to the union of the New England colonies, in 1643, the increase of population was chiefly owing to emigration from the mother country. During a part of this time, it was very great. In 1635 it is said that 3,000 settlers came to Massachusetts, and about the same number in 1638. In 1639, there were three regiments in Massachusetts, and about 1,000 soldiers. It must be borne in mind that emigrants were leaving, as well as coming, to New England, at this period; and even as early as 1631 or 1632, a company removed from Lynn to Long Island, and in 1630, some of the Massachusetts people, finding themselves straightened for land, crossed the wilderness, and settled on the Connecticut River. In 1642, there had been settled, in New England, 50 towns and villages, about 40 churches established, and 77 ministers settled, who came out from England, and about 16 students, who afterwards entered the ministry.

In 1643, at the time of the union of the colonies, the proportion of men which each agreed to furnish for their common defense, was 100 for Massachusetts, and 45 for each of the other colonies. If this proportion is a true indication of the comparative strength of the United Colonies, as it undoubtedly was, and if the population of Massachusetts was then 6,000, that of Plymouth alone would have been 2,700, and that of Connecticut and New Haven 5,400, the whole amounting to nearly 15,000.

How near this estimate comes to the truth, we do not pretend to say; but it seems to give too great a population to Connecticut and New Haven, for in 1655 there were but eight towns settled in the colony of Connecticut, and five in New Haven. In 1655, the ratable polls in Connecticut were 753, which would give a population of upwards of 3,000. In 1650, the whole population of New England has been estimated at 50,000.

In 1665, the militia in Massachusetts were about 5,000 strong, from which we may infer the whole population must have been nearly 30,000.

In 1671, the number of males in Connecticut and New Haven, between the ages of 16 and 60, was 2,050, which gives the population for that colony about 10,000.

In 1693, the whole population of New England was estimated at 100,000, and there were then 130 churches, or one church for every 750 persons.

In 1673, a writer gives the following account of Boston:—"It has," says

he, "1,500 families, five iron works, which cast no guns, 15 merchants, worth £5,000 each, 500 persons worth £3,000 each, that no house in New England has above 20 rooms, and not 20 in Boston that had 10 rooms; there were no beggars, and not three persons were annually put to death for theft; a dancing school was set up, but put down; a fencing school was allowed.

In 1700, the whole population of New England was supposed to be 120,000, of which—

Massachusetts had.....	70,000	Rhode Island had.....	10,000
Connecticut.....	30,000	New Hampshire.....	10,000

This shows an increase on the population of 1660, in 40 years, of 70,000, or 140 per cent. From this statement, it appears that the population doubled in about 28 years.

In 1759, the whole population of New England is supposed to have been 345,000, of which—

Massachusetts had.....	200,000	Rhode Island had.....	35,000
New Hampshire.....	30,000	Connecticut.....	80,000

which would give an increase, in 49 years, of 225,000, or nearly 200 per cent. This gives nearly the same rates of increase between 1700 and 1749, as there was between 1660 and 1700; and it also gives nearly the same rate of increase in each of the four colonies—that of Connecticut being the smallest, and that of Rhode Island the largest.

This is, however, but an estimate of the population, though probably nearly correct. In 1730, a census was taken in Rhode Island, by which it appears that the whole population was then 17,935, of which 15,302 were whites, 985 were Indians, and 1,648 were negroes. If the population, in 1750, had become 35,000, as was estimated, it must have doubled in about 20 years.

In 1735, a valuation in Massachusetts was taken, by which it appears its white male inhabitants of 16 years of age, and upward, was 35,427, which would give an entire population of 140,000.

In 1752, the ratable polls were 41,000, which would give a population of 165,000.

At the beginning of the old French War, in 1754, the population of New England was about 420,000, and in 1763 it is supposed to have increased to 500,000. During this year, a census of Massachusetts was taken, and the whole white population was 235,810, and 5,214 blacks. This includes about 20,000 in the district of Maine.

In 1762, a census of Connecticut was taken, by which it appears that there was 151,000 whites, and 4,590 blacks, in that State.

In 1775, at the beginning of the Revolution, the population of New England was as follows:—

New Hampshire had.....	80,000	Connecticut had.....	200,000
Massachusetts.....	345,000		
Rhode Island.....	60,000	Making, in all.....	685,000

being an increase of 270,000 in 20 years, or 65 per cent.

Estimates and censuses were made at the close of the war in 1783, by which it appeared that the increase of population, for the nine years previous, had been about 20,000.

On the adoption of the Federal Constitution, a new census was taken, by which it appears that in 1790, the whole population of the New England

States was 1,009,522, of which 3,886 were slaves—2,764 of whom were in Connecticut.

This would give an increase of population from 1775 to 1790, of 325,500, equal to 47½ per cent.

In 1800, the population was 1,233,011, making an increase, for ten years, of 233,589, or a trifle more than 23 per cent.

In 1810, the whole population was 1,491,973, making an increase, for ten years, of 258,973, or 21 per cent.

In 1820, it was 1,659,808, making an increase, in ten years, of 167,836, or a little above 11 per cent.

In 1830, the whole population was 1,955,704, making an increase, in ten years, of 304,909, or 18½ per cent.

In 1840, the population was 2,233,950, making an increase of 278,691, or 14⅓ per cent, in ten years.

From the above, it will be seen that the greatest increase of the per centage of population under the Federal Government, has been between the years 1790 and 1800, and the least between 1810 and 1820, and the greatest actual increase was between the years 1820 and 1830.

It will be seen that the increase of population, from 1700 to 1750, was nearly 200 per cent, and from 1750 to 1800, 250 per cent, and from 1830 to 1840, about 82 per cent, which would be equal to about 100 per cent for 50 years.

The increase of population, from 1750 to 1800, was 883,000, and from 1800 to 1840, it was 1,000,000, showing a greater actual increase, but a much less per centage.

At the same rate of increase for the next half century, which has actually taken place in the last 50 years, the population of New England, at the expiration of it, will be 5,000,000.

By the last census, the number of inhabitants to a square mile, in Massachusetts, was 98; in Rhode Island, 80; Maine, 16; New Hampshire, 31; Vermont, 31; and Connecticut, 66. Were the whole of New England densely peopled, as in Massachusetts, it would have a population of above 6,000,000.

The rate of increase has been different, in the different States. That of Maine has been, for each ten years the last fifty years, 50, 50, 31, 33, and 25 per cent.

That of New Hampshire has been 29, 17½, 18, 10, 16½ per cent.

That of Vermont has been 80, 40, 8, 18¼, and 4 per cent.

That of Massachusetts has been 13½, 12, 11, 17, and 19⅓ per cent.

That of Connecticut has been 6, 4, 5, 8, and 4½ per cent.

That of Rhode Island has been ½, 11, 8, 17, and 11½ per cent.

It will be seen that during the last ten years, the greatest increase has been in Maine, and the least in Vermont. During the first ten of the last fifty years, it was the greatest in Vermont, and the least in Rhode Island. Massachusetts stands next to Maine, in its ratio of increase.

The rate of increase in each of the New England States will probably hereafter be relatively more uniform than heretofore. The same causes which will promote the prosperity of one, will operate upon all. Maine and Vermont will no longer have the advantage, as before, of being new States. The establishment of manufactories in Massachusetts, Rhode Island, and Connecticut, has had a tendency to change the tide of emigration, and its present tendency is rather *to*, than *from*, the old States. The more intimate connec-

tion now made between them, by means of railroads, will tend to give them a more uniform prosperity, and to develope more equally their resources.

The change, however, from an agricultural to a manufacturing people, has undoubtedly had a tendency to increase the growth of large towns and cities at a greater rate than the country. Boston affords a good illustration of this fact:—

In 1700 her population was...	7,000	In 1800	24,937
1722	10,567	1810	35,250
1742	16,382	1820	43,298
1752	17,574	1830	61,392
1765	15,520	1840	93,470
1790	18,038		

The increase from 1700 to 1750, was about 100 per cent, and from 1750 to 1800, about 46 per cent—while the increase of New England, during the same period, was 250 per cent. The increase of Boston did not equal that of the State, or of New England, till 1790. Since that time, and until 1820, its rate of increase was some greater than that of Massachusetts, or New England. From 1820 to 1840, its increase was about 110 per cent, while that of all New England was only about 33 per cent.

The rate of increase of the New England population, for the last 40 years, has been little more than that of some of the old countries in Europe. From 1801 to 1811, England gained 14½ per cent, and Wales and Scotland 13 per cent each. From 1811 to 1821, the gain of England was 18 per cent, and in Scotland, 15¾. Germany is said to have increased about 1½ per cent per annum, since the peace of Europe, and such is supposed to have been nearly the increase in France.

The above facts show that notwithstanding the great emigration from New England, and more especially for the last 50 years, and notwithstanding the constant wars in which she was engaged, for a century and a half from the time of her settlement, and the consequent drain upon her population caused by it, yet she has made constant progress in her numbers, as well as in her wealth, and in the extension of her enterprise. It was said by Burke, more than 60 years ago, in speaking of the people of New England, "that there was no sea that was not vexed by their fisheries, and no climate that was not a witness to their toils." Since then, her own population, now living and laboring on the soil, has nearly quadrupled, while, at the same time, she has been sending forth emigrant after emigrant, and colony after colony, spreading themselves over every portion of the country, and forming no unimportant part of the population of half of the States of the Union.

Nor is this progressive growth likely to cease, at least for centuries to come. Never was there a time when more successful efforts were making for the development of her resources, nor when her sons had stronger reasons to be attached to her hills and vallies, and to the institutions which have made them glorious and worthy the residence of freemen.

Hutchinson tells us that the only regret expressed by many of the fathers of New England, in closing their earthly career, was, that they could not live to see her future glory! May not we—nay, may not generations yet to come, express the same regret, and not live to see her greatest and noblest triumphs?

Art. IX.—COMMERCIAL CODE OF SPAIN.

NUMBER X.

CONCERNING PERSONS WHO MAY INTERVENE IN MARITIME COMMERCE.

Section 1st. Of Navieros, or the Managing Owners of Ships, or the person who controls their destination.

This person is called an Exercitor in the Civil Law, and in the English Law usually denominated the ship's husband. He may be a part owner or a stranger. See Bell's Law of Scotland, p. 449. In the Spanish law he is called a Naviero, which term we shall adopt in our translation. *De Lo-Naviero.*

ARTICLE 616. No person shall be a Naviero, who does not possess the legal capacity which the exercise of commerce demands.

617. All Navieros must be necessarily enrolled in the registration of commerce, within the province where they reside, and without this requisite they cannot control their ship for navigation.

618. To the Naviero, personally, pertains to make all the respective contracts concerning the vessel, its administration, its freights, its voyages, and the captain and mate of the ship ought to conform themselves to the instructions and orders which they receive from the Naviero, being responsible for whatever they may do in contravention of such orders and instructions.

619. Also it corresponds to the Naviero to nominate to them, the captain of the ship, but if he should have part owners in the part of the vessel, said appointments shall be made by a majority of all the part owners.

620. The Navieros can, for themselves, discharge the offices of captain and mate of their own vessel, without being prevented by the objection of any part owner, at least by one who has not been matriculated, which gratification shall confer a preference.

In case of two part owners, who have both been matriculated, concurring to solicit such appointment or command of the vessel, he who holds the greatest interest in the vessel shall be preferred; and if both hold an equal portion in the vessel, it shall be determined by lot who shall have the command of the vessel.

621. The Naviero is responsible for the debts and obligations which the captain of the ship may contract for repairing her, fitting her out, and furnishing her with provisions: and he cannot avoid this responsibility by alleging that the captain exceeded his powers, or acted contrary to his orders and instructions.

Always it being understood that the creditor shall justify himslf that the amount for which he demands payment was employed for the benefit of the ship.

622. Also there shall fall upon the Naviero the responsibility of the indemnifications in favor of a third party, which may have been occasioned by the conduct of the captain, in custody of the effects which have been loaded into the vessel by the Naviero, but he can save himself from this responsibility by making an abandonment of the vessel, with the whole of her appurtenances and freight, which have been earned on the voyage.

623. The Naviero is not responsible for any contract which the captain has made for his own particular benefit, although the captain has made use of the ship for its fulfillment.

Nor for the obligation which the captain may have contracted outside of the limits of his functions, without a special authority to do so—nor for those contracts which the captain may have made without the solemnities prescribed by the laws as conditions essential for their validity.

624. Neither is the Naviero held responsible for the excesses which, during the navigation, the captain and ship's company may commit; and a right only is had on account of these excesses to proceed against the persons and goods of those who shall commit these faults.

625. The Naviero shall indemnify the captain for all the supplies which he shall furnish for the use of the ship, with his own funds, or those of other persons, always when he shall have acted according to his instructions, or in use of the powers which legitimately are competent.

626. Before the sailing of the vessel, the Naviero can dismiss, at his pleasure, the captain and individuals composing the ship's company, when the hiring shall not be made for any particular time, or determined voyage, paying them their wages which they have earned, according to their contract, and without any other indemnification than what shall be founded in an expressed and determined agreement.

627. The captain, and any other individual of the ship's comyany, being discharged during the voyage, shall be paid their salary until they return to the port where they were hired and shipped, unless they shall have committed a fault which may have given a just cause for discharging them, or may have incapacitated them for discharging their duties.

628. When the agreement of the captain and the individuals of the ship's company, with the Naviero, shall be made for a determinate time or voyage, they cannot be discharged until the completion of their contracts, except for cause of insubordination, of a grave and dangerous nature, habitual drunkenness, or damage caused to the vessel or her cargo, by deceit or negligence, manifest or proved.

629. The captain of the ship being a part owner in the vessel, cannot be discharged, unless the Naviero shall reimburse the value of his portion solicial, which, in defect of an agreement between the parties, shall be estimated by skillful persons named by both parties, or officially, if they shall not make a verification of it.

630. If the captain who is part owner has obtained command of the vessel by a special agreement in the acts of the company, he cannot be deprived of his station, without a grave cause.

631. The Naviero cannot contract for nor admit more cargo on board than what corresponds to the capacity which shall be declared to his ship in her matriculation, and if he should do this, he shall be responsible for the damages which may result to the shippers.

632. If a Naviero should contract for more cargo than what the vessel ought to carry, with reference to her capacity, he shall indemnify the shippers with whom he has failed to fulfill their contracts, for all the damages which has happened to them by the want of such fulfillment.

633. Every contract between the Naviero and the captain fails in case of the sale of the vessel, reserving to the latter his rights for indemnification, which shall correspond to him according to the stipulated agreement with the Naviero.

The vessel being sold, shall remain obligated as security for the payment of this indemnification, if, after a demand has been made against the seller, he should turn out to be insolvent. A. N.

MERCANTILE LAW CASES.

AGENTS AND FACTORS.

Superior Court, New York. Before Hon. L. H. Sanford, and a jury. J. & R. Milbank & Co. *vs.* A. Dennistonn & Co.

This was an action for the misconduct of the defendants, as agents of the plaintiffs, in their sale of 5,000 barrels of flour, at Liverpool, in the summer of 1846. The allegations were, that the sale was in violation of orders, and also that it was not made with reasonable care and diligence.

Milbank & Co., who were merchants at New York, with a branch of their house at New Orleans, on the 25th of June, 1646, wrote to Dennistonn & Co., at Liverpool, having a branch of their house at New York, announcing two shipments of flour; one of 5,000 barrels, by ship Nicholas Biddle, and 3,000 barrels by the Georgiana, both then on their voyage from New Orleans to Liverpool. Referring to arrangements intended by them with Dennistonn's New York house, Milbank & Co. write:—"You will please make no disposition of the flour, until we give you ourwishes per Caledonia, unless 22s. in bond is obtainable; in which case, if, in your judgment, you deem it our interest to accept that figure, please do so. Our R. W. Milbank designs visiting your city soon, and we trust our correspondence may be extended."

The Caledonia, sailing soon afterwards, took out another letter from Milbank & Co., to Dennistonn & Co., dated 27th June, in which, enclosing invoices of the two shipments, and alluding to the good quality and condition of the flour, they write as follows:—"We fear the first introductions for consumption may tend to continue low prices, as they will probably be large immediately on the passage of the new bill. Believing that after the stocks now in bond shall have been reduced by consumption, &c., an improvement may ensue, we would express our desire that these parcels may be withheld from the market until the operation of the Corn Law shall have produced its results. We hope we may not err in assuming its passage. Though if 22s. in bond is obtainable on arrival, and you think our interest dictates such sale, please so dispose of it. Our R. W. Milbank designs visiting your city, by steamer of the 16th of July, and will confer with you."

R. W. Milbank was detained until the middle of August, and did not reach Liverpool until the 4th of September.

Dennistonn & Co., on the 18th of July, acknowledged the receipt of Milbank's letters, and that the Nicholas Biddle, with 5,000 barrels, had arrived. They write:—"You seem to think that 22s. per barrel should be taken for it in bond; but this is 25s. free, at present, and this figure is not obtainable for New Orleans flour. If of good quality, and sweet, 24s. might be obtained. In two days we hope to get a sample, and have it valued; but as we have little expectation of getting an offer at the price you allude to, we shall likely store the flour, and await the arrival of Mr. R. W. Milbank, with whom we can confer as to the future proceedings."

On the 3d of August, Dennistonn & Co. inform Milbank & Co. of the arrival of the Georgiana, with the 3,000 barrels. They proceed:—"We much fear that this shipment, as well as that per Nicholas Biddle, will disappoint you; as, in common with almost all the flour from the Gulf, this year, if not sour, it will only bring the price of sour. Our market has been at a stand for some days; but as the last two or three days have been unsettled, there may possibly be some activity to-morrow."

Accompanying the letter was a circular, in which, after stating the dullness of the grain market, the commencement and favorable appearance of the harvest in England, they say that "Indian corn had risen in price, in consequence of very alarming accounts of a blight of the potatoe crop in Ireland."

The cargo of the Nicholas Biddle was put in charge of a brother at Liverpool,

on the 21st of July. The ship began discharging July 27th, and the flour was put in store.

On the 4th, 5th, and 7th of August, the 5,000 barrels ex Nicholas Biddle were all sold at 21s., duty paid.

On the 18th of August Dennistonn & Co. announce the sale, but state that in consequence of a rise in the market, owing to the harvest in England turning out badly, and the continued information, both from England and Ireland, of the blight of the potatoe, they regretted the sale, and that they should hold the Georgiana's cargo, which, they hoped, would make up the deficiency.

On receiving news of the sale, Milbank & Co. refused it, and complained that their orders had not been conformed to.

Previously, however, on the 31st of July, the Milbanks at New York wrote to Messrs. Dennistonn:—"We suppose that, ere this, the crop of wheat has been ascertained as to its probable yield, and the grain and flour market conformed to such results. We therefore ask you to exercise your discretion in effecting sales for us." This letter arrived at Liverpool during an excitement produced by bad weather and potatoe blight, say August 12th.

The cargo of the Georgiana was proved to be in the same condition, and of the same quality as that by the Nicholas Biddle. It was kept till the end of September, and then, and in October, it was sold at 29s., and 29s. 9d. per barrel.

The Corn Law went into operation on the 27th of June.

The plaintiffs claimed that they had lost the difference between this price and that for which the Nicholas Biddle's cargo was sold, by the defendants' selling the latter as they did; insisting that the same was unwarranted by the orders, and was negligent.

The defendants sold some similar flour of their own, about the time of the sale of the Nicholas Biddle's flour, at the same price, and gave evidence that the rise of price was not contemplated at the time of that sale. No bad faith was in any manner imputed to the defendants.

By the account current, including the proceeds of the sales of the cargoes, the defendants were charged with advances on the 14th of July, due on the 15th of September, leaving a balance of about $1,400, which the defendants paid, and also they tendered and paid into court about $180, accruing from some small items of account between the parties. The sales of the flour ex Nicholas Biddle, yielded about $2 30 per barrel, and the loss, according to the price of the flour ex Georgiana, was about $9,500.

Mr. Lord, on part of the plaintiff, contended, 1st. That the orders to sell were to depend on the results of the Corn Law; that the letters of the plaintiffs plainly showed the expectation of a fall in the prices, as a first result, but a rise as soon as the stocks thus thrown on the market should have been decreased by consumption; and there was no evidence that any such result had happened, or had been waited for. That the defendants' determination to store the flour, expressed on the 18th of July, and actually carried into effect by storing the cargo, begun to be landed on the 27th of July, and which could but just have been got into store by the 4th of August, when the sales were made, showed the defendants' own judgment that the time for selling, indicated by the plaintiffs' orders, had not arrived. 2d. That under these circumstances, the sale was evidently made through inattention and neglect. There was no necessity calling for the sale. One of the Milbanks was announced as on his passage, who should have been waited for before a sale, so much below expectation, was made. That the defendants, in their correspondence, put the subsequent rise of price on the potatoe blight, and the short harvest; which potatoe blight had been announced by the defendants themselves, in their letter of the 3d of August, the very day before the sale; which letter also contained statements showing the harvest in England yet to be doubtful. That these facts, in connection with the absence of any intimation, on the 3d of August, of the purpose of selling, and the sale immediately made on the 4th of August, gave satisfactory evidence that the defendants had wholly neglected the matter, and had left it all to the brokers, who had sacrificed the property.

Mr. BIDWELL, for the defendants, insisted that the orders were not explicit; and, in the absence of all imputation of bad faith, the fact of the defendants' selling was proof that they took them, not to restrain them from selling, and that for such honest mistake, even if such, they were not responsible. That the results of the Corn Law had taken place when the sale was made; it had been in operation more than a month, and all the Liverpool witnesses examined by the defendants proved that the effect was to reduce the prices. That the rise of prices afterwards was not a result of the Corn Law, but of the potatoe blight, and deficient harvest, which both became known only after the sale. That the potatoe blight mentioned in the letter of the 3d of August was in Ireland only, and it was not then affecting the English flour and grain market; that the sale was made by a competent broker, in the way proved to be usual, and was justified by the opinions of the experienced witnesses who had been examined.

SANDFORD, Justice.—After stating the several dates and material facts, and the contents of the letters, charged the jury:—

That the letters of the 25th and 27th of June were orders to withhold the flour from market until the results of the Corn Law, then expected to be passed, should be known, unless 22s. in bond could be obtained. The defendants, receiving the consignment, accompanied, at the time, with these instructions, were bound to obey them. Did they obey them?

What were the results meant by the plaintiffs' letter? It appears that in expectation of the Corn Law, large stocks of bread stuffs had accumulated in England in bond, in expectation of the reduction of duty. This was known to the defendants, and, as appears by the letters of the plaintiffs, was supposed by them also. The letters express the expectation of the immediate results being a fall of prices, but that the further results would be a rise, from the consumption being increased, and shipments, in the face of low prices, being diminished; that a reaction would take place. The plaintiffs insist that this was the result to which the letters referred. The defendants insist, that the immediate results were referred to, and that they had taken place before the sale. It is for the jury to say, under the facts known to the defendants, how they ought to have understood the letters in these respects, as men of reasonable skill and knowledge of business. If they were warranted in understanding the letters as they contend, they would not be liable. If not, they will be liable, unless it appears that time had been given for the results, according to the plaintiffs' construction of the letters. There does not seem to be proof that it had. If, on this part of the case, you find that the defendants violated instructions, then they are liable, and you need not further consider the case.

But if the plaintiffs have not satisfied you of this, then they place their claim on the ground of the defendants' negligence, inattention, and want of skill in making the sale when they did. As factors, the defendants were bound for good faith, and reasonable skill and diligence, such as a prudent man managing his own affairs would exhibit. Exhibiting this, they would not be liable for mere error of judgment. The sale of their own flour, at the same time, and for a similar price, is evidence as to their good faith, which, indeed, is not denied; but it is not evidence of their skill or dilligence, for they may exhibit a want of these in their own business.

It is for you to decide, upon the whole evidence, whether such skill and diligence have been bestowed on this sale. On the one hand, it is in proof, by some of their witnesses, that the price of breadstuffs was declining; that the results of the Corn Law had been to depress them; that the prospect of the new crop was favorable. On the other hand, are the plaintiffs' letters of the 25th and 27th of June, showing their wishes to hold on to the flour, the expected arrival, in a short time, of one of the plaintiffs at Liverpool, with whom they might confer; the increased consumption to arise from a reduction of prices, the diminution of imports, the potatoe blight, as then known, the landing and storing of the goods, and the sale so nearly following on it. All these circumstances on each side, bear on the question, and you are to say if the defendants, in this sale, acted as a prudent man would have acted in the management of his own affairs; if they have, they are not liable; if not, they are.

If, on either of the grounds, the defendants are liable, it is then for you to say when the sale should have been made, so as to determine the price at which the plaintiffs' damages are to be assessed. They claim that the sale of the cargo of the Georgiana shows the time and the price. Perhaps that is a fair criterion, as the plaintiffs actually did hold this cargo, and the results are given to you. But this is a question for you.

The jury found for the plaintiffs, and assessed their damages, inclusive of the amount tendered, and also allowing interest, at $11,136 37.

LIABILITIES OF RAILROADS.

CASE OF EZRA H. CORNING. The Connecticut River Railroad Company had recently the amount of $9,040 damages awarded against them at the recent trial in favor of E. H. Corning, Esq, for personal injury sustained while a passenger in one of the cars of the Company. The facts are thus stated:—

At the time of the accident, the engine which did the mischief, and which was running on trial, without any cars attached, was running about fifteen miles an hour, but the down train had so nearly stopped that it was moving at a very slow rate. No other persons beside Mr. E. H. Corning were much injured.

The plaintiff did not experience much immediate inconvenience from his bruises. He came down to Springfield, went about town some time, attended to his business the next day, went to church the day following, it being Sunday, and some weeks after took a journey by railroad to Greenfield, and on his return, went from Northampton to Chicopee Falls by way of Amherst, in a private conveyance.

During the whole of this time, however, he suffered more or less inconvenience. Soon after, his sufferings increased, and his symptoms grew more alarming, and he has since been wholly incapacitated to attend to his ordinary business, and he has been under medical treatment. He has had palpitation of the heart, a high pulse, dizziness, and one of his eyes and one of his legs have been seriously affected.

His attending physician did not, at first, deem his case alarming, nor was the plaintiff himself, nor his friends, much concerned about it. Several medical witnesses were called during the trial, and they all seemed to agree that the best course for the plaintiff, at the outset, would have been to keep still and quiet, and be careful about his diet, but that the prescriptions actually made for him were wise, under the circumstances, considering how little was then known about his real condition, compared with what was developed by subsequent symptoms.

The Court instructed the jury that they were to view the plaintiff's constitution as it was when the suit was commenced, which was on the 21st of August last, and not as it is at the present time. They were to award such damages as, in their opinion, would compensate him, so far as dollars and cents could do, for the injuries received. They were not to pay any attention to the fact that he might be a poor man, and the defendants a rich corporation, but consider only what amount of damage has been done, and what amount of money would pay for it. The golden rule had nothing to do with the case, for if juries were to do as they would be done by, it would be impossible ever to get a man hung.

ACTION TO RECOVER OF SURETIES FOR BONDS GIVEN FOR FAITHFUL PERFORMANCE OF TRUSTS.

In the Supreme Judicial Court of Massachusetts, 1849, Edward G. Loring, Judge of Probate, *vs.* Simon Willard. Same *vs.* Wm. Bacon.

These were two suits against two different sureties, on two different bonds, given for the faithful performance of his duties, by Charles Fox, guardian of John W. Furness, a minor. The bond on which Willard was surety was given May 23d, 1832. In June, the guardian represented to the Judge of Probate that a legacy of $500 had been bequeathed to the ward, and that as the penalty of the

first bond was merely nominal, the bond was insufficient security. The Judge accordingly ordered a new bond, in the penal sum of $1,000, which was given accordingly, with Mr. Bacon as surety. The former bond was not cancelled. The legacy was paid into the guardian's hands. The guardian duly accounted for the interest up to the year 1838. In 1838, it appeared that he had neglected to account for the funds in his hands, and the Judge, at the instance of the administrator of the ward, ordered the bonds to be put in suit.

METCALF J., delivered the opinion of the Court. It was objected, 1st, that the legacy to the ward was not a vested legacy, or one which the ward was entitled to receive, and that the guardian was not bound to account for it. But the same question came up in a former suit, in which the present administrator of the ward, as executor of the testator, sued Fox, the guardian, to recover back the legacy. That case, *Furness* vs. *Fox*, was decided in 1848, and it was there held that the legacy belonged to the ward. The guardian was clearly bound to account for it; and his failure to do so was a breach of the bond. 2d, It was contended, that the second bond was void, because the Judge had no right to require it; and that the first bond was void, because it was superseded by the second. The Court, however, were clearly of opinion that both bonds were valid. Whether the Judge could have required the second bond if objected to at that time by the guardian, it was not now necessary to decide; though it would seem that there ought to be such a power, where an insufficient bond was taken in the first instance. But here, the guardian of his own motion suggested that the first bond was insufficient, and the execution of the bond by the surety was entirely voluntary. There is no legal objection to filing several bonds with a single surety on each. The filing of a second bond does not impair the first. Judgment for the plaintiff against each defendant, for the penalty of their respective bonds; with liberty to the defendants to be heard in chancery as to the amount; each defendant to contribute towards the satisfaction of the amount, in proportion to the penalty of their respective bonds.

QUESTION OF SIGNATURE.

In the Court of Common Pleas (Boston, Mass.), before Judge Perkins (August, 1849), Churchill *vs.* Donaldson.

This was a suit originally commenced in the Justice's Court, to recover the price of a bureau, claimed to have been sold and delivered to the defendant. Jpdgment was entered against the plaintiff in the Justice's Court, and he appealed. When the case was first taken up in the Court of Common Pleas, the plaintiff called, as a witness, his clerk, who swore to the sale and delivery of the bureau. The defendant's counsel, on cross-examination, handed this witness a bill of parcels, purporting to be signed by Wm. Churchill, and on inquiry, the witness pronounced the signature to be Wm. Churchill's. The bill of parcels was receipted, and contained the charge for the bureau. The plaintiff declared himself surprised by this evidence, and asked for delay on that ground; and the Court granted him a continuance.

At the next term the cause was tried. The same witness was called, and testified that the signature was not Churchill's. Both parties produced signatures to different papers purporting to be Wm. Churchill's, and went to the jury on a comparison of handwriting. The jury, after being out some time, came in for instructions, saying, through their foreman, that they were satisfied that many of the specimens that had been produced by the witnesses were not Churchill's handwriting, but that they were equally certain that the signature at the bottom was executed by the same hand that wrote the capping to the bill; and they requested to be instructed, whether, if they believed that the signature was executed by Churchill's clerk, it was to have the same force and effect as if executed by Churchill. The Court told the jury that there was no evidence that it was executed by Churchill's clerk, and took the papers from the jury and dismissed them.

At this term, the case came up again for trial. The same clerk was on the stand, and testified to the sale and delivery of the bureau. On cross-examination,

he testified that the bill was made in Churchill's store, and issued therefrom. There was other testimony in the case, to the effect that money had been paid by the defendant to the plaintiff. Both parties avoided asking the clerk whether the signature to the bill was Churchill's, evidently considering it unsafe on either side to do so; the defendant fearing he would say "no," and the plaintiff being aware that if he said "no," he would be asked if he had not before said "yes."

The defendant contended, that, as the bill was made in, and issued from, Churchill's store, and the handwriting of the signature resembled that of the capping of the bill, and no claim was made for the other articles in the bill besides the bureau, and *some* money had been paid, the jury might infer that Churchill had issued the receipted bill as a genuine receipt, and that he had been paid.

The jury returned a verdict for the defendant.

COMMERCIAL CHRONICLE AND REVIEW.

THE MONEY MARKET—BANKS OF NEW YORK CITY—EXPORT OF UNITED STATES STOCKS FROM 1842 TO 1848—RECEIPTS OF CALIFORNIA GOLD AT THE UNITED STATES MINT—IMPORTS AND EXPORTS OF SPECIE FROM NEW YORK AND BOSTON FOR LAST TEN MONTHS—MOVEMENT OF SPECIE AT THE PORT OF NEW YORK FROM 1847 TO 1849—UNITED STATES REVENUE AND EXPENDITURE—BUSINESS OF THE PORT OF NEW YORK FOR TEN MONTHS—INCREASE OF IMPORTS AND EXPORTS OF THE UNITED STATES—BREADSTUFFS ENTERED FOR CONSUMPTION IN GREAT BRITAIN FOR 1849—SALES OF COTTON IN LIVERPOOL—INCREASING DEMAND FOR CORN—PRICES OF FARM PRODUCE IN GREAT BRITAIN—BANKS OF NEW ORLEANS—THE GENERAL ASPECT OF BANKING CAPITAL—ANNUAL ARRIVALS OF IMMIGRANTS AT THE PORT OF NEW YORK FOR THIRTY YEARS—EMIGRATION TO CALIFORNIA, ETC., ETC.

THE general state of prosperity which we alluded to in our last number, has been undisturbed by any conflicting elements. The money market remains quite easy, and good short paper is rather in demand than otherwise. The general prosperity of business has been such as to keep the merchants of the city well supplied with funds, and the deposits of the city banks show an unusual amount on hand. The quarterly returns of the banks, as ordered by the controller, give the leading features, as follows:—

BANKS OF NEW YORK CITY.

	Loans.	Specie.	Circulation.	Deposits.	Balances due banks.
September 30, 1848.....	$40,097,890	$4,740,847	$5,726,891	$20,353,365	$4,337,134
December 31, 1848.....	41,031,247	5,850,424	5,783,498	21,443,148	5,528,941
February 9, 1849.....	43,521,441	4,523,775	5,460,399	22,928,554	5,864,022
June 30, 1849.....	48,515,471	9,586,308	5,539,572	27,227,134	9,804,973
September 22, 1849.....	49,922,265	8,022,246	5,990,100	28,482,228	8,536,794

These figures present an extraordinary increase in the leading items. Thus the balances due banks, and the individual deposits, are, together, $12,328,523 of means at the disposal of the banks, more than at the same period last year; and this has been employed $3,281,399, in specie, and $9,824,375 in increased loans, which have gradually swollen in amount during the whole year. The large exports have paid for the considerable importations, and these have found remunerating sales and prompt payment in the interior. The means thus placed at the disposal of the banks have been loaned so as to produce a constant excess of supply upon the market. That is to say, the amount of money paid out by the banks, on discounts, has constantly exceeded the amounts paid in on matured paper, thus keeping the borrowers well supplied. It is however the case, that the institutions have been wary in their movements, and no class of paper similar

to those old long dated renewable notes, which laid the foundation of a disastrous revulsion in by gone years, has found favor. The importations of goods have been very considerable, but have been paid for in produce, stocks, and specie. The amount of produce has much exceeded that of last year, supplying the bill market with good paper. This supply has been enhanced, however, by the exportation of United States stocks, of which we learn from official resources the amounts held abroad at the close of September, was nearly as follows:—

Loan of 1842.....	$710,313	Loan of 1848.....	$4,891,750
" 1843.....	466,300	" 1848, coupon.....	8,500,000
" 1846.....	512,700		
" 1847.....	5,310,530	Total U. S. st'k held abr'd	$20,391,593

This considerable amount, reaching nearly one-third part of the whole federal debt, has gone abroad, mostly in the last eighteen months greatly increasing the supply of bills; some specie has also been required, but not larger than the receipts from other quarters, mostly California, have been. The amount received at the mint from that quarter is now, altogether, $3,800,000. The imports and exports of specie from the ports of New York and Boston, for ten months, ending with October, are as follows:—

	Boston.	New York.	Total both ports.
Imports.....	$1,250,914	$3,559,183	$4,810,097
Exports.....	303,862	4,024,579	4,328,441
Excess of imports.....	$847,052	.....	$490,656
" exports.. ...	.....	$1,083,486	.....

The receipts from California and the United States mines, have exceeded this by some millions. The money market of New York, at this time last year, was tight, and in our number for November, we had occasion to describe it as follows:—

"The money market has been tight during the month, and many dealers in New York and other cities have felt the pressure intensely; and lately it has become facile. It has resulted from the course of business during the past year. that the indebtedness of the city to the country, which was last year large, by reason of the moderate sales of manufactured goods to the interior in return for the immense quantities of produce which came down for sale and export, is this year reversed, and the city dealers have not been able to collect as largely as the necessity of meeting their own obligations required. The consequence was, a great diminution in the amount on deposit with the several banks, leaving them but little means to meet the usual demand for discount which arises from the dealers in cotton and farm produce at the beginning of a new crop year."

The circumstances that induced an easy market in the fall of 1848, again conspired to produce the same result this year. At that time, however, a considerable exportation of specie sprang up, which drew heavily upon the banks of the city, at the same moment that the balances due the interior were rigorously called for. The pressure thus produced was severe towards January, and a few small banks suspended. This year the exportation of specie has been checked by the stock movement, and the inconvenience it might have occasioned, by the receipts from California. The following table will show the monthly movement of specie at the port of New York for two years:—

MOVEMENT OF SPECIE IN PORT OF NEW YORK, AUGUST 1, 1847. TO NOVEMBER, 1849.

	Import. *Dollars.*	Export. *Dollars.*	Net export. *Dollars.*	Net import. *Dollars.*	Duties. *Dollars.*	Total demand. *Dollars.*	Specie in Assistant Treasury. *Dollars.*	Specie in banks. *Dollars.*
August, 1847	195,555	66,000	.....	.....	3,337,341	3,207,786	3,521,763	.....
September, 1847	94,546	350,925	256,379	.....	2,096,604	2,352,983	5,291,554	.....
October, 1847	100,773	674,548	573,775	.....	1,213,983	1,787,758	1,893,908	.....
November, 1847	58,915	1,455,946	1,397,031	.....	1,024,766	2,421,797	.....	.....
December, 1847	39,712	1,888,867	1,849,155	.....	856,576	2,705,731	734,060	.....
January, 1848	48,030	1,183,517	1,135.485	.....	2,305,017	3,440,502	.....	.....
February, 1848	49,502	433,226	383,724	.....	2,416,497	2,800,221	.....	.....
March, 1848	22,781	452,507	429,726	.....	1,553,003	1,982,729	536,754	6,722,326
April, 1848	65,917	1,180,422	1,124,505	.....	1,686,506	2,811,011	.....	.....
May, 1848	18,280	1,000,000	1,681f720	.....	554,875	2,236,595	105,569	.....
June, 1848	69,532	1,871,972	1,802,440	.....	1,143,497	2,945,937	159,036	6,751,338
July, 1848	64,631	744,983	680,352	.....	1,794,236	2,474,588	199,958	.....
August, 1848	133,855	331,031	197,176	.....	2,533,343	2,730,520	563,312	.....
September, 1848	197,098	501,445	304,347	.....	2,119,571	2,423,918	1,433,387	4,740,847
October, 1848	127,998	832,423	704,425	.....	1,328,833	2,033,258	855,330	.....
November, 1848	104,971	482,156	377,185	.....	1,122,549	1,499,734	2,223,593	.....
December, 1848	70,488	365,878	295,350	.....	806,620	1,101,970	1,184,931	5,850,424
January, 1849	57,700	122,582	64,882	.....	1,911,465	1,976,347	1,277,303	.....
February, 1849	21,322	106,851	85,529	.....	2,070,447	2,155,976	1,693,790	4,523,775
March, 1849	130,895	86,506	.....	44,389	2,043,395	1,999,006	1,822,091	.....
April, 1849	638,746	85,691	.....	553,055	1,497,445	964,390	1,917,470	.....
May, 1849	1,137,932	373,916	.....	764,016	1,452,617	688,601	1,863,081	.....
June, 1849	122,746	596,411	473,665	.....	1,347,898	1,821,563	1,701,972	9,586,308
July, 1849	327,007	138,353	.....	188,654	1,994,360	1,815,706	1,234,097	.....
August, 1849	60,739	357,368	296,629	.....	3,461,511	3,758,190	2.630,491	.....
September, 1849	489,485	326,384	.....	163,101	1,583,713	1,420,612	3,701,046	8.022,246
October, 1849	572,614	1,830,518	1,257,904	.....	1,560,553	2,818,457	3,811,533	.....

The apparent movement at the port of New York has been one of continuous efflux, according to these official custom figures, and yet the amount in the city, including banks and assistant treasury, was, at the close of September, 1849, $11,723,292, being as large an amount as ever before accumulated in the city. This as well as the export demand, has been supplied by the action of commerce, and it becomes all the more abundant, that its course is not restricted. On the other hand the government action creates a current for it towards those points where the largest commercial operations require the greatest payments under the law. It happens under our system of government, that the revenues can seldom exceed the current expenditures, though this has been the case for the quarter ending September 30, which forms the first quarter of the fiscal year 1850. The revenue and expenditure of the federal government, under leading heads, have for five quarters been as follows:—

UNITED STATES REVENUE AND EXPENDITURE, QUARTERLY.

	Quarters ending Sept. 30, 1848.	Dec. 31, 1848.	March 31, 1849.	June 30, 1849.	Sept. 30, 1849.
Customs.....	$8,991,935	$5,181,870	$8,374,628	$5,794,256	$11,450,000
Lands.....	482,209	494,498	389,566	279,685	370,000
Miscellaneous.	133,271	934,269	2,181,350	63,500	175,000
Loans.....	10,127,200	7,599,950	3,734,500	5,004,000	1,246,500
Total rev'ue	$19,735,114	$14,211,348	$14,680,044	$11,141,490	$13,241,500
EXPENDITURE.					
Civil.....	$3,371,231	$3,864,669	$2,873,030	$3,909,143	$2,678,760
War..... ...	8,064,851	3,803,990	2,498,259	3,001,428	3,302,315
Navy.....	2,979,022	2,680,269	2,091,291	2,041,912	2,052,435
Interest.....	181,176	1,510,659	167,308	1,765,224	34,499
Loans.....	3,268,850	2,403,950	3,510,208	3,700,523	842,176
Total.....	$17,866,104	$14,263,517	$11,140,096	$14,418,230	$8,910,186

The ordinary revenue of the quarter has exceeded the ordinary expenditure by

$3,961,481, mostly derived from the large customs revenue. Of the loans received and paid, $839,450 appears to be merely a funding of Treasury notes in the coupon stock of 1847, and the balance of the loan of 1848 was paid in apparently. It will be observed that the customs revenues for the quarter September 30, 1849, exceeded those of the corresponding period last year, by the sum of $2,458,000, or nearly 30 per cent. This is a larger amount than was received in any quarter under the tariff of 1842. The considerable importations which yield these large revenues have sold well, and the stocks on the shelves of Atlantic merchants are quite small for the season. The means for purchasing such quantities of goods, in addition to the large manufactures of domestic goods, were derived from those exports of breadstuffs to which in our last we alluded, as so far exceeding those of the previous year, added to an enormous crop of cotton which sold at advancing prices under the spur of speculation, based upon short crop estimates as the season advanced.

The business of the port of New York for the ten months ending with October, has been, as compared with last year, as follows:—

BUSINESS OF THE PORT OF NEW YORK FOR TEN MONTHS.

	Imports.				Exports.			
	Specie.	Free.	Dutiable.	Total.	Specie.	Foreign.	Domestic.	Total.
1848.....	928,260	7,838,219	71,235,766	80,002,245	9,886,749	2,961,103	24,690,305	37,538,157
1849.....	3,552,119	8,605,951	75,924,438	88,082,508	4,026,579	4,273,344	24,245,949	32,045,872
Increase.	2,623,859	767,732	4,688,972	8,080,343	.....	1,312,241	.....	.....
Decrease.	.....	.....	.....	.....	5,860,170	.....	444,356	5,492,285

There has been an apparent increase of imports of $8,080,343, and a decrease of exports of $5,492,285, making an apparent difference of $13,580,000. This state of things was remarked upon in a New York daily print as indicative of approaching revulsion, and appeals based on it were made to the fears of the merchants; a little examination shows that the decrease in exports is altogether specie, brought about by a subsiding of those elements of distrust which existed last year on the continent of Europe, and of the increased imports, $2,623,859, is specie. The actual exportation of goods from the port, is nearly $1,000,000 more than last year, and the importation of goods to be paid for but $500,000, increase, showing an apparent adverse balance of but $4,000,000, instead of $13,580,000. This balance is apparent only because as the city of New York imports for the Union, and New Orleans exports for the Union, the bills of the latter are exported from New York in payment of its imports. These with stocks have been sufficient to sustain the commercial balance, and the excess of specie exported, is unimportant.

The importations of breadstuffs into Great Britain for the year ending with August, and showing the proportion sent from the United States, are seen in the following table:—

BREADSTUFFS ENTERED FOR CONSUMPTION IN GREAT BRITAIN, YEAR ENDING AUGUST, 1849.

				Export from U. States to G. Britain, same time.
Wheat.....qrs.	4,323,645	equal to bush.	33,589,160	$1,084,385
Barley.....	1,323,827	"	10,588,616	.....
Oats.....	1,221,883	"	9,774,664	.....
Rye.....	220,829	"	1,766,836	.....
Peas.....	266,475	"	2,131,800	.....

Beans.....	531,177	"	4,249,416	.....
Indian corn.....	2,287,283	"	18,298,264	12,721,626
Flour.....	1,002,393	"	8,019,144	5,570,080
Total.....	11,177,512	"	89,420,096	$19,375,091

These large supplies of foreign breadstuffs consumed in Great Britain, in addition to the local crops, kept prices low, and with abundance of money, favored a large demand for manufactured goods. This favorable aspect of the cotton trade, combined with the growing quietude of Europe, the brisk markets of the East, and the abundance of money at home, early stimulated a speculation in cotton. The low price of cotton doubtless induced a large actual consumption, and induced many spinners to take advantage of the cheapness of money, to lay in stock at those low prices. This naturally had a tendency to advance prices, and the position of affairs favored a simultaneous short crop cry, which has had the effect of sending prices to a point from which there must be a reaction. We find, from the Liverpool brokers' circular, that the deliveries for consumption for three years, ending January 1st, 1849, were 3,864,666 bales, or 24,773 per week; but it should be borne in mind that the year 1847 was one in which short time was extensively in operation, and that year should, consequently, be thrown out of the calculation. In 1846 and 1848, then, the total quantity delivered for consumption was 2,839,478 bags, or 27,302 bags average per week. It appears, also, that the quantity taken by spinners, January 1st to June 22d, 1849, was 31,115 bales per week, and from June 22d to August 17th, 46,616 bales per week. Say January 1st to August 17th, 1,075,045 bales, against 857,970 in the same period of 1848. Now, notwithstanding that the low prices augmented the production of coarse yarns, that the actual improvements in machinery and increase of spindles enhanced the actual consumption, there is but little doubt that the stocks of the spinners were considerably augmented. The fact, however, that a United States delivery of 2,700,000 bales had left a diminished stock of raw material, while the export returns showed a considerable increase in goods sent out of the country, naturally prepared the way for much activity on receipts from the United States, of estimates varying from 2,000,000 to 2,200,000 bales. The excitement which prevailed is manifest in the following figures:—

SALES IN LIVERPOOL.

					Prices of fair, upland, and Mobile.
Sales in week ending	October	5	28,990		5$\frac{1}{8}$ a ..
"	"	"	12	116,770	6 a ..
"	"	"	19	191,009	6$\frac{3}{8}$ a 6$\frac{1}{2}$

At the close of the last week, accounts reached Liverpool, of enlarged estimates for the crop. Fine weather, it was stated, was remedying the alleged previous damage, and the possibility of a crop as large as the actual growth last year, was hinted at. It was at once evidence that such crop, even with cheap food and abundant money, could not be consumed at the high rates current, being nearly 100 per cent over those of last year. The money market already began to feel the influence of the speculation, and the spinners, by falling back on their reserved stocks, and checking purchases, had it in their power to bring on a disastrous revulsion, and the market began to give way. It is possible that under the general combination of circumstances favorable to a large consumption, a crop of 2,500,000

bales might not seriously have depressed prices, had not the speculation, by raising prices too high, checked the consumption, and thus subjected the market to serious reaction. Many holders will doubtless realize in season, and the fact that receipts at the ports are rapidly increasing, would show a desire, on the part of growers, to realize present rates.

The prospect of an Irish demand for corn is improving, and also that the dependence of England, on foreign supplies, will gradually increase. The land monopoly of England, by adding the item of rent to be paid by the occupier and producer, made requisite a tax on the foreign article, which should protect him against the proprietary producers abroad, who had no rent to pay. The removal of this tax has now thrown directly upon the English farmer the whole burden of his rent, which was before borne by all consumers of bread. This burden will be enhanced, by the abrogation of the navigation laws, which, by diminishing freights, will make the competition between the cheap rentless lands of other countries, and the landlord burdened soil of England, more severe, and, as a consequence, much of the poorer soils will be abandoned, while the expensive system of culture before resorted to, to increase the quantity of protected corn, must be relinquished as unprofitable. A considerable diminution in the product of a *good* English harvest, as compared with former years, may then freely be looked for. We have given above an official table of the quantity of food taken for consumption in England, for the year ending August, 1849. That was in aid of the harvest of 1848, which was "good," but the accreable product, from causes alluded, could not have been as large as usual. The result of this is, that the small farmers, with small crops at low prices, cannot meet tithes, taxes, poor-rates, and rent, the last the most onerous; and their capital and numbers are annually diminishing, swelling the numbers of bread consumers in other employments. The diminished means of all the farmers prevent them from holding to the usual price in those months which immediately succeed harvest. They are compelled to sell, to raise money, and the lowest range of prices for the year precedes January. These are circumstances likely annually to increase the English demands upon the United States for food, the supply of which will be facilitated by the removal of the restraints of the navigation act. The products of the lake States, as well as those of the soil watered by the tributaries of the Mississippi, will find a market of constantly increasing capacity; and the volume of farm produce which will pour down the Mississippi, may rival the value of cotton and sugar at New Orleans. The movement of the banks at New Orleans have been as follows:—

BANKS OF NEW ORLEANS.

	Loans.	Specie.	Exchange.	Circulation.	Deposits.
August, 1848.	$6,232,359	$7,590,655	$3,005,193	$3,963,689	$7,320,079
June, 1849.	8,309,938	7,353,527	6,049,623	5,380,027	8,511,231
July, 1849.	7,554,224	6,876,355	4,801,067	3,868,185	7,710,027
August, 1849.	7,122,420	6,588,441	3,103,984	4,709,038	6,626,051
October, 1849.	8,215,471	7,470,291	1,924,273	4,490,023	6,583,042
October 7, 1849	8,811,023	7,322,775	1,722,948	4,25e,300	6,842,281

The specie held by the banks at that point has not varied much. The particular circumstances of the Canal Bank caused a decrease in the figures, as shown by that institution, for the month of August. In consequence of the mal-administration of its affairs, a movement has been made, among leading stockholders, to change the direction.

The general aspect is that of great prosperity. The accumulation of capital in the country, continues very rapid, as well from influx from abroad, as from regular earnings. There has now, for many years, not supervened one of those seasons of speculation, the effects of which are rapidly to consume accumulated capital, as was the case some ten years since. There is a spirit of great enterprise abroad, however, which mostly takes the form of building houses and railroads. These, although they promote the transfer of floating to fixed capital, yet they do not curtail the volume of the former to an extent greater than is probably made good by the influx of capital from abroad, as well in the hands of immigrants, as for employment. When we reflect that the arrivals at the port of New York, for the current year 1849, have already reached a number as large as the entire population of the city, according to the census four years ago, say 350,000, we may form some idea of the extraordinary rapidity with which the capital they bring with them suffices to make profitable that invested in means of communication and improved avenues of trade. If these emigrants all go West, their traveling expenses alone will reach $6,000,000, scattered along the routes, and being speedily taken up in the channels of trade. In order to show the progress of this immigration, we have compiled the following statement of arrivals at the port of New York, for each of the last thirty years:—

ANNUAL ARRIVALS OF IMMIGRANTS AT THE PORT OF NEW YORK.

Years.	Passen's.	Years.	Passen's.	Years.	Passen's.
1819.....	9,442	1829.....	16,064	1839.....	48,152
1820.....	4,420	1830.....	30,224	1840.....	62,795
1821.....	4,452	1831.....	31,739	1841.....	57,337
1822.....	4,811	1832.....	48,589	1842.....	74,949
1823.....	4,999	1833.....	41,752	1843.....	46,302
1824.....	5,452	1834.....	48,110	1844.....	61,002
1825.....	8,779	1835.....	35,303	1845.....	82,960
1826.....	9,764	1836.....	60,441	1846.....	115,230
1827.....	22,000	1837.....	54,975	1847.....	166,110
1828.....	19,023	1838.....	25,681	1848.....	191,909
First 10 years	93,152	Second 10 y'rs	392,878	Third 10 years	906,746
Total in 30 years.....					1,392,776

The arrivals for 1849 will be over 350,000. The table gives the number at New York only. In the year 1847, the arrivals in the United States were over 250,000, or 90,000 more than at New York. In 1848 they were nearly 300,000, and this year may reach 500,000. A considerable proportion of these are destitute Irish. The British Emigrant Commissioners state that three-fourths of the expense of the migration from Ireland is paid by friends in America, and this circumstance, together with the competition of the packet ships, has brought increasing numbers to the United States. It is to be observed that by far the largest number who arrive leave the city, as thus—the arrivals, from 1840 to 1845, were 302,385, and the population of New York and Brooklyn, in that period, increased by 80,000. The greater proportion must, therefore, seek other localities, mostly at the West.

The migration to California, great and ostentatious as it was, by no means equal that which is constantly taking place in New York. This population is enough, if properly placed, to create six new States annually, and in the proportion of food producers to food consumers, in Great Britain, if they become farmers, to

raise enough from the virgin soil of the new States to supply 840,000 persons, or the whole population of the State of Massachusetts. The coming year is not likely to show any diminution in this flood of human beings sweeping through the Atlantic cities, to take possession of the fair and fertile lands of the West, and rapidly as are means of communication and facilities of intercourse being constructed, they will not exceed the wants.

COMMERCIAL REGULATIONS.

OF THE UNITED STATES REVENUE AND COLLECTION LAWS.

CIRCULAR INSTRUCTIONS TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS.

TREASURY DEPARTMENT, *October 12th*, 1849.

The following instructions and regulations are issued for the government of the officers of the customs, with a view to insure uniformity at the respective ports in the practical execution of certain provisions of the Revenue and Collection laws, deemed essential for the proper security of the revenue.

First. It is represented that importers are in the practice of omitting to produce invoices of merchandise on the alleged ground that none have been received, and asking entry to be allowed on appraisement under the provisions of the 2d section of the supplemental Collection act of 1st March, 1823.

The frequency of these occurrences forbid the idea, that the non-reception of an invoice usually proceeds from mistake or accident, as contemplated by the act, but induces the belief of intention and design, probably with the view of evading the additional duty imposed by the 17th section of the act of 30th August, 1842, and the 8th section of the existing Tariff act of 30th July, 1846. In all cases of this kind, application by the owner or importer must be made in writing, through the collector, to the Department, for permission to enter any such goods on appraisement, said application to be authenticated by the oath or affirmation of the party, setting forth that no invoice of said goods has been received, and the cause, to the best of his knowledge and belief, to be accompanied by a statement of the collector of all the circumstances attending the transaction within the knowledge of said collector.

Where permission to make entry shall be refused by the department, the goods, wares, and merchandise must be deposited in public store, there to remain at the expense and risk of the owner, until such invoice be produced, subject to the provisions of existing laws.

Where entry may be permitted by the Department, bond must first be taken with due security for the production of a proper invoice of the same, within the time prescribed in the 2d section of the act of 1st March, 1823, in a penal sum equal to double the amount of the estimated duties on the entire importation; whereupon entry on appraisement may take place, and on due payment of the duties, permit for delivery of the goods may be granted. Upon production of the invoice, the importer must, in pursuance of his bond aforesaid, pay any amount of duty to which it may appear by such invoice the said goods, wares, and merchandise are subject over and above the amount of duties estimated on said appraisement.

No entry for warehousing can be allowed, where no invoice accompanies the importation.

Second. Additions to entries of purchased goods, under the 8th section of the Tariff act of 30th July, 1846. Where goods have been actually purchased, the law requires the invoice to state the true *cost*, and not the market value abroad, on which value, with certain added charges, the duties are to be assessed. The privilege, therefore, given in the 8th section of the act referred to, is to enable importers of any goods that have been actually purchased, on making entry of the same, to add to the cost given in the invoice to bring it up to the *true market value abroad*, and by so doing, exempt the goods from the additional duty imposed by said section. The additions contemplated by the law in such cases must take place at the time of making entry, and cannot be allowed at any subsequent period.

Where imported goods have been obtained by the owner in any other way than by

actual purchase, the law requires the invoice to exhibit the fair market value abroad, consequently the privilege of the 8th section, before referred to, does not inure in such cases, and no addition to the market value declared in the invoice can be allowed at the time of making entry. If the appraised value in these cases shall exceed by ten per centum or more the invoice value, then the additional duty imposed by the 17th section of the Tariff act of 30th August, 1842, must be exacted.

In cases where on proper ascertainment there shall prove to be an excess of quantity of any article or articles over the quantity stated in the invoice, and the United States appraisers shall be of opinion that such excess does not arise from mistake, accident, or other excusable cause, but from fraudulent intent and design on the part of the shipper, and the collector concurring in such opinion, the invoice and importation should be deemed fraudulent, and seizure and proceeding to confiscate the goods should immediately take place. But where no intention of fraud is manifested in the opinion of the appraisers and collector, the proper duty should be exacted on the full quantity ascertained, together with the additional duty where the same may accrue by reason of any excess in quantity over that given in the entry.

Where the value declared in the entry shall, on due appraisement of the goods, be found to be so far below the foreign cost or market value as to raise the presumption of being fraudulently invoiced, seizure and confiscation of the goods should take place under the provisions of the act of 2d March, 1799; and prosecution of the offending party, under the 19th section of the Tariff act of 30th August, 1842, instituted.

Third. Invoices presented on entry of any merchandise must, in pursuance of law, be deposited in the custom-house, and should not be delivered to the importer or his agent for any purpose whatsoever; and no merchandise that may be consigned "to order" can be admitted to entry without an invoice, verified according to law.

Invoices produced on entry, sworn to and duly certified as required by the 23d section of the act of 1st March, 1823, must be immediately sent to the United States appraisers, and be properly registered in their office. The appraisers will then deliver them to such examiner as they may think proper; but in no case should the owner or importer be allowed to indicate or designate the examiner or appraiser of his goods. The course prescribed in the second paragraph of the circular instructions of the 12th June, 1848, in reference to appraisements to ascertain damage, is to be observed in all other cases of appraisement.

Fourth. Bonds required by the provisions of the 10th section of the act of 1st March, 1823, for the production of a duly authenticated invoice, must be exacted in all cases, irrespective of the value of the merchandise embraced in the importation; and on failure to produce the verified invoice within the specified time, payment of the bond must be promptly enforced. The same course must be pursued in respect to bonds taken for the production of consular certificates of the value of depreciated currencies, as well as all bonds taken in cases of transportation or exportation of merchandise under the Warehousing or Drawback acts.

Fifth. Where goods in any package or packages ordered to appraisers' stores may, on appraisement, be advanced in value boyond the value declared in the entry, the entire importation should be appraised, and the duties assessed accordingly, except where the importer may consent that the advanced value on the portion of goods so appraised shall apply to the residue of the same description of goods embraced in the importation, in which case an appraisement of the entire importation need not be made.

Sixth. In respect to oaths or affirmations required to be taken under any Collection or Revenue law of the United States, it is to be remarked, where any person shall knowingly and willingly swear or affirm falsely, or shall procure any person to swear or affirm falsely, the person so offending should be prosecuted under the provisions of the 13th section of the act entitled "An act more effectually to provide for the punishment of certain crimes against the United States, &c.," approved 3d March, 1825.

Seventh. Wherever a vessel may be used as a warehouse constructively, an officer of the customs must be placed on board such vessel, and remain day and night, at the expense of the party desiring the privilege, during the time the vessel remains in port.

In addition to the regulations prescribed in the 16th, 17th, and 18th sections of the Warehousing instructions of the 17th February, 1849, in the case of merchandise withdrawn from public warehouse to be transported, and re-warehoused in another district, the following requirements are to be observed:—

1*st.* Permits issued for withdrawal of any such merchandise from warehouse must be placed in the hands of an inspector of the customs to superintend the lading of the

same, and a return to that effect made by said inspector upon the transportation entry.

2nd. Upon receipt, by the collector of the port to which the merchandise may be destined for re-warehousing, of the triplicate copy of entry and certified invoice, said collector shall, on the arrival of the merchandise, direct an inspector of the customs to take charge of the same, and deposit it in public store.

Eighth. It is represented, that, at some of the ports, clerks of commercial firms, brokers, and agents of express lines, are permitted to make oath and entry of merchandise imported by other persons. On this point it is to be observed, that where the owner or consignee is present at the port of importation, oath and entry must be made by such owner or consignee, and no entry can be permitted to be made by any clerk or agent, except where duly authorized to act during the necessary absence of the owner or consignee. Nor can any clerk or hired person in the constant employment of another, become principal or surety to any bond to which his employer is a party.

Ninth. It is alleged that persons employed in duties in relation to the collection of the revenue at some of the custom-houses are in the practice of preparing papers, returns, &c., for importers and others, transacting business with the custom-house, and receiving for such services compensation or pay not authorized by law. This practice is illegal, and collectors are enjoined, in all cases of the kind coming to their knowledge, to enforce the provisions of the 73d section of the act of 2d March, 1799, and the 17th section of the act of 7th May, 1822.

Tenth. The United States appraisers, and other persons employed in their department, should be careful not to express opinions in regard to the value of any goods not submitted for their official action.

Eleventh. Clerks or other persons employed in the appraisers' or other public stores, are expressly prohibited from appropriating to their use, or selling or disposing of any article that may have been used for covering or securing any imported merchandise, as also the drainage of sugar, leakages of molasses, liquors, &c.

Twelfth. The particular attention of collectors is called, and a strict observance requested, to the circular instructions issued by the Department, under date of the 20th August, 1845, respecting the proper verificatien of invoices, it being represented by some of the Consuls, that the law and instructions are frequently disregarded by foreign shippers, and are not duly enforced by Collectors at some of the ports.

W. M. MEREDITH, *Secretary of the Treasury.*

THE NEW SPANISH TARIFF.

The following is a *corrected* list of the new Spanish tariff which relates to cotton goods, specifying the articles admitted, the duties levied when imported in Spanish or foreign bottoms, (the duty when imported by land being the same as under a foreign flag,) and the goods prohibited to be imported:—

[The Spanish real is equal to 2½d. English; the Spanish pound is a small fraction heavier than the pound avoirdupois.]

	Spanish Flag. rls. c.	Foreign Flag. rls. c.
Cotton yarn, from No. 60 to 80	4 00	4 80
" from No. 80 upwards, per pound	4 55	5 45
Two-cord thread, for sewing and embroidering, from No. 60 upwards	6 00	7 20
Three-cord, ditto, from No. 60 upward	8 00	9 60
ARTICLES OF PURE COTTON.		
Grey or white, from 26 threads upwards, in the ¼ inch Spanish, in both directions	5 60	6 70
Ditto, dyed	6 30	7 55
Ditto, striped, figured, or printed	8 40	10 10
Handkerchiefs, white, colored, or printed, from 20 threads upwards, plain or figured	10 50	12 60
Ditto, embroidered by the hand, to pay each 35 per cent ad valorem in Spanish, and 42 in foreign ships.		
Dutch muslins and Scotch cambrics, plain, striped, or printed, from 15 to 25 threads in the warp	14 00	16 80
Ditto, from 26 threads upwards	21 00	25 20

	Spanish flag. rls. c.	Foreign flag. rls. c.
Muslins, open worked, or embroidered by machinery, up to 15 threads	9 80	11 75
Ditto, from 15 to 25 threads	13 30	15 95
Ditto, from 26 threads upwards	17 50	21 00
Muslins embroidered by the hand, up to 15 threads	21 00	25 20
Ditto, from 16 to 25 threads	35 00	42 00
Ditto, from 26 threads upwards	56 00	67 20
Open fabrics, as linens, organdies, muslins, transparent cambrics, jacconets, &c., plain or worked, white or printed, up to 15 threads	17 50	21 00
Ditto, from 16 to 25 threads	24 40	29 40
Ditto, from 26 threads upwards	28 00	33 60
Ditto, embroidered, to pay the same as embroidered muslins.		
Quilted fabrics and piques, white or colored, of all classes	17 50	21 00
Ditto, embroidered	35 00	42 00
Fustians, plain or embroidered	8 00	9 60
Cotton velvets	12 80	15 35
Plain gauze	21 00	25 20
Embroidered ditto	28 00	33 60
Net, plain, printed, open worked, or figured	35 00	42 00
Ditto, embroidered by the hand, to pay 35 per cent ad valorem in Spanish, and 42 in foreign ships.		
Cotton lace, plain, worked, or figured	43 75	52 50
Ditto, embroidered by hand	87 50	105 00
Percalinas, lustrinas, cristalinas, and other fabrics which are used for the manufacture of artificial flowers, from 20 threads upwards	24 50	29 40
Ditto, cut and prepared in leaves or other forms for the same	49 00	58 80

Cotton fabrics of new invention, which cannot be brought by analogy under the preceding heads, to pay 40 per cent ad valorem in Spanish, and 48 in foreign ships.

MIXED GOODS.

Fabrics of silk, wool, hemp, and flax, which contain a mixture of cotton in less quantity than one-third part of the weight, shall pay the duties corresponding to the material which predominates, according to the corresponding part of the general tariff.

Fabrics of cotton, with admixture of other materials, of 20 or more threads, counted with the warp, and in which the cotton does not exceed seven-eighths of the whole, should pay as follows:—

Plain or serged, in squares or otherwise worked, with mixture of silk or wool, or with both materials, destined generally for waistcoats, called kerseymeres, goats' hair, or otherwise:

First kind: If the silk or wool evidently predominates, to pay the duties appointed for fabrics of those respective materials.

Second kind: If the cotton should predominate, containing one-eighth part of silk or wool at least, per square yard	4 90	5 85
Fabrics, plain, serged, striped, or worked, with mixture of linen or hemp, destined generally for pantaloons, or other summer wear, called drills, ducks, or by any other name, per pound	5 60	6 70
Ditto, with mixture of wool, called kerseymeres, patencures, &c., per square yard	10 50	12 60
First kind: If the wool should predominate, they shall pay as the fabrics of that material.		
Second kind: If the cotton should predominate, but not form more than seven-eighth parts	2 80	3 35

NOTICE.—The duties established in this tariff shall be levied on the fabrics comprised in their respective classes, whether they come in pieces, cuts, handkerchiefs, or in whatever other form.

ARTICLES THE IMPORTATION OF WHICH IS PROHIBITED.

Cotton yarn up to No. 59 inclusive.

Cotton thread, for sewing or embroidery, up to 59 inclusive.

Fabrics, grey or white, dyed, striped, worked by machinery or printed, up to 25 threads inclusive, counted in the warp, in the quarter-inch Spanish.

Handkerchiefs, white, colored, or printed, up to 19 threads inclusive.

Muslins and Scotch cambrics, plain, white, striped, or printed, up to 14 threads inclusive.

Percalinas, lustrinas, cristalinas, and other fabrics, used for the manufacture of artificial flowers, up to 19 threads inclusive.

Double fabrics, destined generally for pantaloons, jackets, and other clothes of men, and for other uses, plain or serged, done in squares, or otherwise worked, which contain more than seven-eighth parts of cotton.

Fabrics of silk, wool, flax, and hemp, which contains a mixture of cotton in greater quantity than one-third part of the weight, up to 19 threads, inclusive.

Fabrics of cotton, with mixture of silk, wool, flax and hemp, of 20 and more threads, if the cotton exceed seven parts out of the eight.

Knit fabrics (Tejidos de Punto) in stockings, pantaloons, camisettes, or in any other form.

Fringes, and small wares of cotton of every kind.

Some changes have been made in the duties, which are worthy of notice. In the first place, then, all importation of cotton yarn and thread below No. 60, and all plain, printed, and dyed calicoes, containing less than 26 threads in the quarter-inch, are absolutely prohibited. On those counts of yarn, and descriptions of calicoes proposed to be admitted, the following rates of duty will be levied, on each Spanish pound weight, (a small fraction heavier than the pound avoirdupois,) when imported in Spanish vessels :—

Cotton yarn, No. 60 to 80	0*s.*	10*d.*
" No. 80 and upwards	0	11⅘
Two-cord sewing-thread, 60 and upwards	1	3
Three-cord " "	1	8
Calico, 26 threads and upwards per ¼ inch (per pound)	1	2
" " " dyed	1	3⅘
" " " figured or printed	1	9

On muslins, and other light fabrics, of which there are many classes, the duties vary from about 2s. to nearly 12s. per pound weight. So far as we can judge, figured muslins, with less than 26 threads to the quarter-inch, the duty on which will be about 2s. 9d. per pound, are almost the only class likely to pay the duties. Plain muslins, with 26 threads, and upwards, to the quarter-inch, which would include the great bulk of the Blackburn and Chorley manufacture, are subjected to a duty of 4s. 4½d. per pound, which, we imagine, would be prohibitory of all except the very finest qualities. Indeed, the facilities of smuggling such fabrics are so great that, in all probability, very few indeed will pay the duty, and then, perhaps, only as a cover for a larger illicit import.

When the tariff was first proposed in the Spanish chamber, in the month of May last, the duties affixed to a description of goods of large consumption in Spain, namely, fustians and velvets, were comparatively moderate; and considerable advantage was expected to be derived from the rate at which those fabrics were proposed to be admitted. On this point, however, we are sorry to say, the Catalan manufactures have succeeded but too well in their efforts to render the tariff abortive. The duties contained in the first draft of the tariff were, on fustians, 1s. 1¼d., and on cotton velvets, 1s. 5¼d. per pound weight, rates which would probably have been paid to some extent, rather than encounter the risk of smuggling. By the tariff, as officially promulgated, however, the duties have been increased to 1s. 8d. per pound, on fustians, and 2s. 8d. per pound on velvets, which, we conceive, will be likely to prove prohibitory, except as to small quantities for the purpose of covering a contraband trade.

OF STATEMENTS BY INSURANCE COMPANIES.

STATE OF NEW YORK, CONTROLLER'S OFFICE,
ALBANY, November 10, 1849.

The provisions of the act passed April, 10, 1849, make it necessary that insurance companies incorporated by other States, and desiring to transact the business of insurance, through agencies, in this State, shall prove to the satisfaction of the Controller,

that they possess the amount of actual capital required of companies in the State formed under the authority of said act. The fifth section provides that every Joint Stock Company, organized under the act, if located in the city of New York or the county of Kings, shall have a capital of at least $150,000, and if located in any other county in this State, at least $50,000; and Mutual Insurance Companies, (Fire, Marine, Inland, and Navigation Insurance,) if located in the city of New York, or the county of Kings, are not authorized to commence business until agreements have been entered into for insurance with at least one hundred applicants, the premiums on which, if it be Marine, shall amount to $300,000; or, if it be Fire or Inland Navigation. shall amount to $200,000, for which premium notes must be received, payable at, or within twelve months from date. The sixth section requires that companies formed for doing the business of Life and Health Insurance, on the plan of Mutual Insurance, shall have a cash capital of $100,000 paid in, and actually invested in stocks of the United States, of this State, or its incorporated cities, or in bonds and mortgages on cultivated farms worth double the amount.

Companies incorporated in other States, and doing business here, are placed virtually on an equality with our own institutions, and the law aims to subject them to the same general principles and restrictions. They must show that they possess an equal amount of actual capital. Joint Stock Companies in other States proposing to do business by agents in New York city or Kings county, must have $150,000, and in other counties, $50,000. It must appear that this capital is unimpaired, and invested in safe and unquestionable securities. Mutual Life and Health Insurance Companies in other States, before creating agencies in this State, must have a cash capital invested of $100,000.

In the month of January next, and annually thereafter, every such company having an agent or agents in this State, will be required to furnish to the Controller a new statement, under the oath of the president or secretary, exhibiting the amount of its capital, the manner in which the same is invested, and showing whether it is impaired, and if so, to what extent.

The Controller deems it his duty to prescribe such regulations in respect to these statements as will make them uniform, and ensure a full exhibit, not only of the capital of the company, but its liabilities, and its actual condition. Some of the statements heretofore furnished are defective in details of investments, and in omitting to present such an exposition of the affairs of the company, as will enable the Controller and the public to form a correct judgment of the soundness and sufficiency of resources.

It will be required in future that the statement shall exhibit:

1st. The amount of capital stock paid in.

2d. The manner in which the same is invested, specifying the amount secured by bonds and mortgages; the amount, description and actual value of stocks held by the company, absolutely; the amount, description and value of stocks held as collateral security; the amount of loans secured otherwise than by mortgage and stocks; the value of the real estate, if any, owned by the company; and the amount of available funds on hand.

3d. The number and amount of policies outstanding; and the amount of all other claims and liabilities against the company, specifying the amount of claims against the company which are not acknowledged by it as debts, and the amount of contingent liabilities otherwise than on policies.

4th. The amount of premiums received by the company during the previous years; and the amount received during the same period for interest on loans and investments.

5th. The amount of losses incurred; and the amount paid during the same period.

6th. The amount of profits on hand; or if there be no profits, the amount of losses chargeable upon capital on the first of January.

7th. Dividends which have been made during the preceding year.

As it is impracticable for the Controller to form an accurate estimate of the value of distant investments and securities, he will require, in addition to the foregoing statement, a certificate from the Mayor or Recorder of the city, or a Judge of a Court of Record, in the State where the company is located, (having no interest in the company,) showing that he has examined the investments of the company, and giving his estimate of the securities, and the amount of their actual value.

It is required also that each company furnish a copy of its charter, to be placed on file in the Controller's office.

The law requires that a counterpart or copy of the statement on which the Controller's certificate of authority is issued, shall be filed in the office of the clerk of the

county in which the agency shall be established; and it is therefore necessary that each company prepare duplicate statements for t! is purpose, with as many copies as shall be requisite to furnish one to each county in which an agency is located.

In the execution of the law the Controller will aim to afford every reasonable facility to responsible companies complying with its provisions; but he conceives it to be his duty to interpose such precautions and restrictions as shall protect the public from corporations of a different character, having no substantial capital, and furnishing no sufficient guaranty for the performance of their obligations.

WASHINGTON HUNT, Controller.

NAUTICAL INTELLIGENCE.

HURL GATE ROCKS.

There has been recently completed a series of very minute surveys of Hurl Gate, and Little Hurl Gate, made by Lieutenants Davis, Porter, and Woodhull. The first survey was made by Lieut. Davis, in 1847, continued by Lieut. Porter, in 1848, and completed by Lieut. Woodhull, in 1849, by means of which it is well ascertained that that dangerous strait can be made of safe navigation, for a comparatively small expense. M. Maillefert, a French engineer, who has been engaged for near eighteen months in removing the reef of rocks from the entrance of the harbor of Nassau, (New Providence, Bahamas,) offers to contract for the removal of the rocks in Hurl Gate, and the harbor of New York, by means of blasting under water, without drilling, using the surface water for a fulcrum, and igniting the powder by means of a wire attached to a galvanic battery. M. Maillefert removed from the entrance of the harbor of Nassau, upward of nine hundred tons of rock by this new process, at an expense of about five thousand dollars, which is a very small sum for so important a work.

It seems certainly necessary that Congress should make an appropriation for the removal of the rocks at Hurl Gate, and the harbor of New York, and it is very desirable that this appropriation should be made early in the Session, that no delay may take place in accomplishing this important work. It is a matter of surprise that these rocks have remained so long in the very center of a channel through which hundreds of vessels pass daily.

The Board of Underwriters have recently had the subject of the removal of these rocks before them, and the following proceedings were had by that body:—

At a meeting of the Board of Underwriters of the city of New York, held November 2, 1849, the following resolution was adopted unanimously:—"On motion it was *Resolved*, that a memorial be prepared by the Board, asking an appropriation by Congress of a sufficient sum to remove the rocks and other obstructions at Hurl Gate, Little Hurl Gate, and places in that vicinity, at and near Corliers' Hook, off the Battery, and in, or near Buttermilk Channel, Diamond Reef, Prince's Reef, and others in that vicinity, part or all of which have been surveyed by the Coast Surveyers, under the direction of Professor Bache, whose services have been productive of many and great benefits to the commerce of the country."

Subsequently the Chamber of Commerce of the city of New York had this matter before them, and the following were their proceedings in the premises —

At a meeting of the Chamber of Commerce, held in the Directors' Room of the Merchants' Bank, November 6, 1849, the following resolutions were unanimously adopted:—

"On motion it was *Resolved*, that a memorial be prepared by the Chamber of Commerce, asking an appropriation by Congress of a sufficient sum to remove the rocks and other obstructions at Hurl Gate, Little Hurl Gate, and places in that vicinity, at and near Corliers Hook, off the Battery, and in or near Buttermilk Channel, Diamond Reef, Prince's Reef, and others in that vicinity, part or all of which have been surveyed by the Coast Surveyers, under the direction of Professor Bache, whose services have been productive of many and great benefits to the commerce of the country.

"*Resolved*, that James Depuyster Ogden, Joseph Blunt, and Simeon Balwin, be appointed a committee to draft a suitable memorial to Congress on the subject."

The respective reports of Lieut. Davis, Porter, and Woodhull, have been printed and will be laid on the desks of members of Congress, at the commencement of the Session, and copies of these reports will be forwarded to insurance companies and commercial men in the Eastern cities, inviting co-operation in this important movement. These rocks should have been removed long since, and now as the fact has been ascertained that they can be removed at a very small expense, it is hoped no delay will take place in the action of Congress in the premises.

LIGHTS ON SEA REACH, RIVER THAMES.

Notice is hereby given, that two lights are now exhibited nightly on the north side of the navigable channel of Sea Reach, that is to say, one off the Chapman Head, near to the spot on which the Beacon stands, and one at Mucking Flat.

Mariners are to observe—that the light off the Chapman Head is exhibited on board a vessel, pending the erection of a permanent structure, and is of the usual or natural color of a Floating Light; and that the Light at the Mucking, which is shown for the present from a temporary erection close to the Land Side of the Sea Wall, and bears from the Westernmost Beacon of the Blyth Sand, about N. ¼ W., burns at 25 feet 6 inches above the level of high water spring tides; this light is also of the natural color, until it strikes the Spit of the Ovens Shoal, a short distance outside the nine feet mark of low water spring tides, and on the bearing of S. W. by W. nearly, to the westward of which the color of the light is red.

NOTE.—A black Beacon Buoy of large size will be forthwith placed on the Spit of the Ovens Shoal, respecting which farther particulars will be published in a few days.

SIGNAL STAFF AT CAPE AGULHAS.

A Signal Staff has been erected at Cape Agulhas by the government of the Colony, and all the necessary arrangements have been made for signalising vessels passing that place.

The Staff has been placed on a small eminence on the north-western side of the light-house, and about three hundred yards from it. It stands eighty-nine feet high, and has been painted white, in order to make it as conspicuous as possible. A code of Marryatt's Signals has been established at Cape Agulhas, and the light-house keeper instructed to signalise all vessels passing, and to transmit to Cape Town all information respecting the vessels' names, destination, &c., together with remarks upon the state of the weather, direction of the wind, &c.

LIGHTS ON RINGHOLMEN AND TERNINGEN.

Notice is hereby given, that the lights on Ringholmen, and Terningen, in the Channel leading to Trondhjen (Drontheim,) are changed thus :—That the intensity of the lights are equal on every side from which they are visible, and the distance, under ordinary circumstances, at which they are visible is 12 English miles; also, that the light on Ringholmen is now fixed on a tower 52 feet high above high water mark.

COMMERCIAL STATISTICS.

IMPORTS OF BOSTON IN 1848–49.

The Boston *Shipping List* furnishes the following table of the imports of Boston in 1849 as compared with 1848, years ending on the 31st of August:—

Articles.	1849.	1848.
Ashes, p't & p'rl.bbls.	949	2,081
Barilla.....tons	250	1,223
Brimstone.....	275	525
Brimstone...cantars	18,192	11,792
Brimstone.....bbls.	1,115	2,666
Candles.....boxes	3,642	6,591
Cassia.....mats	32,368	36,245
Cassia.....cases	750	498
Cocoa .....bags	6,786	6,347
Coffee—		
Batavia.....bags	49,075	22,553
Batavia....piculs	2,667	2,747
Hayti .....bags	54,476	85,592
Cuba.....	1,012	474
Rio Janeiro	31,419	37,994
Porto Rico.....	925	.....
Porto Cabello....	8,154	3,279
Manilla.....	2,468	243
Africa.....	.....	171
Oth. foreign ports.	4,650	2,587
Coastwise ports..	3,531	4,994
Cotton, from—		
New Orleans.bales	111,390	140,929
Mobile	43,678	37,147
Charleston	25,896	17,035
Savannah.....	26,545	18,269
Apalachicola.....	31,138	22,141
Galveston	2,468	2,718
Other places.....	1,164	3,279
Coal—		
Virginia.....bush.	26,400	69,225
Philadelphia .tons	253,668	266,806
Other places.....	20,197	18,487
Eng. & Scotch....	7,798	5,506
Eng. & Scotch.chal.	1,406	450
Nova Scotia.....	38,333	49,529
Cop'r, sheath'g.cases	1,335	1,148
Yellow metal.....	1,435	776
Copper.....pigs	718	4,999
Copper.....bars	37,702	30,795
Corn meal.....bbls.	29,470	46,585
Corn, from—		
New Orleans.sacks	69,662	268,878
Ports in Virginia.	1,054,183	492,254
Ports in Maryland	861,067	588,949
Ports in Pen'lvan'a	452,734	448,126
Ports in Delaware	125,396	130,004
Ports in N. Jersey	21,890	27,800
Ports in N. York.	394,307	472,526
Other ports	69,638	16,328
Duck.....bales	1,485	2,546
Duck.....bolts	23,654	18,368

Articles.	1849.	1848.
Dyewoods—		
Logwood.....tons	4,783½	4,045½
Logwood....qtls.	6,964	22,936
Logwood.....pcs.	420	9,083
Fustic.....tons	266½	470
Fustic.....pcs.	7,661	14,370
Sapan wood..pcls.	9,634	13,847
Sapan wood..tons	96	66
Flour, wheat, from—		
New York...bbls.	100,166	194,776
Albany.....	76,849	63,989
Western Railroad.	293,760	383,593
New Orleans.....	323,318	193,094
Fredericksburg ..	41,252	23,183
Georgetown.....	18,361	3,808
Alexandria	18,375	15,847½
Richmond.....	70,893	16,836
Oth. pts. in Virg'a	559	4,021
Philadelphia.....	31,592	11,917
Baltimore.....	53,236	24,687
Other places.....	5,416	1,395
Flour, rye .....bbls.	9,579	4,145
Fruit—		
Lemons....boxes	42,814	34,895
Oranges.....	75,332	62,547
Figs.....drums	115,341	306,771
Figs.....cases	971	485
Raisins.....casks	25,498½	17,631
Raisins.....drums	1,100	1,729
Raisins.....boxes	152,076½	156,953
Glass.....	48,429	55,785
Gunny bags.....No.	296,112	468,483
Gunny bags...bales	16,779	14,082
Gunny bags....bdls.	6,477	6,670
Hemp—		
Russia .....tons	1,205	1,065
Other places.....	196	84½
Manila .....bales	29,095	32,782½
New Orleans....	6,761	11,878
Other places.....	3,306	4,901
Hides, from—		
Buenos Ayres.No.	255,730	12,692
Rio Grande.....	36,712	58,090
Monte Video....	4,566	178,072
Truxillo.....	675	5,807
California.... ...	29,800	50,925
West Indies.....	1,429	323
Pernambucco....	2,000	.....
Porto Cabello....	3,737	195
Central America & Valparaiso....	25,452	34,735
Rio Janeiro	37,671	70,142

Articles.	1849.	1848.
Cape of G. Hope.	206	1,262
Bahia	19,942	.....
Batavia	3,218	6,264
Oth. foreign ports.	46,838	30,728
Coastwise ports	92,375	105,758
Calcutta....bales	3,700	3,693
Manilla	.....	106
Horns.....No.	763,856	496,899
Indigo.....cases	1,178	2,209
Iron—		
Bar.....tons	3,618	5,134
Pig	44,057¾	45,722½
Boiler	.....	57½
Bloom	25	96
Bars	942,413	543,787
Bundles	153,182	99,885
Sheet & hoop.bdls.	34,986	39,346
Blooms	2,489	3,804
Plates	17,741	18,386
Railroad.....tons	23,180	14,121
Railroad....bars	88,820	105,317
Lac dye.....cases	2,042	2,986
Lead.....pigs	153,151	155,163
White.....kegs	45,868	52,890
White.....tons	15½	.....
Leather.....sides	482,479	578,782
Leather.....bdls.	33,086	24,909
Linseed, from—		
Calcutta.....bags	81,780	65,721
Russia	3,665	2,141
Sicily	1,961	3,028
Other places	371	.....
Mackerel, N. S. .bbls.	40,479	53,932½
Molasses, from—		
Foreign p'ts.hhds.	59,584	63,906
Domestic ports	11,673	13,283
Foreign ports.trcs.	3,585	4,288
Domestic ports	153	252
Foreign p'ts..bbls.	1,429	1,879
Domestic ports	2,691	5,222
Naval stores—		
Rosin.....bbls.	23,437	8,615
Turpentine	28,665	43,670
Spirits turpentine.	9,980	6,361
Pitch	2,181	1,005
Tar	22,752	19 579
Oil—		
Whale & sperm	24,500	29,420
Linseed....casks	839	881
Palm	641	527
Olive....baskets	3,169	3,407
Olive.....casks	688	220
Oats.....bush.	379,534	437,290
Pepper.....bags	13,898	25,604
Provisions—		
Beef.....bbls.	31,898	27,428½
Pork	110,317	100,045
Hams...csks. & tcs.	12,945	8,766
Hams.....bbls.	5,485	5,528
Butter.....kegs	51,195	47,667
Butter.....bbls.	1,461	1,183
Cheese.....casks	7,193	9,282
Cheese.....boxes	62,561	52,076
Cheese.....tons	604¾	513⅓
Lard.....bbls.	58,409	48,618½
Lard.....kegs	55,634	53,432
Hogs, W. R'd..No.	29,914	32,867
Rags.....bales.	8,452	7,046
Rags.....tons	5	34¾
Rice.....casks	15,432	11,730
Rye.....bush.	51,648	48,995
Shorts	70,675	47,993
Salt—		
Liverpool.....tons	6,376½	4,046½
Liverpool...sacks	92,413	69,039
Cadiz.....lasts	451½	5,075½
Cadiz.....tons	900	.....
Curacoa.....bbls.	.....	23,549
Trapani and Ivaca tons	1,773	600
St. Martins...bush.	200,954	.....
Bonaire.....bbls.	19,120	39,781
Turks' Isl'ds. bush.	120,869	350,491
St. Ubes....moys.	787	378
Other place..bush.	81,495	91,895
Saltpeter.....bags	69,181	66,289
Skins, goat....bags	6,700½	6,671
Skins, goat.....No.	23,600	49,039
Sugar, from—		
Foreign ports..bxs.	54,405	61,918
Domestic ports	3,658	9,852
For. ports....hhds.	8,017	9,338
Domestic ports	2,533	3,737
For. ports....bags	59,212	75,171
Domestic ports	1,011	1,666
For. ports....bbls.	1,102	993
Domestic ports	14,150	4,645
For. ports..bskts.	899	700
Steel.....tons	107	170½
Steel...cases & bdls.	19,094	23,068
Steel.....bars	156	6
Spelter.....plates	3,946	7,839
Spelter.....slabs	2,038	989
Spelter.....tons	35	.....
Sumac.....bags	29,347	28,092
Sumac.....tons	3	5
Shot.....bags	16,945	26,084
Tea.....packages	37,415	66,050
Tin.....slabs	5,825	4,248
Tin.....pigs	5,048	3,464
Tin plates....boxes	29,728	26,346
Tobacco	29,595	34,378
Tobacco.....hhds.	1,991	3,224
Tobacco.....bales	6,156	4,887
Whalebone....bdls.	2,078	6
Wheat.....bush.	416,010	280,458
Wool, from—		
For. ports...bales	18,613	11,767
Domestic ports	23,808	25,749
For. ports ...qtls.	5,289	10,346

NAVIGATION OF THE PORT OF BOSTON.

We are indebted to Hon. GEORGE S. BOUTWELL, of Groton, Massachusetts, for the following tabular statement of the number of foreign and coastwise arrivals at the port of Boston, in each year, from 1830 to 1848, inclusive. Mr. Wellman, the coastwise clerk at the Custom-House in Boston, states that there are a large number of vessels employed in the coasting trade, which do not enter or clear at the Custom-House, and that that number may be confidently stated at 4,000 each, every year.

STATEMENT OF THE FOREIGN AND COASTWISE ARRIVALS AT THE PORT OF BOSTON, FROM 1830 TO 1848, INCLUSIVE.

Years.	Foreign.	Coastwise.	Years.	Foreign.	Coastwise.
1830	642	2,938	1840	1,628	4,406
1831	766	2,946	1841	1,791	4,574
1832	1,064	3,538	1842	1,738	3,862
1833	1,066	4,020	1843	1,716	4,974
1834	1,156	3,527	1844	2,174	5,909
1835	1,302	3,879	1845	2,305	5,631
1836	1,452	4,844	1846	2,000	6,732
1837	1,591	4,000	1847	2,756	7,125
1838	1,313	4,018	1848	3,012	6,002
1839	1,553	4,251			

COMMERCE OF CLEVELAND, OHIO.

We published in the November number of the *Merchants' Magazine*, some statistics of the commerce of Chicago, prepared by WILLIAM MILFORD, Esq., collected by him as the agent of the United States Topographical Bureau. To the same source we are indebted for the following tabular statement of the exports, imports, and tonnage of Cleveland, Ohio, as follows:—

EXPORTS FOR 1848.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Flour.....bbls.	493,876	$2,311,339 68	Coal.....	131,200	360,800 00
Wheat.....bush.	1,232,627	1,195,648 19	Glass.....bxs.	11,595	14,499 00
Corn.....	662,162	171,486 42	Fruit.....bbls.	1,129	1,600 00
Pork.....bbls.	28,807	259,263 00	Oil.....	177	4,425 00
Salt.....	3,010	3,461 50	Salæratus....lbs.	63,300	3,165 00
Whisky.....	2,095	16,760 00	Mercha'dise. pkgs.	3,201	48,000 00
Lard.....kegs	8,332	66,414 00	Merchandise. tons	290	87,000 00
Butter.....	22,406	211,119 00	Oats.....bush.	254,707	76,412 10
Seeds.....bbls.	1,497	11,900 00	Lard.....tons	118½	14,220 00
Ashes.....casks	749	14,980 00	Hi'hw'ns & Wh'sy	28,565	228,635 00
Beef.....	6,886	68,860 00	Iron.....pieces	16,284	19,170 00
Cheese.....lbs.	148,625	7,431 25	Pig iron....tons	2,187	80,830 00
Tobacco.....	19,139	956 95	Cheese.....bxs.	11,511	23,000 00
Bacon.....	190,265	9,513 25	Wool.....sacks	5,130	128,250 00
Staves.....M.	773	30,920 00	Lard.....bbls.	232	3,480 00
Wool.....lbs.	528,380	132,095 00	Fur.....lbs.	8,605	8,605 00
Feathers.....	37,621	9,405 00	Miscellaneous.....		600,000 00
Nails.....kegs	15,400	61,600 00			
Ir'n, n'ls & gl's.t'ns	4,287	428,000 00	Total.....		$6,713,244 34

IMPORTS.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Salt.....bbls.	105,608	$121,449 20	Furniture...pkgs.	251	25,000 00
Lumber...M. feet	6,647	46,469 00	Water lime .bbls.	1,550	2,268 00
Shingles.....M.	2,152	4,304 00	Shingle wood.c'ds	269	1,125 00
Fish.....bbls.	7,073	28,292 00	Staves.....M.	300	12,000 00
Merchandise. tons	29,022	5,804,400 00	Miscellaneous.....		216,000 00
Mercha'dise. pkgs.	73,861	739,000 00			
Pig iron....tons	236	6,080 00	Total.....		$7,006,988 20

EXPORTS TO CANADA IN 1848.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Flour.....bbls.	6,571	$29,642	Coal .....tons	2,648	6,622
Wheat.....bush.	35,186	31,607	Tallow.....bbls.	1,420	26,728
Corn.....	29,415	11,982	Corn meal.....	787	1,967
Pork.....bbls.	1,885	15,985	Fruit trees..bdls.	75	211
Salt.....	280	356	Hemp .....bales	55	450
Whisky.....	50	400	Miscellaneous		12,431
Lard.....	109	1,090			
Clover seed.....	81	891	Total.....		$142,312
Beef.....casks.	150	1,950			

IMPORTS FROM CANADA IN 1848.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Salt.....bbls.	402	$363 87	Pine spars.....	205	250 24
Lumber ....feet.	2,995,113	12,841 05	Cedar posts.....	....	147 89
Shingles .....M.	2,257	2,441 13	Fish oil.....bbls.	146	1,783 92
Fish .....bbls.	300	905 48	Stone .....tons	32	68 65
Plaster .....tons	92	285 18	Mercha'dise. pkgs.	3	106 59
Iron.....	59	1,095 51	Potatoes ...bush.	43	11 41
Shingle wood.c'ds	1,070	3,303 30	Sundries.....		141 63
Liq'r & wines.csks	3	223 30			

Total.....	$23,969 15
Total imports coastwise.....	7,006,988 20
Total exports coastwise.....	6,713,244 34
Total imports and exports coastwise.....	$13,720,232 54
Total imports and exports foreign.....	166,281 15
Total imports and exports.....	$13,886,513 69

TONNAGE OWNED AT CLEVELAND.

	Number.	Tonnage.
Steamboats	2	1,231 69-95ths.
Propellers.....	7	3,740 02-95
Brigs.....	21	4,755 59-95
Schooners.....	57	7,687 26-95
Scows.....	7	406 52-95
Total.....	94	16,821 18-95

Besides this, there are owned in the remainder of the "Cuyahoga District," two steamboats, two propellers, two brigs, nineteen schooners, three scows, with a tonnage of 5,226 12-95ths tons, valued at $230,165.

COMMERCE OF LAGUAYRA, VENEZUELA.

EXPORTS OF COFFEE, HIDES, AND INDIGO TO DIFFERENT PLACES.

The following is a statement of exports of coffee, hides, and indigo, produce of Venezuela, from the port of Laguayra, for the year ending 31st July, 1846:—

	Coffee.	Hides.	Indigo.
Great Britain.....lbs.	2,680,286	675	....
Hamburg and Bremen.....	6,208,564	2,498	2,600
United States.....	6,312,154	39,909	55,800
France.....	3,307,739	517	19,860
St. Thomas and Altona.....	1,205,730	....	....
Genoa.....	183,000	....	....
Trieste.....	290,000	....	....
Spain.....	22,725	16,790	2,116
Amsterdam.....	249,619	460	....
Total.....	20,459,817	60,849	80,376

Independent of the above products, there are large shipments of cocoe made to Spain, France, and England; in fact, the value of the export of this article may be considered as next to that of coffee.

EXPORT OF BREADSTUFFS

FROM THE UNITED STATES TO GREAT BRITAIN AND IRELAND, FROM 1ST SEPTEMBER, 1848, TO 1ST SEPTEMBER, 1849.

From	Flour. *Bbls.*	Meal. *Bbls.*	Wheat. *Bush.*	Corn. *Bush.*	Oats. *Bush.*	Barley. *Bush.*
New York	778,189	34,932	585,946	6,593,104	....	1,856
New Orleans	161,027	5,703	127,651	2,647,469	1,000	....
Philadelphia	76,113	25,493	209,154	1,383,928	....	....
Baltimore	75,043	7,407	120,300	872,305	....	....
Boston	15,649	4,520	9,728	530,084	....	....
Other ports	12,095	8,003	38,606	702,736	....	....
Total	1,118,116	86,058	1,091,385	12,729,626	1,000	1,856
Same time last year	183,533	105,350	251,622	4,581,367	....	....

PRODUCTION OF HOGS AND BEEF CATTLE IN OHIO.

TABULAR STATEMENT OF THE NUMBER AND VALUE OF HOGS AND BEEF CATTLE, IN FIFTY-NINE COUNTIES IN OHIO, AS RETURNED FOR TAXATION BY THE TOWNSHIP ASSESSORS, AND EQUALIZED BY THE COUNTY BOARDS, FOR THE YEARS 1848–9.

	1848.		1849.		1848.		1849.	
Counties.	Hogs.	Value.	Hogs.	Value.	Beef.	Value.	Beef.	Value.
Ashland	21,950	$23,170	24,108	$22,936	12,410	$99,724	14,292	$111,719
Brown	39,851	48,478	43,077	59,025	9,876	72,353	10,051	76,339
Butler	64,067	97,514	63,425	116,466	11,838	103,358	12,420	107,329
Clark	24,937	36,994	25,543	40,536	14,122	146,417	14,031	150,231
Clinton	38,955	50,748	40,538	65,687	10,600	96,301	11,485	107,811
Coshocton	25,306	28,112	28,353	30,735	12,279	98,006	13,694	113,904
Columbia	22,111	25,641	21,234	20,730	13,606	121,314	14,970	130,972
Cuyahoga	13,029	22,462	11,151	17,493	16,367	207,709	19,000	236,164
Delaware	30,148	33,665	30,573	32,689	11,144	98,670	12,725	113,706
Fairfield	40,054	45,050	42,444	48,496	15,862	116,097	16,724	125,144
Franklin	51,983	72,154	54,516	75,365	14,501	158,897	15,007	161,782
Greene	35,401	50,741	36,484	62,323	12,547	114,944	12,530	117,064
Guernsey	27,186	28,487	30,771	31,338	13,175	90,727	14,182	103,642
Hamilton	34,607	55,778	36,048	60,566	12,116	121,151	11,972	121,605
Henry	2,234	2,209	2,308	2,157	1,548	16,554	1,910	19,370
Hocking	12,304	10,902	14,979	12,633	6,524	41,707	7,012	45,740
Holmes	19,878	17,393	20,976	16,945	10,511	77,936	12,023	85,533
Jefferson	19,130	28,483	20,233	24,512	8,513	73,841	9,727	80,693
Knox	26,037	26,779	24,657	24,567	12,411	95,093	14,377	105,792
Logan	22,038	20,476	21,784	21,489	9,196	78,172	10,114	82,708
Mahoning	14,048	19,983	13,751	16,822	14,932	159,153	16,325	175,874
Medina	14,419	18,924	13,188	17,359	15,262	173,599	18,292	197,826
Marion	24,319	26,596	22,534	24,262	11,784	120,352	11,151	103,144
Meigs	9,366	12,689	11,439	11,369	7,022	61,078	7,537	66,544
Miami	27,020	33,656	26,390	36,759	10,437	78,125	10,799	82,600
Monroe	20,495	23,345	27,607	27,099	9,372	66,923	10,160	72,966
Morgan	21,324	27,516	26,097	31,092	11,379	85,012	12,397	97,090
Portage	11,344	20,125	11,319	16,042	23,060	337,588	26,691	345,935
Preble	42,533	48,961	38,744	58,230	11,055	81,872	11,167	83,850
Richland	27,142	23,695	26,687	22,468	13,945	107,797	16,811	129,741
Seneca	24,563	22,629	25,376	22,341	14,214	124,457	15,598	130,955
Summit	16,231	24,436	15,316	20,971	14,899	106,002	17,169	211,200
Tuscaraw's	23,758	22,115	25,167	21,574	14,749	99,742	15,626	117,039
Union	20,853	22,606	19,245	22,451	8,004	80,047	8,445	83,807
Williams	6,109	4,879	5,244	4,460	4,509	44,716	3,621	33,738

	1848.		1849.		1848.		1849.	
	Hogs.	Value.	Hogs.	Value.	Beef.	Value.	Beef.	Value.
Wood.....	8,442	6,727	7,845	5,759	6,520	59,665	6,584	56,299
Wyandott.	11,295	11,013	12,917	12,429	6,590	60,789	7,649	76,001
Adams....	25,085	28,603	29,752	35,935	7,812	57,767	8,434	65,447
Clermont.	44,730	71,509	21,076	87,513	10,535	91,664	10,687	96,427
Crawford.	21,735	20,885	20,922	19,046	10,982	107,867	13.488	122,258
Hardin....	11,033	8,402	9,982	7,584	14,023	38,930	4,715	39,015
Highland.	46,509	54,172	53,286	63,480	11,022	86,529	12,024	97,647
Morrow..	21,162	20,292	19,962	18,123	10,886	85,417	12,929	98,894
Musking'm	35,825	43,318	37,645	47,350	17,913	143,690	19,676	171,188
Paulding.	1,931	1,952	1,954	1,917	841	7,053	914	7,917
Sandusky.	13,513	12,533	14,017	11,496	8,213	79,346	9,484	87,590
Van Wert.	5,141	2,698	5,952	4,473	2,405	17,574	2,649	20,026
Harrison..	18,585	23,288	19,005	25,698	8,394	73,954	9,392	84,084
Allen.....	10,481	8,096	12,566	9,273	5,672	38,509	6,410	46,263
Ashtabula.	7,660	13,334	7,309	11,584	30,714	389,361	35,202	421,221
Belmont..	26,804	38,033	31,323	43,486	12,454	108,019	13,449	122,501
Carroll....	16,924	15,255	15,589	13,623	9,033	74,436	10,115	82,133
Ch'mpa'ne.	21,844	39,841	27,093	34,322	11,842	112,130	12,758	122,221
Lawrence.	9,840	13,586	14,641	13,414	5,315	63,900	5,757	74,551
Ottowa....	3,742	3,681	4,049	3,614	2,625	25,827	2,866	27,320
Perry.....	21,579	20,477	20,578	22,491	10,653	69,793	11,018	75,324
Rosa.....	62,279	98,039	66,483	115,427	22,705	365,606	24,129	359,813
Scioto....	13,150	17,818	17,245	19,094	6,653	72,274	6,595	75,222
Warren..	40,912	59,613	41,717	73,732	11,533	101,778	17,149	109,137
Total...	1,336,367	1,690,308	1,410,377	1,876,622	637,284	6,063,284	688,248	6,658,269

JOURNAL OF MINING AND MANUFACTURES.

THE GRANITEVILLE (S. C.) COTTON MANUFACTORY.

We have great pleasure in laying before our readers the following letter from WILLIAM GREGG, ESQ., the intelligent and enterprising founder of the Graniteville Cotton Manufactory. The introduction of manufactories into the Southern States, will form an interesting chapter in the industrial history of the country; and we rejoice to find our southern friends advocating the importance of "bringing the cotton mill to the cotten field."

KALMIA, S. C., *October* 22, 1849.

TO FREEMAN HUNT, ESQ., *Editor of the Merchants' Magazine, etc.*

DEAR SIR:—Your favor of the 12th inst. was received in course. It will always afford me pleasure to contribute any thing within my power to add to the useful stock of knowledge contained in the pages of your valuable journal. I cannot promise you much at present, but will take a more leisure time to extend my present remarks in answer to your inquiries respecting the advances making in the mechanic arts, and domestic industry of South Carolina, and particularly a history of the rise and progress of our Graniteville manufacturing village, which many persons are looking to for a clear demonstration, that cotton manufacturing can be made a lucrative branch of industry in our State.

We in common with the manufacturing world are laboring under an unprecedented state of things just now. Cotton has advanced upon us 100 per cent in eight months. The raw material which we are now using costs us at the rate of $65,000 per annum more than it did in February last, while manufactured goods have advanced but a shade: this state of things cannot last, for goods will have to go up, or cotton go down to enable the spinners of the world to continue in operation.

Our Graniteville factory buildings are made of hammered granite, contain 8,400 spindles and 300 looms, of the most improved machinery. We turn out daily about

12,000 yards of cloth, sheeting, shirting and drills, of No. 14 yarn, according to the judgment of the merchants of Charleston, New York and Philadelphia, equal in point of quality to any of the kind made in the United States or any other country. We employ in and about the mill 325 persons, and support a village of nine hundred white people. Our superintendent, and a few owners are Eastern men; all the laborers, South Carolinians, said to be equal in point of industry and efficiency to any set of hands of similar number and age in the Northern and Eastern States—wages 20 per cent lower than in Massachusetts, and a fraction lower than in Rhode Island.

The village covers about 150 acres of ground, contains two handsome Gothic churches, an academy, hotel, ten or twelve stores, and about one hundred cottages belonging to the company, and occupied by persons in their service. The houses vary in size from three to nine rooms each, nearly all built after the Gothic cottage order, gives the place quite a novel appearance to a stranger.

The use of alcohol is not permitted in the place—young people, particularly males, not allowed to remain in the place in idleness—the maintenance of a moral character is necessary to a continued residence in the place. All parents are required to keep their children, between the ages of six and twelve, at school—good teachers, books, &c. furnished by the company, free of charge. The restraints above named are willingly acquiesced in by the people, and we have one of the most moral, quiet, orderly, and busy places to be found any where.

Our female help is all taken from resident families under the protection and care of parents. This is a great moral restraint, and gives us an advantage over those who have to rely on the boarding-house system for help, where large numbers of young females are collected together from a wide range of country, away from parents care.

The property cost $300,000, and I have no doubt will prove to be a profitable investment, soon to be followed by millions of our capital seeking similar channels.

We have a large class of white people in South Carolina who are not slave holders, and who are compelled to work for a livelihood. The good lands are generally owned by the wealthy, and cultivated by negroes, affording but little employment to the poor, who readily come into factory service. They are frugal and economical in their habits; our mild climate, cheap breadstuffs, fuel, and other substantials of life, render living much cheaper here than in colder countries. In the interior of this State, we have cotton 1½ cents cheaper than it can be obtained in the East, and 2 cents cheaper than in England, or any part of Europe. All these advantages, added to the superabundance of labor, must operate for many years so favorably on cotton manufacturing in the South, as to render it only necessary to make judicious outlays in erecting mills, and to exercise tolerable management afterwards, to render profitable results certain.

In lieu of a more extended article, I send you an address which I recently delivered to the South Carolina Institute, which, if you think worthy of a place in your Magazine, you are at liberty to publish.

I am, with great respect, your obedient servant,

WILLIAM GREGG.

Since receiving the foregoing letter, we learn that the Graniteville Manufacturing Company, of South Carolina, have been awarded the first premium by the Franklin Institute of Philadelphia, for some sheetings, shirtings, and drillings, as submitted in competition, at the recent exhibition. This is quite a triumph for our southern friends. The editor of the *Pennsylvania Enquirer* has seen specimens of the goods alluded to, and speaks of them in the highest terms of commendation.

STATISTICS OF INVENTIONS IN THE UNITED STATES.

The Annual Report of the Commissioner of Patents for the year 1848, laid before the thirtieth Congress, at its second session, (in February, 1849,) has just been published. It is the last report of the Hon. EDMUND BURKE, who entered upon the duties of the office in May, 1845, and continued to fill the station, until the appointment of his successor by the present administration in 1849, with distinguished ability, as an examination of his voluminous, well-considered, and faithfully prepared reports, which have become matter of history, will most conclusively show. The report now before

us is one of more than ordinary interest, exhibiting, as it does, not only a complete history of the progress of inventions during the last year of the Commissioner's administration of the affairs of the Patent Office, but a clear and comprehensive statistical and financial history of the Patent Office from 1790 to 1849.

We regret that our limits will not permit us, at this time, to furnish a complete analysis of the vast amount of valuable information it embodies. Our readers must, therefore, be content with a condensed view of its statistical and financial history, abridged from the report, and with the promise of resuming the subject from time to time until we have included or embraced such portions of it as fall within the scope of the *Merchants' Magazine.* Passing over, for the present, an abstract of the legislation of Congress in relation to patents and the Patent Office, from the commencement of the government to the present time, the admirable introductory report of Mr. Burke, and other matters of interest and importance, we proceed at once to exhibit, in as condensed a form as the subject will admit, the statistical history of the Patent Office, and the progress of invention in the several States of the Union from 1790 to 1849:—

STATEMENT OF THE RECEIPTS FROM PATENT AND OTHER FEES, AND OF PAYMENTS FOR SALARIES, AND THE CONTINGENT EXPENSES OF THE PATENT OFFICE, (INCLUDING THE ERECTION OF THE BUILDING,) FROM ITS ESTABLISHMENT TO JANUARY 1, 1849.

		PAYMENTS.				
Years.	Receipts.	For salaries, recording patents, &c.	Contingencies, books, fixtures, preparing statistical information, &c.	Restoring mdls., draw'gs, records, &c.	Withdrawing applications for patents, and repayment of money paid by mistake, &c.	Total.
1828*a*.....	$160,659 37	$62,654 73	*17,808 10	.....	.....	.....
1829.....	12,990 00	4,130 55	3,000 00	.....	.....	.....
1830.....	16,350 00	4,300 00	4,630 42	.....	.....	.....
1831.....	17,280 00	5,388 85	1,890 00	.....	.....	.....
1832.....	14,160 00	15,400 00	1,500 00	.....	.....	.....
1833.....	17,730 00	6,850 02	2,175 00	.....	.....	.....
1834.....	23,160 00	8,857 03	2,175 00	.....	.....	.....
1835.....	28,320 00	5,375 13	1,500 00	.....	.....	.....
1836*b*....	17,100 00	2,758 04	2,000 00	.....	.....	.....
1836*c*....	14,579 58	5,300 00	2,600 00	.....	540 00	8,440 00
1837.....	28,901 08	13,400 00	7,500 00	17,950 00	3,180 00	42,030 00
1838.....	41,490 45	12,500 00	8,100 00	11,337 00	3,020 00	34,957 00
1839.....	39,061 95	16,735 00	9,159 22	8,100 00	6,409 99	40,404 21
1840.....	38,405 39	18,163 51	2,500 00	6,880 00	7,733 31	35,316 82
1841.....	33,938 76	18,764 82	5,312 38	18,019 59	10,753 33	52,850 12
1842.....	35,670 96	19,350 00	6,800 00	14,570 00	6,500 00	47,220 00
1843*d*....	16,390 40	9,675 00	3,750 00	3,000 00	3,500 00	19,925 00
1844*e*....	39,145 19	19,450 00	6,950 00	4,250 00	8,703 28	39,353 28
1845*f*....	48,472 44	18,824 71	8,297 87	4,680 47	7,995 02	39,798 07
1845*g*....	27,278 67	10,443 06	5,599 31	257 68	4,030 00	20,330 05
1846.....	50,264 16	21,828 58	11,871 83	1,371 31	11,086 99	46,158 71
1847.....	63,111 19	23,287 57	10,272 35	310 00	8,008 43	41,878 35
1848.....	67,576 69	31,541 70	15,289 91	44 00	12,030 23	58,905 84
	.....	.....	.....	.....	.....	†108,000 00
Total...	$852,036 28	239,263 95	104,002 87	$90,770 05	$93,530 58	635,567 45

(*a*) Patent fees to December 31, 1828, as per statement rendered to the Secretary of the Treasury September 16, 1829. (*b*) To July 4. (*c*) Receipts from July 4 to December 31, 1836. (*d*) To June 30. (*e*) In the year ending June 30. (*f*) In the year ending June 30. (*g*) From June 30 to December 31.

* Exclusive of contingent expenses prior to January 1, 1814; the amount of which could not be ascertained, the accounts having been lost when the public buildings were burned in 1814.

† Appropriated out of this fund and paid for the building.

TABLE EXHIBITING A COMPARATIVE VIEW OF THE NUMBER OF PATENTS OF EACH CLASS ISSUED TO CITIZENS OF THE SEVERAL STATES FROM 1790 TO 1849; PRESENTING A RECORD OF THE INVENTIVE GENIUS OF AMERICA DURING THAT PERIOD.

INVENTIONS EMBRACED IN EACH CLASS.	Maine	New Hampshire	Vermont	Massachusetts	Boston	Rhode Island	Connecticut	New York	New York city	New Jersey	Pennsylvania	Philadelphia	Delaware	Maryland	Baltimore	Virginia	North Carolina	South Carolina	Georgia
	NUMBER OF PATENTS.																		
1 Agriculture, including instruments and operations	113	44	52	103	8	9	115	565	93	56	272	37	12	84	26	134	30	39	12
2 Metallurgy	22	28	28	275	72	25	139	407	159	47	186	77	4	34	24	28	17	3	6
3 Manufactures of fibrous and textile substances, &c.	23	38	55	366	66	102	160	370	112	61	129	54	6	30	19	28	10	7	10
4 Chemical processes	13	14	12	127	38	3	56	333	162	36	183	91	2	45	39	42	8	5	5
5 Calorific—stoves, grates, furnaces, &c.	34	37	34	229	96	16	107	593	218	30	189	115	1	59	43	17	.	4	1
6 Steam and gas engines	5	11	3	51	27	11	20	207	105	27	123	79	4	47	44	12	6	8	5
7 Navigation—maritime implements, &c.	16	7	3	87	41	3	27	204	82	26	89	52	2	38	24	21	.	5	6
8 Mathematical, philosophical, and optical instrum'ts	4	3	7	35	15	6	36	66	30	5	31	15	1	11	5	9	2	3	.
9 Civil engineering and architecture	7	10	4	60	22	9	31	209	86	16	88	29	3	39	31	25	1	4	3
10 Land conveyance—carriages, cars, &c.	13	11	14	68	17	6	48	146	41	21	102	35	10	57	46	9	3	10	1
11 Hydraulics & pneumatics—water & wind mills, &c.	33	25	19	122	28	8	42	339	105	25	128	50	1	46	35	41	4	6	4
12 Mechanical pow'r applied to pr'ssing, weighing, &c.	33	8	27	35	15	2	17	123	53	8	31	16	1	14	7	22	8	7	3
13 Grinding mills and mill gearing	37	16	17	46	9	6	46	200	48	9	105	18	7	25	20	30	20	9	5
14 Lumber and implements for its manufacture, &c.	35	57	25	151	21	5	77	304	65	17	88	33	.	24	11	18	15	3	4
15 Stone and clay manufactures—pottery, &c.	36	3	8	45	10	.	8	73	20	10	68	23	1	16	14	14	.	4	2
16 Leather—tanning, boot making, saddlery, &c.	13	18	17	118	29	4	31	129	37	17	80	37	4	20	7	27	1	1	2
17 Household furniture, domestic implements, &c.	36	16	9	84	30	6	65	226	75	10	95	30	3	35	27	31	11	1	.
18 Arts—polite, fine, and ornamental	1	4	8	96	65	8	28	155	121	11	99	78	.	15	14	4	2	2	1
19 Fire-arms and implements of war	7	6	4	39	4	2	21	57	29	4	30	19	2	4	4	10	.	2	1
20 Surgical and dental instruments	5	4	5	26	12	3	12	83	50	7	48	38	.	14	12	6	1	3	3
21 Wearing apparel and articles for the toilet	4	3	1	34	8	7	64	76	52	12	44	35	.	13	11	3	.	2	4
22 Miscellaneous	4	3	1	24	6	16	43	39	14	25	14	4	7	8	15	1	1	3	.
Total	494	366	353	2,221	639	257	1,193	4,904	1,757	480	2,222	965	71	678	477	532	140	131	78

INVENTIONS EMBRACED IN EACH CLASS.	Alabama	Mississippi	Louisiana	Arkansas	Tennessee	Kentucky	Ohio	Michigan	Indiana	Illinois	Missouri	Florida	Texas	Iowa	Wisconsin	Dist. of Columbia	Foreign	Total
	NUMBER OF PATENTS.																	
1 Agriculture, including instruments and operations	7	8	4	..	29	28	146	18	27	22	7	..	..	..	4	14	2	*1,956
2 Metallurgy	4	.	1	..	3	4	41	3	6	4	.	..	..	..	..	15	25	1,355
3 Manufactures of fibrous and textile substances, &c.	8	4	4	..	14	32	46	.	4	1	12	..	1	1	..	8	21	1,551
4 Chemical processes	1	4	17	..	5	16	42	1	4	3	2	1	..	..	..	20	35	1,035
5 Calorific—stoves, grates, furnaces, &c	.	.	2	..	3	6	72	4	4	3	1	..	1	..	..	20	12	1,479
6 Steam and gas engines	4	.	5	..	8	10	36	2	5	.	8	..	..	..	1	13	26	658
7 Navigation—maritime implements, &c	2	1	1	..	2	7	14	1	3	1	1	..	..	..	..	27	15	609
8 Mathematical, philosophical, & optical instrum'ts.	3	.	3	..	.	3	11	1	.	1	1	..	..	..	..	4	4	250
9 Civil engineering and architecture	5	1	10	..	2	3	15	2	6	9	4	..	..	1	1	16	6	590
10 Land conveyance—carriages, cars, &c	4	.	2	..	1	2	17	.	1	2	.	..	..	..	..	9	6	563
11 Hydraulics & pneumatics—wat'r & wind mills, &c.	4	2	5	..	15	11	59	5	11	6	6	..	..	..	..	11	8	986
12 Mechanical pow'r applied to pressing, weighing, &c.	6	7	7	..	9	6	19	.	6	1	.	..	1	..	1	..	2	404
13 Grinding mills and mill gearing	10	2	2	..	15	1	55	2	6	5	.	..	1	..	1	6	3	697
14 Lumber and implements for its manufacture, &c.	3	1	3	..	8	8	68	8	15	4	1	..	..	..	..	6	2	950
15 Stone and clay manufactures—pottery, &c	1	3	4	1	.	4	17	1	.	4	.	..	..	..	..	11	1	335
16 Leather—tanning, boot making, saddley, &c	2	1	2	..	5	9	34	1	5	1	2	..	..	..	1	5	3	553
17 Household furniture, domestic implements, &c.	3	.	2	..	5	16	44	1	5	1	2	..	..	..	..	11	4	722
18 Arts—polite, fine, and ornamental	1	.	3	..	.	2	7	2	2	.	.	..	..	..	..	13	10	474
19 Fire-arms and implements of war	1	.	1	..	.	4	12	1	2	.	1	..	..	..	..	15	4	230
20 Surgical and dental instruments	1	1	2	..	8	12	7	.	3	.	.	..	..	..	..	..	.	254
21 Wearing apparel and articles for the toilet	1	.	.	..	.	2	9	.	1	.	.	..	..	..	..	2	2	284
22 Miscellaneous	1	2	.	..	.	1	4	.	1	1	1	..	..	..	1	1	1	202
Total	71	37	80	1	132	197	775	53	117	69	49	1	4	2	10	227	192	†16,137

* The cities of Boston, New York, Philadelphia, and Baltimore, as given in the table, are excluded from these totals, being embraced in the numbers for their respective States.

† This total does not show the exact number of patents that have been issued; for, in cases where there were joint inventors residing in different States, credit was given to each State, and in a considerable number of cases the official digest does not give the residence of patentees.

The following table shows the year in which each State was admitted into the Union, the estimated population in 1848, and the ratio of inventions to the population:—

States.	Admission into the Union.	Population.	Ratio of inventions to population.
Maine	1820	61,500	1 : 124
New Hampshire	1789	308,000	1 : 841
Vermont	1791	310,000	1 : 878
Massachusetts	1789	875,000	1 : 394
Boston	....	.....	.....
Rhode Island	1790	135,000	1 : 525
Connecticut	1789	340,000	1 : 285
New York	1789	2,880,000	1 : 465
New York city	....	.....	.....
New Jersey	1789	425,000	1 : 885
Pennsylvania	1789	2,220,000	1 : 999
Philadelphia	....	.....	.....
Delaware	1789	85,000	1 : 1,197
Maryland	1789	510,009	1 : 752
Baltimore	....	.....	.....
Virginia	1789	1,295,000	1 : 2,434
North Carolina	1789	780,000	1 : 5,571
South Carolina	1789	620,000	1 : 4,733
Georgia	1789	825,000	1 : 10,706
Alabama	1820	716,000	1 : 10,084
Mississippi	1817	670,000	1 ; 18,108
Louisiana	1812	490,000	1 : 6,125
Arkansas	1836	200,000	1 : 200,000
Tennessee	1796	980,000	1 : 7,424
Kentucky	1792	890,000	1 : 4,517
Ohio	1802	1,980,000	1 : 2,554
Michigan	1836	420,000	1 : 7,924
Indiana	1816	1,000,000	1 : 8,547
Illinois	1818	800,000	1 : 11,594
Missouri	1821	589,000	1 : 1,220
Florida	1845	80,000	1 ; 80,000
Texas	1845	150,000	1 : 37,500
Iowa	1846	150,000	1 : 75,000
Wisconsin	1848	250,000	1 : 25,000
District of Columbia	....	48,000	1 : 211

THE CUMBERLAND AND CANNEL COAL TRADE.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine, etc.*

In your number for September last, is an article on the "Coal Trade of the United States," and, with the exception of a brief mention of coal in other States, is wholly confined to the coal trade of Pennsylvania, which has grown to be of an immense amount. My object in this note is to mention that, in addition to the anthracite coal of Pennsylvania, and the bituminous coal of Pittsburg, of Virginia, and of the Western States, there is, also, the semi-bituminous coal of Maryland, near Cumberland, of which large quantities will come down to Washington and Alexandria next year, when the Chesapeake and Ohio Canal will be finished to Cumberland. This coal is very superior for steam purposes, and is preferred by most of our ocean steamers. With this coal for fuel, why is not the immense water-power of the Great Falls of the Potomac, of 78 feet, 165 miles from Washington, brought into use?

In addition to the above three varieties of coal, we have, also, the cannel coal, which burns so freely with a full blaze. Previous to 1844, cannel coal was discovered at Hawesville, Kentucky, said to be equal to English cannel coal. The vein extends under the Ohio River, and is worked at Cannelton, on the opposite bank in Indiana, where a manufacturing village has lately sprung up. A vein of cannel coal was discovered in 1844 at Genevieve, Missouri, on the banks of the Mississippi, below St. Louis, and more recently very extensive veins of cannel coal are found on the Missouri River. One

vein, about 120 miles above St. Louis; another vein near Boonville, above the Osage River, and about 200 miles above St. Louis. This coal is very good for making gas, and, as the country increases in population and capital, will be brought to market. This coal is probably found in other places than those above mentioned. OBSERVER.

THE MANUFACTURE OF COTTON IN THE SOUTHERN STATES.

Our readers are referred to an article in a former part of the present number of the *Merchants' Magazine*, on "*The Condition and Prospects of American Cotton Manufactures in* 1849," elicited by a communication on "*The Production and Manufacture of Cotton: with Reference to its Manufacture in the Cotton-Growing States*," by General C. T. James, Civil Engineer of Providence, Rhode Island, published in the November number of the Magazine. The article in the present number deserves the careful consideration of our Southern friends, about to engage in the manufacture of cotton goods, coming, as it does, from a gentleman of large experience, and a thorough practical knowledge of the whole subject. In publishing the article of General James —a gentleman supposed to be one of the leading manufacturers at the North, and from the circumstance of his having erected steam factories for individuals or companies, in different sections of the country, supposed to understand the details of the business, in all its bearings—we did not vouch either for the accuracy of his statements or the correctness of his conclusions. The pages of the *Merchants' Magazine*, as we have frequently had occasion to remark, are open to the free and fair discussion of all topics falling within its original design, or such as an independent journal, devoted to the great industrial and commercial interests of the country and the world, may legitimately embrace in its wide range of subjects. We published the communication in question under the signature, and with the name of the author in our table of contents, in accordance with our uniform custom with all articles voluntarily contributed to the pages of our journal; and we as freely give place to the able article from another pen, in the present number. To this course, no one, we think, can reasonably object. It appears to us the best that can be devised to elicit the truth. Although not practically acquainted with the subject of manufactures, we thought, at the time—and our opinion remains unchanged—that some of the statements made by the author of that article were exaggerated, and the data furnished by the writer of the article in this number, only tends to confirm our impression in that respect. But we must leave the decision of the whole subject, when fully and fairly discussed, to the more enlarged knowledge and better judgment of such of our readers as may take an interest in it. If the tables in Mr. Lawrence's paper are reliable—and of that we think there can be no reasonable doubt, as they were obtained from official sources—the profits of manufacturing establishments have been overstated or exaggerated by the writer of the article in the November number.

It is foreign to our purpose to make our Magazine instrumental in misleading the sanguine to attempt what must prove disastrous if founded in mistake. And if the statements of General James will not bear examination—such examination as all who propose to engage in the enterprise should give the subject, they can do little or no harm. If General James feels agrieved in regard to the preceding remarks, which have been elicited by the publication of an article designed to invalidate the correctness of his statements, we will cheerfully permit him to be heard through the same medium.

As the article referred to has been extracted from our Magazine into most of the leading journals in the South, we trust our brethren of the press in that section of the

Union will adopt our course, by publishing both sides of the question, and thus place their readers in possession of the means of coming to a correct decision in the matter. The article of General James has also been commented upon in the newspaper press of the North, and a variety of conclusions drawn from its statements. An anonymous writer in the *Boston Courier*, commenting upon the article, in reply to another anonymous writer, who, it would seem, had taken a different view of the subject, says :—

"The whole tenor of the article is so absurd, and many of its statements are so entirely at variance with all experience, that it seemed hardly possible for one having any business acquaintance with cotton manufacturing, to be misled by it. It was evidently intended for some other latitude than this ; and if, through its influence, we are not entirely outdone by Southern competition, it will be because the more discriminating of the Southern capitalists prefer an immediate investment in some of our Northern manufacturing stocks, now selling at so great a discount, yet paying such enormous dividends."

In reference to the steam mills erected by General James, the writer in the *Courier* goes on to say :—

"The 'Globe,' the last mill designed, built and started by Mr. James, at Newburyport, commenced running in 1846, and although it has been in constant operation since that time, it has never divided one per cent. The last sale of the stock that came to our knowledge was $180 per share, upon an original par value of $500.

"If these, as your correspondent asserts, are 'among the most prosperous in the country,' they lend but feeble confirmation to the glowing statements of General James as to manufacturing profits in New England, and hardly sustain his own representations as to the 'immense fortunes acquired' through this branch of industry, in 'this State and Rhode Island.' "*

The writer in the *Courier* says "it is not surprising that so little notice should have been taken of an article written by General C. T. James, 'Civil Engineer of Rhode Island,' which appeared in the last number of *Hunt's Merchants' Magazine*;" and yet this same writer informs us that, should his antagonist "carry out his intention of making further reference to the same article, he shall feel compelled to descend more into particulars, at some future day."

A gentleman residing in Massachusetts, for whose character and opinions we entertain the utmost respect, in a private letter, referring to the article of General James, says :—

"Our Southern neighbors are disposed to go into the business of manufacturing fully fast enough ; and if they are not urged on beyond their means, it will be advantageous to them and to us. The effect of such statements as are made by General James, will be to deceive those who are not practically informed on the subject to which they relate ; and coming, as they do, through a journal so much relied upon as yours, they are calculated to do much harm. Many persons here have read them with surprise, but *more from the circumstance of their being in your Magazine, than for any other reason.*"

To the first sentence of our correspondent's remarks, we heartily assent ; and we feel flattered with the compliment conveyed in the sentences that follow. It is, however—and we say it with a full consciousness of our defects—but the natural results of more than ten years' honest and persevering study and effort to render our journal an authentic depository of facts bearing upon all the great commercial interests of every section of the Union. Our brethren in the Southern States will not, we trust, infer from the foregoing observations, that we would discourage their laudable and judicious efforts to diversify their pursuits. They should continue the production of cotton, and the great staples indigenous to their soil and climate, and at the same time

* Whatever may be the profits of manufactories, it will not, we venture to say, be denied, that large fortunes have been acquired in Massachusetts, Rhode Island, &c., "through this branch of industry."

introduce such branches of manufactures as promise even a moderate remuneration for the capital invested. The influence of such a course will tend to equalize and improve the condition of the entire people, and cement our Union, by bands that will "grow with the growth, and strengthen with the strength," of a common interest and a common industry.

We have already occupied more space than we can well spare, but in justice to several correspondents in this section of country, who consider the statements of Gen. James erroneous, and in accordance with the principles we shall ever pursue in the conduct of our journal, we take the liberty of laying before our readers the following statement, embraced in a private letter to the editor, but not intended for publication. It will not be improper to remark, in this place, that the respectability and intelligence of the writer should secure for his criticism a fair and candid examination.

According to Gen. James, ten plantations, with a capital of $738,000 in land, slaves, &c., would be required to produce 1,800,000 lbs. of cotton, which one mill of 10,000 spindles, with a capital of $250,000, would use up in a year, leaving the manufacturer a profit of $90,500 clear, besides interest on capital, which is something over 40 per cent in all of annual profit. If this is so, the planter may well rise from reading the article in a state of such discontent as would tempt him to a radical change in his pursuits. But if it is so, how does it happen that the factories at Lowell have not made, on an average, a profit equal to one-fourth of what is thus held out to the planter to tempt him to turn manufacturer? How does it happen that there is but one establishment at Lowell so prosperous that the par value can be obtained for its stock? How does it happen that it was a subject of congratulation among the stockholders there to find, the last summer, that they were likely to get a dividend of 3 per cent for six months on most of them?

If it be said to this that they are not well-managed, in the opinion of Gen. James and others, it will probably be conceded by all that some of the most sagacious men in New England have been concerned in directing them—men as sagacious as any at the South or West who are likely to engage in the business.

If it be said that there is such a vast preference in the use of steam over water-power as will account for the apparent failure at Lowell, how comes it that we see it announced in the paper of to day, [November 20, 1849,] that the *James* (steam) Mills at Newburyport have just made a dividend for six months of only *three* per cent, and that the stockholders of the Naumkeag (steam) Mills at Salem, erected under the particular charge of Gen. James, are looking forward to a semi-annual dividend of *four* per cent as a great achievement.

Gen. James contends that the raw cotton should be worked where it is raised, and asserts that the cost of transporting 1,800,000 lbs. of cotton (being $18,000) might be saved annually to the planter, who should manufacture his own. Now, if the planters are going to use up all their own goods and pay themselves the 40 per cent of profits out of their own pockets, dropping all exchange of products with the rest of the world, it is needless to gainsay the statement. But if they are going to send *goods* to market, instead of cotton, they will probably find that though the weight may be diminished by leaving the waste behind, the baling or boxing, and additional care required in transportation, offset that advantage, and that the saving mentioned will turn out to be nearer *eighteen hundred* than eighteen thousand dollars, and, therefore, of little importance.

Gen. James says that, "should the number of mills in the United States be doubled in twelve months, probably no one would be compelled to suspend operations for a day, because of deficiency of labor and skill." He estimates the number of operatives in five of the New England States, at 57,000. If this number can be doubled in a year, and, as he says, "without calling for aid from Europe," one is at a loss to know how it is that nearly one-fifth of the looms at Lowell have been left idle for a part of this year, though the highest wages were offered that would leave the stockholders six per cent per annum on their capital. Such an assertion tends to diminish confidence in his statements generally.

If there be good ground for encouraging planters to engage in manufacturing, and to diminish the product of their great staple, it will only be made more sure by a thorough examination of such points as these.

MANUFACTURING ESTABLISHMENTS OF NEW HAMPSHIRE.

We give below a tabular statement of the cotton, woolen, etc., manufacturing establishments of New Hampshire, showing the name and location of each company, capital invested, kind of goods manufactured, and the annual amount of goods manufactured:—

Name and location.	Kind of goods.	Annual amount in yards.	Capital.
Amoskeag Manuf. Co., Manchester	Shirtings, Cotton Flannels, Denims	13,500,000	*$2,500,000
Bascom A. & Co., East Jaffrey	Sheetings and Drillings	480,000	30,000
Belknap Manuf. Co., Meredith Br.	Sheetings, No. 1	1,000,000	100,000
Besse, Tilton & Co., Meredith	No. 15 Sheetings	400,000	.....
Brown, E., New Ipswich	Tickings	265,672	.....
Brown, H. H. & J. S., Fishersville.	Sheeting and Printing Cloth	2,120,000	.....
Chesterfield Factory, Chesterfield.	37 inch Sheeting	.....	10,000
Cocheco Manuf. Co., Dover	Printing Cloths	10,000,000	1,300,000
Columbian Manuf. Co., N. Ipswich	Colored Cottons	1,900,000	180,000
Exeter Manuf. Co., Exeter	Cotton Sheetings	1,450,000	132,500
Franklin Manuf. Co., Franklin	Blue Denims	380,000	.....
Lewis & Gaylord, Franklin	Cotton Batting ....lbs.	240,000	.....
Gilford Manuf. Co., Gilford	Ticking	250,000	.....
Goodnow, Peter, Franklin	Wick'g & Warp Y'n lbs	93,600	.....
Great Falls Mf. Co., Somersworth	Sheetings, Drillings, & Shirtings	16,000,000	1,500,000
Home Manuf. Co., Claremont	39 inch Sheetings	364,000	30,000
Jackson Co., Nashville	Sheetings & Shirtings.	5,300,000	480,000
Merrimack Mills, Manchester	Delanes & Print'g Cl'th	5,000,000	†1,200,000
Milford Cotton and Woolen Manfacturing Co., Milford	Tickings	$27,000	30,000
Monadnock Mills, Claremont	Shirtings & Sheetings.	1,300,000	120,000
Munroe, A., East Jaffrey	Heavy Sheetings	400,000	20,000
Munson, Alvin, Nelson	30 inch Sheetings	190,000	10,000
Nashua Manufac. Co., Nashua	Sheetings, Shirtings, & Drillings	13,000,000	1,000,000
New Market Manufacturing Co., New Market	Cotton Sheetings and Shirtings	4,000,000	600,000
Peterborough Manufacturing Co., Peterborough	No 16 Drillings	230,000	10,000
Peterborough Co., Peterborough	Drillings & Sheetings.	343,125	.....
Phœnix Factory, Peterborough	Sheetings & Drillings.	580,000	.....
Rockingham, Hampton Falls	Cotton Batting ...lbs.	200,000	.....
Sagamore Steam Power Manufacturing Co., Portsmouth	Cotton Yarn	32,500	52,500
Salmon Falls Manufacturing Co., Somersworth	No. 14 Sheetings and No. 14 Drillings	7,000,000	1,000,000
Souhegan Manuf. Co., Milford	14 Drillings	.....	100,000
Stark Mills, Manchester	Sheetings, Shirtings, & Drillings	17,000,000	1,250,000
Sunapee Mills, Claremont	Fine Twills	475,000	200,000
Swanzey Manuf. Co., Swanzey	Shirtings and Drills	200,000	40,000
Union Factory Co., Gilmanton	No. 16 Sheetings	339,456	30,000
Union Manuf. Co., Peterborough	Sheeting and Printing Cloth	475,000	.....
Weare Cotton and Woolen Manufacturing Co., Weare	Drillings	*264,000	12,000

* Amoskeag Manufacturing Co., the whole capital of the four departments given.

† Merrimack Mills, whole capital given, including printworks.

WOOLEN GOODS.

Name and location.	Kind of goods.	Yearly amount in yards.	Spindles.
Adams, Seth & Son, Washington....	Cassimeres	5,400	120
Amoskeag Manuf. Co., Hookset.....	Mousline de Lanes.....	1,539,052	7,368
Ashuelot Manuf. Co., Winchester....	Fancy and Plain Cassim's	75,000	752
Balch, A. & Co., Bath.....	Cassim's, Sat'ts, & Flan'ls.	30,000	720
Belknap Mills, Rochester.....	.....	.....	1,000
Bean, Canney & Co., Rochester.....	Woolen Goods	.....	120
Briggs & Brooks, Holderness.....	Cassimeres & Doeskins ..	73,000	750
Busiel, J. W., Meredith.....	Satinet & Stocking Yarn.	.....	400
Currier & Martin, Canaan.....	Cassim's, Tw'ds, & Flan'ls	21,000	264
Davis & Holden, Walpole.....	Cassimeres	14,000	180
Fulton & Barton, Effingham.....	Woolen Goods.....	.....	156
Gerould, Wetherbee & Nichols, Gilsum	Broadcloth.....	20,000	350
Gonic Factory, Rochester.....	Flannels.....	.....	1,080
Hale, E. J. M. & Co., Littleton.....	Flannels.....	300,000	1,600
Harris & Hutchinson, Harrisville....	Satin Doeskins	25,000	....
Harris, Milan, Harrisville.....	Fancy & Plain Cassimeres	50,000	....
Harris, Almon, Fishersville.....	Black and Mixed Doeskins	28,000	400
Holden, B. F. & D., Concord.....	Flannels and Blankets...	.....	900
Holden, James M., Acworth.....	Cassimeres	12,000	144
Ingram & Parks, Newport.....	Broadcloth.....	13,500	240
Johnson & Colby, Wilmot	Cassimeres	12,000	168
Lisbon Manufacturing Co., Lisbon...	Cassim's, Flan'ls & Bl'nk'ts	.....	....
Livermore, C. G., Alstead.....	Cassimeres	.....	252
Marvin, G. P., Walpole.....	Cassimeres	.....	240
Merrimack Carpet Fac., Merrimack...	Ing'n & Venitian Ca'p'ting	99,000	....
Milton Mills, Milton	Flannels.....	235,000	1,000
Moore & Smith, Winchester.....	Satinets.....	.....	140
Norway Plains Company, Rochester..	Blankets and Coatings...	.....	2,500
Noone & Cochron, Peterborough....	Broad and Narrow Cloth.	13,000	200
Patterson, J. & D. N., Hopkinton....	Cassim's, Sat'n'ts & Flan'ls	20,000	300
Portsmouth Steam Fac., Portsmouth.	Muslins and Lawns.....	2,400,000	21,250
Pulcifer, L. B., Meredith.....	Woolen Yarn	34,000	468
Ripley & Willard, Hinsdale.....	Satin Janes.....	24,000	160
Ripley, D. H., Hinsdale.....	Cassimere and Satin Janes	150,000	860
Sawyer, Alfred I., Dover.....	Woolen Flannel	150,000	615
Sanford & Rossiter, Claremont.....	Cassimeres	45,000	420
Shaker Mills Manuf. Co., Enfield....	Cassim's, Satin'ts & Flan'ls	18,000	288
Silsby, M. & R. W., Gilsum.....	Cashmerett and Cassim's.	60,000	340
Tilton, A. H., Sanbornton.....	Tweeds.....	40,000	324
Tilton, J. & J. C., Northfield.....	Satinets.....	30,000	200
Twichell, T. A., Newport.....	Br'dcl's & Fancy Doeskins	40,000	507
Townsend, C. T., Gilsum.....	Flannels.....	100,000	344
Turner, J. B. & A., Winchester.....	Woolen Cloths	.....	528
Weare Woolen Mill, Weare.....	Cassimeres.....	42,000	450
Winn, A. B., Fishersville.....	Woolen Flannels.....	75,000	260
Wilson & Earl, Claremont.....	Woolen Cloths	36,000	330
Woods, Imri & Sons, Henniker.....	Cassimeres and Satinets..	16,000	264

PRODUCTION OF THE MINES OF CHILI.

A late number of the *Valparaiso Neighbor* furnishes the following statement of the value of copper, gold, and silver, produced at these mines for 1844–47, as follows:—

The value of the copper produced in 1844 was $8,929,898, in 1845, $2,503,825, in 1847, $2,353,405; the silver mines in 1844 produced $1,310,996, in 1846, $1,776,875, in 1847, $1,807,711; the gold mines in 1844, $97,097, in 1846, $217,984, and in 1847, $301,415.

A great obstacle to be contended with by the miners, is the transportation of their ores to the seaboard, and then, in return, the transportation of provisions inland for the

workmen. All must be carried by pack mules. This greatly augments expenses, especially in the northern provinces, which, while agriculturally most barren, are in mineral deposits most abounding. The animals are scarce there, and of necessity must continue to be so, from the difficulty in procuring food for them.

IMPROVEMENT IN THE MANUFACTURE OF HEMP.

Considerable attention has been excited by the Maysville establishment for manufacturing hemp without rotting. Frequent attempts before have failed on account of inefficient machinery, and especially on account of the great liability of this kind of hemp to most offensive putrefaction and speedy decay. Now these difficulties seem to be entirely overcome. The hemp is broken out and cleaned without making tow or waste, and the product is carried through a chemical process called *kyanizing*, by which it is rendered indestructible from ordinary exposure to weather. This kyanised rope is said to be superior to the Manilla for river purposes, being stronger, more flexible, more durable, wearing smoother, and being more pleasant for boatmen to handle. At the same time, it must be admitted, that before it is used it does not look so well as Manilla, and there is no cordage in the world that does. It is said to improve in appearance however by wear, while the Manilla *frays down* and wears rough. Here then is a use American hemp is applied to, which heretofore required a foreign article. The kyanized rope and kyanized bagging too, must probably come into use in covering cotton bales. The dew-rotted rope and bagging gives way too soon by the exposure which a great deal of the cotton is subjected to, and it arrives at its place of destination in bad order, the rope being often broken and the bagging torn off by cotton hooks. We understand that a company is about being formed in Mason county to manufacture bale rope and bagging in this way. We have watched this hemp movement with great interest since its commencement. We know something of its history and of the men engaged in it, and we think the enterprise must succeed. It has succeeded, as its projectors assure us, and we incline to believe them, from the evidence furnished. It constitutes an important epoch in the history of hemp culture and manufacture in this country. It is stated that hemp can be worked so economically and perfectly as to render it certain that the usual manner of working it cannot be much longer used—that rope and bagging can be made cheaper in this way than by the usual mode. There is one very material difficulty in the way of so great a change in the manner of working hemp, and that is the great expense that is necessary to fit up an establishment that will pay, requiring a series of newly invented machinery and processes, driven by powerful engines, and requiring investments of capital similar in amounts to those used in the cotton manufacture. However, when sufficient demonstration can be made to capitalists that the business is profitable, establishments enough may be set in operation in a few years to supply all the river cordage, bale rope, and bagging that may be wanted. The navy, too, will probably ere long be supplied with this kind of cordage. It is said to take tar remarkably well, remaining much more flexible and for a longer time, than rope made of any other kind of hemp; while for *running rigging* it is the very article wanted—a desideratum.—*Louisville Journal.*

THE CHICOPEE COTTON MILLS.

The eleven mills at Chicopee, Massachusetts, as we learn from the Hampshire Gazette, owned by the Chicopee, Cabot, Perkins and Dwight Corporations, give employment to 2,400 operatives. The Chicopee Corporation has four mllls, 24,544 spindles, with a capital of $700,000; the Cabot Corporation has two mills, 14,000 spindles, with a capital of $500,000; the Perkins Corporation has two mills, 14,000 spindles, with a capital of $500,000; the Dwight Corporation has three mills, 24,920 spindles, with a capital of $700,000.

"HOGS PACKED IN THE WEST."

A correspondent under date "Clinton, Fulton County, Illinois," has called our attention to an article in the October number of the *Merchants' Magazine*, headed as above, "as calculated to convey very erroneous impressions to those not familiar with the pork trade in that section of the coutry." "The table given," he says, "purports to show the number packed in the States of Mississippi, Missouri, and Illinois, when, in

fact, it only shows the number packed *on* the Missouri and Illinois Rivers, and the Mississippi River *above* St. Louis," and adds, "as the pork trade is an important one in this State (Illinois) it is very desirable that all statements and tables, particularly in *your* Journal, should be accurate." We are extremely desirous of securing the utmost accuracy in our statistical statements, but whatever erroneous impression that statement conveyed must be referred to the St. Louis *Republican*, as our correspondent will notice, by reference to the article, that it was derived from that journal.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

RULES AND REGULATIONS OF THE NEW ENGLAND RAILROADS.

The "*Pathfinder Railway Guide for the New England States*," one of the most minute and accurate manuals of the kind ever published in this country, for November, 1849, contains the rules and regulations adopted by all the principal railroad companies in the New England States.* As the result of the experience of our New England Railroad managers and superintendents, these rules and regulations may be useful to persons interested in railroads in other parts of the United States. We therefore transfer them to this department of the *Merchants' Magazine*.

RULES AND REGULATIONS OF THE NEW ENGLAND RAILROADS.

First:—In regard to Passengers.—Passengers must procure tickets before taking their seats in the cars. They must not smoke in the cars or station houses. They are not allowed, under any circumstances, to stand on the platforms of the cars. They must not take or leave the cars when in motion, nor put their heads or arms out of the car windows. *Second:—In regard to baggage, and articles carried on the Passenger Trains.*—All baggage must be delivered to the Baggage Master or other person authorized to receive it, before the passenger takes his seat in the cars. Baggage must be accompanied *in the same train* by its owner; and when not so accompanied, no agent of the company is authorized to put it on board the train, and the company will not hold itself responsible as common carriers in regard to it. The liability of the company as *common carriers* in regard to baggage and other articles transported upon a passenger train, will not commence till such baggage or other articles are put or received on board the train; and the same liability will terminate when such baggage or other articles are unladen from the train at their place of destination. Baggage will not be taken to include money, merchandise, or other articles than those of personal use; and when of higher value than the highest sum advertised by the company as the limit of its liability, notice must be given of that fact, and an extra price paid, or the company will not hold itself liable beyond that amount. The company will not hold itself liable for any valise, package, or other article of personal property, taken by the passenger with him into the cars, or carried at all upon a passenger train, unless delivered to the baggage master, or other person authorized to receive and take charge of such articles. The company expressly reject any liability for the care of articles in the keeping of Express Agents, who pass over their road under special contract; whether any such limitation of the company's liability is published in such Express Agents' advertisement or not. *Third:—As to Freight, going by Freight Trains.*—All articles of freight must be plainly and distinctly marked, or they will not be received by the company; and when designed to be forwarded, after transportation on the railroad, a written order must be given, with the particular line of boats or teams marked on the goods, if any such be preferred or desired. The company will not hold itself liable for the safe carriage or custody of any articles of freight, unless receipted for by an au-

* The companies which have adopted these regulations, enumerated in the Pathfinder Railway Guide, are as follows:—Boston and Lowell, Western, Boston and Providence, Providence and Worcester, Northern, Eastern, Portland, Saco, and Portsmouth, Fitchburg, Housatonic, Concord, Conecticut River, Vermont Central, Fall River, Boston and Maine, Old Colony, Norwich and Worcester Nashua and Lowell, Stony Brook, Wilton, Cape Cod Branch &c..

thorized agent; and no agent of the company is authorized to receive, or agree to transport, any freight which is not thus receipted for. Duplicate receipts, in the form prescribed by each company, ready for signing, must accompany the delivery of any freight to that company. No responsibility will be admitted, under any circumstances, to a greater amount upon any single article of freight than $200, unless upon notice being given of such amount, and a special agreement therefor. Specie, drafts, bank bills, and other articles of great intrinsic or representative value, will only be taken upon a representation of their value, and by a special agreement assented to by the superintendent. The company will not hold themselves liable at all for any injury to any articles of freight, during the course of transportation, arising from the weather or accidental delays. Nor will they guarantee any special despatch in the transportation of such articles, unless made the subject of express stipulation. Nor will they hold themselves liable as *common carriers* for such articles, after their arrival at their place of destination and unlading in the company's warehouses or depots. Machinery, furniture, stoves, and castings, mineral acids, all liquids put up in glass or earthen ware, unpacked fruit, and live animals, will only be taken at the owner's risk of fracture or injury during the course of transportation, loading and unloading, unless specially agreed to the contrary. Gunpowder, friction matches, and like combustibles, will not be received on any terms; and all persons procuring the reception of such freight by fraud or concealment, will be held responsible for any damage which may arise from it while in the custody of the company. All articles of freight, arriving at their place of destination, must be taken away within twenty-four hours after being unladen from the cars,—the company reserving the right of charging storage on the same, or placing the same in store at the risk and expense of the owner, if they see fit, after the lapse of that time.

In the November number of the *Merchants' Magazine*, we published an abstract of the Report of the Boston and Maine Railroads, which extends from Boston to South Berwick. In connection with our abstracts of the report, we gave some additional information, including a table of the principal places, distances, rates of fare, &c., derived from that authentic little manual, the "*Pathfinder Railway Guide.*" In a note, however, we stated that the places between South Berwick and Portland were omitted in the *Railway Guide;* but we find, on examination, that we were mistaken: the Portland, Saco, and Portsmouth road, which connects the Boston and Maine, extending to South Berwick is a distinct corporation, and is given by itself in the Guide. The error, a trifling one, originated from our not referring to the table in the Railway Guide, giving the distances from South Berwick to Portland. We make the correction, in justice to the editor and proprietors of the Guide; as an error, however trifling, would tend, if suffered to pass, to invalidate the semi-official character, or the accuracy of that valuable manual.

PROGRESS OF RAILROADS IN GEORGIA.

The Western and Atlantic Railroad is now nearly completed. The great tunnel through the Blue Ridge, 1,477 feet long, having been opened with imposing ceremonies on the 1st of November, 1849.

It is calculated this road will be ready for traffic on the 1st January, 1850. It commences at Atlanta, and runs northwesterly to Chattanooga, in Tennessee, on the Tennessee River. It is the connecting link for the Central Railroad from Savannah to Macon, and the Macon and Western Road from Macon to Atlanta, and also of the Charleston and Hamburg and Georgia Railroads from Charleston to Atlanta. There is now a steam communication from the seaboard to the Mississippi, and if we look at the map we see finished the

Central Railroad, from Savannah to Macon	miles	192
Macon & Western Railroad from Macon to Atlanta	"	101
Western & Atlanta Railroad, from Atlanta to Chattanooga, Tenn.	"	140
Tennessee River to mouth of the Ohio, about	"	400
		833

NUMBER OF PERSONS EMPLOYED ON RAILROADS IN ENGLAND.

Few are perhaps aware, says a Liverpool paper, of the immense number of people to whom the railway system of this country has given employment during the last few years. According to a British Parliamentary return, the number of persons employed on the railways of the United Kingdom, in the capacities mentioned, was as follows :—

	Railways open for traffic.	Railways in the course of const'n.		Railways open for traffic.	Railways in the course of const'n.
Secretaries	81	102	Switchmen	1,058	....
Managers	30	93	Inspectors	....	119
Treasurers	29	21	Policemen	2,475	71
Engineers	95	405	Land surveyors	....	26
Superintendents	343	1,897	Porters	7,362	10
Storekeepers	125	243	Miners, or quarry men.	....	6,250
Accountants	70	145	Messengers	197	....
Cashiers	48	88	Plate layers	4,391	256
Draughtsmen	106	306	Laborers	14,297	147,325
Clerks	4,360	887	Gatekeepers	401	....
Foremen	1,011	685	Wagoners and carters.	141	45
Enginemen, or drivers	1,752	..	Breaksmen	32	....
Assistant enginemen	1,809	..	Miscellaneous emply'nt	197	116
Conductors, or guards	1,464	..			
Artificers	10,814	29,087	Total number of men	52,688	188,177

Thus there were 52,688 persons employed on 4,252 miles of railway open for traffic, and having 1,321 stations; and 188,177 persons employed on 2,956 miles of railway, in the course of construction, making together the total number of persons employed about railways—

Open for traffic	52,688
In construction	188,177
Total persons	240,865

RAILROAD ACCIDENTS IN EUROPE.

The *North British Review*, for August, contains an elaborate and very interesting article on the railway system of England, and in the course of it gives the following comparative table of casualties which occurred on the railways in England, France, Belgium, and Germany, between the 1st of August, 1840, and July, 1845. It is the result of calculations made by Baron Von Reden :—

England	1 passenger	out of	869,000	killed	by own	neglect.
France	1 "	"	2,157,000	"	"	
Belgium	1 "	"	670,000	"	"	
Germany	1 "	"	25,000,000	"	"	
England	1 official	out of	300,000	killed and wounded	from	misconduct.
France	1 "	"	5,000,000	"	"	"
Belgium	1 "	"	280,000	"	"	"
Germany	1 "	"	9,000,000	"	"	"
England	1 person	out of	852,000	killed	from	defective management.
France	1 "	"	3,465,906	"	"	"
Belgium	1 "	"	1,690,764	"	"	"
Germany	1 "	"	12,251,858	"	"	"

It will be observed that, as regards safety, the difference is strikingly in favor of Germany; and it is accounted for by the fact, that while the officials stationed along the road are greater in number than in any other country, the police regulations are of such a nature that passengers cannot, by heedlessness or rashness, incur the chance of danger to life and limb.

In England, in 1847, 211 persons were killed, and 174 injured, out of 54,854,019 passengers; and in 1848, 202 were killed, and 219 injured, out of 57,855,133.

We should like to see a careful estimate of the casualties on roads in the United States. They are not, we believe, any greater than those of England; while in that country the guards set up against danger are much more complete than in our own.

VASTNESS OF RAILWAY WORKS.

The great Pyramid of Egypt, was, according to Diodorns Siculus, constructed by three hundred thousand—according to Herodotus, by one hundred thousand men. It required for its execution twenty years, and the labor expended on it has been estimated as equivalent to lifting 15,733,000,000 (fifteen thousand seven hundred and thirty-three millions) of cubic feet of stone one foot high. Now, in the same measure, if the labor expended in constructing the southern division only of the present London and North-western Railway be reduced to one common denomination, the result is 25,000,000,000 (twenty-five thousand millions) of cubic feet of similar material lifted to the same height, being 9,267,000,000 (nine thousand two hundred and sixty-seven millions) of cubic feet more than was lifted for the pyramid, and yet the English work was performed by about 20,000 men only, in less than five years. Again it has been calculated by Mr. Lecount, that the quantity of earth moved in the single division (112 miles in length) of the railway in question, would be sufficient to make a footpath, a foot high and a yard broad, round the whole circumference of the earth; the cost of this division of the railway, in penny pieces, being sufficient to form a copper kerb or edge to it. Suppose, therefore, the same proportionate quantity of earth to be moved in the 7,150 miles of railway sanctioned by Parliament at the commencement of 1848, our engineers, within about fifteen years, would, in the construction of our railways alone, have removed earth sufficient to girdle the globe with a rod one foot high and one hundred and ninety-one broad.—*Sir Francis Head's Stokers and Pokers.*

HAMBURG TUNNEL ON THE HUDSON RIVER RAILROAD.

The great tunnel at New Hamburgh, says the *Evening Post*, connected with the Hudson River Railroad, is nearly completed. It is a gigantic work, measuring 830 feet in length; at the south end is a cut 500 feet long, 30 feet wide, and 50 feet deep, all through the solid rock before reaching the tunnel, which is 19 feet high and 24 feet wide. Through the tunnel the passage is gloomy enough to represent the most dangerous regions, darkness being relieved only by the light of candles, and through two shafts sunk to it, one 70 feet in depth, the other 56, through which a glimpse of daylight may be obtained, but on emerging at the north end, one other deep cut is found, nearly as formidable as that at the south, being 200 feet long, and 70 feet deep, making the entire deep cutting through the rock, all inclusive, no less than 1,530 feet. One who has not seen the work, can form no conception of its magnitude, and it may be put down as one of the greatest curiosities in this part of the country. There are 400 men employed on this great work, under the supervision of Messrs. Ward, Wells & Co., the contractors. Six thousand kegs of powder, of 25 lbs. each, have been used for blasting, in fourteen months, and nine blacksmith's shops are constantly occupied with repairing the tools, &c. The work goes on night and day, with great expedition.

REDUCTION OF RAILROAD CAPITAL IN ENGLAND.

It is thought by some that this is a favorable time for railway companies to purchase up their shares in the market, with the view of reducing the number of their shares, and the amount on which they would have to pay dividend. It is proposed to use the surplus receipts or profits for this purpose. Thus a company, whose shares are at a fearful discount, could advantageously employ their receipts in buying up the shares in the market. Many of them could buy a million of capital for £500,000, and so for half a million reduce the capital receiving dividend by a million, in other words save half a million for the benefit of the legitimate holders.—*Herapath's Journal.*

PATHFINDER RAILWAY GUIDE FOR NEW ENGLAND.

We have received the sixth monthly issue of this valuable manual. It gives, in a compact form, official tables, corrected monthly, of the hours of departure from each station, and the distances and fares, on all the railway lines in New England; and each number is illustrated with a complete map of the several railroads included in the tables. We have found it exceedingly useful, as a book of reference, and the traveler will find it indispensable.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

DEBT AND FINANCES OF ALABAMA.

We give below a statement of the debt and finances of Alabama, derived from the last annual message of the Governor of that State:—

For the two years since the meeting of the last Legislature the receipts into the Treasury and disbursements have been as follows:—

Balance in the Treasury, November 26, 1847	$528,251 86
Receipts during the year ending November 1, 1848	288,640 92
Total means for 1848	$816,892 78
Paid out during the same time, including the sum of $485,965 35, interest on State debt	644,628 03
Balance in Treasury, November 1, 1848	$172,264 75
Receipts during the year ending November 1, 1849	487,987 58
Total means for 1849	$660,252 33
Paid out during the same period, excluding Treasury drafts	122,235 75
Balance in Treasury, November 1, 1849	$538,016 58
Estimated receipts of funds in the hands of tax collectors, not paid into the Treasury	415,000 00
Making the total means of the State up to the present time	$953,016 58

Mostly in notes of the late State Bank and branches, of which the State is the only stockholder.

The bank has been represented to be in liquidation for five years past, but the circulation is still used by the Controller to pay off demands against the Treasury, and these notes are in turn receivable for all dues to the State, including taxes.

The debt of Alabama is as follows:—

Outstanding bonds, $7,800,000, applied to banking	$9,000,000
University fund	250,000
The sixteenth section (school) fund	1,015,856
Surplus revenue fund, about	1,500,000
Total debt	$11,765,856

To this must be added the loss to the State in winding up the State Bank and branches. It will be seen that—

$100,000, bearing 6 per cent interest, falls due, and is payable at the Phœnix Bank on the 1st April, 1850.
824,000, bearing 5 per cent inrerest, falls due on the 1st June, 1850, payable to Reid, Irving and Company, London.

$924,000, total State debt falling due in 1850.

The governor thinks it would be burdensome on the people of the State to liquidate the whole debt within the period suggested, (in ten years,) and recommends to the General Assembly, a renewal of the bonds falling due in 1850, for 20 years.

On the subject of legislating for the ultimate liquidation of the public debt, the governor continues:—

The great question appears to be, whether we should raise an amount of revenue that would enable us to pay not only the interest, but such a portion of the principal as would lead to a speedy liquidation of the entire debt; or, postponing for the present the payment of the principal, raise only so much as would be necessary to pay the regular interest on that debt, in addition to the expenses of the State Government, leaving its final liquidation for a period more propitious, when the energy of our young State will be more matured and better directed—when her vast agricultural and mineral resources, and her manufacturing capacities will be more fully developed, and her population more numerous and better able to share the burden of taxation among them. Which course of policy should be adopted by the State, as might be expected, gives rise to much difference of opinion. It must be remembered that the question of postponement can, in nowise, affect the honor or financial credit of the State, for, by the terms of the contract which created our foreign debt, the right was reserved to the State to continue her indebtedness for an indefinite period, provided the interest on that debt continued to be regularly paid. The payment of the principal is, therefore, with us a question of expedience, and, in determining upon the time, we should be led to adopt that course of policy which, after due consideration, we should feel satisfied would best serve the interests of the State.

"CHRONICLES AND CHARACTERS OF THE STOCK EXCHANGE."*

As we were closing the present number of the *Merchants' Magazine*, we received from England a copy of a new work, with the above title, just published in London. JOHN FRANCIS, Esq., the author, is a clerk in the Bank of England. His history of that Bank, in two large octavo volumes, published some two years since, has already reached a third edition, and is the only book, so far as our knowledge extends, about banking, that can be considered entertaining. In that work the author has exhibited great industry and taste in the selection of striking anecdotes, touching upon all the prominent financial movements of the past and present century, and at the same time elucidating, with clearness, those epochs in the history of the bank, "by which fundamental principles were first suggested, and antiquated errors are corrected." To use the language of the London *Bankers' Magazine*, the history of the Bank of England "is as interesting as a fairy tale." He has adopted the same popular plan in the present work, the object of which is, as modestly set forth in his preface to the volume, "to gather the many remarkable incidents connected with the national debt, to present an anecdotical sketch of the causes which necessitated its principal characters—to detail the many evils of lotteries—to relate the difficulties in the early history of railways—to popularize the loans, of which the Poyais, with its melancholy tragedy, and the Greek, with its whimsical transactions, were such striking examples, and finally to group these objects around the Stock Exchange.

We consider it a most interesting as well as valuable contribution to the financial literature of the commercial world, and shall take occasion, in a future number of our journal, to review it more at length, and, at the same time, transcribe, for our pages, some of its attractive reading. We have space, at present, for only two random extracts, touching the constitution of the Stock Exchange, and an explanation of its terms.

CONSTITUTION OF THE LONDON STOCK EXCHANGE.

The constitution of the Stock Exchange is simple. Governed by a committee of twenty-eight, with a chairman and deputy-chairman, annually elected by the members, their power to expel, suspend, or reprimand, is absolute; their decision final; and that decision, adds one of the rules, "must be carried out forthwith." In cases of expulsion, the committee should not consist of less than twelve; and of these, at least two-thirds

* Chronicles and Characters of the Stock Exchange. By John Francis, author of the History of the Bank of England, its Times and Traditions. London: Willoughby & Co.

must concur in the sentence. No bill or discount broker, no clerk in any public or private establishment—excepting those to the members of the Stock Exchange—no one in business, either in his own name or in that of his wife, can be received as member. Every applicant must be recommended by three members of two years' standing, who must each give security for £300 for two years. The committee meets every alternate Monday, at one o'clock; but a special meeting may at any time be called by the chairman and deputy chairman, or by any five members. Brokers and jobbers, or dealers, as they are politely termed, are not allowed to enter into partnership; and, when a defaulter is excluded, his clerk is excluded with him.

Directly the books are closed at the Bank of England, the price of stocks, excepting only Bank stock, is quoted without the dividend.

When a defaulter, or one who cannot or will not pay the just claims on him, is posted, a libel is avoided by the following words: "Any person transacting business with A. B., is requested to communicate with C. D."

EXPLANATION OF THE TERMS USED ON THE LONDON STOCK EXCHANGE.

The terms used on the Stock Exchange have been in vogue for more than a century; and the origin of many may be traced to the early transactions in the stock of the East India Company. Buying for the account has been described; but "bull," and "bear," "backardation," and "continuation," are understood only by the initiated.

"Bull" is a term applied to those who contract to buy any quantity of government securities, without the intention or ability to pay for it; and who are obliged, therefore, to sell it again, either at a profit or loss, before the time at which they have contracted to take it.

"Bear" is a term applied to a person who has agreed to sell any quantity of the public funds, of which he is not possessed, being, however, obliged to deliver it against a certain time.

"Lame Duck" is applied to those who refuse, or are unable to fulfil the contracts into which they have entered.

"Backardation" is a consideration given to keep back the delivery of stock, when the price is lower for time than for money.

"Continuation" is a premium given when the price of funds in which a person has a jobbing account open is higher for time than for money, and the settling day is arrived, so that the stock must be taken at a disadvantage. In this case a per centage is paid, to put off the settlement, and continue the account open.

"Jobber" is applied to those who accommodate buyers and sellers of stock with any quantity they require. The dealer or jobber's profit is generally one-eighth per cent.

The "Broker" is the person employed by the public to sell or purchase stock, at a certain per centage.

"Omnium" is a term used to express the aggregate value of the different stocks in which a loan is usually funded.

"Scrip" is embryo stock, before the whole of the instalments are paid.

FINANCES OF THE EAST INDIA COMPANY.

The official returns just published and presented to the British Parliament, show that the gross total receipts of the home treasury of the East India Company from the 1st of May, 1848, to the 30th of April, 1849, amounted to £5,618,927, and the total disbursements to £4,274,495, leaving a balance in favor of the treasury, on the 30th of April, of £1,344,431. The receipts of the home treasury for the year ending 30th of April, 1850, are estimated at £5,201,931, and the disbursements at £4,239,885, leaving an estimated balance, on the 30th of April, 1850, of £962,046. The debts of the Government of India, in England, on the 1st of May last, amounted to £5,054,283, and the credits to £2,897,708, leaving an excess of debt of £2,156,575. The total number of *employes* of the Company, in England, on the 1st of May, amounted to 514, whose salaries amounted to £126,121. The gross total amount of the revenues of the several Presidencies and Governments of India for the year 1847–48 was estimated at 17,619,391 rupees, and the gross total charges at 15,619,257 rupees; which latter, added to 3,016,012 rupees, (the charges disbursed in England,) made the grand total charges of India, for the year 1847–48, amount to 18,635,309 rupees, leaving a deficiency on the general account of 1,015,968 rupees.

BANKS OF NEW HAMPSHIRE.

Name.	Location.	Cashiers.	Capital.	Shares.	Par val.
Ashuelot Bank.....	Keene.....	T. H. Leveret..	$100,000	$	$ ....
Belknap County Bank.....	Meredith.....	J. T. Coffin....	100,000	1,000	1,000
Cheshire Bank.....	Keene.....	Z. Newell.....	100,000	100	1,000
Connecticut River Bank...	Charlestown.	George Olcott.	90,000	150	600
Derry Bank.....	Derry.....	James Thom..	100,000	1,000	100
Dover Bank.....	Dover.....	Andrew Pierce	200,000	2,000	100
Granite Bank.....	Exeter	James Burley..	100,000	2,000	50
Great Falls Bank.....	Somersworth	D. H. Buffum .	100,000	1,000	100
Lancaster Bank.....	Lancaster...	Geo. A. Cossitt	50,000	1,000	50
Lebanon, Bank of.....	Lebanon....	J. H. Kendrick.	100,000	1,000	100
Manchester Bank.....	Manchester..	N. Parker.....	150,000	....	....
Mechanics' Bank.....	Concord	George Minot .	100,000	1,000	100
Mechanics' & Traders' Bank	Portsmouth .	Jas. F. Shores.	110,000	1,100	100
Merrimack County Bank ..	Concord	E. S. Towle...	80,000	160	500
New Ipswich Bank.....	New Ipswich	George Barrett.	100,000	1,000	100
Nashua Bank.....	Nashua.....	John M. Hunt.	100,000	1,000	100
Piscataqua Exchange Bank	Portsmouth .	Samuel Lord..	200,000	2,000	100
Rochester Bank.....	Rochester...	John McDuffee.	100,000	1,000	100
Rockingham Bank.....	Portsmouth .	J. S. Pickering..	143,000	2,860	50
Strafford Bank.....	Dover.....	Asa A. Tufts..	100,000	1,000	100
Winchester Bank.....	Winchester..	Wm. B. Hale..	100,000	1,000	100

CIRCULAR TO RECEIVERS OF PUBLIC MONEY.

TREASURY DEPARTMENT, *October 25th*, 1849.

SIR—The gross receipts of your office, of which you have heretofore been required to make duplicate monthly returns to the Commissioner of the General Land Office and to this Department, being identical, under the provisions of the act of 3d March last, with the sums to be returned at the same date in your *weekly account* with the Treasurer of the United States, *the latter are superseded.* From the receipt of this, you will transmit a *triplicate* copy of your *monthly return* to the Treasurer of the United States, including therein such of the drafts of that officer upon you which may have been taken up during the preceding month.

As the act in question requires that the gross receipts of the revenue be carried into the Treasury, and the expenses of collection be paid from appropriations for that purpose, your monthly accounts should contain no charges except for payments upon the Treasurer's drafts, deposits made under the directions of this Department, cancelled land scrip, or forfeited land stock, or Treasury notes.

In making such deposits, you will be careful to make those of amounts received in different quarters, *in separate sums*, and that they be so receipted by the depositary, in order that the revenue for each quarter may be readily distinguished.

This series of accounts to be rendered to the Treasurer, should commence with the month of October, bringing forward the balance of cash on hand (not including any portion of advances made to you as disbursing agent, by Treasurer's drafts) on the 30th September, and should be on quarto-post paper, not larger than the form which has been furnished, and endorsed as heretofore directed.

W. M. MEREDITH, *Secretary of the Treasury.*

LAND REVENUES OF THE BRITISH CROWN.

A return, published in October, on the motion of Mr. Hayter, M. P., gives some statistical particulars relative to the receipts and expenditure of the Commissioners of Woods and Forests. It appears that in the year ended 31st of March, 1849, the total income of the land revenue amounted to £463,463, and the gross total concurrent expenditure to £288,485, leaving a net available balance of income on the 31st of March, 1849, of £174,977. The expenditure includes the following items (amongst many others too numerous to quote.) viz.: £27,010 for the office of Woods; £2,820 for law charges; £3,841 for the repairs and improvements of Crown estates; £7,934 for rates and taxes on Crown property; £34,682 for the royal forests and woodlands; and £71,346 for the royal parks and gardens.

ROYAL MONEY BORROWING IN ENGLAND.

Charles I. seized the money of his merchants; and his bonds were hawked about the streets, were offered to the people as they left the church, and sold to the highest bidder. The Commonwealth were debtors, on the security of the forfeited estates. Charles II. took money from France, shut up the Exchequer, borrowed from his friends, and did anything rather than run the risk of being again sent on his travels. Thus it would seem, the exchequer of the earlier monarchs was in the pockets of the people; that of Henry VIII. in the suppressed monasteries; Elizabeth in the corporations; and Charles II. wherever he could find it. The abdication of James II., and the arrival of William III., form an era in the history of the monetary world. The plans adopted by the latter to crush the power of France, and raise the credit of England, were the commencement of that great accumulation known as the national debt, and the origin, though remote, of that building, celebrated throughout Europe, as the Stock Exchange. The rapid sketch now presented of the mode in which money was supplied, confirms the remark of Mr. Macaulay, that "there can be no greater error than to imagine the device of meeting the exigencies of the State by loans was imported into our island by William III. From a period of immemorial antiquity, it had been the practice of every English Government to contract debts. What the Revolution introduced was the practice of honestly paying them."

BRITISH LOANS FROM 1780 TO 1783.

Half was given to the members of the House of Commons, more than three millions was allotted to one person; and, without regard to the welfare of the nation, the price was determined at a ratio so favorable to the contractors, that from no cause save the low terms on which it had been taken, the scrip arose at once to 11 premium. In 1781 it was said Lord North had made an infamous bargain in a bungling manner, and that in 1782, he had made a bungling bargain in an infamous manner. * * In 1783, out of a loan of twelve millions, £7,700,000 were given to bankers. So disgraceful was the whole affair, that Lord John Cavendish was compelled to apologise for the terms on which it had been granted, because "the former minister had left the treasury without a shilling." By attempting to please men of all parties, Lord John, as usual, pleased none. He was abused by some for dividing it among so small a number: he was rated by others for allowing so many to have a share. Mr. Smith—of the house of Smith and Payne—made a formal complaint that he had been neglected in the allotment; that his firm was the only one left out. * * Although this gentleman saw no harm in receiving a portion of the loan, other bankers had higher views. Mr. Martin believing that, as a senator, he ought not to contract, lest it might bias his votes, conscientiously refused to accept any portion of loan or contract; and thus sacrificed his pocket to his principle.

"THE BILL OF EXCHANGE."

We published in the *Merchants' Magazine*, for October, 1849, (vol. xxi., page 456,) an anecdote, with the above heading, remarking at the time, that the incident was well calculated to call forth the admiration of our mercantile readers; and further, that the gentleman who appeared to so much advantage in it was well known in Wall-street. These statements were made on what we presumed to be good authority. We have since learned from the quarter most likely to be correctly informed, that the anecdote in question "has no foundation in fact;" at least, so far as Mr. W., "an Englishman and a Quaker," is concerned.

"BANKRUPTCY—BANKING."

"G. B." in reply to a communication in the November number of the *Merchants' Magazine*, with the above title, is informed that his article came to hand too late for the present number. It will probably appear in our January issue. As we are not in the habit of publishing a communication from an anonymous source without some personal knowledge of the writer, our correspondent, "G. B.," will see the propriety of favoring the editor with a call.

MERCANTILE MISCELLANIES.

THE COMMERCIAL IMPORTANCE OF AGRICULTURE.*

[We have been favored with the manuscript of the following paragraphs, the concluding portion of an article of much greater length on "Agricultural Wealth," from "*The Farmer's Every-day Book*," etc., by the Rev. JOHN L. BLAKE, D. D., which will probably make its appearance early in the spring of 1850. Forming our opinion from portions of the work which we have seen, and from some twenty years acquaintance with the character and habits of the author's mind, we have no hesitation in commending the forthcoming volume to the large class of persons designated in the title. We apprehend that it will not only be an "every-day book" for every farmer in the land, but one that will interest the political economist, and, indeed, all who take an interest in the social and moral welfare of our common country. The liberal and comprehensive views of the learned author, and his large experience and practical common sense, are strikingly exhibited in the preparation of the work, as all who read the following brief extract from a single chapter of it, will readily admit.]—*Ed. Mer. Mag.*

Our present purpose, however, in showing the amount of agricultural wealth in the country, is to show, also, its commercial importance. It is not apparent to ordinary visional organs, that there would be, as it were, no commerce without agriculture; and, if no commerce, of course no vessels and no cities. Vessels and cities are the incidents of commerce, and the latter is mainly the incident of agriculture; for if every product of the soil was excluded, what would there be left for merchandise? It is granted that salted and pickled fish of every sort, iron and steel in every form, grindstones too, all the products of the ocean not before included, all mineral productions found on the surface or in the bowels of the earth, make exceptions; but we scarcely can think of anything else. These, truly, are not the result of agricultural labor, and the merchant is not dependent on this labor for all he can make out of these things. A second thought suggests, however, that there should be a little qualification to the admission. You may reply, surely the farmer has nothing to do with the production of cod fish, or mackerel, or halibut, or smoked herring, or salmon, or whale oil. True, he had nothing to do in their production. He never nurtured or fed these inhabitants of the briny deep. Their instinct led them to their own procreation; and, also, to roam at large from north to south, and from east to west, procuring as they went their own food. The farmer neither fed nor clothed them, or built them houses or barnes. As they exist in the ocean, they are wholly independent of his agency. But, when we find them in the marts of trade, as objects of merchandise, it is not quite so. On what did the mechanics live, while building the ships which went in search of these marine elements of wealth; and, on what did the sailors subsist during their voyages in securing them? On shipbread made from the farmers flour, and beef and pork, which the farmer fatted and sent to market.

The admission is particularly applicable to iron and steel, as we see them exhibited among the useful implements of civilized society. We admit, as we did above, that as crude minerals, when existing in their native quarries, they were as God made them. Man had no agency in their existence. But, it is not to be overlooked, that as crude minerals they had comparatively no value. They are so abundant as to be but little more precious than a rich garden loam. Their whole value is given to them by labor. It is said that steel made into the main-springs of the watch is augmented in value more than a thousand per cent. And who does not know what increased value is given to it, when made into fine cutlery? A piece of steel that might conveniently be carried in one pocket, converted into surgical instruments, or highly finished penknives,

* The Farmer's Every-day Book; containing the Popular Elements of Theoretical and Practical Agriculture; also, a Catalogue of Books for a Farmer's Library; a System of education for Agricultural Life; and Hints on the Means of Promoting Health, Temperance, and correct Moral Principles among the Laboring Classes; including also, as an Introduction, a Dictionary of Terms; and as an Appendix, Five Hundred Receipts relating to Rural and Domestic Economy. By the Rev. JOHN L BLAKE, D. D., author of a General Biographical Dictionary, etc.

will probably be worth one hundred dollars. Hence it will be seen that it is merely the labor of the artist applied to these raw materials, from which the merchant derives his profit, and not from the materials themselves. And the artist, as in the case of ship building, and the sailors in catching fish, receive their sustenance from the hand of the agriculturist. It is much the same even with grindstones. They do not leap self-formed, like living animals, from their hard made beds. Coarse as they are, the application of labor was requisite to mould them into the shape demanded for mercantile and mechanical uses.

If such demonstrations come from the exceptions first made from one main hypothesis, how conclusive will be the argument when directed to cases of a more obvious and palpable description. The great staples of agricultural production set down in our tabular paragraph, if viewed in all their remote relation to commerce, will assume an importance which they do not there present. As there exhibited in one mass, they do indeed show an enormous amount of wealth; over one thousand millions of dollars. Let it as one mass become an article of merchandise, to what a host of persons will it give occupation and support. How many ships would be required to transport it? What a multitude of sailors to man those ships? And for ought we know, it might require a chain of railroad cars that would reach around the globe to transport the whole of it at once across the two continents. Dividing this into parcels of one hundred thousand dollars each, it will make a business for ten thousand wholesale merchants; and if each has ten subordinates, clerks, porters, and carmen, it makes a business for one hundred thousand persons, and giving support, including their families, to at least five hundred thousand souls. Yet, this is but a shadow of the reality—but a mere fragment of the entire mercantile process.

These agricultural products, like other merchandise, do not pass directly from the wholesale merchant to the consumer. In almost every instance, the retailer makes treble the profit on them that is made by the former. Sometimes they pass through two or three different hands, before their transit is complete, each as a matter of course receiving his per centage. Take as a sample, the article of flour, passing from the merchant to the retailer, from the retailer to the baker, and frequently from the baker back to the retailer in the form of bread, and then to the consumer. All that exercise any agency or employ capital in these transitions are to be duly paid; so that when in the hands of the consumer it must be estimated at nearly one hundred per cent above the sum paid to the producer for it. Take also the article of cotton, passing from the producer to the wholesale merchant, from him to the manufacturer, from the manufacturer to the commission merchant, from the latter to the retailer, and from him to the consumer. Here are five different transits, each attended with carrying expenses, in addition to the mercantile per centage each party is entitled to receive. And in all cases of exportation to foreign countries, and sometimes in our own country, there are additional transits. Thus our agricultural producers mainly support our railroads, and freight steamboats. They support our mercantile establishments, the factors, the clerks, the porters, and the carmen. They in fact support the landlords in paying rent, and not less the masons and carpenters who erect city buildings; the street pavers and the street cleaners, together with the various incumbents of office in the city government; for were it not for the agricultural productions, but few of these things would be needed; not, indeed, as charities, but as fair business remunerations, giving regular employment to all having agency therein.

The magnitude of the agricultural interests of a country, demand the paternal supervision of its government, as well as the respectful consideration of all its citizens. In our own country, it is passing strange that our government has so little realized a feeling of corresponding responsibility. What has our government ever done to stimulate its yeomanry to the most enlightened and efficient means for rendering agriculture honorable and profitable? Has it held out inducements to open new sources of profit, or even to secure in the greatest perfection those already opened? Has it spread over our wide domain, as it were broadcast, the illuminations of science, relating to this subject? It might easily have done so; it might have sent scientific tracts on agriculture to every farm house in our land, as well as to print and send out the steamboat loads of Congressional speeches, interesting generally to but few save those who make them. And how easy it would be for our national vessels, every now and then to return home freighted with improved breeds of farm animals, to be gratuitously placed on model farms, wherever established in connection with our colleges, or other endowed and incorporated institutions; the produce of these animals held within the reach of small operators as well as the rich. Such a paternal agency in our national

government would raise American agriculture to its proper elevation, rendering it vastly more lucrative than it now is; and in addition to the benefits conferred on individuals, adding much to our national wealth, independence, and aggrandizement.

To secure an end of such utility to the increased prosperity of the country, there should be at Washington, in the national government, a bureau, or department of agriculture. It matters not by what name it is called, but the thing itself should exist, established upon the most liberal and comprehensive principles. It may be the Home Department, in name; if the reality is there, that is of the most importance; it should be a branch of the government for the increase and the protection of American productive industry, in all its ramifications. It should be for the benefit of the people—the citizens of the whole country, and for nothing else. Compared with such a department, of little consequence to the masses of the people are the naval and army departments. Where these benefit one person, the other would enrich hundreds. Why not have it? If the people pay for it, have they not a right to it? Besides, in its results, it would pay for itself a hundred, perhaps a thousand times over, in the augmented agricultural resources of the country. Nor is this all; it would lead to the development of intellect, to the elevation of social character in rural life. Has not this already been done, to a limited extent, by our local agricultural institutions? Most assuredly it has. Do the tens of thousands that annually attend the fairs of the American Institute, receive no social elevation, in addition to a participation in the more legitimate benefits for which it was principally designed? Do they learn nothing of life, and manners, and of the world, by meeting those of all the various grades of humanity, on these occasions? Do they not almost instinctively learn to sympathize with those inferior to themselves, and to assimulate to those superior to themselves? To avoid the errors of the more ignorant, and to become wiser on thus beholding the more enlightened? Had we a complete system of ethical, social, and metaphysical algebra to embody all the facts relating to this subject, it would appear, we have no doubt, that for every dollar expended upon the American Institute, and other kindred institutions, the country has been benefitted in a tenfold ratio. And if the general government of the country were to carry out the proposed suggestion, the benefit would be to the cost in a hundred fold ratio.

INLAND COMMERCE AND COMMUNICATION.

We quote from Dr. Bethune's oration before the Phi Beta Kappa Society, of Harvard University, delivered July 19, 1849, the following eloquent and appropriate paragraph:—

The products of our immense inland territory must find vent for the surplus through the ports of the sea-board, through which, again, must come the luxuries or necessaries we require from abroad. The agricultural States offer the best markets for the manufactures of those whose soil is less fertile, yet dearer, and labor more abundant; while these, in their turn, are rewarded with plenty of breadstuffs and other provision. Iron, lead, coal, copper, gold, pass each other on their way to distant localities. There are no empty return wagons, rail-cars, or coasting vessels; each carries back wealth purchased by the wealth which it brought. Our immense lakes, with their rich teeming borders thousands of miles about, act like inner impelling arteries to the trade of the whole country. Our great navigable rivers, with their numerous tributaries, ramify, like veins, for the circulation of a common life through leagues none pretends to count, and millions whose increase none dares to guess. Nay, by the wonderful inventions of recent years, we are no longer dependent upon the watery ways of nature, and well-nigh annihilate distance. On the wings of steam, the population and wealth of whole towns may speed, swifter than a bird, along the roads which, binding us together by iron sinews, pierce mountains, span valleys, and measure the continuous level by minutes, not miles, so that we say, "How long?" instead of "How far?" The slender wires, now stretching like network over the land, quickly as living nerves, thrill thought and feeling between correspondents the most remote. And, by the admirable working of our confederate unity, is felt through all, like the beating of a central heart, the power of one national will. In a word, we realize more fully than Rome, with its Senate and *Plebs*, could do, the fable of old Menenius Agrippa, and are as virtually connected as the several parts of the human anatomy,—"that there may be no schism in the body, but that the members should have the same care one for another; and whether one member suffer, all the members suffer with it, or one member be honored

all the members rejoice with it." Suppose, for one melancholy moment, that this healthful economy of exchanges was broken up—that the western valley was shut out from the sea by adverse governments—that those on the coast were hemmed into their own narrow limits by hostile forts along the mountain ridges—that between the North and the South there was neither commercial nor moral sympathy—that at every State line passports were demanded and a tariff set—who must not shrink from describing the terrible consequences, the stagnation of trade, the silence of brotherly council, the constant feuds, the multiplication of armies, the Cain-like, exterminating wars, the overthrow of law by military dictators, the utter ruin of all that makes us prosperous at home and respected abroad, the sure catastrophe, moral and national death.

HABIT AS RELATED TO BUSINESS.

We cut from a late number of the *Dry Goods Reporter*, the following brief but comprehensive essay on "Habit as related to business," commending its valuable suggestions to the serious attention of the readers of the *Merchants' Magazine*:—

The power of habit is very well indicated by the saying, "Habit is second nature.' There is no exaggeration in the adage, as we shall be forced to admit if we consider facts. Take the frequently occurring case of individuals born blind, or early deprived of sight, and observe how the habit of nice observation through the sense of feeling will often astonish you by his accurate descriptions of things which he has examined by means of his exquisitely practised touch.

The wonderful accuracy of the forest bred Indian in detecting and describing the number and character of a party who have preceded him through the woods, and the certainty with which he will determine the time since they left any particular spot, have often astonished white men, who could see no signs on which to predicate an opinion. Yet the Indian is rarely, if ever, at fault. The reason is, that he has schooled his senses into unering habits of nice and accurate observation. His success in war and hunting, his life, and the safety of his tribe, depend upon his correctness of observation of those minute signs.

Now can any one doubt that habits of patient and accurate observation, such as the savage exhibits, would be of incalculable value if brought to bear upon all the minute details of business life? Or can it be doubted that habits of negligence and inattention in regard to the minutæ of business, will prove detrimental, if not fatal?

There is this additional thought, which is important and worthy to be considered, that the habit of closely observing, once formed, is seldom at fault, and performs its office spontaneously. To recur again to the Indian habit of minutely marking all the indications of a trail, he is not obliged to force his mind, it is his pleasure, and it forms one of the attractions of forest life, to watch every indented leaf, every faint foot-print, and every minute sign that some one has passed before him. So when a man in any department of business has once made it the habit of his life to watch closely and minutely all that bears upon and relates to his business operations, it becomes a pleasurable excitement instead of a laborious effort. We hardly ever knew a man who had formed habits of nice and detailed order, who did not make them a hobby which he delighted to ride as much as any child his New Year's present. The reason is, that when once habits of any kind, and especially those which we know and feel are important and valuable, have been formed, we take pleasure in acting conformably thereto.

The case of Bulwer, the great novelist, is sometimes quoted as illustrative of the advantage of habits of order. Bentley's Miscellany says he *worked* his way to eminence, worked it through failure, through ridicule. His facility is wonderful, but it is only the result of practice, study, habit. He wrote at first slowly and with great difficulty, but he resolved to master the stubborn instrument of thought, and he did master it. He has practised writing as an art, and has re-written some of his essays unpublished nine or ten times over. He only works about three hours a day, from ten in the morning till one—seldom later. The evenings when alone, are devoted to reading, scarcely ever to writing. Yet what an amount of good hard labor has resulted from these hours!

These are thoughts worthy of the consideration of all men, but especially of young men in business, who have the most of life before them. It may be considered as an indubitable principle that he who succeeds in early life in establishing good business

and moral habits, disposes thereby of the heavy end of the load of life; all that remains he can carry easily and pleasantly. On the other hand, bad habits, once formed, will hang forever on the wheels of enterprise, and in the end will assert their supremacy to the ruin and shame of their victim.

WASHING AND BATHING ESTABLISHMENTS.

We have received a report presented by Aldermen Shultz, Allen, and Kelly, to the Common Council, on the subject of public baths and wash houses, furnishing much interesting information in regard to these beneficent establishments in England; and we have also seen some statistical reports from one of them, all tending to show, not only the eagerness with which the labouring and poorer classes avail themselves of the privileges these establishments offer, but also the practicability of making them (frequented as they are by the million, instead of the wealthy few) pay handsome dividends on their cost, even though the tariff of prices for bathing, and for washing clothes, is low enough to come within the reach of the poorest—less even than the cost of fuel required for doing the same work at home.

The connection between CLEANLINESS of personal habits and of the dwellings of the poor, and the health, morals, and business prosperity of a great commercial city, is too obvious to require argument. A system of public baths and wash houses established and in operation throughout the different wards in the city of New York, most needing them, during the past summer, would, in all probability, have saved to the city much more than their cost; and the loss in consequence of the cholera panic, to the various branches of business depending upon our trade with the whole country, must be computed by thousands—we had almost said millions. Shall we not, then, without waiting for another similar visitation to stir up our public spirit, make an effort to introduce this system into our city? We are glad to learn that a project is on foot for the purpose. We have seen a subscription book, with the names of some of our most respected merchants and other citizens, appended to liberal sums, as stock subscriptions and donations, amounting in all to some ten thousand dollars, and understand that about an equal additional amount is wanted, before proceeding to organise a company, under a charter obtained from the Legislature last winter. We have a copy of the subscription paper at our office, and shall be glad to receive the names of such as may wish to subscribe. We sincerely hope the project may not fall through for want of sufficient public spirit in this community to make up the small sum required. The stock will probably pay as well as good bank stock.

MUTUAL LIFE INSURANCE.

Ten years ago Life Insurance was scarcely known in this country. Not over one in 30,000 of the American people had resorted to it; very little knowledge of the system had been diffused among our people up to that time—there were few who had any definite idea of the system—the masses gave no thought to the subject, and others equally ignorant of its true character, regarded it with pious horror, as implying a distrust of God's providence in the affairs of men. The error and this prejudice have passed away, and thousands and tens of thousands of our citizens, in all parts of the Union, are steadily resorting to Life Insurance, as the best and surest method of protecting their families from a precarious dependance upon the life of an individual.

In the estimation of well informed and thinking men, this institution now holds a front rank among the benevolent enterprises which modern philanthropy has originated for mitigating the evils, and for enhancing the enjoyments of social life.

Every good citizen, every man whose means are taxed to relieve the wants of others—in short, every member of the community, be his position what it may, is interested in the extension of the system of Life Insurance; inasmuch as the diffusion of its moral influence, and of the substantial benefits which result from it, are eminently calculated to strengthen the bonds of social life, and to avert the destitution and suffering which otherwise would too often fall to the lot of the helpless and dependant.

Business enterprises carried to successful issues in a right direction, always afford ground for congratulation; and especially, as in the present instance, where all the advantages resulting from it, instead of enriching a privileged few, are reserved to be distributed among the many, for whose benefit the insurance was originally intended.

THE BOOK TRADE.

1.—*Memoirs of the Life of William Wirt, Attorney-General of the United States.* By JOHN P. KENNEDY. In Two Volumes. Philadelphia: Lea & Blanchard.

It is no more than justice that the eloquent biographer of Patrick Henry should have the history of his own life and triumps, recorded in the spirit of warm appreciation. Wirt's life of Patrick Henry has become one of the classics of American literature. His general criticism, or rather glowing enthusiasm, secured for the "forest-born Demosthenes" the place that belonged to him, in the estimation of America and Europe, as the first of popular transatlantic orators. It was the tribute of an orator to an orator, and as such, although too extravagant, perhaps, in the claims advanced, not the less creditable, on that account, to him who advanced them. We are glad, therefore, that the delicate task of portraying the life and character of William Wirt has been entrusted to a biographer like Mr. Kennedy, whose ability, whose opportunities for acquiring the necessary information, and whose trustworthiness and warm appreciation ensure a faithful biography of the eloquent advocate. The author's previous experience in public life, and as a writer, in which he has met with much success, has been of the right kind to qualify him for the duty he has so adroitly performed in these two beautiful octavos. They should be placed by the side of Wirt's life of Henry, on the shelf of the library. A finely-engraved portrait of Mr. Wirt, whose German features, as Mr. Kennedy remarks, remind one of some of the portraits of Goethe, adorns the first volume. Prefixed to the second, is a fac-simile of an interesting letter addressed to Mr. Wirt, by John Adams, in 1818. Mr. Kennedy has evidently had access to numerous sources of information, to private documents, and, above all, to the ample correspondence of Mr. Wirt. The letters of a great man, if he was in the habit of frequently writing, if that habit was kept up through life, and if his disposition, and the character of those to whom he wrote, encouraged free communication of views and wishes, constitutes, after all, the best biographer, being the most reliable of autobiographies. They form an autobiography, written, not aforethought, with an awkward *malice prepense*, if we may so speak, but *pro re nata*, evolved and thrown out from the whirl of life, and of the fortunes of him it portrays. It is a daguerreotype, painted from the living features by the sunlight of daily life. Mr. Kennedy, like Lockhart, in his life of Scott, and all the better class of biographers, attaches their true value, and gives due prominence to letters. Mr. Wirt's letters seem to have been placed, almost without restriction, at the author's disposal, and he has used them freely, but with taste and judgment. His labors, as an editor, have been directed to their true object, of bringing before the reader not the writer's opinions, but the life and character of him whose biography he writes. We have the necessary amount of explanation to clear up doubtful allusions, and enough narrative to connect the numerous letters with which the two volumes are filled, into a continuous narrative. We are much mistaken, if Mr. Wirt's letters do not prove a great, as well as unexpected, treat to many readers. His correspondence, not on business merely, but with his friends, was voluminous. Begun early, it was kept up steadily to the end. His was a nature to make many friends, and to retain them. Mr. Wirt wrote an admirable letter—easy, flowing, full of spirit and fun, and, at the same time, correct, and elegant. His epistolary ease and readiness remind one of Scott's off-hand effusions. We certainly do not know of a better collection of American letters, and they may take their place with Cowper, Scott, De Sevigne, and other masters of letter-writing. The author's labors have not been confined to the mere task of annotation. His remarks on the public events of the times in which Wirt lived, with many of which he was connected, as Attorney-General of the United States, or as counsel in cases growing out of them, and upon the political aspects of those times, and the course of parties, give the work an interest and value for the student of political history.

2.—*Fireside Fairies; or, Christmas at Aunt Elsies.* By SUSAN PINDOR. New York: D. Appleton & Co.

The author of this beautiful little volume has succeeded to a charm in decking familiar yet important truths, and the home duties of every-day life, in the pleasing drapery of fairy land. That it will serve, in some measure, to anchor a seasonable thought, leading ultimately to an active principle, we do not entertain a doubt.

3.—*A Treatise on the Practice of the Courts of the State of New York, adapted to the Code of Procedure, as amended by the Acts of April* 11, 1849, *and the Rules of the Superior Court. To which is added, the Practice in Courts of Justices of the Peace. With an Appendix of Practical Forms.* By CLAUDIUS L. MONELL, Councellor at Law. Albany: Gould, Banks, and Gould, 104 State-street. New York: Banks, Gould, & Co.

The difficulty with the practising lawyer in New York, under the New Code, is not so much to find out what changes have been made, and what the new law is, as to determine how much and what parts of the old law remain unaltered. For the new system, he has only to refer to the code, which is (generally speaking) worded with clearness and precision. The more important question is how, and how far, existing forms have been modified or suspended by the new law, and how far they remain untouched: what, in short, is the existing practice as a whole, the old with the new. This question is ably and as fully answered as the present undeveloped state of the system allows, in Mr. Monell's Treatise, which is published in Gould & Bank's usual good style, on good paper, with clear and large type, and those still more important requisites in a book of practice, full indexes and tables of contents. A glance at the analytical table of contents, at the beginning of the book, shows the extent of ground the treatise covers, and the correctness and convenience of its arrangement. In Part First, the subject of remedies is considered with reference to the distinctions of the Code, of Actions and Special Proceedings, of Actions Civil and Actions Criminal, and to its provisions on the subject of parties and the rules of pleading. In Part Second, the proceedings in an action are methodically considered, in the order in which they occur, from the service of the summons to the enforcement of execution, and including incidental proceedings, which more or less frequently occur. Appended to the work is a collection of such practical forms as the recent changes chiefly call for. On the whole, we think this work decidedly the best Treatise on the New Practice in New York which has yet appeared. It at once presents a correct analysis of the contents of the code, and its relation to, and bearing upon, the previous practice of the State.

4.—*Illustrated Editions of Irving's Traveler. Knickerbocker's History of New York.* New York: George P. Putnam.

Besides the handsome uniform edition of Washington Irving's works, recently published by Mr. Putnam, and heretofore noticed in our Magazine, we have now before us two splendid volumes, selected from that series, printed on the finest paper, and copiously illustrated with a great number of Mr. Darley's admirable designs, engraved by some of our most eminent artists. "The Tales of a Traveler" has seventeen, and Knickerbocker's History of New York sixteen, engraved illustrations, that would do credit to the skill and genius of England's best artists. Among the many works designed for presents, either among the annuals or perennials—and these belong to the latter—there are none, we venture to say, more appropriate for that purpose—certainly none more elegant and beautiful in design or execution.

5.—*Family Pictures from the Bible.* By Mrs. ELLET, author of "The Women of the American Revolution." New York: George P. Putnam.

Mrs. Ellet's agreeable and graphic pen pictures of the men, women, and children, referred to by the inspired historians, biographers, and poets, of the Old and New Testaments, as the books of the Bible are termed, have been beautifully illustrated by several of the best European artists. The illustrations, twelve in number, are engraved from paintings of Pousson, Mola, Coning, Guercino, Copley, Wheatly, Rubens, Guido, and Veit, and embrace "The Holy Family," "The Deluge," "Hagar in the Wilderness," "Isaac blessing Jacob," "Joseph before Pharaoh," "The Calling of Samuel," "Ruth and Boaz," "Meeting of David and Abigail," "The Nativity," "The Marys at the Sepulchre," and "Martha and Mary." The volume is published in a style that harmonizes well not only with the literary excellence of the letter-press pictures, but with the masterly engravings of the artists who have contributed to make it one of the most desirable "gift books" for this and all seasons.

9.—*The Complaint; or, Night Thoughts of Life, Death, and Immortality.* By EDMUND YOUNG, LL. D. New York: Robert Carter & Brothers.

A new and beautiful edition of one of the most celebrated poems in the English language. It is printed, in the usual style of those publishers, on fine white paper, and in a clear and handsome type.

7—*Glimpses of Spain; or, Notes of an Unfinished Tour in* 1847. By S. T. Wallis. 12mo. Harper & Brothers.

These very lively and readable sketches present the observations made during a three months visit to Spain. The author apparently carried with him an acquaintance with the Spanish character and language, and, above all, a disposition to be pleased with what he might see, even though it should differ from the habits of his own country, which went far to compensate for the shortness of his stay. He presents the national character, and the condition and prospects of Spain, in a light much more favorable than that in which we have been accustomed to regard them. The state of things there, he says, is changing steadily, and for the better. He "commends the Spanish people to his reader, assuring him that he will like them better on acquaintance. He can travel among them generally with comfort, always with pleasure. If they rob him on the highways, poison him in the kitchens, or burn him in a Plaza, as a heretic, he will have worse luck than has befallen any body lately, out of the pages of a traveler's story." The book is written in a genial spirit, and in a style of rare felicity. The appendix contains some curious particulars respecting Columbus, which have not before been published.

8—*Boydell's Illustrations of Shakspeare.* New York: S. Spooner.

We droped in at Dr. Spooner's, a few days ago, to see how he progressed with his great enterprise of restoring the world renowned work, Boydell's 100 Illustrations of Shakspeare. His success is truly astonishing. He has restored thirty of the most difficult plates to all the beauty of the earliest proofs struck by Boydell himself. We are borne out in this opinion by more than two hundred of our most distinguished artists, engravers, and literary men, who have personally examined the work, and have given their certificate to that effect to the proprietor. Few persons in this country are aware of the intrinsic merit of this magnificent work. Boydell was upwards of twenty years in getting it out, and employed none but the most distinguished artists of the age. The original cost of the work is said to have been the enormous sum of £1,000,000 sterling, and sunk the vast fortune of the proprietor in irretrievable ruin. In 1842, all the original copperplates fell into the hands of Dr. Spooner, who, since that time, has been constantly employed in making preparations for the successful restoration of the work. It is printed on fine, thick linen paper, 24 by 30 inches, accompanied by an elegant letter-press description of the plates, of the same size as the print, which is original with Dr. S., and is a distinguishing feature of the American edition, and adds greatly to its interest and beauty. Fifteen parts (thirty plates) are now before the public. This great work, when completed, will not only add to our natural reputation in enterprise, but it will have a good effect in elevating the public taste for the higher works of art. We know of no way by which a man can obtain so valuable a collection of beautiful engravings, as by subscribing for this work.

9.—*Leaflets of Memory: an Illuminated Annual for MDCCCL.* Edited by Reynell Coates, M. D. Philadelphia: E. H. Butler & Co.

The present is the sixth volume of this popular annual. It surpasses, if possible, all its predecessors, in beauty of execution, and in the variety and excellence of its contents. The discriminating judgment and fastideous taste of Dr. Coates, a gentleman as distinguished for his literary accomplishments as for his scientific attainments, is as apparent in the selection of writers and subjects, as in the elegant and chaste productions of his own pen, scattered here and there over its magnificent pages. We do not mean to say that the contributions are faultless, or that there is no chance for improvement in other respects. But as a whole, we repeat, it surpasses its predecessors, at least in artistic effect, and in all that constitutes the material of a "gift book" for the holydays. The illuminated illustrations, including the presentation plate, title page, and the vignette are beautiful specimens of that style of art, and, in our judgment, nearly faultless. They were designed by Devereux, and printed by Sinclair. The other plates in the number, illustrated with letter-press descriptions, "Hero and Leander," "The Fair Dreamer," "Gabrielle d'Etrees," "The Voyage of Eros," "Phantasiæ," "The Surprise," "Rustic Nobility," and "Night," are all from the burin of Mr. Sartain, of whose skill in mezzotints, it would be a work of supererogation to speak. The binding of the volume, an important feature in an annual, although not gaudy, has an air of English durability, and at the same time Parisian elegance, in keeping with the gems of art, taste, and literature within.

10.—*General French and English Dictionary. Newly composed from the French Dictionaries of the French Academy, Laveaux, Boiste, Beschererelle, etc., from the English Dictionaries of Johnson, Webster, Richardson, etc., and the Special Dictionaries and Works of both Languages, etc.* By A. SPIERS, Professor of the National College of Bonahaste, (Paris,) at the National School of Civil Engineers, etc., and author of the "Study of English Poetry," and of the "Manual of Commercial Terms in English and French." 8vo., pp. 716. Paris: Baudry's European Library. Boston: Charles C. Little and James Brown.

This is unquestionably the most comprehensive and valuable dictionary of the French and English languages that has ever been published. It will be found especially useful to the merchant, manufacturer, and all persons in any way connected with the arts and sciences, as special pains has been taken to collect and introduce the words and phrases employed in the army and navy, the sciences, the arts, the manufactures, and trade. With a very imperfect knowledge of the French language, we have found it of great value in the conduct of our journal, receiving, as we constantly are, all the important statistical and commercial documents eminating from the French administration, and the writings of the French political economist. The English and French dictionaries, heretofore published, are extremely meager in the words and terms relating to subjects not purely literary. It, therefore, fills an important space in the literaature of the two languages, and one which will be duly appreciated by scientific and practical men in every profession. The plan of the dictionary, as we learn from the author's preface, was conceived and matured some fourteen years since, and was submitted to the Minister of Public Instruction of France, (M. Guizot,) and the Minister of Public Works, who approved it highly, and promised it encouragement. Under these auspices it was commenced, and it has been prosecuted, notwithstanding innumerable difficulties, until brought to a successful completion. So highly do we appreciate the value and importance of the work, that we can scarcely think of the pecuniary consideration that would induce us to part with the copy in our possession. We hope to speak of the work more fully and critically in a future number of the *Merchants' Magazine;* but, in the meantime, we have no hesitation in commending it, especially to the professions, indicated above, as just what they want on the subject.

11.—*The Romance of Nature; or the Poetical Language of Flowers.* By THOMAS MILLER, author of "Pictures of Country Life," Rural Sketches," etc. Edited by Mrs E. OAKES SMITH. New York: J. C. Riker.

The name of our fair countrywoman as the editor of this volume will be sufficient to secure for it the favor of all who know her personally, or by the varied productions of her prolific and versatile pen. The same may be said of the author of the book, which she has edited and endorsed in the appropriate preface added to the American edition. The engravings of flowers are highly colored, and the letter-press, illustrative of their language, the best that we have seen in any of the books devoted to the same subject. It is designed in its present form as a "gift-book." That it will find purchasers for that purpose we have no doubt.

12.—*Books for Children.* New York: J. C. Riker.

Among the many books published this season for children, we have seen none more beautiful than those produced by Mr. Riker, five of which are now before us, namely, "The Waldorf Family; or, Grandfather's Legends," by Mrs. Emma C. Embury. "A New Hieroglyphical Bible," with four hundred cuts, by Adams. "Sayings and Doings; or, Proverbs and Practice," by Jane Strickland. "Pebbles from Jordan; or, Bible Examples of Everyday Truth," by Mrs. Graham; and "Lillies from Lebanon," by the same author. They are well done up in an exceedingly neat and attractive style, and copiously illustrated with engravings by good artists; and, what is of far more importance, they inculcate the purest lessons of wisdom and virtue in the most agreeable manner.

13.—*Christmas Blossoms, and New Year's Wreath, for* 1850. By UNCLE THOMAS. Philadelphia: E. H. Butler & Co.

Among the many seasonable and beautiful annuals, or books for children, published during the last five or six years, we have seen none that surpass the "Christmas Blossoms" of Uncle Thomas. But those of our young friends who have enjoyed the pleasure of his acquaintance in former years, will doubtless regard our encomiums as altogether unnecessary, if not antiquated. It is to those who have not profited by the perusal of his delightful tales, that we would commend the present volume, with its simple and agreeable narratives, and its clear and pretty engravings.

14.—*The Snow Flake; a Holiday Gift for* 1850. Philadelphia: E. H. Butler & Co.

Although less pretending and costly than the "Leafletts of Memory," from the same liberal and enterprising publishers, it is really a very attractive and beautiful annual. The engravings, "May Morning," "Vignette," "The Impending Mate," "Mated," "The Captives," "Birth of Venus," "Emily de Vere," "Gipsy Children," "Francesca," nine in number, are all mezzotint, from the burin of that clever and successful artist, Mr. Sartain, and engraved expressly for this work. We are unable to discover anything in the literary contents of the volume that will offend the most fastideous taste, although a pleasing variety is exhibited in the selection of subjects. Some of our most popular writers have contributed to the value and interest of the volume; and not the least attractive feature, is the series of tales, illustrative of life and manners in Ireland, France, Austria, Scotland, and other countries, from different pens. In this volume, the fair reader, be she grave or gay, sad or sentimental, will find something to enlist her sympathies, or suit her humor.

15.—*Sights in the Gold Regions, and Scenes by the Way.* By THEODORE T. JOHNSON. 12mo., pp. 278. New York; Baker & Scribner.

Mr. Johnson, the author of the present work, like some thousands of his countrymen, was "seized with the *gold fever*," and being resolved to judge of the wealth of El Dorado by actual observation, embarked in the "Crescent City," (in February, 1848,) one of the fast steamers that sailed from New York after the announcement of the wonderful and extensive gold discoveries became public. The information and experience gathered from his wanderings and sojourn in California and the gold region, are embraced in the present narrative, written since his return home. Aside from the incidents of the narrative, and sketches of scenes and character, the reader who contemplates emigrating to that "bourne," from which some travelers may and some may not return, will find scattered over its pages, details that will doubtless be of service to him on his way, and when he reaches the "Land of Promise." As a succinct and correct account of the author's experience and observation, it will also interest the great mass of readers who are content to stay at home, and "read the news."

16.—*Life, Health, and Disease.* By EDWARD JOHNSON, M. D., author of "Hydropathy," etc. 12mo., pp. 172. New York: John Wiley.

This excellent treatise was written, and eight editions of it published, before the new mode of treating certain diseases had been introduced into England, under the name of Hydropathy. It, however, in its principles, harmonized so well with that mode of treatment, that the author, after visiting Græfenberg, and observing the effects of it as practised by Priessnitz, soon became most thoroughly convinced, though not capable of curing all diseases, nor of entirely taking the place of medicine and the lancet, to the total exclusion of both, yet, as a whole, it formed a system infinitely superior to all other systems of cure, and more generally applicable, safe, and successful. The design of the present work is to explain in common language the nature of the animal economy—the mechanics of the internal man—the mechanism of life—and give, step by step, what actually takes place in the performance of each of the functions concerned in the preservation of life and health, and how and by what cause life is sustained. To all who would understand the elementary principles of the physical man, and what are the habits of life which are most likely to conduce to a sound mind and a sound body, we heartily commend this valuable and deservedly popular work.

17.—*The Art-Journal for October,* 1849. London and New York: George Virtue.

The present number of this model art-work contains two beautiful engravings on steel from pictures in the Vernon Gallery, "Malzolio," engraved by Staines from the picture of D. Maclise, R. A., and "The Truant," by T. Phillabrown from the picture of T. Webster, R. A., besides "Salrina," engraved from the statute in marble by W. C. Marshall. The exposition of manufactured art, recently exhibited in Birmingham, is treated at considerable length in the present number, and is illustrated by one hundred and fifty engravings on wood, comprising a large majority of the leading works contained in the exposition. It includes works in silver, electro-silver, bronze, brass, iron, porcelain, earthernware, and glass; objects in papier-mache, japanned goods, carvings in wood, and the various productions in metal, which constitute the main staple of British industry. A journal so ornamental and useful, should include in its list of patrons not only those who appreciate the Beautiful in Art, but those who would excel in its Industrial development.

18.—*Poems.* By AMELIA, (Mrs. WELBY, of Kentucky.) A new enlarged edition, illustrated with original designs by ROBERT W. WEIR. New York: D. Appleton & Co.

The present, the seventh edition that has been published, has been enlarged by the introduction of several new poems, written, we presume, at intervals since the publication of previous editions. It must be a source of gratification to the publishers that they have been instrumental in making so widely known the beauties of this sweet poetess of the West, and that they are encouraged to present a volume illustrated by one of the most distinguished artists in the East, Robert W. Weir, Esq., thus rendering it still more worthy of preservation among the choice collections of American literature. It contains, besides an artist like portrait of Mrs. Welby, six of Mr. Weir's happiest illustrations, very cleverly engraved on steel.

19.—*Gift Leaves of American Poetry.* Edited by RUFUS W. GRISWOLD. 8vo. New York: J. C. Riker.

This volume includes some of the best poems of our best poets—the most beautiful illustrations of the thought and fancy, and feeling of the country—the finest specimens of its literary art. It is designed as a gift book, suitable for every season, and for the finest intelligencies; embracing, instead of the ephemera usually found in gift books, such productions as have received the final approval of criticism, and have become classics. It is embellished with seven engravings on steel, that will compare, not unfavorably, with many that appear in the annuals. A friend remarked in our hearing, that it was "just the book to put into the hands of a foreigner, as it would give him a good idea of the genius of our American poets."

20.—*Mrs. Coleman's New Juvenile Series.* New York: Samuel Raynor.

This series consists of four beautiful little volumes, designed for children, from five to ten or twelve years. They are in a style at once clear and simple, without the too frequent accompaniment of purility. Under the garb of the pleasing narrative, the child is taught the difference between good and evil; or, in the words of the amiable and accomplished authoress, to "see and understand clearly what is *good* and what is *evil*."

21.—*Innocence of Childhood.* By MRS. COLEMAN, Editor of "The Youth's Sketch Book," "Lu Lu Books," &c. New York: D. Appleton.

Mrs. Coleman possesses the happy faculty of conveying the most salutary lessons of wisdom and goodness to the youthful mind and heart, in the most attractive and agreeable form. She impresses the lessons of piety and truth without the alloy of that sectarian spirit that so often mars and defaces the pure form of the religion of love, so beautifully pourtrayed in the life and precepts of Jesus.

22.—*The Complete Works of Henry Kirk White, of Nottingham, late of St. John's College, Cambridge, with an Account of his Life.* By ROBERT SOUTHEY, LL. D. 8vo., pp. 420. New York: Robert Carter & Brothers.

Henry Kirk White, whose life and literary remains, including poems, extracts from his diary and letters, and a beautiful and truthful memoir by his friend and admirer, Southey, died at the early age of twenty-one, thus blasting the hopes that his virtues and his genius had inspired in the bosom of his friends and associates. Rarely has one whose departure to the unseen world was so premature, left behind so many evidences of future promise. Few works have had a more extended circulation in England or our own country, and we thank the American publishers for giving us a new and handsome edition of a work so generally and so highly prized.

23.—*Clarence; or, a Tale of our own Times.* By the author of "Hope Leslie," etc. Author's Revised Edition. Complete in one volume. 12mo., pp. 515. New York: George P. Putnam.

This first volume of a new and revised edition of Miss Sedgwick's works appears in a style corresponding with the new and beautiful edition of Washington Irving's works, just completed, by the same enterprising publisher. The other works of this favorite author are to appear at short intervals, and when completed, will include not only her novels, but the smaller works, written for the larger class of readers, and for children. "Clarence" is one of the sweetest and purest domestic tales in the English language; and we trust it will find a new and large class of readers. We heartily thank Mr. Putnam for his efforts to produce new and beautiful editions of our best American writers. It would be difficult to select better books of the kind for a family library, and we feel quite sure that the volumes of this series will find a welcome in every pure and refined family circle.

24.—*Nature: Addresses and Lectures.* By R. W. EMERSON. 18mo. Boston: James Munroe & Co.

The present volume contains nine lectures or addreses delivered by their author before literary and other institutions, namely, the "American Scholar," an oration before the Phi Beta Kappa Society, at Cambridge, August 31st, 1837; an address to the Senior Class in Divinity College, Cambridge, July 15, 1838; "Literary Ethics," an address to the literary societies in Dartmouth College, July 24, 1838; the "Method of Nature," an address to the Society of the Adelphi, in Waterville College, Maine, August 11, 1841; "Man the Reformer," a lecture read before the Mechanics' Apprentices' Library Association, Boston, January 25, 1841; "Introductory Lecture on the Times," read in the Masonic Temple, Boston, December 2, 1841; the "Conservative," a lecture read in the Masonic Temple, Boston, December 9, 1841; the "Transcendentalist," a lecture read in the Masonic Temple, Boston, January, 1842; and the "Young American," a lecture read to the Mercantile Library Association in Boston, February 7, 1844. Mr. Emerson belongs to a school of writers and thinkers extremely limited in number. Transcendental in his philosophy, whatever he touches is more or less tinged or colored with the spirit of that philosophy. Few, if any writers have more originality in their compositions or thoughts, or are destined to exert a more marked influence in the world of letters or of mind.

25.—*Frontenac; or, the Atotarho of the Iroquois. A Metrical Romance.* By ALFRED B. STREET. From Bentley's London Edition. 12mo., pp. 324. New York: Baker & Scribner.

This tale is based on a chapter in the history of the Iroquois, which, at the time, consisted of five nations, the Mohawks, Oneidas, Onondagas, and the Senecas, occupying a territory which they figuratively called "Long House," extending from east to west over which is now the State of New York, from Lake Erie and Ontario to the Hudson River. We have long esteemed Mr. Street as one of the best poets our country has produced. His descriptions of natural scenery, and nature in its varying aspects, and moods, are always true to life, and exceedingly fresh and graphic. The British press, which is generally quite charry in its praise of American writers, and particularly poets, has spoken, as far as our knowledge extends, in terms of high commendation of this production. One of the British reviews says that "Mr. Street is especially distinguished for the fidelity of his descriptions of Indian life and scenery;" and "the decorum," he adds, "of the present poem lies in its skillful combination of plot and description," and even D'Israeli says of this work, he has "found in its pages originality and poetic fire."

26.—*Evenings at Wood Lawn.* By Mrs. ELLET, author of the "Women of the American Revolution." 12mo., pp. 348. New York: Baker & Scribner.

This selection of traditions from European countries possesses one great merit in this day of book-making, that its contents have never before been presented in an English dress. The collection of Syser and other German writers of eminence have furnished the materials out of which Mrs. Ellet has contrived to furnish a very interesting collection of traditions and sketches. The book is not, however, made up of mere translations; but in constructing a form in which to embody the legend, Mrs. Ellet has carefully excluded all embellishments that could in any manner impair its simplicity. The only liberty taken by the translator is in the arrangement of the incidents in an artistic shape, and a little indulgence in description where it seemed allowable.

27.—*Shakspeare's Dramatic Works.* Boston: Philips, Sampson & Co.

Number three of this beautiful serial edition of Shakspeare contains the "Merry Wives of Windsor," with a highly finished engraving of Mrs. Ford. It will form, when completed, the handsomest and most readable edition of the great poet ever published in this country.

28.—*An Address Delivered before the Maine Historical Society at Bowdoin College, on the Afternoon of the Annual Commencement, September* 5, 1849. By ROBERT C. WINTHROP. 8vo., pp. 68. Boston: Ticknor, Reed & Fields.

This address commemorates the history and virtues of the author's worthy ancestors of the Bowdoin family. Although historical detail furnishes slight scope for oratorial display, yet we can trace the strongly marked characteristics of the accomplished scholar and the dignified statesman on every page of Mr. Winthrop's judicious and well-considered address.

29.—*Proverbial Philosophy: a Book of Thoughts and Arguments, originally treated.* By MARTIN FARQUHAR TUPPER, Esq., D. C. L., F. R. S. From the Eighth London Edition. With a Portrait. Philadelphia: E. H. Butler.

Some half a dozen editions of this work have been issued by different publishers in almost every variety of style. The present edition, illustrated with a fine engraved portrait of the author, is, perhaps, the most costly and beautiful edition that has yet been produced in this country. It is printed on a fine white paper, and a bold and beautifully clear type, and altogether forms as fine a specimen of book-making as we have ever seen. A better or more appropriate book for a Christmas or New Year's remembrancer it would be difficult to select, for its "thoughts and arguments," deserve to be had in "everlasting remembrance."

30.—*Liberty's Triumph. A Poem.* By ROBERT W. SANDS. 12mo., pp. 544. New York: George P. Putnam.

This appears to be a sort of poetical history of the "Model Republic," from the Landing of the Pilgrims at Plymouth, to the resignation of the commission of Washington as commander-in-chief. The trials and triumphs of the Republic, in its battles for liberty, are portrayed with considerable skill and power; and although some passages are rather tame, there are others of great beauty.

31.—*Memoirs of the Rev. Joseph Buckminster, D. D., and his Son, Rev. Joseph Stevens Buckminster.* By ELIZA BUCKMINSTER LEE. Boston: William Crosby & H. P. Nichols.

The name of Buckminster is identified with the early pulpit eloquence of New England. The present memoirs, prepared by a relative, consists of the letters and extracts from the diary of the father and son, skillfully woven together, and thus forming an harmonious and beautiful tribute to their memory, that cannot fail to "teach other hearts," "and as the dews and rains do not return merely to the fountains and rivers from which they are drawn, but are diffused in showers which revive distant places, so these letters, also, intended only for private instruction, may council some other son, or encourage the heart of some other parent." The volume contains much interesting information, and not only exhibits the most prominent, but the more minute lineaments of the respective characters. It is on many accounts one of the most instructive works of its class.

32.—*Illustrations of Lying in all its Branches.* By AMELIA OPIE. New York: Carter & Brothers.

We know not how many editions of this excellent work have been published in our own or other languages; but in our judgment it should be printed and reprinted until every man, woman, and child in Christendom is in possession of a copy. The Tract Societies would do well to circulate it as a work of higher utility in promoting the cause of religion, and morality, than many of the publications issued from their repositories.

33.—*The Singers' Manual: for Teachers, Pupils, and Private Students.* By FREDERIC A. ADAMS, A. M., G. F. ROOT, and J. E. SWEETSER. 18mo., pp. 254. New York: John Wiley.

The leading character of this work seems to be practical. Each elementary principle is seen alone, and its true relation, in the progress of the art, is learned through the process of discovery and practice. The special aim of the work—the training of the singer—is carried steadily forward, being made the leading object at every step. The lessons are thrown into the form of class exercises, and the work appears well adapted to promote the objects of the authors.

34.—*Hume's History of England.* Boston: Philips, Sampson & Co.

The fourth volume of this new and handsome library edition of Hume's England was published in November. Two volumes more will complete the work. The sixth volume is to contain a complete index of the whole work; an addition to its value, made by the discriminating liberality of the enterprising publishers.

35.—*Frank Farleigh; or, Scenes from the Life of a Private Pupil.*

Mr. Virtue has received from London the tenth part of this interesting and instructive tale. Each part is illustrated with two of the inimitable etchings of George Cruikshank.