CCCXXXVIII.

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THE MERCANTILE

Mutual Insurance Company,

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NEW YORK.

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ORGANIZED, APRIL, 1844.

During the past year this Company has paid to its Policy-holders

IN CASH,

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TWENTY PER CENT.

Instead of issuing a scrip dividend to dealers, based on the principle nat all classes of risks are equally profitable, this Company makes such cash abatement or discount from the current rates, when premiums are paid, as the general experience of underwriters will warrant, and the nett profits remaining at the close of the year, will be divided to the stockholders.

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Policies issued making loss payable in Gold or Currency, at the Office in New York, or in Sterling, at the Office of Rathbone, Bros. & Co., in Liverpool.

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THE

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

AUGUST, 1867.

RAILWAY EXTENSION AND ITS RESULTS.

BY R. DUDLEY BAXTER, M.A.*

(Continued from page 63, Vol. 57.)

VII.—Cost and Results of French Railways.

The French system of railway organization is worthy of attentive study. It is in many points novel to an Englishman; it is often characterized by remarkable talent; and some of its regulations are very instructive and worthy of imitation.

In extent the French lines are far inferior to the English, whether judged by the area or population of the two countries.

COMPARISON BY AREA.

Country.	Area in Square Miles.	Railway Mileage. 1865.	Square Miles per Mile of Railway.
United Kingdom	126,927	13,289	9
France	211,852	8,134	26

* Read before the Statistical Society of London November, 1866

COMPARISON BY POPULATION.

Country.	Population, 1861.	Railway Mileage. 1865.	Population per Mile of Railway.
United Kingdom	29,321,000	13,289	2,206
France	37,382,000	8,134	4,595

Hence, measured by area, France has only one-third of the railway accommodation, and measured by population only one-half of the railway accommodation of the United Kingdom.

The capital authorized and expended to the 31st December, 1865, was as follows:

CAPITAL AUTHORIZED.

Ancien Reseau, or old lines	£151,000,000	
Nouveau " or extension lines	209,000,000	—£360,000,000

Including 64,000,000 subventions.

CAPITAL EXPENDED, 1866.

Debentures	£178,700,000	
Shares	54,800,000	
Subventions	27,500,000	—£261,000,000

So that the French companies borrow more than three times the amount of their share capital; reversing the English rule, of borrowing only one-third of the share capital. But if we consider preference capital as a second mortgage, the English practice is to borrow an amount equal to the ordinary share capital. This, however, is still a long way from the French regulations.

The capital not paid up is nearly £100,000,000. Of this nearly one-half will be required in the next three years for lines approaching completion.

The cost per mile of French railways is as follows:

Ancien Reseau	$30,650
Nouveau "	27,350

As the nouveau reseau is almost entirely composed of single lines, this does not show very great cheapness of construction. We are making our country lines much cheaper, particularly in Ireland and Scotland.

The effect of railway competition with canals was the same as in England. The canal rates were reduced to one-third of their former amount, and the canal traffic has increased instead of diminishing. The average railway fares and rates are stated by M. Flachat, in his work on railways, to be 6 to 7 centimes for each passenger, and sou per kilometre, being 1d. to $1\frac{1}{10}$d. per mile; as compared with $1\frac{1}{3}$d. per mile, the average on English railways.

The increase of traffic since 1850 is stated in the official returns as follows:

INCREASE OF TRAFFIC.

Year.	Total Receipts.	Average Annual Increase.	Average Annual Increase for Fifteen Years.
1850	£ 3,824,400		
		£1,307,000	
1855	10,358,000		
		1,217,000	£1,238,400
1860	16,443,000		
		1,192,000	
1865	22,400,000		

Thus the increase has been more equable than in England, but smaller in amount, showing an average of £1,238,400, against £1,423,000 in England. But I see it stated in the railway papers that the first nine months of 1866 show much more than the usual increase.

M. Flachat gives a calculation of the saving to the nation by railway conveyance, which he makes a minimum of £40,000,000 a year. But it is based on the supposition that all the new trade would have been carried by road, which is obviously untenable. Probably £25,000,000 to £30,000,000 is a safer estimate. A writer in the "Dictionnaire du Commerce" goes into elaborate calculations of the money-saving arising out of the greater rapidity of railways, and values it at £8,000,000, on the basis that the time of a French citizen is worth 5d. an hour. I give the passage entire:

"In France, the number of kilometres travelled by passengers in 1856 was 2,200,000,000. In traveling this distance they would have spent 290,000,000 hours, while they have only been 50,000,000 hours on the railway. The saving in time of travelling by railway has therefore been 240,000,000 hours, which, at the moderate price of 5d. per hour, represent an economy of 120,000,000 frs. Besides this, the time lost in stoppages at small inns (auberges) used to exceed that spent in travelling, and hence on this head alone we may calculate on a saving of more than 100,000,000 frs. But even if we should reduce this valuation to 80,000,000, or still lower to 60,000,000 frs,, there cannot be any doubt that the saving to the traveller in the matter of time alone exceeds 200,000,000 frs. (£8,000,000)."—Vol. i., p. 638.

Passing from individuals to commerce, the effect of railways has been very marked, and is warmly acknowledged by the principal French writers. The following table shows the progress of French trade:

INCREASE OF EXPORTS AND IMPORTS.

Year.	Total Exports and Imports.	Increase per Cent.	Increase per Cent per Annum.
1840	£ 82,520,000	—	—
1845	97,080,000	15.	3.
1850	102,204,000	5.	1.
1855	173,076,000	50.	10.
1860	232,192,000	34.	6.8
1865	293,144,000	26.25	5.25

The revolution of 1848 accounts for the small increase between 1845 and 1850, but it is plain that the great increase in French commerce was between 1850 and 1860, contemporaneously with the great development of railways. When travelling in France I have always heard railways assigned as the cause of their present commercial prosperity.

The proportion which the exports and imports bore to the means of communication is shown in the following table:

PROPORTION OF EXPORTS AND IMPORTS TO RAILWAYS AND NAVIGATION.

Year.	Navigations. (7,700 miles), and Railways.	Exports and Imports.	Exports and Imports per Mile Open.
1840	8,264	£ 82,520,000	£ 9,985
1845	8,547	97,080,000	11,358
1850	9,507	102,204,000	10,750
1855	11,015	173,076,000	15,712
1860	13,286	232,192,000	17,476
1865	15,830	293,144,000	18,518

Here there is a steady rise in the amount per mile, checked only by the revolution of 1848. But the principle that there is a distinct correspondence between means of communication and the exports and imports is already shown.

The effect of railways on the condition of the working classes has also been very beneficial. The extreme lowness of fares enables them to travel cheaply, and the opportunity is largely used. The number of third class passengers in France is 75 per cent or the total passengers, against only 58 per cent in England (M. Flachat, p. 60). The result of these facilities of motion has been an equalization of wages throughout the country, to the great benefit of the rural populations. M. Flachat says:

"Railways found in France great inequality in the wages of laborers; but they are constantly remedying it. Wherever they were constructed in a district of low wages, employment was eagerly sought. The working classes rapidly learnt to deserve high wages by the greater quantity of work done. Agriculture had been unable to draw out the capabilities of its workmen, and was for the moment paralyzed by want of hands; but industry developed fresh resources. The total amount of work done was considerably increased all over the country. The difficulties of agriculture were removed by obtaining in return for higher wages a larger amount of work than before, and also because machines began to be used in cultivation. Everywhere it was evident that increased energy accompanied increased remuneration. This is the point in which railways have most powerfully increased the wealth of France. The moral result of this improvement in the means of existence of the working class has been to diminish the distance which separates the man who works only for himself from the man who labors for a master. In the education of the workman's children, in his clothing, in his domestic life, and even in his amusements, there is now an improvement which raises him nearer to his master."—pp. 78 and 79.

I am sure we shall all rejoice at this evidence of the benefits conferred by railways upon the working classes of that great neighboring nation. I wish there was time to give you additional extracts, showing the immense services of railways to the industry of France, showing that France was kept back by the difficulty of communication, by the immense distances to be traversed and the impossibility of conveying cheaply and rapidly the raw materials of manufactures. Railways have supplied this want, and have given a new impetus to production and new outlets for the produce.

Turning to the shareholders, there are some curious facts which surprised me not a little. The popular notion is, that in France railway traffic bears a much higher proportion to capital expended than in England. The phrase "They manage these things better in France" is forever on the lips of the British shareholder when he talks of his own paltry 4½ per cent dividend, or of the 8½ per cent gross receipts. The world in general believe that a 10 or 12 per cent French line, like the Orleans of France, really has a traffic of at least that amount. But this is an entire mistake. The gross traffic receipts of France are now 9.6 per cent on the share and debenture capital or 1 per cent more than in England. And the net receipts, after deduction of 45 per cent working expenses, are now 5.28 per cent on the total share and debenture capital, being .82 or about four-fifths per cent higher than in England. Yet the French companies pay an average dividend of 10 per cent, while the English pay only the

natural dividend of 4½. Here are the figures, for the benefit of the sceptical:

AVERAGE RECEIPTS AND DIVIDENDS PER CENT.

Name of Company.	1859.	1861.	1865.
Gross receipts	10.5	11.0	9.6
Net profits	5.7	6.2	5.28
Dividends of Great Companies:			
Nord	15.	16.5	17.87
Orleans	18.	20.	11.2
Midi	4.	10.	8⅜
Ouest	7.5	8.5	7.5
Est	3.13	8.	6.6
Mediterrannee	10.6	15.	12.
Average	10.54	13.	10.53

Compare these figures with those for the English lines given above. You will see the remarkable correspondence between the gross and net receipts and the very remarkable dissimilarity in the dividends. How is this accounted for?

Look at the table of capital expended. Disregarding the £27,500,000 subventions, as corresponding to the *dixieme* tax paid by the companies, there is £233,000,000 share and debenture capital, out of which a portion of the debentures are charged to capital under the conventions for the extension lines. Being for new railways, they have not yet been transferred to the revenue account. Hence the interest-bearing capital reduced and the interest itself increased.

The large amount of debentures now comes into play, on which there is paid from 5 to 5½ per cent, leaving an overplus to accumulate for the shares, so raising the interest on shares to nearly 7 per cent.

But this is not enough. In 1863 the State bound itself to contribute to certain lines annual subventions, which in 1865 came to £551,000, and the State also paid during the same year in respect of their guarantees of the debentures in the *nouveau reseau* £1,320,000, making a total subvention in 1865 of £1,871,000, an amount sufficient to pay more than 3 per cent on the share capital of £54,800,000. The guarantee of £1,220,000 on the *nouveau reseau*, however, is not an absolute subvention, as it will be repayable gradually by the companies when their income exceeds a fixed amount. It is therefore a loan by the State, repayable on the occurrence of a contingency and at an uncertain date.

Thus the original interest of 5.28 per cent on the share and debenture capital becomes 10 per cent to the shareholder. It is a wonderfully clever arrangement and would be exceedingly palatable to Great Eastern or even Great Northern shareholders.

But consider the difference which this shows in the ideas of the two countries. In England it would never be borne for an instant that six great companies, say the London and North Western, Great Western, Midland and others, should receive 10 per cent dividend and yet obtain from the State annual subventions and guarantees amounting to £1,800,000. No ministry dare propose such a job. The reform agitation would be nothing to the clamor with which it would be greeted; and yet in France it is the most natural thing possible. Nobody says a word against

it. Nay, the feeling of the French companies and the popular opinion is that these poor 10 per cent shareholders have been badly used and that their legitimate 12 or 15 per cent from the trunk lines ought not to have been lessened.

One characteristic of the French system is the absence of competition, and this is opposed to all our ideas of freedom of communication. The Northern Company monopolizes the whole traffic between Calais and Paris. The Mediterranean Company monopolizes the whole traffic between Paris and Marseilles, a traffic of extraordinary importance and value. An attempt made two years ago by another company to obtain an extension to Marseilles and to establish an alternative route was rejected by a Government commission after a very long inquiry. The consequence of this system is a great concentration of traffic in a small number of trains, to the profit of the companies and to the inconvenience of the traveller. There are in England, between places like Liverpool and London, about three times as many trains as there are in France between Marseilles and Paris. And besides this, goods are sent less rapidly in France and delivered with less punctuality.

But there is a great deal to be said in defence of the French system. It avoids the duplicate lines necessary for competition, which France could not well afford. It keeps the companies prosperous and able to aid the Government in railway extension. It is not an irresponsible monopoly, able to charge high prices to its customers, but a strictly regulated monopoly, with its tariff fixed by Government at the lowest prices that will be remunerative. It is like the system of our own Metropolitan Gas and Water Companies, which enjoy a monopoly within defined districts on terms settled by the law and revised from time to time in the interest of the public. The French Government appoints commissioners of inquiry to examine into any defect or to consider improvements, and they report to the minister of public works, who has the power of making regulations which are binding on the companies. The last commission is a good instance. In February, 1864, the minister of public works issued to the companies a circular suggesting several points which required improvement and the commission was appointed to consider their answers. The points discussed were:

1.—The adoption of a means of communication between the guard and engine-driver. This was made obligatory on the companies.

2.—A means of communication between passengers and the guard. This was accepted by the companies.

3.—The consumption by locomotives of their own smoke. This was ordered to be carried out within two years.

4.—The addition of second and third class carriages to express trains. The recommendation of the commission was accepted by the companies.

5.—Separate carriages for unprotected females.

6.—The commission demanded that on the great lines the speed of goods trains should be increased from 60 miles to 120 miles, without any increase of tariff. This very important question was referred to a sub-committee for further examination and for hearing objections.

From these details it is evident that the interests of the public are well looked after.

I should add that there is a continuous audit of the accounts of the

companies by Government accountants, who attend from week to week at the companies' offices for that purpose.

I will at present mention only one other point in French railway law—that the Government has the power of purchasing any line of railway after fifteen years from its first concession. The price is to be fixed by taking the amount of the net profits of the seven preceding years, deducting the two lowest years and striking the average of the remaining five years. The Government is then to pay to the company for the remainder of the concession an annual rent-charge or annuity equal to the average so determined, but not less than the profits of the last of the seven years. This mode of purchase appears preferable to the English law, since it does not require the creation of any new rentes or consols; and I commend it to the notice of Mr. Galt.

I have mentioned these prominent features of the French law, in the hope that they may be useful in suggesting improvements in the English system.

Why should we not vest in the President of the Board of Trade a power of making and enforcing regulations for the public safety and convenience? Why should we not introduce more frequent railway commissions to consider important questions and recommend to the President of the Board of Trade or to Parliament? Why should we not have a modified system of audit and a registration of shares and debentures?

VIII.—Railways in Belgium and Holland.

Belgium is one of the most striking instances of the benefit of railways. In 1830 she separated from Holland, a country which possessed a much larger commerce and superior means of communication with other nations by sea and by canals. Five years later the total exports and imports of Belgium were only £10,800,000, while those of Holland were double that amount. But in 1833 the Belgian Government resolved to adopt the railway system, and employed George Stephenson to plan railways between all the large towns. The law authorizing their construction at the expense of the State passed in 1834, and no time was lost in carrying it out. Trade at once received a new impetus, and its progress since that time has been more rapid than in any other country in Europe. The following table shows the activity with which the lines were constructed. We must remember that Belgium contains only one-tenth of the area of the United Kingdom, and that to make a fair comparison with our own progress we must multiply the table by ten.

MILES CONSTRUCTED.

Year.	Miles Open.	Increase per annum Miles.
1839	185	
		25
1845	335	
		48
1853	720	
		45
1860	1,037	
		78
1864	1,350	

Hence, the progress for a state of the size of the United Kingdom would have been—

	Miles a Year.
1839 to 1845	250
1845 to 1853	480
1853 to 1860	450
1860 to 1864	750

a rate of increase which is as great or greater than our own.

The results on commerce are shown in the following table:

INCREASE OF EXPORTS AND IMPORTS.

Year.	Exports and Imports.	Increase per Cent.	Increase per Cent per Annum.
1835	£10,760,000		
		45.72	11.43
1839	15,680,000		
		71.4	11.9
1845	26,920,000		
		77.41	9.67
1853	47,760,000		
		51.	7.3
1860	72,120,000		
		35.88	9.
1864	97,280,000		

I need scarcely point out the extraordinary character of this increase, which is enormous in the first ten years, and far beyond either England or France, and is not inferior to us in the later period. In the thirty years from 1835 to 1864 Belgium increased her exports and imports nearly tenfold, while England increased hers only fivefold. If we had increased our commerce in the same ratio, the English exports and imports would now be a thousand million pounds sterling.

The proportion between exports and imports and means of communication is shown in the following table, which differs from those of England and France in the rapid increase per mile:

PROPORTION OF EXPORTS AND IMPORTS TO RAILWAYS AND NAVIGATIONS.

Year.	Canals (910 Miles) and Railways Open.	Exports and Imports.	Exports and Imports per Mile Open.
1839	1,055	£15,680,000	£14,862
1845	1,205	26,920,000	22,340
1853	1,590	47,760,000	30,037
1860	1,907	72,120,000	37,813
1864	2,220	97,280,000	42,919

This enormous increase of Belgian commerce must be ascribed to her wise system of railway development, and it is not difficult to see how it arises. Before railways, Belgium was shut out from the continent of Europe by the expensive rates of land carriage and her want of water communication. She had no colonies and but little shipping. Railways gave her direct and rapid access to Germany, Austria and France, and made Ostend and Antwerp great continental ports. One of her chief manufactures is that of wool, of which she imports 21,000 tons, valued at £2,250,000, from Saxony, Prussia, Silesia, Poland, Bohemia, Hungary, Moravia and the southern Provinces of Russia; and returns a large por-

tion in a manufactured state. She is rapidly becoming the principal workshop of the continent, and every development of railways in Europe must increase her means of access and add to her trade.

Now look at Holland, which in 1835 was so much her superior. Holland was possessed of immense advantages in the perfection of her canals, which are the finest and most numerous in the world; in the large tonnage of her shipping; in her access by the Rhine to the heart of Germany; and in the command of the German trade, which was brought to her ships at Amsterdam and Rotterdam. The Dutch relied on these advantages and neglected railways. The consequence was that by 1850 they found themselves rapidly losing the German trade, which was being diverted to Ostend and Antwerp. The Dutch Rhenish railway was constructed to remedy this loss, and was partly opened in 1853, but not fully till 1856. It succeeded in regaining part of the former connection. But now observe the result. In 1839 the Dutch exports and imports were £28,500,000, nearly double those of Belgium. In 1862 they were £59,000,000, when those of Belgium were £78,000,000. Thus while Holland had doubled her commerce, Belgium had increased fivefold and had completely passed her in the race.

Before leaving Belgium I ought to mention the cheapness of fares on her railways, which have always been much below those on English lines; a further reduction has lately been made, and I see by a French paper that the results has been to increase the passenger receipts on the State lines for the month of April from 76,936 frs. in 1865, to 198,345 frs. in 1866; of which 168,725 frs. was from third and fourth class passengers; a fact which is in favor of the plan of Mr. Galt. But it must be remembered that Belgium is the most densely populated country in the world, having 432 inhabitants to the square mile, while the United Kingdom has only 253, and England and Wales 347. A system which will pay admirably between large cities at short distances from each other, and on lines which cost little to construct, might break down completely on lines of expensive construction in more thinly inhabited districts. Mr. Galt takes his instances from railways in dense populations, and applies the rules thus obtained to railways which are under totally different conditions, and I fear that this vitiates in a great degree the soundness of his conclusions.

IX.—RAILWAYS IN THE UNITED STATES.

In any paper on foreign railways it is impossible to omit the United States, a country where they have attained such gigantic proportions. The increase of United States lines is as follows:

Year.	MILES CONSTRUCTED. Total mileage.	Inc. per annum. Miles
1830	41	215
1840	2,197	465
1845	4,522	590
1850	7,475	1,984
1855	17,398	2,274
1860	28,771	1,272
1864	33,860	

The mileage here shown is something enormous: four times that of France, two and a half times that of England, and nearly as large as the total mileage of the United Kingdom and Europe, which is about 42,000 miles.

In so young a country inland traffic gives these lines the greater part of their employment, and there are no masses of expensive manufactured goods as in England or Belgium to swell the total value of foreign trade. Foreign commerce is still in its infancy, but an infancy of herculean proportions, as the following table shows:

INCREASE OF EXPORTS AND IMPORTS.

Year.	Total exports and imports.	Increase per cent.	Inc. per ct. per annum.
1830	£31,000,000		
		47.60	3.40
1844	45,759,000		
		50.00	8.33
1850	68,758,000		
		62.60	12.52
1855	111,797,000		
		42.00	8.40
1860	158,810,000		

The advance in the annual increase is very striking, being from 3½ per cent. per annum in the infancy of railways to 8 and 12 per cent. when their extension was proceeding rapidly. Before the introduction of railways America possessed a very extensive system of canals, which amounts to nearly 6,000 miles. At the present time both canals and railways are crowded with traffic. The following table shows the relation between the growth of trade and the increase of means of communication:

PROPORTION OF EXPORTS AND IMPORTS TO RAILWAYS AND CANALS.

Year.	Canals (6,000 miles) and railways open.	Total exports and imports.	Exports and imports per mile.
1830	6,040	£31,000,000	5,130
1844	10,310	45,759,000	4,437
1850	13,475	68,758,000	5,102
1855	23,398	111,797,000	4,778
1860	34,770	158,810,000	4,567

Thus, in the United States, as well as in England, France and Belgium, the exports and imports bear a distinct relation to the miles of communication open, but lower in amount than in the European countries, as was only likely from the thinner population.

Vast as is the mileage of the American railways, it is by no means near its highest point. The lines in construction, but not yet completed, are stated to be more than 15,000 miles in length, a larger number than the whole mileage of the United Kingdom, completed and uncompleted.

The manner in which these lines are made is very remarkable. The United States are very thinly populated, not containing on an average more than 32 persons per square mile in the Northern States, and 11 in the Southern. Even the most populous Northern States have only 90 per-

sons per square mile, while England and Wales have 347 per square mile. A less expensive railway, of smaller gauge, was therefore necessary, and the lines are almost invariably "single tracks." Their first cost have averaged from £7,000 up to £15,000 per mile, or about one-third of the expenditure in England. Of course they are very inferior in weight of rails and in sleepers, ballasting, stations, and efficiency. Even this expense was difficult to provide for where the inhabitants are so widely scattered. But in America the greatest encouragement is given to railroads, and every facility is afforded for their extension, as they are considered the most important sources of wealth and prosperity. Shares are taken largely by the inhabitants of the district traversed, land is often voted by the State, and the cities and towns find part of the capital by giving security on their municipal bonds.

I must not omit to mention the great Pacific railways, one of which is now being constructed from the State of Missouri for a distance of 2,400 miles across Kansas, Nebraska, Utah, and Nevada, to San Francisco, in California. It receives from the general government subsidies of £3,300, £6,600, or £9,900 per mile, according to the difficulty of the ground, besides enormous grants of land on each side of the line. When this railway is completed, the journey from Hong Kong to England will be made in thirty three days instead of the present time of six weeks, and it is anticipated that a large portion of our Chinese traffic will pass by this route.

No one can study the United States without being struck by the great railway future which lies before them, when their immense territories are more thickly peopled, and their mineral resources and manufactures have been developed. The distances to be traversed are so vast, and the traffic to be carried will be so enormous that the railways of the United States will far exceed in extent, and in the trade which will pass over them, anything that has hitherto been known in the history of the world.

X.—RAILWAYS AND FREE TRADE.

In the preceding sections I have endeavored to describe the progress of railway extension in England, France, Belgium and the United States, the four countries where it has received the greatest development, and I have pointed out the very great increase of commerce and national prosperity which has been its result. But in the case of England, I am bound to meet a very probable objection. I shall be asked, why do you attribute this increase of commerce mainly to railways? Was it not caused by free trade?

The general opinion undoubtedly is, that free trade is the principal cause of the immense increase since 1842 of English commerce. We see this opinion expressed every day in newspapers and reviews, in speeches and parliamentary papers. I hold in my hand a very able memorandum, lately issued by the Board of Trade, respecting the progress of British commerce before and since the adoption of free trade, in which the same view is taken, and in which the statistics of the exports and imports since 1842 are given as mainly the result of free trade. It is true that there is a reservation, acknowledging "that the increase of productive power and other causes have materially operated in effecting this vast development." But

in the newspaper quotations and reviews this reservation was left out of sight, and the striking results recorded in the memorandum were entirely ascribed to free trade.

While acknowledging to the full the great benefits and the enlightened principles of free trade, I have no hesitation in saying that this popular view is a popular exaggeration, which it is the duty of staticians to correct. and I think that my reasons will be considered satisfactory by this Society. In the first place, the development of English commerce began in 1834, before the free trade, but simultaneously with railways; and between 1833 and 1842 the exports and imports increased from a stationary position at £85,500,000, to £112,000,000, or 31 per cent. In the next place, from 1842 till 1860, England was the only country which adopted free trade. If England had also been the only country that made such enormous progress, we might safely conclude that free trade was the chief cause of so great a fact. But this is not the case. England is only one of several countries which made an equal advance during the same period, and none of those countries except England had adopted free trade. The total increase of exports and imports from 1842 to 1860 in the three first countries described in this paper, and from 1844 to 1860 in the United States, was as follows:

Country.	1842.	1860.	Increase per cent.
England	£112,000,000	£375,000,000	234
France	86,280,000	232,200,000	169
Belgium	19,400,000	72,120,000	272
	1844.		
United States	45,757,000	158,810,000	305

Thus, the English rate of increase is only third in order, and is exceeded both by Belgium and the United States. If the latter country is objected to on account of its rapid growth in population by immigration, still Belgium remains, exceeding the English rate of increase by 36 per cent. Look at the argument by induction. Here are four countries under the same condition of civilization, and having access to the same mechanical powers and inventions, which far outstrip contemporary nations. It is a probable conclusion that the same great cause was the foundation of their success. What was that common cause? It could not be free trade; for only one of the countries had adopted a free trade policy. But there was a common cause which each and all of those four countries had pre-eminently developed—the power of steam—steam machinery, steam navigation and steam railways. I say then that steam was the main cause of this prodigious progress of England, as well as of the other three countries.

But I will go a step farther. Steam machinery had existed for very many years before 1830, and before the great expansion of commerce Steam navigation had also existed for many years before 1830, and before the great expansion of commerce, and steam navigation was unable to cope with the obstacle which before 1830 was so insuperable, viz.: the slowness and expense, and limited capacity of land carriage.

I come then to this further conclusion, that the railways which removed this gigantic obstacle, and gave to land carriage such extraordinary rapidity and cheapness, and such unlimited capacity, must have been the main agent, the active and immediate cause of this sudden commercial development.

This conclusion appears to become a certainty when I find, from the investigation through which we have traveled, that in every one of these four great examples, the rapid development of commerce has synchronised with an equal rapid development of railways—nay, that the development of commerce has been singularly in proportion to the increased mileage of railways—so that each expansion of the railway system has been immediately followed, as if by its shadow, by a great expansion of exports and imports.

But I will not leave the case even here. Consider what are the burdens which press upon trade and manufactures. If our merchants could be presented with that wondrous carpet of the Genii of the "Arabian Nights," which transported whatever was placed upon it in one instant through air to its farthest destination, overleaping mountains and seas and custom houses, without expense or delay, we should have the most perfect and unburdened intercourse. But see what barriers and burdens there are in actual fact, when we trace the journey of the raw material, such as cotton or wool, to the British manufacturer, and its export as a manufactured article.

BURDENS UPON IMPORTS AND EXPORTS.

Raw Material—
1. Inland carriage to the sea.
2. Voyage to England.
3. Import duty.
4. Inland carriage of the manufacturer.

Manufactured Article—
5. Inland carriage to the sea.
6. Voyage to foreign country.
Import duty.
Inland carriage to the customer.

Here are eight distinct burdens or charges increasing the price of our manufactures to the foreign customer. Out of these—

Four are inland carriage,

Two are navigation, and only

Two are custom house duties.

Now, except in the case of prohibitory duties, it was undoubtedly the case that, before the introduction of railways, inland carriage was the most expensive of these burdens. In countries unprovided with canals, a very few miles of road transport was an absolute prohibition. It is so in many parts of India, Spain and Turkey at the present day. In countries provided with canals, rates were high, and transport slow, and always coming to a dead lock. Hence the relief afforded by railways, both in cheapness and saving of time, was far beyond any relief by free trade in taking off moderate duties.

In a vast number of cases railways did more than cheapen trade, they rendered it possible. Railways are the nearest approach that human ingenuity has yet devised to that magic carpet of the "Arabian Nights," for which I ventured to express a wish.

For all these reasons I maintain that we ought to give railways their due credit and praise, as the chief of those mighty agents which, within the last thirty years, have changed the face of civilization.

XI.—RAILWAYS AND NATIONAL DEBTS.

In one important point the nations of Latin race have stolen a clear march upon the nations of Teutonic origin, of England, Germany and the United States, by their appreciation and adoption for railways of the principle of a sinking fund. The idea owes its origin to the semi-Latin, semi-Teutonic intellect of Belgium. When the Belgian Government, in 1834, projected a system of State railways, to be constructed with money borrowed by the State, they provided for the extinction of the loans in fifty years by an annual sinking fund. The amount borrowed was nearly £8,000,000 sterling, and the whole will be paid off in 1884, after which date the whole profits of the State lines, 352 miles in length, will become part of the revenue of the nation. But so good an investment are these lines that their present net income is £525,000 a year, and is increasing at a rate which promises in 1884 a net revenue of £960,000, a sum which will be sufficient to pay the interest on the whole national debt, now £26,000,000. Besides this, the conceded lines, 1,000 miles in length, will become amortized and become State property in 90 years from the beginning of their concessions, and the profits on a capital of more than 13,000,000 will then be available toward the State revenue.

This system was copied by France, and imitated from her by the other Latin nations, Spain, Portugal and Italy, as well as by the non-Latin States of Austria and Holland. All these countries, at the end of various terms of 99, 90 and 85 years will practically pay off a large portion of their national debt. Improvident Spain will pay off about £40,000,000 out of her debt of £164,000,000. Heavily burdened Austria will practically abrogate something like £65,000,000 out of her debt of £250,000,000. Italy will wipe out a large portion of her debt of £176,000,000.

But the most remarkable example is France; and I will endeavor to explain as briefly as possible the working of the French system. In France the railways are conceded for 99 years, but it is one of the conditions of the grant that all the capital whether in shares or debentures, shall be paid off within that term by an annual *amortissement*, or sinking fund. The small amount of this annual payment is very extraordinary. The French rate of interest is 5 per cent., and the annual sinking fund necessary to pay off 100 francs in 99 years is as nearly as possible ·04. Put into the English form, for the sake of clearness, this means that the annual sinking fund necessary at 5 per cent. to redeem £100 in 99 years is only 1s. per annum As debentures are issued in France for less than 99 years when part of the concession is run out, the amount of the sinking fund varies, but it is usually said to amount on the average to one-eighth per cent. As the whole expended capital of French railways represented by shares and debentures, is £233,000,000, it follows that the total annual sinking fund paid by the French companies for the redemption of that sum is less than £300,000. The result is marvellous, that for £300,000 the French nation will acquire, in less than 99 years, an unencumbered property of £233,000,000 sterling. But this is not all. The railways represented by that £233,000,000 sterling produced in 1865 a net revenue of about £12,500,000. Before 1872 further railwyas will have been completed, which will be amortized at the same date as their parent lines, and will produce before many years a net income of £4,000,000, making a total net income of the French railways

16,500,000. But the total charge of the French national debt in 1865 was only £16,000,000. So that France has now a system in operation which, in less than 90 years from the present time, will relieve the country from the whole burden of her national debt of nearly £500,000,000.

Is it allowable in me to ask, why are we doing nothing of the sort? When so many other nations are paying off by means of their railways a portion, or the whole of their national debts, why are we, with all our wealth and resources, to do nothing? A scheme of amortization suited to the habits of the English people, is perfectly possible, and the peculiar position of railway companies at the present moment renders it easy to carry out. I will say nothing about debentures, because a plan is now before the Government dealing with them. But, I say, respecting Share Capital, that it would be perfectly practicable for the State to become the possessor of a large proportion of this stock in a comparatively short time, and at no great expense. An annual sinking fund of 5s. per cent will pay off £100 in seventy-two years, reckoning only 4 per cent. interest. Hence, in seventy-two years, an annual sinking fund of £500,000 a year, will pay off £200,000,000. The government duty on railways amounts to £450,000 a year, and will soon reach £500,000. My proposal would be to make this a sinking fund towards purchasing £200,000,000 of preference and other stock, and let it be invested annually by the Board of Trade, or by commissioners appointed for the purpose, like those appointed for the national debt. Instead of cancelling each share as it is purchased, let it be held in trust for the nation, and the dividends applied every year in augmentation of the sinking fund. In this manner, at the end of about seventy-two years £200,000,000 of preference and ordinary share capital would become the property of the nation, and its dividends become applicable to the interest of the national debt. As railway dividends average 4 to 4½ per cent., the dividends on the redeemed capital would pay the interest on more than £250,000,000 consols, and be equivalent to the redemption of that amount of our national debt.

I believe that this is a practical scheme. In a slightly different form it is now being carried out in France, Belgium and other continental states. I trust that before long we shall cease to be almost the only nation in Europe which does not act on the principle "that railways are the true sinking fund for the payment of the national debt.

The advantages of such a sinking fund over a sinking fund invested in consols, are threefold:

1. It would be invested annually in railway capital at a higher interest, and thus accumulate more rapidly.

2.—It would have a different primary object, viz., the purchase of a State interest in railways, and would therefore be more likely to enlist popular feeling in favor of its maintenance.

3.—It would be distinct and separate from the national debt, and not under the same control, and would therefore be less liable to be diverted to the financial necessities of the hour.

Perhaps it will be said that a railway sinking fund is unsuited to the character and habits of the English people. But surely it is our character to be prudent and to pay off encumbrances, and to adopt the best means of accomplishing that object. Surely it is not right in a great and wealthy and enlightened nation like England to incur the reproach of being spendthrift of her resources and reckless of her debts.

XII.—Further Railway Extension.

England is undoubtedly the country in the world best provided with railways. The statistical comparison stood thus at the end of 1865:

RAILWAYS COMPARED WITH AREA AND POPULATION.

Country.	Railway Miles Open.	Square Miles per Railway Mile.	Population per Railway Mile.
England and Wales	9,251	6¼	2,186
1. Belgium	1,350	8	3,625
2. United Kingdom	13,289	9	2,206
3. Switzerland	778	19	3,257
4. Prussia and Germany (except Austria).	8,589	20	3,525
5. Northern United States (Except Kansas, Nebraska and Oregon.	24,883	25	801
6. France	8,134	26	4,607
7. Holland	372	29	9,066
8. Italy	2,389	41	9,084
9. Austria	3,735	63	9,375
10. Spain	2,721	67	5,991
11. Portugal	419	87	8,555
12. Southern United States	10,300	92	1,025
13. Canada	2,539	136	987
14. India	3,186	287	42,572
Total of the 14 countries	82,495	....	....

But England has a much greater proportion of double lines and a larger number of trains on each line; while, on the other hand, Belgium and other continental nations have lower fares and give greater accommodation to third and fourth class passengers. Both parties have something to learn—they to admit the principle of competition and increase the number of railways; we to provide cheap conveyance for the masses, without the clumsy device of excursion trains.

But now comes the question—do England and Belgium need further railways, or are they already sufficiently provided? It may partly be answered by the fact that in England there are about 3,500 miles authorized by Parliament which have not yet been made, and that in Belgium there are 450 miles (equal to 4,500 in England) conceded but not constructed. And we may also point to the circumstance that in England and Wales there were, in 1865, 6,081 miles of double line against 3,170 miles of single, showing that there is a want of cheap lines through rural districts. A glance at the railway map will confirm this inference. The lines run in the direction of the metropolis or some great town, and there are few cross-country lines. The distance between the lines supports this conclusion. Deducting the manufacturing districts, which are crowded with a railway network, the remainder of the country gives an average of about fifteen miles between each mile of railway. The average ought not to be more than eight or ten miles.

The advantage of a railway to agriculture may be estimated by the following facts. A new line would, on an average, give fresh accommodation to three and a-half miles on each side, being a total of seven square miles, or 4,560 acres for each mile of railway. It would be a very moderate estimate to suppose that cartage would be saved on one ton of pro-

duce, manure, or other articles for each acre, and that the saving per ton would be five miles at 8d. per mile. Hence the total annual saving would be £768 per mile of railway, which is 5 per cent interest on £15,000. Thus it is almost impossible to construct a railway through a new district of fair agricultural capabilities without saving to the landowner and farmer alone the whole cost of the line. Besides this, there is the benefit to the laborers of cheap coals and better access to the market. There is also the benefit to the small towns of being put into railway communication with larger towns and wholesale producers. And there is the possibility of opening up sources of mineral wealth.

Somebody ought to make these agricultural lines, even though they may not pay a dividend to the shareholder. But who is that somebody to be? The great companies will not take the main burden lest they should lower their own dividends. The general public will not subscribe, for they know the uncertainty of the investment turning out profitable. And notwithstanding the able letters signed "H" in the *Times* some months ago, I cannot advocate the necessarily wasteful system of contractors' lines, or believe in the principle "Never mind who is the loser, so that the public is benefitted." Railway extension is not promoted in the long run by wasteful financing and ruinous projects. On the contrary, such lines injure railway extension, by making railways a bye-word and depreciating railway property, and they render it impossible to find supporters for sound and beneficial schemes.

The proper parties to pay for country lines are the proprietors and inhabitants of the districts through which they pass. They are benefitted even if the line does not pay a dividend. They have every motive for economical construction and management, and can make a line pay where no one else can. But they will not subscribe any large portion of the capital as individuals. Very few will make a poor investment of any magnitude for the public good, though all might be ready to take their part in a general rate. Almost every country but our own has recognized the fact, and legislated on this basis, by empowering the inhabitants of a district which would be benefitted to tax themselves for the construction of a railway. I have shown that in France either the department or the commune may vote a subvention out of their public funds, and that in the United States the municipalities vote subsidies of municipal bonds. In Spain the provinces and the municipalities have the power to take shares or debentures, or if they prefer it, to vote subventions or a guarantee of interest. In Italy the municipalities do the same thing. Why should not England follow their example, and authorize the inhabitants of parishes and boroughs to rate themselves for a railway which will improve their property, or empower them to raise loans on the security of the rates, to be paid off in a certain number of years by a sinking fund, as is done for sanitary improvements? I see no other way of raising the nucleus of funds for carrying out many rural lines which would be most beneficial to the country.

I can give a remarkable instance of the benefits caused by an unremunerative railway. In 1834 the inhabitants of Whitby projected a line from Whitby along the valley of the Esk to Pickering, half way to York. The line was engineered by George Stephenson, and was originally worked by horse-power and carriages on the model of the four-horse

coaches. But though considered at that time one of the wonders of the world, the line was utterly unprofitable, and the Whitby people looked upon it as a bad speculation, much as the shareholders of the London, Chatham and Dover look on their present property. The railway was ultimately sold to the North Eastern Company; but though the shareholders got no advantage, somebody else did. Farmers and laborers came to market in Whitby, and got coals and other necessaries at reduced rates, while they sold their produce better. Very soon rents began to rise, and I find the total rise since the construction of the railway has been from an average of 15s. per acre up to 22s., or nearly 50 per cent. But far greater consequences resulted. The cliffs at Whitby were known to contain nodules of ironstone, which were picked up and sent to ironworks on the Tyne. Soon after the opening of the railways, George Stephenson and a number of Whitby gentlemen formed a company, called the Whitby Stone Company, for working stone quarries and ironstone mines at Grosmont, about six miles up the railway. At first the ironstone was very badly received by the iron founders, and it was only after long and patient perseverance that the company got a sale for what they raised. It was not till 1844 and 1846 that the merits of the Cleveland ironstone were fully acknowledged and large contracts entered into for its working throughout the district. Thus the unprofitable Whitby and Pickering Railway opened up the Cleveland iron district and caused the establishment of a very large number of foundries and the employment of thousands of workmen, and has added very materially to the wealth of England.

XIII.—Conclusion.

From the facts which have been brought forward I draw the following conclusions:

1.—Railways have been a most powerful agent in the progress of commerce, in improving the condition of the working classes and in developing the agricultural and mineral resources of the country.

2.—England has a more complete and efficient system of railways than any other country, but is not so far ahead that she can afford to relax her railway progress and to let her competitors pass her in the race.

3.—England ought to improve the internal organization of her railways, both as to finance and traffic, and to constitute some central authority with power to investigate and regulate.

4.—A Sinking Fund should be instituted to purchase for the State a portion of the railway capital, and so to lighten the charge of the national debt.

5.—Power should be given to parishes and boroughs to rate themselves in aid of local railways, in order to facilitate the construction of country lines.

6.—England, as a manufacturing and commercial country, is benefited by every extension of the railway system in foreign countries, since every new line opens up fresh markets and diminishes the cost of transporting her manufactures.

I cannot conclude without saying a word on the future of railways. The progress of the last thirty-six years has been wonderful, since that period has witnessed the construction of about 85,000 miles of railway.

The next thirty-six years are likely to witness a still greater development and the construction of far more than 85,000 miles. We may look forward to England possessing, at no distant date, more than 20,000 miles, France an equal number and the other nations of the continent increasing their mileage until it will bear the proportion of 1 railway mile to every 10 square miles of area, instead of the very much less satisfactory proportions stated in the comparative table. We may expect the period when the immense continent of North America will boast of 100,000 miles of line, clustered in the thickly-populated Eastern States and spreading plentifully through the Western to the base of the Rocky Mountains and over to California and the Pacific. We may anticipate the time when Russia will bend her energies to consolidating her vast empire by an equally vast railway network. We may predict the day when a continuous railroad will run from Dover to the Bosphorus, from the Bosphorus down the Euphrates, across Persia and Beloochistan to India, and from India to China. We may look for the age when China, with her 350,000,000 of inhabitants, will turn her intelligence and industry to railroad communication.

But who shall estimate the consequences that will follow, the prodigious increase of commerce, the activity of national intercourse, the spread of civilization, and that advance of human intelligence foretold thousands of years ago by the prophet upon the lonely plains of Palestine, "when many shall run to and fro upon the earth, and knowledge shall be increased?"

NOTE.—Since reading this paper before the Society, my attention has been called to an article on French railways in the *Revue des deux Mondes* of 1st January, 1866, by M. Lavollée, which, written many months previously, confirms most strikingly my conclusions, especially those which relate to the effect of railways on French commerce and on the welfare of the working classes. It adds many eloquent reflections on railways in relation to civilization and progress, which are well worth perusal.

In the discussion which followed the reading of my paper, the President expressed a wish that I should add information respecting fares and rates and other points connected with railway working. But I find the subject too extensive for a cursory notice, and the forthcoming Evidence and Report of the Royal Commission on Railways will afford opportunity and material for a more complete survey, which, I trust, will be undertaken by some member of the Society connected with railways.

DEBTS AND TAXATION OF OUR LARGE CITIES.

We have been at considerable pains to procure statistics throwing light upon the changes in the fiscal condition of our large cities within the last six years. Owing to the incompleteness of returns, our material for this purpose is much less comprehensive than we could have desired. The figures obtained, however, have been derived from official sources and will at least afford data for general estimates approximating accuracy. We are enabled to present complete details of population, valuation and

indebtedness from fourteen of the principal cities, and the rule found to obtain in these cases may perhaps be assumed to apply to our cities generally. The valuation given is in each case that made for the purpose of local assessments, and although the best attainable, is well known to fall much below the real value of the property—a fact for which due allowance must be made in estimates. On the other hand, the figures representing the indebtedness of the cities may lead to exaggerated estimates in those cases where the corporations hold assets in the shape of securities, productive real estate or sinking funds. Our chief purpose, however, being to ascertain the changes in the amount of the city debts, as it may be assumed that no important fluctuations have occurred in the list of assets, the omission of this data is not material to the result sought. The following table shows the population, valuation and debt of fourteen principal cities in 1860 and 1866 respectively:

Cities.	Population. 1860.	Population. 1866.	Valuation. 1860.	Valuation. 1866.	Indebtedness. 1860.	Indebtedness. 1866.
			$	$	$	$
New York...*N. Y.*	813,669	900,000	576,631,707	737,989,903	23,493,644	41,701,176
Philadelphia..*Penn.*	565,529	622,082	*	*	24,029,735	35,165,721
Brooklyn.....*N. Y.*	266,661	300,000	105,174,507	123,427,840	7,643,809	10,023,419
Baltimore.....*Md.*	212,418	239,070	119,461,715	139,001,008	17,903,855	21,928,656
Boston.....*Mass.*	177,840	192,324	276,861,000	371,892,775	9,292,799	12,845,876
Cincinnati....*Ohio.*	161,044	193,253	91,961,375	130,745,993	3,752,000	3,203,000
St. Louis.....*Mo.*	160,773	204,327	102,408,230	126,877,200	5,006,700	5,644,000
Chicago.....*Ill.*	109,260	200,418	37,053,512	85,953,250	2,095,000	5,397,464
Buffalo.....*N. Y.*	81,129	94,502	....	....	579,000	654,000
Newark.....*N. J.*	71,914	87,413	30,045,289	....	316,000	833,000
Louisville....*Ky.*	68,033	100,000	27,873,003	43,10[illegible],569	3,001,000	4,118,000
Albany.....*N. Y.*	63,367	62,613	24,958,868	....	1,570,850	2,483,500
San Francisco..*Cal.*	56,802	80,000	35,809,639	75,972 470	2,992,519	4,947,298
Providence....*R. I.*	50,666	54,595	61,118,300	....	1,400,000	1,400,000

A glance at the column of valuation will show that the increase has not kept pace with the actual increase of the value of property. In nearly all the large cities real estate is now worth nearly double its value in 1860; yet the increase in the official figures shown above does not average over 30 per cent. Perhaps it may be safely assumed that the assessment valuation, considering what it omits as well as what it underestimates, does not represent more than half the real value of property in the several cities.

The aggregate indebtedness of the above cities has been increased during the six years from about $103,500,000 to about $149,500,000. This gives an average increase of about 45 per cent. In the case of the Western cities the increase has been comparatively light. Cincinnati has reduced its debt $500,000, while St. Louis has added only $640,000 to its indebtedness. In the case of Chicago there is a very decided increase, but chiefly owing to the construction of extensive public works. The increase is in the largest ratio in the cities of New York, Philadelphia, Boston, Brooklyn and Baltimore, where heavy debts have been incurred for military purposes. In order to estimate the relation of the valuation and debts of the cities to their respective populations, it is necessary to divide each item by the total populations; by which process we

* No proper valuation stated in reports.

obtain the following result, showing the valuation and the debt per head of the population of each city:

Cities.	Valuation. Per capita Pop. 1860.	1866.	Indebtedness. Per capita. 1860.	1866.	Per cent of Val. 1860.	1866.
New York.....*N. Y.*	$ 709	$ 820	$28.87	$46.33	4.07	5.65
Philadelphia.....*Penn.*	....	....	42.49	56.52	....	....
Brooklyn.....*N. Y.*	394	411	28.63	33.41	7.27	8.11
Baltimore.....*Md.*	562	581	84.29	91.73	14.98	15.77
Boston.....*Mass.*	1,557	1,934	52.81	66.80	3.39	3.45
Cincinnati.....*Ohio*	280	430	23.29	16.57	4.08	2.45
St. Louis.....*Mo.*	637	621	31.14	27.62	4.89	4.45
Chicago.....*Ill.*	340	429	19.18	26.93	5.65	6.29
Buffalo.....*N. Y.*	....	....	7.13	....	....	....
Newark.....*N. J.*	418	....	4.39	9.53	1.05	....
Louisville.....*Ky.*	409	431	44.11	41.18	10.76	9.55
Albany.....*N. Y.*	304	....	24.79	....	6.29	....
San Francisco.....*Cal.*	630	949	52.69	61.84	8.26	6.51
Providence.....*R. I.*	1,206	....	27.63	....	2.29	....

Here, again we must caution our readers against a too strict use of the column of valuations. The usage in the different cities in making this assessment varies so widely that the differences in the amount of estate per head shown above must be accepted with very broad allowances. The fact, for instance, that the valuation *per capita* in Boston is $1,934, and in New York only $820, is to be chiefly accounted for by the circumstance that in the former city the official valuation runs closely upon the real value, while in the latter it falls very far below. The column showing the increase of debt per head of the population is of special interest. Upon this basis of comparison, which is the true one, the Western cities, except Chicago, indicate a falling off in the ratio of indebtedness. In the Eastern and Middle States the increase is very large. In New York city the ratio has risen within the six years from $28.87 per head to $46.33; in Philadelphia, from $42.49 to $56.52; in Baltimore, from $84.29 to $91.73; and in Boston from $52.81 to $66.80; while in San Francisco, which has been supposed to have felt the pressure of the times lightly, the change has been from $52.69 to $61.84. In explanation of the high figures assigned to Baltimore, it should be stated that the city holds valuable interest-bearing assets, which would reduce its net debt to very moderate dimensions. The same fact is also true, only to a less extent, of some of the other cities.

This additional indebtedness, however, affords an imperfect criterion of the real augmentation of the burthens of our city population. Not only has the interest account been increased to an extent corresponding with the above shown increase of debts, but the local expenditures also have been largely, not to say extravagantly augmented. We must, therefore, look to the tax list for evidence of the weight of our present burthens compared with those of 1860. For this purpose we select the only six cities from which we are in possession of complete returns. The following is a statement of the amount of taxes assessed in the cities named for city and county purposes for the years 1860 and 1866, and their relation to population:

	Amount 1860.	1866.	Rat' p. capi 1860.	1866.
New York	$7,649,873	$15,606,896	$9:40	$17:34
Philadelphia	2,334,252	5,084,539	4:13	8:17
Boston	2,294,533	4,224,202	12:00	21:98
Cincinnati	1,298,621	2,010,322	8:06	10:39
Chicago	373,315	1,719,064	3:42	8:57
San Francisco	796,666	1,496,657	14:03	18:71

The increase in the city and county taxation shown in these figures is astounding. In New York city these taxes now amount to $17.34 per head, against $9.40 in 1860 in Boston the increase is $9.08 per head; in Philadelphia $4.04; in Cincinnati $2.33; in Chicago $5.15, and in San Francisco $4.68. In order, however, to ascertain the *whole* amount of taxation to which our city populations are subject, it is necessary to add to the foregoing the share *per capita* of taxes levied for State purposes, and also of federal imposts. The amount of State taxes levied in these States, and the proportion *per capita*, compare as follows:

	Amount of taxes.		Tax per capita	
	1860.	1866.	1860.	1866.
New York	$4,376,167	$17,369,043	$1 13	$1 84
Pennsylvania	2,368,967	4,060,148	0 81	1 27
Massachusetts	901,010	3,137,531	0 73	2 49
Ohio	3,504,713	3,867,167	1 50	1 50
Illinois	1,825,792	2,514,023	1 07	1 16
California	1,131,063	2,233,492	2 99	4 97

The following is a statement of the population, taxation, customs and debt of the United States in 1860 and 1866, and their relation to population:

	1860.	1866.		1860.	1866.
Population	31,500,000	35,000,000			
Internal revenue	.....	$309,226,813	*per capita.*	$....	$8 83
Customs	53,187,512	179,046,651	"	1 69	5 12
National debt	64,769,703	2,783,425,879	"	2 06	79 52

The whole taxation per head of the populations of the respective cities may be thus summarized:

	City & Co.		State.		Federal.		Total.	
	1860.	1866.	1860.	1866.	1860.	1866.	1860.	1866.
New York	$9 40	$17 34	$1 13	$1 84	$1 69	$13 95	$12 12	$33 13
Philadelphia	4 13	8 17	0 81	1 27	1 69	13 95	6 63	23 39
Boston	12 90	21 98	0 73	2 49	1 69	13 95	15 32	38 42
Cincinnati	8 06	10 39	1 50	1 50	1 69	13 95	11 25	25 84
Chicago	3 42	8 57	1 07	1 17	1 69	13 95	6 18	23 69
San Francisco	14 03	18 71	2 99	4 96	1 69	13 95	18 71	37 62

It will appear from a comparison of these figures that the total taxation of our city population, so far as may be judged from the cities here instanced, has increased from about $12 per head in 1860 to $30 per head in 1866. There is considerable diversity in the proportions between the different cities, and the ratio of increase also varies materially at the several places; but this may be taken as the average augmentation of our burthens since the year antecedent to the war. Allowing five persons to each family, it would follow that the amount of taxation paid directly and indirectly by our city population is $150 per family, against $60 in 1860, showing an average increase of $90 per family. This immense addition to our burthens must materially affect the social and political future of the country, and calls loudly upon the State and federal legislatures to retrench in every possible way the expenditures under their control

THE INSURANCE BUSINESS FOR 1866.

Proof sheets of the Report of the Superintendent of the Insurance Department of the State of New York for 1866, dated April 1st, 1867, have been sent us by the Superintendent the past week, and although the late date at which the report is presented to the public, like our State report on Railroads, takes away from it the value and interest which belong to new facts, it is still very interesting, not only as a part of the financial history of the past year, but also as affording useful lessons for the future. It is unfortunate that these State reports can not be issued at a period earlier than six months after the official statements of the companies contained in them are made. The information which is now published in July or August would be doubly valuable to all parties interested if published in January or February.

The year 1866, which witnessed the remarkable panic following the failure of Overend, Gurney & Co., in England, and the universal depression in business in the United States, was also a year of the severest losses insurance companies ever experienced. The Superintendent begins his report with the statement that no new joint stock fire insurance company was organized during the calendar year 1866. This is the only year since the passage of the general Insurance Act of 1849 (chap. 308) which has not witnessed the incorporation of at least one stock fire insurance company. This fact is a good indication of the unprofitable nature of the insurance business during that period.

From several tables, giving in detail the changes which took place in the companies of this State in the year, it appears that two companies were changed from mutual to stock companies; one casualty was changed to a fire company; five companies had their charter extended 30 years, pursuant to the general act; two companies increased their capital (three others have increased since January, 1867); requisisitions have been made on the stockholders of seven companies to make up impaired capital, three of which were not responded to; five companies have reduced their capital since Jan. 1, 1867; thirty-three companies showed an impairment of capital Dec. 31, 1866, varying from 81.74 per cent. to 0.21 per cent.; ten companies which showed an impaired capital Jan. 1, 1866. repaired their capitals during that year; seventy-one companies show capitals intact, with surpluses varying between $271,387 and $15 and six companies discontinued business, and are closing up their affairs.

The present standing of the companies of this State we give in the Insurance Department of the CHRONICLE, but the table following, compiled from the report, shows the operations of these companies for the seven years 1860–66, inclusive; fire business being separately stated:

MARINE AND INLAND BUSINESS.

	Risks written.	Premiums received.	Losses paid.	P'centage of los's to premiums.	Perct' of los's to risks writ.	Am't of risks writ. to $1 loss.	Av. rate of pre'm risks.
1860	$80,379,892	$551,183	$405,507	73.57	.5045	198.22	.6875
1861	80,351,602	666,228	497,073	74.61	.6186	161.65	.8291
1862	110,949,672	875,835	452,166	51.64	.4075	245.37	.7343
1863	175,942,397	1,193,714	839,727	70.35	.4773	209.52	.5695
1864	253,714,936	2,292,820	1,542,328	67.37	.6079	164.50	.9037
1865	271,588,107	2,657,131	2,020,654	76.05	.7440	134.41	.9784
1866	378,880,063	4,235,305	3,800,702	87.67	1.0031	99.69	1.1442
Agg & av.	1,351,806,609	12,572,218	9,558,160	76.03	.7071	141.43	.9300

FIRE BUSINESS.

1860	1,049,551,594	$6,710,412	$3,578,934	53.33	.3410	293.26	.6392
1861	1,027,112,596	6,161,507	3,274,115	53.14	.3188	313.71	.5999
1862	1,200,721,130	6,866,355	4,227,157	61.56	3521	284 05	.5738
1863	1,560,687,139	8,987,315	3,349,945	37.27	.2146	465.88	.5805
1864	2,342,666,111	13,325,783	7,195,271	54.00	.3071	325.58	.5688
1865	2,510,595,187	17,052,086	12,046,793	70.65	.4799	208.40	.6792
1866	2,753,493,107	20,786,847	15,312,751	73.67	.5561	179.82	.7549
Agg & av....	12,444,826,864	79,890,309	48,984,968	61.32	.3936	254.05	.6420

It appears from the above that the losses have increased to an alarming extent within the past two years. Indeed, without the figures the fact is too well known to the public. The remedy to be applied to save insurance companies from total annihilation has been discussed in these columns. Mr. Barne's evidently inclines to the plan of not insuring property to its full value as the surest safeguard against incendiary fires. His argument is forcible and is especially worthy of consideration from the fact that it is based upon the simplest principles of common sense, and not upon the assumption that a large proportion of insurers are scoundrels. He remarks as follows:

In all insurance economics, the relations of underwriter and policy holder should be so contrived, that in no contingency could the latter *gain* by a *loss* on his policy; the pecuniary interest of the insured should never conflict with his duty to prevent, by all possible means, any loss under his policy.

In fire insurance, the downward tendencies of a declining market and the nervous apprehensions of an approaching financial crisis have, especially on mercantile risks, often made it for the pecuniary interest of the insured that a destructive fire should happen. Thus, with low or diminishing net premiums, the moral hazards have been woefully increased, and the sad results are now historic, in the years 1865 and 1866, two consecutive years of excessive and unprecedented loss.

To the extent that fire insurance relaxes the vigilant care and natural guardianship of the owner over his own property, and prevents the construction of fire-proof buildings and the discovery of rapid means of extinguishing conflagarations, the political and social economist and statesmen cannot hesitate emphatically to denounce and condemn it. The natural guardian of property should never lose an interst in its preservation. No care of children can, as a general rule, equal parental care, and no watchman is so continuously vigilant as the owner. When property is fully insured and the premium paid, how can an underwriter reasonably expect that, with all the harrassing cares and solicitudes of modern business life, the owner will watch and guard and protect it against hazards, for the happening of which he has already paid a strong and wealthy corporation? When companies ask and expect this solicitude and surveillance on the part of a policy-holder fully insured, they violate the plainest axioms of business and common sense. This, when dealing with men of good principles and thorough honesty; and no mathematics can compute how much these hazards are increased when dealing with elements of fraud, chicane and land piracy.

Could the plan of partial insurance be carried out without seriously impeding the movements of commerce, and frequently resulting in losses to parties who are both careful and honorable, we should be inclined immediately to advocate its adoption as the surest means of protection to insurers. But we do not think it could be; the result of such a rule would leave innocent parties, particularly agents who have made advances, or others having only a partial or temporary interest in property, without any adequate safeguard against losses. In default of any suggestion which seems to meet all the difficulties of the case more satisfactorily we must adhere to the opinions previously expressed in

these columns, that the most effective, if not the only remedy that the case admits of is to be found in a thorough examination into the causes of all fires, and also in the non-payment of the amount insured until it is at least established that the loss is not of incendiary origin. A committee or board should be organized, the members to be chosen by all the companies, whose duty it should be to make the examination. If this were done the insurance business could be reduced to a proper basis, and no insurer would be called upon to pay for his neighbor's dishonesty or for his neighbor's greater risk. At present, no sooner does a company hear of a loss than it hurries to the insured with a check in hand to liquidate it, thus making a bid for future business. This is clearly wrong. Of course, no unnecessary impediment should be put in the way of prompt payment, but it is due alike to the company and its patrons that there should first be a proper investigation.

In conclusion Mr. Barnes says, and in this we believe all the most prudent writers will agree with him, that the remedy for weakness is increased strength; this must be reached either by means of new additional capital, or by a reserve of premiums paid for by the public but retained by the companies in some form as a Safety Fund, for the payment of extraordinary losses and contingencies. Whether the ownership of this fund is vested in the policy holders and represented by scrip, or in the stockholders and held as a "reserve fund," or in both and represented in any form, is of less consequence to the public than the practical initiation, on a broad and general basis, of some system of fortification besides capital, which is often strained beyond endurance, and besides the ordinary re-insurance reserve of *fifty* per cent to pay losses, which last year have actually taken over *seventy-seven* per cent. of premiums.

COMMERCIAL LAW.—No. 35.

OF LIFE INSURANCE.

(Continued from page 41, vol. 57.)

OF THE PURPOSE AND METHOD OF LIFE INSURANCE.

If A insures B a certain sum, payable at B's death to B's representatives, we have only the insurer and insured, as in other cases of insurance. But if A insures B a sum payable to B or his representatives on the death of C, although C is often said to be insured, this is not quite accurate; more properly, B is the *insured* party and C is the *life-insured*.

Life insurance is usually effected in this country in a way quite similar to that of fire insurance by our mutual companies. That is, an application must be first made by the insured; and to this application queries are annexed by the insurers, which relate, with great minuteness and detail, to every topic which can affect the probability of life. These must be answered fully; and if the insurer be other than the life-insured, there

are usually questions for each of them. There are also, in some cases, questions which should be an answered by the physician of the life-insured, and others by his friends or relatives; or other means are provided to have the evidence of the physician and friends.

These questions are not, perhaps, precisely the same, in the forms given out by any two companies, and we do not speak of them in detail here. The rules as to the obligation of answering them, and as to the sufficiency of the answers, must be the same in life insurance that we have already stated in the chapters on Fire and Marine Insurance; or rather must rest upon the same principles. And the same rules and principles of construction therein set forth would doubtless be applied to the question whether a contract had been made, or at what time it went into effect.

OF THE PREMIUM.

If the insurance be for one year or less, the premium is usually paid in money, or by a note, at once. If for more than a year, it is usually payable annually. But it is common to provide or agree that the annual payment may be made quarterly, with interest from the day when the whole is due. Notes are usually given, but, if not, the whole amount would be considered due. If A, whose premium of $100 is payable for 1856 on the 1st day of January, then pays $25, and is to pay the rest quarterly, but dies on the 1st of February, the $75 due, with interest from the 1st of January, would be deducted from the sum insured.

Provision is sometimes made that a part of the premium shall be paid in money, and a part in notes, which are not called in unless needed to pay losses. The greater the accommodation thus allowed, the more convenient it is obviously to the insured, but the less certain will he be of the ultimate payment of the policy, because, in the same degree, the fund for the payment consists only of such notes, and not of payments actually made and invested. There is a great diversity among the life insurance companies in this respect. But even the strictest, or those which require that all the premiums shall be paid in money, usually provide also that an amount may remain overdue, without prejudice, which does not exceed a certain proportion—say one-half or one-third—of the money actually paid in on the policy. This is considered, under all ordinary circumstances, safe for the company, because every policy is worth as much as this to the company. Or, in other words, it would always be profitable for the company to obtain a discharge of its obligation on a policy, by repaying the insured so small a proportion of what has been received from him.

OF THE RESTRICTIONS AND EXCEPTIONS IN LIFE POLICIES.

Our policies usually contain certain restrictions or limitations as to place; the life-insured (he whose life is insured for his own or another's benefit) not being permitted to go beyond certain limits, or to certain places. But there is nothing to prevent a bargain permitting the life-insured to pass beyond these bounds, either in consideration of new and further payments, or of the common premium.

So certain trades or occupations, as of persons engaged in making gun powder, or of engineers or firemen about steam-engines, are consid-

ered extra-hazardous, and as, therefore, prohibited, or requiring an extra premium.

The exception, however, which has created much discussion, is that which makes death by suicide an avoidance of the policy. The clause respecting duelling is plain enough; and no one can die in a duel without his own fault. But it is otherwise with regard to self-inflicted death. This may be voluntary and wrongful, or the result of insanity and disease for which the suffering party should not be held responsible. If a policy is accepted, which expressly declares that the sum insured shall not be payable if the life-insured die by his own hands, whether wilfully, knowingly or intentionally, or otherwise, there is no doubt that this clause would have its full and literal effect. But it might then be very difficult to limit its application. If, for example, a nurse gave a sick man a fatal dose by mistake, and he took the glass in his hand, and put it to his lips, drank, and died, it might fall within the language of such a provision, but could hardly come within any principle that would be recognized. Most persons die by their own act, in this sense; because most owe their death to some act or acts of indiscretion or exposure. The insurers may except any kind of death, as they may except death by a certain disease, or by a certain cause or in a certain place. The difficult question is, what is the construction and operation of law, where the clause is only "death by his own hands," or some equivalent phrase?

Although strong authorities favor that construction of any clause of this kind which would avoid the policy if death were actually self-inflicted, although in a state of insanity, the opposite view is also well sustained. And we are of opinion that the general principles of law of contracts, and of the law of contracts, and of the law of insurance particularly, would lead to the conclusion that "death by his own hands," but without the concurrence of a responsible will or mind, would not discharge the insurers, without a positive provision to that effect. We should put such a death on the same footing with one resulting from a mere accident, brought about by the agency, but without the intent, of the life-insured. As if, in a case like that above supposed, poison were sent to him by mistake for medicine, and he swallowed it under the same mistake.

It was once made a question, upon which high authorities differed, whether death by the hands of justice discharged the insurers when the policy made no express provision for this. Perhaps the weight of authority is in the affirmative. But the question has now but little practical importance, as our policies always express this exception.

Although a policy express that it shall not take effect until the premium is paid, this payment may be waived by the company. Taking a note would certainly be a waiver, if not a payment. The premiums, after the first, must be paid on the days on which they fall due. If no hour be mentioned, then it is believed that the insured would have the whole day, even to midnight. It is possible, however, that he might be restricted to the usual hours of business, and perhaps even to those in which the office of the insurers is open for business. In some policies a certain number of days is allowed for the payment of the premium. Then, if the loss happen after the premium is due and unpaid, and during this number of days and before they have expired, but after the loss, the premium is paid, the insurers should be bound by this subsequent payment of the premium by the insured

or his representatives, within the designated period. But if a certain time were allowed—say fifteen days—and the language of the policy be such as indicates the intention of the parties that the payment of the premium during the fifteen days is to be made by the life-insured personally, or during his life, then if he dies, and the premium is paid by his executors during the fifteen days, it has been held that the sum insured cannot be recovered of the company. And it has also been held, that where the printed proposals allow a certain time within which the premium may be paid, after it becomes due, and they are not referred to in the policy so as to become a part of the contract, if the life-insured dies after the premium becomes due, the executors cannot, by a tender thereof within the time allowed by the proposals, recover on the policy.

Where this time had elapsed, and the insurers, under their rules, had charged their agent with the amount—not hearing of the default from him, of which it was the agent's duty to notify them immediately—and the insured some days afterwards, paid the premium, which was received by the agent, it was held that this was not sufficient to renew the policy. This seems to be a harsh and extreme case; for if the insurers had themselves received and accepted the money from the insured, there seems no reason for doubting that this would have bound them. Practically, the utmost care is requisite on the part of the assured, to pay his premium as soon as it is due; and it is a wise precaution to pay it a little before.

This is the only proper and safe course. But we believe it to be not unusual for the insurers to accept the premium if offered them a few days after, and continue the policy as if it were paid in season, provided no change in the risk has occurred in the mean time.

The time of the death is sometimes very important. If the policy be for a definite period, it must be shown that the death occurs within it. If there were an insurance on a man's life for a year, and some short time before the expiration of the time he received a mortal wound, of which he died one day after the year, the insurer would not be liable. And the terms of the policy may possibly make it necessary to determine which of two persons lived longest; as if a sum were insured on the joint lives of two persons, to be paid to the representatives of the survivor. In the cases in which a question of this kind has been raised, there has been some disposition to establish certain presumptions of the law; as that the older survived the younger, or the reverse; or that the man survived the woman. We apprehend, however, that there is not, and cannot be, any other presumption of law on the subject than that, after a certain period of of absence silence, there is a presumption of death; and seven years has been mentioned in England and in this country as this period, and even sanctioned by legislation in New York. But all questions of this kind we regard as pure questions of fact. Whichever party rests his case upon death or life, at a certain time, must satisfy the jury upon this point, by such evidence as may be admissible, and sufficient. If the presumption of death in seven years is relied upon, it has been supposed that this strongly imports life during the whole of that period, and death only at the end, unless there be evidence of some particular peril at some definite time; but this may well be doubted. It is held in England, that where a person has not been heard of for seven years, there may be a presumption that he

is dead, but no presumption as to the time of his death, and the fact that he died at the expiration of seven years, or at any other time within the seven years, must be proved by the party relying on it.

OF THE INTEREST OF THE INSURED.

Every one insured in any way must have an interest in the subject-matter of the insurance. Any one may insure his own life; but if the insured and the life insured are not the same, that is, if the insured be insured on some other life than his own, interest must be shown. The English statutes have been supposed to require this; and although we have no precise legislation on the subject, it must be true in this country, then an insurance of any kind without interest is a mere wager, and a void contract.

The general rule is, that any substantial pecuniary interest is sufficient, although not strictly legal or definite. This has been held in the case of a sister, dependent on a brother for support; and the rule would be held to apply not only to all relations, but where there was no relationship, if there were a positive and real dependence. That is, any one may insure a sum on the life of any person on whom he or she really depends for support or for comfort.

So an existing debt gives the creditor an insurable interest in the life of a debtor. But if the debt be not founded on a legal consideration, it does not sustain the policy. And if the debt be paid before the death of the debtor, the insurers are discharged. So it was thought they were, on the general principles of insurance, if the debt were paid after the death of the debtor, and before the insurance is paid, or if on any ground, or by any means, the whole risk of the insured is terminated, and he cannot suffer any loss by the death of the life-insured. But recent adjudication in England has unsettled the former rule in regard to this question, and now it seems probable that the insurers would be required to pay under such circumstances. The leading case in England on this subject had a peculiar interest, from the celebrity of the life-insured, as well as from the severe examination to which it has recently been subjected. The plaintiffs were creditors of the Rt. Hon. William Pitt, and on November 29, 1803, obtained from the Pelican Life Insurance Company an insurance on his life for seven years, renewable from year to year for seven years, at an annual premium, which was duly paid, and the policy renewed, until his death, on January 23, 1805. The debt of Mr. Pitt, at the time the policy was effected, and during the rest of his life, was equal to the sum of £500, and at his decease amounted to £1,108 11s. 6d., which sum, he dying insolvent, was paid to the plaintiffs by his executors, the Earl of Chatham and the Lord Bishop of Lincoln, out of the money granted by Parliament for that purpose. The insurance company, against which this suit was brought on the policy, resisted payment, on the ground that the contract of life insurance was one of indemnity, and the plaintiffs having been fully paid had been fully indemnified. This defence was sustained. But in recent cases this case is said to have been wrongly decided, and that both the law and usage in England are otherwise; and now, it seems that the insurers would be held there, although the whole debt were paid. We think it would be so here; but in this country, life insurance companies sometimes avoid the question by making it a part of the contract, that the

insured creditor shall transfer to the company an amount of his debt equal to that for which he is insured; and then if the debt is paid it must be paid to them.

A difficult question arises, when the insurers on the death of a debtor pay the sum they insured to the creditor, and the representatives of the debtor, or a surety or guarantor of the debt, defend themselves against the creditor on the ground that the debt is paid and fully discharged by the payment under the policy. The cases may not settle this question; nor does the practice, so far as we are aware of it. The general principles of all insurance would lead to the conclusion that by such payment the debt is paid, so far as the creditor is concerned; but that the insurers have by substitution the rights of the insured, and may prosecute, in his name, but for their own benefit, any action against the estate or representatives of the debtor which the creditor might prosecute himself. Recent adjudication, to which we alluded in the last paragraph, would, however, lead to a different conclusion, and deny the insurers any benefit from the debt, and oblige representatives of the debtor to pay it to the creditor, to whom it had been also paid by the insurers.

OF THE ASSIGNMENT OR A LIFE POLICY.

Life policies are assignable at law, and are very frequently assigned in practice. A large proportion of the policies which are effected, are made for the purpose of assignment; that is, for the purpose of enabling the insured to give this additional security to his creditor. If the rules of the company or the terms of the policy refer to an assignment of it, they are binding on the parties. On the one hand, an assignment would operate as a discharge of the insurers, provided a rule or expressed provision gave this effect to the assignment. And, on the other, if the agreement were that the policy continue in favor of the assignee, even after an act which discharged it to the insured himself, as, for example, his suicide, the insurers would be bound by it.

It is an important question, what constitutes an assignment. The general answer must be, any act distinctly importing an assignment. And, therefore, a delivery and deposit of the policy, for the purpose of assignment, will operate as such, without a formal written assignment. So will any transaction which gives to a creditor of the insured a right to payment out of the insurance.

It seems, however that delivery is necessary. And where an assignment was indorsed on the policy, and notice given to the insurer, but the policy remained in the possession of the insured, it was held that there was no assignment. Where, however, the assignment was by a separate deed, which was duly executed and delivered, this is an assignment of the policy, without actual delivery of the policy itself. And a mere verbal promise to assign, a valuable consideration being received for the promise, has been held good as gainst the insured; and, perhaps, after proper notice, against his assignee in bankruptcy.

This subject of assignment is frequently regulated by the by-laws of the insurers, or by the terms of the policy. Where it is not, we see no reason for saying that the right to know and choose the party assured does not apply, as in other kinds of insurance; and consequently the insurers are

discharged if there be an assignment without their knowledge and consent. The cases, however, do not settle this question, and there opinions that life insurance is in this respect distinguished from other insurance.

OF WARRANTY, REPRESENTATION AND CONCEALMENT.

The general principles on this subject are the same which we have already stated in reference to other modes of insurance. In life policies, however, the questions which must be answered are so minute, and cover so much ground, that no difficulty often arises except in relation to the answers. One advisable precaution is for the answerer to discriminate carefully between what he knows and what he believes. If he says simply "yes" or "no," or gives an equivalent answer, this is in most cases a strict warranty, and avoids the policy if there be any material mistake in the reply. But where the answerer adds the words "to the best of my knowledge and belief," he *warrants* only the facts of his belief, or, in other words, nothing but his own entire honesty.

The cases which turn upon the answers to the questions are very numerous, but they necessarily rest upon the especial facts of each case and hardly permit that general rules should be drawn from them. Some, however, may be stated.

The first is, that perfect good faith should be observed. The want of it taints a policy at once, and the presence of it goes far to protect one. Thus, where the life-insured was beginning to be insane, but was wholly unconscious of it, the policy was not vitiated by the concealment, although two doctors in attendance upon him knew how the case stood.

There is a warranty, or statement, usually making a part of nearly all life policies; it is that the life-insured is in good health. But this does not mean perfect health, or freedom from all symptoms or seeds of disease. It means reasonably good health; and loose as this definition or rule may be, it would be difficult to give any other. And if a jury on the whole are satisfied that the constitution of one warranted to be "in good health" is radically impaired and the life made unusually precarious, there is a breach of the warranty, although no specific disease is shown which must have that effect. On the other hand, this warranty is not broken by the presence of a disease, if that be one which does not usually tend to shorten life (in one English case dyspepsia was said to be such a disease), unless it were organic, or had increased to that extreme degree as to be of itself dangerous.

Consumption is the disease which is most feared in this country as well as in England. And the questions which relate to the symptoms of it, as spitting of blood, cough and the like, are exceedingly minute. But here also there must be a reasonable construction of the answers. Thus, if spitting of blood be positively denied, there is no falsification in fact, though literally speaking the life-insured may have spit blood many times, as when a tooth was drawn, or from some accident. If there be an action on the policy, and the insurers rest their defence on any falsification of this kind, the question usually put to the jury is, Was the party affected by any of these or similar symptoms, in such wise that they indicated a disorder tending to shorten life? And any symptom of this kind, however slight—as a drop or two of blood having ever flowed from inflamed

or congested lungs—should be stated. In a case in Massachusetts, an applicant for life insurance answered an interrogatory whether he had ever been afflicted with a pulmonary disease in the negative, and in answer to an interrogatory whether he was then afflicted with any disease or disorder, and what, stated that he could not say whether he was afflicted with any disease or disorder, but that he was troubled with a general debility of the system; and it was proved that the applicant was then in a consumption, the symptoms of which had begun to develop themselves five months before and were known to him, but were not disclosed to the insurers, although sufficient to induce a reasonable belief on the part of the applicant that he had such a disease. It was held that, whether these statements amounted to a warranty or not, they were so materially untrue as to avoid the policy, although the insured, at the time of his application, did not believe that he had any pulmonary disease, and the statement made by him was not intentionally false, but, according to his belief, true.

The insurers always ask who is the physician of the life-insured, that they may make inquiries of him if they see fit. And this question must be answered fully and accurately. It is not enough to give the name of the usual attendant, but every physician really consulted should be named and every one consulted as a physician, although he is an irregular practitioner or quack.

If the warranty be that the life-insured is a person of sober and temperate habits, it has been held, in an action on such a policy, that the jury are not to inquire whether his habits of drinking are such as might injure his health; for if he has any "habits of drinking," this would discharge the insurers, because they have a perfect right to say that they will insure only those who are temperate. But it might be answered, that although the insurers have this right, and there may be good reasons why this should be the general practice, yet unless they use the word "abstinence," or something equivalent, they have no right to say that any one is not "temperate" who does not drink enough to affect his health; for certainly all "intemperance" does this.

NEW YORK CITY GOVERNMENT AND FINANCES.

The statement submitted to the Board of Supervisors by the Comptroller, giving the financial condition of the City of New York, and the aggregate taxation required for the maintenance of the Government, is well calculated to excite a lively apprehension, showing, as the figures do, a steady increase of expenditure, far disproportionate with that of wealth and population. The Comptroller, therefore, appeals to the Constitutional Convention now in session at Albany, to devise some more economical method of maintaining the city and county governments, and declares that there can be no just cause for such an increase of taxation. He also very properly urges the Board of Supervisors, and through them all Boards and Commissioners authorised to disburse the public moneys, to exercise the greatest prudence and economy in all expenditures with which they are charged.

The management of public affairs in the City of New York has long been a prolific theme for criticism and wordy declamation. This is no recent thing; for we remember that in 1849 the Democratic City Convention put forth an address in favor of Myndert Van Schaick for Mayor, in which censures were freely bestowed upon the administration of affairs, very similar to those which are current at the present time. The remedy then proposed and afterward applied was the revision of the charter of the city, by which the executive and administrative branches of the government shall be separated from the legislative, and devolved upon departments. The result proves that the experiment was not a successful one. The expenses were increased more rapidly than ever, as the following table will show :

Year.	Valuation.	Total tax.	Year.	Valuation.	Total tax.
1825	$101,160,046	$387,448 85	1851	320,110,857	2,924,455 94
1830	125,288,518	509,178 44	1852	351,768,426	3,380,511 90
1835	218,723,703	965,602 94	1853	413,631,382	5,066,698 74
1840	252,233,515	1,354,835 29	1854	462,021,734	4,845,386 07
1845	239,995,517	2,096,191 18	1855	486,998,278	5,843,822 89
1849	256,197,143	3,005,762 52	1856	511,740,491	7,075,425 72
1850	286,061 816	3,230,085 02			

A later mode of decreasing the expenditures has been by means of commissions appointed at Albany. Under this system in 1857 the Legislature enacted the Metropolitan Police Bill, which removed the police from the control of the municipal authorities, and devolved them upon a Board of Commissioners appointed by the Governor and Senate. This department of the government has been for many years growing into a costly body. The following table shows the increase under the last years of the two municipal systems and the first years of the metropolitans :

1851	$492,000	1856	$819,000
1852	510,000	1857	828,000
1853	540,000	1858	888,588
1854	615,000	1859	1,211,992
1855	872,000	1860	1,325,560

In 1860 the Legislature made another change by enacting that the Board of Supervisors should annually cause to be raised by tax the amount of money required from the city for the total expenses of the police district, since which time the police items do not appear in the tax levies enacted annually at Albany. The amounts since appropriated by the Board of Supervisors have been as follows :

1862	$1,683,650	1865	$2,211,556
1863	1,743,920	1866	2,166,684
1864	2,062,720	1867	2,531,247

These figures certainly do not indicate that the change of systems worked any decrease in the expenses of the police.

The statistics of the Governors of the Alms House show also a similar tendency to increase, as may be seen in the following table :

1850	$400,000	1856	$613,450
1851	330,000	1857	925,000
1852	390,000	1858	843,800
1854	385,000	1859	605,000
1855	427,000	1860	780,250

On the last night of the session of 1866 the Legislature abolished this

Board and created the Department of Public Charities. In 1865 their expenditures amounted to $988,450. They have not materially increased.

The public schools also constitute an item continually on the increase. The following is a table of the expenses from 1850 to 1859:

1850	$267,968	1855	$956,000
1851	447,487	1856	1,023,354
1852	502,315	1857	1,100,410
1853	604,000	1858	1,226,013
1854	668,814	1859	1,216,000

In 1865 the amount appropriated was $2,298,508 58; and several hundred thousand dollars have been since added. The Comptroller states it at $2,939,348. The other Boards and Departments have a similar record to show. These figures indicate the tendency of matters both before the adoption of the expedient of governing by commissioners, and the tendency since that time, to have been the running year by year into prodigality and extravagant expenditure. In fact, this large increase would appear to have taken its rise on the first division of the Government into irresponsible departments. We have given above the total yearly aggregate and taxation from 1825 to 1856; we now add the figures for each year since the passage of the Metropolitan Police Act:

Year.	Valuation.	Aggreg'e tax	Year.	Valuation.	Aggreg'e tax
1857	$521,175,252	$8,111,758 09	1862	$571,967,345	$9,906,271 10
1858	531,194,290	8,621,091 31	1863	594,196,813	12,091,705 14
1859	551,923,122	9,860,926 09	1864	634,615,890	13,705,092 86
1860	577,230,956	9,758,507 86	1865	608,784,355	18,202,857 56
1861	581,579,971	11,627,632 28	1866	737,989,908	16,950,767 83

The amount of revenue required for 1867 is put down by the Comptroller at $21,889,655 98. The Board of Supervisors will somewhat modify this aggregation, but the rate of taxation cannot vary greatly from three per cent.

How these rapidly increasing expenses can be stopped is of course a vital question. Much is expected from the deliberations of the Constitutional Convention, and we trust that their first effort in the way of solving the problem will be to give us a homogenous efficient municipal government. With this change, it strikes us that many of the difficulties in the way of initiating reform would be removed. The plurality of the functions, and the division of them into departments virtually independent of each other, totally overthrows responsibility, and tolerates the introduction of abuses which are hard to redress. A complete deliverance from this incongruous medly of state, county and city departments is then of the first importance. Many other changes have been proposed. The most important perhaps is that suggested by, we believe, the Citizens' Association, to the effect that one branch of the Common Council be composed of members elected only by taxpayers, and that body to originate all bills for the appropriation of money. This would certainly give promise of a more responsible body of men than our present city fathers, and has, besides, much else to recommend it. But, as the first and most important change, we desire an efficient, responsible government in the place of the many-headed makeshift we are now afflicted with. When that change is accomplished we shall be ready to look further.

PROJECTED RAILROAD FROM OSWEGO TO NIAGARA RIVER.

The Board of Trade of Oswego some time since appointed Messrs. E. Talcott, Charles Rhodes, A. P. Grant and John McNair a committee to examine the subject of a Lake Shore road between Oswego and Niagara river and to report to the Board the result of such investigation. As a connecting link in the communication between the West and the cities of New York, Boston and Portland upon the Atlantic seaboard this question has become one of great importance to the whole country. At a meeting of the Board of Trade, July 15, Hon. Cheney Ames in the chair, the following report of the committee was made, read and accepted:

REPORT.

The projected railroad from Oswego to the Niagara river has heretofore been the subject of much and careful consideration, not by those locally interested in its success, but by both eastern and western gentlemen of very great intelligence and practical experience in railroad and commercial matters, and its importance has been uniformly conceded as affording a much needed additional avenue for the transit of western trade. The volume of this trade is constantly and rapidly increasing, and with the steady growth of the western States in wealth and productive population and the completion of the Pacific railway, now progressing with astonishing rapidity, its prospective increase is beyond the reach of present computation. At an early day, and in the judgment of your committee at a day as early as the completion of the Pacific railway, with which the proposed Lake Ontario Shore road will be brought into direct communication, the latter will cease to be regarded as a competitor of existing railway lines; but the strife will rather be a combined one on the part of the several lines leading to the eastern seaboard, to furnish the required facilities for transportation between the East and the West. Hitherto the principal objection to building this road has been the want of suitable railroad connections from Oswego eastward to tide water. The two roads from Oswego to Syracuse and to Rome both connect at those points with the New York Central alone, and as that road has imposed upon freight to and from Oswego extra rates, as way freight, sometimes making the cost of transportation by railroad from New York to Oswego as great as to Buffalo—135 miles further west—a movement in favor of a road from the Niagara river to Oswego has involved the necessity of providing at the same time for a line hence to the Hudson, independent of the New York Central. This difficulty, so far as trade with New York city is concerned, now no longer exists. By a contract recently perfected between the Oswego and Syracuse, the Syracuse and Binghampton, and the New York and Erie roads (and which is to continue in force as long as the charters of those roads or any renewals of them shall survive), the former road is to make its guage, by a third rail, the same as the other two; the two former to connect at Syracuse by a tunnel under the Central, and the New York and Erie is to transport through freight from Binghampton to New York at the same rates per mile which it shall at the time charge on through freight from its western termini at Buffalo or Dunkirk to New York. The work under this contract is now in active

progress and the whole is to be completed and the arrangement go into full operation the coming fall.

This important and harmonious combination of interests which have hitherto, to some extent, been conflicting will restore the city of Oswego to her true geographical position—that of the nearert point on the great lakes to tide water—and open to the large commerce from Canada and the western States, already centered at Oswego, as well as its future increase, a reliable outlet by rail to New York and Philadelphia at current railroad rates.

The Atlantic ports, besides New York, are preparing to make a vigorous struggle for a participation in the western trade, which has been well styled the great commercial prize of this continent.

The State of Massachusetts, in order to lower the grade and shorten the distance between the Hudson and its chief commercial city, is perforating the Hoosic mountains by a tunnel, second in extent only to that now being cut through Mount Cenis, in Italy, and likely to equal that work in cost. That State, however, appears to be undaunted by the growing estimates of the cost of her great work, as it progresses, and will expend on this 4½ miles of tunnel a sum sufficient to construct at least three such roads as the one proposed from Oswego to the Niagara, and her controlling motive is, through that tunnel, to seize upon and draw to Boston a portion of the trade of the west, the shortest and most feasible route for which will then be over the road now under discussion.

The city of Portland, also, in view of her excellent commercial position and unequalled harbor, demands her share of the western trade, and is moving actively to secure it. There is now in operation a connected chain of railroads from Oswego direct to Montpelier, Vermont. A committee, composed of prominent gentlemen of high character and representing large railroad and commercial interests in northern New England, recently visited Oswego for the purpose of securing a connected railway line from Portland to Oswego, and hence by the most direct feasible route to Chicago. After a consultation with your Board of Trade and other citizens, those gentlemen assured you that a road should be speedily built from Portland to Montpelier, thus furnishing a connected line from Portland to Oswego; and they ask of us and the Lake Ontario shore country, that by the proposed road to the Niagara we supply the only link wanting between Portland and Chicago.

The completion of the Southern Central road will add another important connection to a Lake Shore road. This road, which starts from Fairhaven, at the head of Little Sodus bay, on Lake Ontario, fourteen miles west of Oswego, will extend southerly along a remarkable easy grade to the Pennsylvania State line, and then connect with roads running into the coal fields and oil regions of that State and to Philadelphia. This road is already graded nearly its whole length, and it is now under contract for completion ready for use in the fall of 1868. The proposed road would cross the Southern Central at or near Fairhaven, and the two roads be obviously of great mutual benefit.

The Eastern and Southern lines of road to which we have referred will all find their most desirable and direct connections for the west with the projected road at or near Oswego, and with the advantages afforded by these connections, none of which have ever before been presented, an entirely new aspect is given to the proposed enterprise.

At the western extremity of the State not only are the same connections open to this road which are now enjoyed by the Central, to aid the lake shore roads and the lake steamers at Buffalo and the Great Western railroad at Suspension Bridge, but a connection with the Great Western or with a new and more direct line across the peninsula south of the Great Western at Lewiston, would be preferable to either of the others or to all of them combined.

By crossing the Niagara at Lewiston, there will be a very considerable saving, both in distance and grade, as this route presents the shortest line to Detroit and Sarnia, and also avoids an ascent of about 330 feet from the level of Lewiston to Suspension Bridge, and an equal descent on the west side of the river before reaching St. Catherines and Hamilton, between which last city and Detroit the elevation of Lake Erie above lake Ontario is overcome by well distributed grades.

THE ROUTE FROM LEWISTON TO OSWEGO.

From Lewiston to Oswego, a line by way of Rochester has been surveyed by competent engineers, and in respect to grade, cheapness of construction, beauty of natural scenery, and the productiveness of the country, it is for an equal length of rail, without a parallel in the State. The grade is generally level or descending gently to the East, and nowhere on the whole line, after leaving Lewiston, does it exceed twenty-six feet to the mile. The distance from Lewiston to Oswego is 141 miles. From Lewiston to Rochester the survey was made in 1857, by Messrs. Parkinson & Smith, C. E., whose maps, profiles, estimates and report are now in the possession of your Board of Trade.

In their report of this survey these gentlemen make the following statements:

"We may safely say that never have we, in all our engineering experience during the past twelve years, and in almost all parts of the United States, found a district of country seventy-three miles in length that presents so many favorable features for the construction of a first-class railroad. In the opinion of the most eminent geologists, the country through which our line passes, on the north of the ridge, is the shelving beach of an ancient lake, of which the ridge itself was the margin, and our line, running very nearly in the direction of the water line, could not of course be very undulating. The country is so remarkably uniform and level that no grade occurs on the entire route, after leaving Lewiston, over 26 feet per mile. There are 16½ miles of grades under five feet per mile, and nearly 17 miles of the lines are level. Summing, we find that there are sixty-eight and one-fourth miles out of 73 2-10 miles—the entire length of the line, with grades under 20 feet per mile. Your road compares very favorably with the New York Central, not only in point of grades and alignment, but possesses an advantage in distance not unworthy of notice. The soil of the entire district passed over is of most excellent quality, and the division of the country into so many small farms causes it to resemble a a continuous village.

"This estimate of cost for a single track, with station houses, depots, fencing and rolling stocks, with a rail weighing 70 pounds to the yard, exclusive of the cost of right of way is, $15,550 per mile" (made on prices of labor and materials in 1857).

From Rochester to Oswego the survey was made in 1865, by Mr. John McNair, C. E. The distance between the places is 69 48-100 miles, for about one half of which the line runs along the same "shelving beach" as before described, and presenting the same features in soil, grade, and evenness of surface. From this point to Oswego, Mr. McNair made his survey with great care, and states that the grade will nowhere on this line, exceed the maximum west of Rochester, of 26 feet to the mile. These surveys from Lewiston to Oswego, present a line in the highest degree inviting as a railroad route and it would certainly seem most, surprising that such a line, offering such unusual advantages in the way of local business, and cheapness of construction and connecting directly with roads running to Chicago and the far West, should have so long remained unoccupied—were it not for the want heretofore felt of proper outlets, eastward from Oswego to the seaboard. But with the entire removal of this difficulty by the completion of the three several connecting lines of railway to the East and South, before referred to, all of which must become outlets and feeders for the road in question, the undersigned do not hesitate to express their conviction that no line for a railroad of equal length can be found in this country having as many marked advantages, and promising so large a return upon the capital required for its construction, as the one from Oswego to the Niagara River. It will form part of a route from Detroit to New York city, for both freight and travel, at least equal to any other, and so far as all of Northern New York and New England are concerned, a route with which no other can successfully compete.

In estimating the future demands of trade upon the means of transportation, we may accept the fact as already demonstrated by the history of the internal commerce of the country during the last fifteen years that railroads are to do the great bulk of the carrying trade.

Among the great canals of this country constructed for the transportation of produce, the Erie canal is the only one which has not already proved a failure. Pennsylvania has sold her great canal to a railroad company. Ohio has tried without success to sell hers, and the Wabash canal of Indiana is wholly without value to the State, more than one-half of it being left without repair and utterly useless for commerce. The railroads have virtually superseded them all. Even our Erie canal has its lesson in the same direction, though strenuous efforts have been made to retain its trade by reducing tolls, and increasing its capacity for large size boats.

In 1830 the tolls on the Erie canal between Albany and Buffalo were, on up freights $10 22 per ton and on down freights $5 11. In 1858 they had been reduced to $1 46 per ton each way, and they have for many years been adjusted on many articles with a view to meeting railroad competition. In 1830 the capacity of the largest boats on the canal was 70 tons. Since the enlargement their capacity is increased to 224 tons. In 1853 Erie canal tolls were removed from our railroads, and until that time they were comparatively but little used in this State for freight. In that year the freight carried on the New York Central was 360,000 tons, and on the New York and Erie 631,039 tons, total 991,039 tons. Freight carried by the Erie canal the same year, 4,247,853 tons. In 1859 the freight carried on the Erie canal was 3,781,684 tons, while the two railroads above named carried 1,703,391 tons. In 1866 the deliveries of

freight by canal at tide water was 1,107,537 tons. The total freight carried on all the State canals in that year was 5,775,220 tons; while that carried on the railroads of the State was 9,210,476 tons. The revolution indicated by these statements, and which has been wrought in the last 13 years in the use of railroads for freight, speaks unmistakably for the future. The tendency of trade has been and is towards greater rapidity in its transit between the western and eastern markets. The telegraph in a few moments of time announces to the western merchant the state of the eastern markets both at home and in Europe. Short commercial papers required by banks and the commercial requirement for trade now is celerity of movement with the lowest attainable point in cost. In view of the facts and suggestions which we have presented, your committee are of the opinion that the proposed railroad from Oswego to the Niagara river should be built, and we recommend an early organization of a company for that purpose and vigorous prosecution of the work to a speedy completion.

NORTH CHINA TRADE.*

At present the northern ports are supplied with goods from Shanghae and Hongkong, where the native dealers go and purchase the greater part of the manufactures that are sold in these markets; and until the ports of Chefoo and Tientsin are brought into direct communication with the British manufacturer, and goods are sent out from England direct to them, these ports can hardly be said to be opened to British commerce, nor will British trade in these ports and the whole north of China be satisfactorily developed. The laying down price of goods at the northern ports, if received direct from England, would be necessarily less than what goods bought at Shanghae, with the addition of freight, insurance, etc., now cost at Chefoo and Tientsin before they can be offered to native dealers; and the difference in cost in favor of the direct shipments would materially increase the consumption of British manufactures if they took place.

The trade of Tientsin is now so linked with that of Chefoo that the one cannot be considered separate from the other in this point of direct trade with England, and ships coming out might bring cargoes for both places, as they are only separated by a sea journey of twenty-four hours. Of the three treaty ports in the Gulf of Pacheli, the one best adapted for direct trade with England would certainly be Chefoo. It is the only one of the three ports which is not closed by ice during the winter. The navigation is easy; the anchorage is safe at all seasons of the year; and it is already a large central market for the Gulf trade, and even now is a distributing depot for the whole of the North of China.

It is very difficult to state what will be the probable future capability of Chefoo and the North of China in regard to British manufactures. The statistics of the last five years offer no criterion for a decisive judgment in this matter.

The lamented civil war in the United States of America, by reducing

* Extracts from a report on the North China Trade by one of the British Consols in that section.

the quantity of cotton available for England and the consequent advance in the price of goods, has kept the China trade in an abnormal state since 1862. Still there is sufficient in the records of the trade to warrant some deductions as to the future. In 1861, when cotton goods were less than two-thirds of their present cost, there were upwards of 1,000,000 pieces of English cotton goods purchased at the ports of Chefoo and Tientsin. In 1863, when cotton goods cost as much again as in 1861, the consumption was still over 1,000,000 pieces of goods at the two ports. In 1861 the peace of the north of China was endangered by rebels who ravaged all the province of Shangtung, and the consumption of that year can hardly be considered as an average; for in 1865, when the northern provinces were tranquil, the consumption was as large, although the goods cost 50 per cent more than before; and at Chefoo during that year (1865) the natives bought more than 250,000 pieces of cotton goods at these high rates, which shows that notwithstanding the shipments to other northern ports, Chefoo is gradually resuming its former importance. It should be borne in mind also that previously to 1862 the importation of raw cotton to the port of Chefoo was 50,000 bales a year and about 80,000 bales at Tientsin; whereas in 1864 there were 60,000 bales exported from Chefoo alone. The north of China, besides the 1,000,000 pieces of cotton goods that it consumed in 1861, purchased about 17,000,000 pounds of cotton or a quantity sufficient to make 2,000,000 pieces of cotton goods; thus making in 1861, when the foreign trade had only begun and times were unfavorable, owing to rebels, a purchase by the north of China of cotton goods and cotton stuffs to the equivalent of 3,000,000 pieces of English cotton goods in one year. At the same time very large quantities of cotton cloths, woven at Shanghae and the Middle Provinces of the Empire, were imported to Chefoo and Tientsin to supply the wants of the natives, so that this must be added to the actual total consumption of cotton cloths in the north of China. Since then the northern Chinese have not only produced the cotton sufficient to clothe themselves, but for export in considerable quantities; but if the inducement of high prices ceases to excite the northern Chinese to produce cotton for export, they will again be purchasers of cotton and cotton goods to the extent already indicated. The vast capability of the north of China to purchase cotton goods may be gathered from the fact that the bulk of the natives are seldom seen wearing cloths made from English cottons. They appear to be clad in native woven materials, and as soon as British merchants can supply the north of China direct from England with goods at such a moderate cost as to be within reach of the masses of the people, the increase of consumption will probably be immense.

Even supposing that the bulk of the people should continue to prefer the native woven cloth, still when the prices are so low as not to excite its production, they will prefer importing it from Shanghae to at least the quantity used before the export began; and British trade could even then find a very great opening, hitherto untried, of offering to the northern Chinese weavers English spun cotton yarn to the extent of at least 15,000,000 pounds a year—that being the equivalent of the cotton yearly imported for spinning and weaving purposes. Indeed, could cotton yarn be again imported at former low prices from England direct to the north of China, the consumption of this article would form a larger trade than that of cotton goods.

During the last three years it has become impossible to draw the attention of natives to buying yarn, owing to its high price; but there is evidence to show that could it be offered to them at a moderate cost, they would prefer using it to their own unevenly spun webs. In the Province of Shangtung, which is specially dependent on Chefoo for its trade, there are more than 10,000,000 pounds of cotton goods woven by the natives each year, and consequently the opening for a trade in yarn at this port is prodigious.

Although the trade in metals has not yet assumed any great importance, moderate quantities of English iron and lead have found their way to Chefoo. The consumption of lead up to the present time is about 800 tons a year, and it is chiefly used in making minium or red lead, with which the natives color the paper employed in ceremonies, and for special correspondence and for placards. About 600 tons of English iron are now imported a year to Chefoo. The native iron competes with it in price for certain sorts, but eventually, when iron is sent out direct from England, so as to lay down here at cheaper rates than what it now costs to bring it from Hong Kong and Shanghae, after it has been shipped to those ports from England, there will doubtless be much larger consumption of every description. There is a large trade for needles and it is on the increase. This branch of trade is supplied from Germany. The growing taste for all European articles of utility is extending itself to other articles of hardware which might be developed if a direct trade with England took place.

There is not much request for woolen cloths, though moderate sales of cotton and woolen mixtures are made here. The use of wadded clothing and sheep skins for woolen garments, which are thus cheaply obtained, will always be a bar to a large consumption of English woolen goods. Russian woolen cloths are in limited use, and the cheap German light woolen fabrics find some favor with the better classes as medium clothing in the spring and autumn.

English coals have been in good demand since the extension of steamer trade to the north of China, and during the year 1865 the consumption exceeded 2,000 tons. As Chefoo is the coaling station for nearly all the mercantile steamers going to Tientsin and Newchwang, and as the English and French navies have coal depots in this port for the use of vessels of war, this branch of trade would greatly increase if coals were sent out direct from England. At present the cost is high, owing to the great expense incurred in transhipping the coal from Shanghae, whence the principal supply comes. It would be an advantage to the British Government if the Royal Navy steamers could get coal here direct from home. There is good coal to be had in Shangtung, in which province Chefoo is situated. A sample of this coal was submitted to Admiral Hope in 1862, and the officers appointed to test it reported favorably on its serviceable quality for steamers. How far the coal mines are from Chefoo has not been ascertained. The mineral resources of Shangtung are reported to be large. There are sulphur and mineral springs about thirty miles distant from this port, renowned for their healing qualities, and if a proper geological survey were made of the country much might be discovered that would add to the commerce of Chefoo.

Amongst the articles that can be exported from Chefoo there is brown

silk, produced from the wild silkworms that swarm in the mountain forests; and the quantity of this article that could be brought into the market if prices suited may be computed at not less than 12,000 bales a year. This silk is of different qualities, according to the process and care adopted in reeling it from the cocoons, and some of it is well adapted for manufactures. The natives weave plain silk goods from it, called pongees, and about 100,000 pieces of these stuffs could be bought annually. There is also a considerable quantity of fine yellow silk produced in the province. In 1861 and 1862 nearly 1,000 bales were exported, but since then very little has been offered for sale. The cause of this silk not making its appearance at Chefoo is partly owing to its being worked up by the native looms to supply the local demand for silk piece goods. Formerly the greatest portion of silk goods used in the north was brought from Foochow and other southern manufacturing towns; but since the rebels devastated those countries this has ceased to be the case, though at present Chefoo imports a moderate quantity of Chinese woven silks, as well as many other branches of commerce. The value of these silk goods imported in the year 1865 was about £45,000 sterling. The silk trade of Chefoo will only be developed and rightly ascertained when by direct importations of English manufactures it will attract to itself all the produce that the natives have to exchange for European commodities.

The capability of Chefoo and the neighboring port of Tientsin for shipping cotton direct from England seems most strangely to have been overlooked or neglected. During the whole of the years 1863 and 1864 more than 20,000,000 pounds of cotton were shipped away from the two ports for Shanghae and Hong Kong, the greater part of which was thence transhipped to England. If the cotton had been shipped either at Chefoo or at Taku (the seaport of Tientsin), the extra cost of freight, the expense of transhipment, of fire and marine insurance, and other incidental charges, as well as a difference in price, in all amounting to at least 2d. a pound, would all have been saved and a great impulse to British trade in the north of China would have been the result. In case of cotton being again required from the far East for the Lancashire looms, Chefoo and Tientsin are likely to export large quantities direct to England.

Besides these matters, which directly interest British commerce, Chefoo has commercial relations with Japan, where there is a large market for the medicinal roots and herbs of the north of China, and whence the supplies of isinglass and earthenware are received in return.

A trade in seaweed and peas is also springing up with the Russian ports to the north of the Corea, and the former article is distributed all over the north of China, from Chefoo. There is every probability of a large increase in this business, and that Chefoo will become the centre of the northern trade with those countries and with the Corea, since the trade has already fallen into this channel.

RAILROAD EARNINGS FOR JUNE AND SECOND QUARTER.

The gross earnings for the under-specified railroads for the month of June, 1866 and 1867, and the difference (increase or decrease) between the two periods, are exhibited in the subjoined statement:

Railroads.	1866.	1867.	Increase.	Decr'se
Atlantic and Great Western	$474,441	$380,796	....	$94,645
Chicago and Alton	371,543	343,671	....	27,872
Chicago and Great Eastern	118,783	87,783	....	31,000
Chicago and Northwestern	922,891	898,357	....	24,434
Chicago, Rock Island and Pacific	350,920	261,480	....	89,440
Cleveland and Toledo	(Not received in time.)			
Erie	1,243,636	1,118,731	....	124,905
Illinois Central	567,679	496,616	....	71,063
Marietta and Cincinnati	106,315	96,535	....	9,780
Michigan Central	335,082	284,977	....	50,105
Michigan Southern	392,640	304,232	....	88,408
Milwaukee and Prarie du Chien	262,172	114,579	....	147,593
Milwaukee and St. Paul	244,376	221,790	....	22,686
Ohio and Mississippi	253,924	240,135	....	13,789
Pittsburg, Fort Wayne and Chicago	633,667	506,586	....	127,081
Toledo, Wabash and Western	325,69	304.810	....	20,881
Western Union	102,686	60.559	....	42,127
Total in June	$6,706.446	$5,721,537	$.....	$984,909
Total in May	6,613,070	6,088,325	.....	524,745
Total in April	5,696,240	6,030,678	334,438	.....

The gross earnings per mile of road operated for the same month of the years, respectively, are shown in the following table:

	Length in miles		Earnings		Differ'e	
Railroads.	1866.	1867.	1866.	1867.	Incr.	Dec.
Atlantic & Great Western	507	507	$936	$751	...	$185
Chicago and Alton	280	280	1,327	1,227	...	100
Chicago and Great Eastern	224	224	424	314	...	110
Chicago and Northwestern	1,032	1,145	894	784	...	110
Chicago, Rock Island & Pacific	410	410	856	638	...	218
Cleveland and Toledo	...	...	....	....	...	...
Erie	798	775	1,570	1,443	...	127
Illinois Central	708	708	802	701	...	101
Marietta and Cincinnati	251	251	423	384	...	39
Michigan Central	285	285	1,176	1,000	...	176
Michigan Southern	524	524	749	581	...	168
Milwaukee & Prairie du Chien	234	234	1,116	489	...	627
Milwaukee and St. Paul	275	275	881	806	...	75
Ohio and Mississippi	340	340	747	712	...	35
Pittsburg, Ft. Wayne and Chicago	468	468	1,354	1,082	...	272
Toledo, Wabash and Western	521	521	625	585	...	40
Western Union	177	177	580	342	...	238
Total in June	7,034	7,124	$953	$803	$..	$150
Total in May	7,207	7,297	917	834	...	83
Total in April	7,207	7,297	790	826	36	...

The results of railroad operations for June are given above; and from these it will be seen that all the roads from which reports have been received have decreased their earnings. In June, 1866, the earnings on 7,034 miles were $6,706,446, and in June, 1867, on 7,124 miles, $5,721,537, the aggregate decrease being $984,909, or at the rate, as shown in the second table, of $150 per mile of road operated. This is certainly very large. The decrease from the month of May last, however, is only $31 per mile of road. The exhaustion of the old crops appears to be the scapegoat for this condtion of railroad matters.

The results of the second quarter of the current year compared with

those of the corresponding quarter of 1866 are shown in the statement which follows:

Railroads.	Gross earnings. 1866	Gross earnings. 1867.	Earn's p. m. 1866.	Earn's p. m. 1867.	Inc.	Dec.
Atlantic and Gt. Western	$1,320,451	$1,283,105	$2,604	$2,531	..	73
Chicago and Alton	970,643	966,813	3,466	3,461	..	16
Chicago and Gt. Eastern	341,256	280,286	1,219	1,001	..	218
Chicago and Northwestern	2,275,944	2,406,744	2,205	2,102	..	102
Chic., Rock Island and Pacific	925,400	793,679	2,257	1,936	..	311
Erie	3,49-,709	3,458,014	4,384	4,462	78	...
Illinois Central	1,548 534	1,394.230	2,187	1,970	..	217
Marietta and Cincinnati	281,701	259,829	1,134	1,035	..	99
Michigan Central	1,044,014	981,712	3,663	3,445	..	218
Michigan Southern	1,228,560	1,051,996	2,344	2,007	..	337
Milwaukee and P du Chien	637,742	321.193	2,724	1,372	..	1,352
Milwaukee and St. Paul	611 507	644,735	2,223	2 199		24
Ohio and Mississippi	814,477	807,805	2,305	2,376	..	19
Pittsburg, Ft. Wayne and Chic	1,915,983	1,660,115	4.094	3,547	..	547
St. Louis, Alton and T. Haute	503.099	515,963	2,395	2,459	64	...
Toledo, Wabash and Weste n	912,424	950,940	1.751	1,829	78	...
Western Union	232,932	159,121	1,316	899	..	417
Total 2d quarter	19,123.376	17.84[illegible],468	2,639	2,432	..	207
Total 1st quarter	16,-31,753	16,071,818	2,241	2,192	..	43

The total length of the above railroads having been in 1866 7,244, and in 1867 7,334 miles.

With regard to the quarterly summary, the result is a decrease in earnings, as compared with the 2d quarter of 1866, to the extent of $207 per mile of road operated, and since January 1 the decrease has been $250 per mile. This is about 5 per cent. on the aggregate.

These results are better than were anticipated, and the loss has probably been balanced by reduced expenditures. If this has been the case, the net earnings will not be injured, while the coming half year is full of promise and may, from increased business, fully make up the gross totals of the railroad year 1866.

DEBT OF NEW JERSEY.

We have lately received the published reports of New Jersey for the past year. From them it appears that the debt of the State at the close of the fiscal year, November 30, 1866, amounted to the sum of $3,395,200, evidenced by certain bonds authorized by law, as follows:

By act of May 10, 1861, the Governor and Treasurer, for war purposes, were directed to borrow, on the issue of 6 per cent. bonds (exempt from taxation), none of which were to be made payable at a later date than January 1, 1885, not exceeding $2,000,000. Under this act the following issues were made and were outstanding at the date mentioned:

Due Jan. 1.	Amount.	Due Jan. 1.	Amount.	Due Jan. 1.	Amount.
1867	$99,600	1873	$100,000	1879	$100,000
1868	99,500	1874	100,000	1880	100,000
1869	99,900	1875	100,000	1881	100,000
1870	100,000	1876	100,000	1882	100,000
1871	100, 00	1877	100,000	1883	100,000
1872	99,900	1878	100,000	1884	100,000

—total outstanding $1,798,900.

By a supplementary act, approved March 24, 1863, the same officials were authorized to borrow, for like purposes, on similar bonds, none of which were to be made payable later than January 1, 1896, an amount

not exceeding $1,000,000. The issues under this act outstanding at date are payable as follows:

Due Jan. 1.	Amount.	Due Jan. 1.	Amount.	Due Jan. 1.	Amount.
1886	$100,000	1890	$100,000	1894	$100,000
1887	100,000	1891	100,000	1895	77,000
1888	100,000	1892	62,600	1896	67,000
1889	100,000	1893	96,300		

—total outstanding $1,002,900.

By a further act approved April 14, 1864, the same officials were authorized to borrow for like purposes such sums of money which, with the moneys borrowed under preceding acts, should not exceed $4,000,000, and to issue bonds therefor at 6 per cent., none of which should have a longer time to run than to January 1, 1902. This issue of bonds, however, was not exempted from taxation, and none of them were sold prior to the passage of an act approved April 4, 1866. This latter act stated in its preamble that $4,000,000 had been heretofore appropriated for paying the expenses incident to the suppression of the rebellion; but that not more than $3,000,000 had been borrowed, leaving authority to borrow $1,000,000 more; and since the State was indebted more than $600,000 for expenses incident to said suppression, this act provided that the Governor and Treasurer might borrow the sum of $1,000,000. The outstanding issues under these two laws at the close of the fiscal year were as follows:

Due Jan. 1,	Amount.	Due Jan. 1,	Amount.
1897	$199,400	1899	$123,000
1898	200,000	1902	71,000

—total outstanding $593,400.

Thus of the $4,000,000 authorized only $3,395,200 have been issued. The first law passed upon this subject (that of 1861), provided that not more than $100,000 thereof of principal money, should be made payable in any one year. The same provision was found in the supplementary act of 1863, except that in the latter it is enacted that no part of the principal should be paid before 1886, and the further supplement of 1864 declares that not more than $200,000 of the principal authorized by its provisions should be made payable in any one year, and no part thereof before 1897. It follows therefore that these bonds, which compose the evidences of the State debt, are payable in instalments, and at different times between the year 1865 and the year 1902. The payment of interest and principal as they become due is made the duty of the Commissioners of the Sinking Fund from the moneys of the Fund furnished them by the Treasurer, whose duty it is to pay over to them all moneys raised by law, and received by him for the purpose of liquidating the principal and interest of this bond debt. The three first instalments of the principal (those of Jan. 1, 1865–66 and '67) have been already paid from the Sinking Fund, the chief resource of which is the proceeds of a general tax of $280,000 a year on the property within the State.

The population of New Jersey, by the census taken in 1865, was 773,700, being an increase in five years of 101,671, the popolation in 1860 having been 672,029. Taking the debt as it stood on the 30th November, 1866, at $3,395,200, the distributive share to each inhabitant appears to be about $4.39 *per capita.*

By an act approved March 21, 1866, the counties, cities, towns, townships and other municipal corporations of the State were directed to prepare and forward to the Comptroller a succinct statement, properly certified, of all moneys expended by them for the purposes of the late war. Circulars were, in accordance with this act, transmitted under date of March 30, 1866, to all such corporations, requesting returns on the subject before May 1. With few exceptions the required reports were made, and, excluding those not reporting, the aggregate amount of bounties paid, or indebtedness incurred on account thereof, was found to be $23,447,988 77, as follows:

Counties.	Population.	Amount.	Per capita.
Atlantic	11,344	$135,188 00	11:92
Bergen	24,636	146,661 81	38:42
Burlington	50,719	1,43[illegible],968 34	28:29
Camden	38,464	802,439 46	20:86
Cape May	7,625	162,931 33	21:37
Cumberland	26,233	650,755 78	24:81
Essex	124,441	3,749,258 50	30:13
Gloucester	20,134	608,290 00	30:21
Hudson	87,819	3,401,468 11	38:73
Hunterdon	40,758	1,099,791 68	26:98
Mercer	41,478	1,658,852 04	39:99
Middlesex	35,916	1,403,808 52	39:08
Monmouth	42,868	1,067,286 86	24:89
Morris	36,513	652,176 26	17:86
Ocean	14,262	167,533 50	11:74
Passaic	34,856	896,198 69	25:71
Salem	23,162	878,898 25	37:94
Somerset	21,610	781,738 00	36:17
Sussex	23,929	644,915 80	26:95
Union	35 410	1,551,945 68	43:82
Warren	31,523	752,880 16	23:88
Total	773,700	$23,447,988 77	$30:31

This total represents the moneys absolutely contributed by the towns, counties,&c., for the purposes of war, which added to the State debt, $3,395,200, shows the entire contributions of New Jersey for the purposes mentioned. This is $34 70 percapita, varying in each locality; or reckoning five persons to a family, as the average, would make 173.50 to each head of a family. The interest on this amount at 6 per cent. is $1,610,591$\frac{28}{100}$ a year, or $2,08 per capita. By an additional dollar per head annually, successively placed at compound interest as a sinking fund, the principal amount may be liquidated in thirty-four years.

The total valuation of the State is $467,918,324. The State debt in relation to this valuation, is as $0:72 to every $100 and the local debt as $5:01 to every $100, or together $5:73 to every $100. This is by no means burdensome to a wealthy and industrious people.

CLEVELAND, COLUMBUS AND CINCINNATI RAILROAD.

The Cleveland, Columbus and Cincinnati Railroad forms, in connection with the Little Miami and Columbus and Xenia Railroads, the direct line between Cleveland on Lake Erie and Cincinnati on the Ohio, a distance of 255 miles. At Cleveland it connects with the Lake Shore line to Buffalo, and through that with the New York Central, which together form the great through line from New York to Cincinnati. The Bellefontaine Line leaves the road at Galion, 80 miles distant from Cleveland, and the

Columbus and Indianapolis Railroad leaves it at Columbus, both extending westward *via* Indianapolis, in the direction of St. Louis: and in its course it is crossed by the Sandusky, Mansfield and Newark Railroad (at Shelby), and by the Pittsburg, Fort Wayne and Chicago Railroad (at Crestline). At Delaware it gives off the Springfield Branch which connecting with the Little Miami forms a second route to Cincinnati.

The Cleveland Columbus and Cincinnati Railroad Company were incorporated in 1846; and the road, commenced in 1848 and opened by sections, was completed in February, 1851. The curves at Delaware connecting the line with the Springfield, Mount Vernon and Pittsburg Railroad (now the Springfield Branch) were constructed in 1853. This branch was purchased by the Company in January, 1861:

The constituents of the railroad as at present existing are as follows:

Main Line, Cleveland to Columbus	131.39 miles.
Delaware Curves, at Delaware	5.77 "
Springfield Branch, Delaware to Springfield	49.80 "

—making a total of 190.96 miles. The length of second track (all on the main line) is 55.8 miles, and there are also about 35 miles of sidings.

In the following statement is contained a review of the operations of the company for the six years ending December 31, 1866, and its financial condition at the close of each annual period.

The amount of rolling stock in use in the stated years was as follows:

	1861.	1862.	1863.	1864.	1865.	1866
Locomotives	42	46	47	44	44	43
Passenger Cars	31	32	26	27	28	24
Mail and baggage cars	8	8	9	9	10	10
Freight cars, house	335	394	511	483	473	468
" " stock	112	123	107	121	122	109
" " platform	81	109	169	184	179	160

The miles run by locomotives with trains in each year, are stated in the following summary:

	1861.	1862.	1863.	1864.	1865.	1866.
Passenger service	231,489	262,298	280,071	310,731	318,753	351,787
Freight service	347,057	472,261	491,323	445,745	405,272	458,683
Fuel service	24,470	35,299	40,140	35,616	47,023	50,908
Repair service	20,489	41,965	48,894	76,049	35,358	18,823
Switching service	83,655	114,805	151,702	164,227	161,414	175,391
Total	707,100	926,628	1,012,130	1,032,368	1,967,820	1,055,592

The number of passengers and tons of freight carried, and the mileage thereof, is shown in the following statement:

	1861.	1862.	1863.	1864.	1865.	1866.
Passengers carried	180,490	280,054	395,850	532,142	559,384	398,561
Miles (1,000ds) travelled	.....	.....	25,597	33,662	35,499	22,343
Tonnage carried	416,756	571,087	607,063	562,758	459,703	517,199
Miles (1,000ds) of carriage	39,455	57,083	58,358	52,779	42,238	45,153

The earnings and expenses yearly for the same years, and the distribution of the profits from operations, were as follows:

	1861.	1862.	1863.	1864.	1865.	1866.
Passengers	$370,019	$444,945	$617,552	$808,424	$974,220	$628,230
Freight	737,413	1,133,262	1,244,091	1,394,683	1,120,452	1,072,325
Express	22,944	25,119	35,984	37,984	55,276	43,009
Mails	29,100	31,154	31,243	31,243	31,243	31,243
Rents	84,127	82,363	84,086	84,808	81,837	75,715
Berea Branch	.....	.....	.....	2,227	2,883	7,759
Mileage of cars	14,868	.....	18,114	7,210	10,973	10,604
L. M. & C. & X. RR Co's	.....	.....	....	....	37,740	16,867
Other sources	.....	472	1,049	6,585	3,604	2,677
Dividends and interest	5,782	7,602	119,824	46,184	67,905	45,270
Total earnings	$1,263,253	1,724,917	2,151,943	2,499,348	2,386,132	1,933,700

From which must be deducted operating expenses, as follows:

Transportation	$200,845	$251,229	$306,656	$402,374	$428,779	$435,911
General expen's	19,541	20,394	24,969	34,397	27,624	27,045
Repairs of track	138,131	105,045	223,098	375.493	491,827	349,110
Repairs engines	41,172	57,546	70,924	90,132	123,178	104,869
" cars	42,388	39,194	55,184	89,681	109,306	79,901
" build'gs. }			18,718	33,428	94,234	20,224
" bridges }	24,036	21,778	5.961	8,931	34,523	17,945
" fences }			3,929	3,609	8,822	13,453
Fuel	50,048	66,384	109,385	146,600	157,064	147,455
Damages & gratuities	7,547	9,516	14,354	56,702	38,344	28,042
Oil and waste	6,165	8,636	12,066	17,931	19.588	21,298
Use of cars	....	1,581	....	....	....	....
Telegraph expenses	5,132	2,868	3,459	4,906	7,334	8,764
Operating expenses	$535,005	$634,170	$898,703	$1,264,185	$1,550,622	$1,254,017
Profits from operations	$728,248	$1,090,747	$1,303,240	$1,235,163	$835,510	$679,683

These profits were disposed of on the following accounts:

Taxes, State and national	$23,431	$34,245	$86,983	$166,043	$172,305	$137,577
Roads & depots	....	....	....	167,875	....	....
Interest balances	22,351	22,855	....	....	26,507	20,200
Dividends on stock	474,620	974,050	549,667	899,204	599,635	479,748
Old accounts settled	....	32,017	....	....	....	....
Surplus to credit	207,846	27,570	666,590	2,040	37,063	42,158

The amount of materials used in track repairs in each year was as follows:

	1861.	1862.	1863.	1864.	1865.	1866.
New iron rails, tons.	600	250	451	....	800	164
New steel rails "	....	....	....	....	27	....
Re-rolled rails "	2,507	2,591	2,750	3,924	4,428	4,091
Rails repaired, number.	15,302	14,172	13,838	14,681	1,151	9,088
New cross-ties "	65,000	67,943	91,848	112,037	83,602	82,377
					Pounds	
Joint chairs "	10,000	1,677	4,687	8,966	159,757	12,530
Iron joint splic' "	6,000	9,490	218,033	279,044	378,934	220,706
					Pounds	
Joint bolts & nuts kgs.	....	....	235	442	109,120	104,915
Spikes "	526	679	824	1,163	241,840	174,630

The financial condition of the company at the close of each year, as appears on the general Balance Sheet, is summed up in the following statement of liabilities and profits:

	1861.	1862.	1863.	1864.	1865.	1866.
Capital stock	$4,746,200	$5,000,000	$6,000,000	$6,000,000	$6,000,000	$6,000,000
Funded debt	510,000	510,000	510,000	491,500	475,000	450,000
Bills payable	.....	.....	150,000	.....	.....	.....
Divid's payable	237,310	499,430	249,895	419,692	299,835	239,888
Balance due on accounts	7,023	304	9,537	2,107	28,225	.....
Surplus	416,826	444,396	313,081	6,136	43,200	81,358
Total liabilities	$5,917,359	$6,454,130	$7,232,513	$6,919,435	$6,843,260	$6,771,246

Against which are charged as follows, viz.:

	$	$	$	$	$	$
Road and Depots	4,030,737	4,230,777	4,394,783	4,000,000	4,000,000	4,070,000
Equipment	637,216	723,116	825,285	750,000	750,000	790,000
Stocks and bonds	529,566	674,007	1,632,625	1,137,750	1,137,750	1,182,750
Materials on hand	120,391	134,789	231,501	286,973	321,941	315,419
Cash	445,210	596,640	600,208	691,946	514,112	372,764
Bills receivable	40,756	11,849	68,184	74,574	72,117	2,504
Balance due on accts	53,358	33,456	10,905	11,863	....	19,987
Real estate	26,125	22,576	21,147	17,603	16,358	14,708
Springfield Branch	10,000	....	....	....	....	....
Wood lands (balance)	....	....	20,979	13,556	5,627	2,344
Insurance scrip	..	2,980	2,905	1,170	1,355	770
Loan to Cleveland and Mahoning RR.	24,000	24,000	24,000	24,000	24,000	....
Total profits, &c.	5,917,359	4,654,130	7,232,513	6,919,435	6,843,260	6,771,246

The following table, deduced from the above, exhibits the relation of capital, earnings, profits, &c., and the rates of dividend paid in the several years:

	1861.	1862.	1863.	1864.	1865.	1866.
Cost of road, &c., per mile	$24,439	$25,936	$27,330	$24,837	$24,837	$25,413
Earnings per mile	6,614	9,031	11,266	13,085	12,493	10,124
Expenses per mile	2,801	3 320	4,443	6,619	8,118	6,565
Expenses per cent	42.35	36.76	39.43	40.60	65.00	64.81
Net earnings per cent per mile	3,813	5,711	6,823	6,466	4,375	3,559
Net earnings per cent	57.65	63.24	60.57	59.40	35.00	35.19
Net earning to capital per cent	13.85	19.79	20.02	19.03	12.75	10.54
Net earnings to cost, &c., per ct	15.60	22.02	24.99	26.03	17.61	14.00
Dividends per cent—cash	13	15	11	15	10	8
Dividends per cent—stock	..	5	20	..	..	..

The net earnings, as above, are the gross earnings less operating expenses, and before any deduction is made for taxes or other extraordinary accounts.

The market price of the stock of the company (range) for each month is stated below:

	1861.	1862.	1863.	1864.	1865.	1866.
January	92 @100	110 @110	147 @175	180 @180	170@180	110 @123
February	94 @ 94¾	103 @110	155 @161	146 @157	150@160	114 @115
March	93¼@100¾	109½@113	158 @167	157¼@175	130@150	111 @115
April	90 @ 95	112 @115	158¾@160	165 @174	. @ ..	114¼@115
May	91 @ 93⅝	112¼@116¼	160 @165	168 @168	130@ 35	114 @115
June	93½@ 97	119 @120	159 @161	167½@169	128@130½	116 @118
July	94 @ 98	113 @125	155 @160	149 @170	130@133	110 @113¼
August	94 @ 95	118 @125	155 @155	170 @171	124@130	110 @111½
Sept'r	95 @ 96½	121 @125	150 @155	170 @170	125@128	111½@115
October	96½@ 99	132 @135	160 @160	164 @164	127@130	113 @115
Novem'r	97 @ 99	135½@138	155 @157½	170 @170½	127@130	111½@113¾
Decem'r	100 @102	141 @145	163 @181	180 @182	125@127⅛	109 @112
Year	90 @102	103 @145	147 @181	146 @182	124@180	109 @123

INDIA RAILROADS AND THE COTTON TRADE.

The efforts recently made by the English Government to develop the resources of its vast emrpie in Hindostan, evince remarkable energy and sagacity. Probably no country in the world has made more material progress within the last few years than British India. Notwithstanding the discouragements arising from the mutiny of the Sepoys, and the disasters of famine and financial collapse, the present condition and future prospects of the people have been greatly improved. Railroads have been built, highways have been thrown up, canals widened and deepened, obstructions removed from rivers, bridges constructed over rivers and mountain chasms, and the jungle has been rendered passable for the first time.

These great changes in the condition of the interior of British India were initiated, or, at least, actively commenced in accordance with a policy adopted at the commencement of our civil war. England, in place of attempting to break up our monopoly of the cotton trade by an open and formal assistance of the South, resolved to effect the same object by other and surer means. Her statesmen, with far reaching sagacity, resolved to improve the opportunity afforded by the American crisis, so as to attach the tottering Indian Empire to the imperial government by a bridge of gold. India has always been famous for cotton

manufactures of unrivalled fineness and elegance, and it was known that her climate presented admirable facilities for the culture of the raw material. Under the stimulus of high prices the whole world was invited to compete for the production of cotton. But special measures, as is well known, were adopted to develop its culture in British India, and for this purpose the wealth and experience of the English people and government were brought into requisition.

The opportunities were favorable. The Imperial Government had got rid of the cumbersome and obsolete machinery of the East India Company, and assumed direct control of the vast Empire of India. In 1860–61, the Marquis Dalhousie, Governor General, inaugurated the extensive system of internal improvement, which was to enable the people of Hindostan to compete with America for the cotton trade of the world. To effect this object great changes were required. The most favorable cotton regions of India were inaccessible for want of proper facilities for communication. In order to get the staple to a market, it was necessary to carry it by man and horse power over vast tracts of jungle, across mountains and ravines, and ferry it over great rivers.

To obviate these difficulties, the railroad movement inaugurated was of the most comprehensive character. The population of India subject to the English government is probably not less than two hundred millions. The country comprises an area of 1,364,000 square miles, stretching 1,800 miles in length and 1,500 miles in breadth from east to west. There is a coast line of 3,200 miles, of which 1,900 are on the Indian Ocean and 1,300 on the Bay of Bengal. The climate is tropical, but embraces every variety of temperature from the extreme cold of the Himmalayan mountains to the warmth of the tropics. This great country is broken up into an almost endless geographical diversity. There are vast and impassable jungles, huge forests, mighty rivers, mountain chains and extensive plains, the whole being combined with a wonderful luxuriance of vegetation, which at every step obstructs progress and almost prevents any passage by man or beast.

It was over this country, presenting so many difficulties, that Lord Dalhouse contemplated his admirable network of railroads. The system was, of course, planned with reference to the geographical features of the country, so as to connect the extremes of the vast empire with grand trunk lines, from which branch lines, or feeders, might be constructed, according to the future requirements of local commerce. Four thousand six hundred miles of railroad were to be built, at an estimated expense of $400,000,000. The credit of the Imperial Government was granted to private companies, guaranteeing a certain amount of interest on all money invested in Indian railroads. The government wisely left all details of construction and management to the energies of the companies themselves, which had every motive for economy, as all money earned above the guaranteed dividends was clear gain. This system worked so well, that last year several Indian railways exceeded the 5 per cent. guaranteed interest. During the half year ending December 31st, the East Indian and the Great Peninsular railroad companies were able to declare surplus dividends. Half the amount of surplus income was devoted to the repayment of former advances for interest by the government, and the other half was divided among the stockholders.

The net amount of guaranteed interest paid by the government diminishes every year. In 1865 the amount was £1,450,000; in 1866 it was £800,000, and this year only £600,000 was required. These figures indicate the profitable character of these Indian railroad enterprises.

The original system of Indian railroads contemplated the establishment of communications between Bombay, Madras and Calcutta, the three great centres of military and commercial power. The extremes of the empire were united, and roads were cut through the great agricultural and producing districts. The East Indian Railroad Company has now under its management 1,310 miles of railway, constructed at an expense of $100,000,000, and is the longest line of road in the world under one company. The Great Indian Peninsular road will be 1,233 miles long when completed, and next year it will be open for traffic along its entire length. In 1868 from Calcutta to Bombay, a distance of 1,458 miles, there will be an unbroken railroad communication. The branch lines connecting with the main stems are of great extent, and will cost as much money as the main roads. To show the progress of Indian railroads it may be stated that it is only fourteen years since the first line was opened in that country. At the present time there are 3,200 miles in operation, and next year a thousand additional miles will be completed.

This development of railroads in British India is of the highest importance as affecting the cotton trade. Formerly we enjoyed a monopoly of the market; now, nearly one-half of the cotton manufactured in England is derived from India alone. A late Liverpool circulars estimates the quantity of American cotton now on hand and to arrive before December 31st, 1867, at 680,000 bales, while the supply of India cotton for the same period is estimated at 925,000 bales. Without expressing any opinion as to the correctness of these figures, the more important fact for us to remember is that the manufacturers of England have so altered and improved their machinery as to be able to use in much larger proportion than formerly the shorter India staple, while, at the same time, the quality of cotton from that country has been decidedly and steadily improved, and is being more carefully prepared for market. Judging then of the future from the past, it may be expected to equal the American article at no distant period.

The establishment of railroads in India removes the chief obstacles to the growth of an almost unlimited supply of cotton. The country is admirably adapted for it, and the teeming population has long been familiar with the staple, and exhibit great aptitude in its culture. The best cotton regions have not yet been opened to the world; the only facilities for reaching a market being the slow and expensive process of cattle teams. The new railroads, however, will convey the products of these regions to market cheaply and expeditiously. And it is a noticeable feature of Indian railroad companies that their revenues are derived from goods rather than from passengers. Of $35,000,000 income of Indian railroads during the three years ending June, 1866, two-thirds were received from merchandise traffic.

These facts throw considerable light on the future of the American cotton trade. They indicate that American cotton will henceforth be subject to a keen and active competition. The cheapness of labor in India will

also tend to place us at a disadvantage, as it is doubtful whether the freedmen can work as cheaply as the Hindoo, who lives on a handful of rice a day, and whose clothing consists of a yard of calico a year. It is evident therefore that the trade in our chief staple will be subject in the future to new conditions that may seriously affect our entire country. In this view it is of the utmost importance that every facility should be extended to the cultivation of the staple in the Southern States, and that every obstacle should be removed. The injudicious cotton tax, that operates as a direct bounty to foreign production, should be instantly repealed, and new capital should be tempted into the production of the staple by the indispensable guarantees of security and political quiet.

THE GROWTH OF OUR CAPITAL AND INVESTMENTS.

In every country where a high degree of industrial activity and material prosperity prevails, there is continually going on an increase and accumulation of capital; and the laws by which that increase is governed have received some attention from political economists, though far less, probably, than their importance deserves. Of these laws, one of the best established is that the capital of any nation increases in proportion as individual property is protected by law and as safe remunerative investments are easily accessible to all classes of the community. In Mexico and some of the South American republics, property of all kinds being insecure, capital increases very slowly, if at all; and when the insecurity reaches a certain point, capital undergoes an actual diminution, and the country grows poorer every year. In England, on the contrary, and in this country, where the central principle of the laws rests on the security of person and property, and where the rights of capital are fenced round with all the safeguards which the wit of man can contrive, wealth grows very rapidly, and the increase of capital has surpassed anything ever realized in the history of modern nations.

Next to the security of property, one of the most important conditions for the increase of wealth is that good investments shall be easily accessible to all classes of men who have the ability, by frugal thrift and skillful industry, to amass a surplus above their wants. In this respect, for some years past we have had an advantage over other countries. It is true that our currency for three or four years after the commencement of the war, was being gradually inflated. But the effect of the redundant issue of paper money was twofold. It acted in favor of the poor and of the great masses of debtors throughout the country, by enabling them to pay their debts in a denomination of money of less value than that in which they were incurred; and what is of more importance for our present purpose, it gave that stimulus to all kinds of industry which an abundant currency among an industrious, energetic, ingenious, versatile people never fails to develop. The rapid, steady growth of wealth, and the extraordinary material prosperity which resulted astonished our political economists, because it was realized in apparent defiance of some of those general facts and laws which they had been accustomed to regard as equally stern and unyielding with the laws of gravitation. Notwithstanding that in the prodigious expen-

diture of the war, capital was annihilated and spent with a profusion unknown before, the industry of our people created new capital as rapidly as the old was wasted. If we spent two millions a day on the war, we made three or four millions a day by accessions to the activity of our production. To supply the place of a million of our hardworking citizens, we invented or constructed labor-saving machines, which, at less expense, would do the work of several millions of men. It was with reference to this state of things that Mr. Seward, on a memorable occasion, asserted publicly that "not only had the war not impoverished any body but it had largely augmented the national resources." Something of that enduring valor, resistless impetuosity and overwhelming force which immortalized our fighting armies in the field seemed to communicate its fire to our industrial armies in their peaceful arts at home. Consequently every body seemed to be growing rich, and as was natural, there never was such luxury and extravagance among any people in the world as prevailed in this country during the years 1863 and 1864.

Such were the results of the extraordinary investments for capital which were developed on all sides by the extraordinary stimulus which operated during the war. It would be absurd to say that all the growth and wealth which were then realized were healthful and permanent, but it would be equally wrong to suppose that the augmentation of wealth was radically unsound, shadowy and unsubstantial. We might as well say that the vegetable life of the tropics is less sound and perfect than that of Russian America because it is produced more rapidly and under the stimulus of a more exciting temperature. It was one of Mr. McCulloch's speculative errors when he was Comptroller of the Currency that he failed to recognise the vast forces which were at work to increase the wealth of the country. In a circular letter to the National Banks, containing practical hints of the greatest value, he ventured into more abstract disquisition, as follows:

"Although the loyal States appear superficially to be in a prosperous condition, that such is not the fact: that while the Government is engaged in the suppression of a rebellion of unexampled fierceness and magnitude, and is constantly draining the country of its laboring and producing population, and diverting its mechanical industry from works of permanent value to the construction of implements of warfare: while cities are crowded, and the country is to the same extent depleted, and waste and extravagance prevail as they never before prevailed in the United States, the nation, whatever may be the external indications, is not prospering. The war in which we are involved is a stern necessity, and must be prosecuted for the preservation of the Government, no matter what may be its cost; but the country will unquestionably be the poorer every day it is continued. This seeming prosperity of the loyal States is owing merely to the large expenditure of the Government and the redundant currency which these expenditures seem to render necessary."

In a Comptroller of Currency such a want of appreciation might pass without attracting special notice, but in a Secretary of the Treasury it could scarcely fail to lead to some errors in wielding the vast administrative powers which in the anomalous condition of our finances are at present concentrated in his hands.

Did space permit we might take the principle that "capital increases in any country in proportion as safe remunerative investments are offered to it," and show how it illustrates one of the compensations which our national debt has brought with it. In no other country in the world are

there such lucrative investments for larger or smaller amounts of money as are offered among us. In no other country can the frugal laborer or domestic servant, when they have saved up 50 or 100 dollars, invest it so as to bring in an annual income of 7 to 8 per cent. In no other country can the millionaire place his money so as to secure with equal returns of interest an equal degree of security. The rapid increase of capital in England is partly attributed to the safe investments which consols afford for all moneys whatsoever, and if offering, as they do, absolute security with moderate interest, the British consols have done so much to stimulate the growth of wealth in England, what may not our American consols be expected to do in this particular, when they offer with absolute security a high rate of interest. We shall not only attract foreign capital, but we shall utilize our own capital and make it fructify. For now, as heretofore, it is a distinguishing characteristic of this country that partly because of our vast regions of rich, virgin soil, partly from of our mineral, manufacturing and agricultural industries, partly from of the ingenuity, energy and versatility of our people, but more because of the free air we breathe, and the free institutions under which we live there is an almost tropical impulse given to the growth of wealth among us; and in finance as well as in politics, Mr. Madison's words to Miss Edgeworth are verified, that Providence seems to have set the United States to do many things which before were thought impossible.

In view of these facts we see how it was that our people were able to lend, without foreign help, so vast an amount of capital as 2,500 millions of dollars to the Government to carry on the late war. In that war we wasted much of our capital, but what was left fructified with such rapidity that it left us at the close richer than we were at the beginning.

We also see that there is really no danger of repudiation of our public debt. It is too widely distributed among ourselves, it is held by too many of our people, it forms too fundamental a part of the great fabric of our national life to admit of its being disturbed. To repudiate our national debt would be to shake the security of all property throughout the country. A revolution of such magnitude would end in the disruption of the nation, and would deservedly make of us a monument for the contempt and wonder of the nations of all succeding times. So monstrous and absurd is the anticipation of repudiation, that the very word has long ceased to be whispered by our most confirmed croakers. Occasionally it is urged, we observe by certain unappreciative English journals, which thus deter some of their countrymen from investing in our bonds, doing us the service thereby of checking the too great foreign demands for the most remunerative, safe investments which can be had at present by British capitalists.

We have said the foreign demand is too great. For ourselves, we do not look with so much favor on the exportation of Five-twenties as do some persons for whose judgment we have the highest possible respect. If, while the national debt was increasing, the growth of our wealth was so great that we could absorb the bonds as they were issued, surely, now that the debt has ceased to increase, we can take care of these bonds, by means of the constant augmentation ever going on, of our rapidly growing wealth. Besides our bonds are too cheap as yet. We cannot look with complacency on their passing into the hands of foreign creditors at eighty cents on the dollar for six per cent. gold-bearing Five-twenties.

Moreover, there is another fact which may be variously interpreted, but is not without interest. Our daily papers have recently given considerable attention to the increasing disposition of capital to invest itself in railroad property. During the period in which the national debt was growing, the new federal securities which were being issued absorbed our new capital, but two years have passed since the debt ceased to grow. As our wealth has been growing during that time, the argument is that that the national securities are not now sufficient to afford the means of investment. Hence, it is said, the attention of capitalists is diverted to other securities, and to those of the most promising railroads among the rest. We do not endorse this opinion. It is, however, worthy of examination in connection with the general movements of capital to which we have referred.

ECONOMY IN FUEL.

Some very interesting and important experiments have recently been made in England with what is called Lancaster's patent for inducing the more perfect combustion of fuel in furnaces. The enormous amount of coal wasted in the furnaces, as at present constructed, has long engaged the most serious attention, adding as it does materially to the cost of steam power. In the furnaces as at present constructed, a very large per centage of the heating power escapes through the funnel, and the smoke which should be consumed passes off into the air. On shore the atmosphere is polluted and vitiated, and at sea those on board ship are annoyed by the "smoke fog," which frequently interferes with the "look-out." In Lancaster's patent the smoke is consumed, and not only is the heating power greater because more sustained at a regular temperature with less variations, but the saving of coal is something extraordinary. For the benefit of the steamship-owning community, who are so largely interested in the matter, we subjoin the results of some of the experiments on board the steamer Demetrius, Captain Baron. The Demetrius is a steamer of 418 tons register, fitted with engines of 70 horse power nominal, her furnaces being constructed on the Lancaster principle. The ship is a fair specimen of the merchant steamers engaged in the Mediterranean and other trades. In order to test the advantages of the Lancaster principle, a trial trip was made from Liverpool to Llandudno Bay, and the very great value of the invention was most satisfactorily demonstrated. It was found that a saving approaching one-half was effected, and that the funnels were comparatively smokeless. The engines were worked at 65 revolutions, and there was a remarkable regularity in firing, indeed, the fireman had a light time of it. The measured mile was run in 6 minutes leaving Liverpool, and in 5 minutes 40 seconds on the return trip. It was found that almost any amount of pressure could be obtained, the combustion being most complete, and the heat intense and well diffused over the whole of the furnaces. After the run the tubes were found to contain less deposit than under the old system. The engineers on board expressed their very high approval of the Lancaster system. We may state that the invention has already been applied to locomotive and stationary engines, and that it has been found to work exceedingly well. The principle is also applicable to puddling furnaces.

TYPOGRAPHY AND TYPE-SETTING MACHINES AT THE PARIS EXPOSITION.

BY F. F. BLANC.*

For four hundred years past type-setting, this important part of typography, has been performed in the same manner. While in all other branches of industry machines came to aid or supplant the hand of man, compositors alone have remained at their posts, perfecting their art, it is true, and making unparalleled efforts to acquire a skill which in many instances is truly marvelous and would not fail to astonish the first old printers if they could see what the "craft" is able to do now-a-days.

The fact is, it is by no means easy to replace by a machine the constant attention indispensable to the compositor, who incessantly tries to familiarize himself with the thoughts of the writer whose manuscript he is studying. Just try to make a machine read handwritings such as are seen only too often, and the illegibility of which frequently puzzles even the writer when the compositor in despair places before him the words which he was unable to read or to guess. To be a good compositor it is not sufficient for a man to have good eyes and nimble fingers, he must also have some literary knowledge, and especially be familiar with punctuation, that his "proofs" may not look too bad. He must in some sort, as it were, identify himself with the author, penetrate his peculiarities and fully understand what he means. A compositor destitute of these qualifications can not claim a distinguished and lucrative position in his honorable trade; he must devote a great deal of time to the correction of his "proofs," makes, of course, less money than his more skillful colleagues, and will lose his place a great deal sooner than these.

It is owing to this careful and pains-taking attention which the compositor must give to what he sets up that machines hitherto have not been able to fill his place in the printing offices. But inventors, these tenacious benefactors of mankind, do not allow themselves to be disheartened, and being unable to supplant the compositor entirely, they have sought the means of assisting him and facilitating, by a more rapid process, the setting of the letters destined to form words, always leaving him the responsibility for the work executed by his will. Starting from this idea, M. Delcambre, more than twenty-five years ago, invented the *pianotype*. This machine, which combines a great many peculiarities of the piano with those of the sewing-machine, created some sensation toward the year 1845. Several proprietors of printing-offices bought these machines, and for a short time it was really believed that a revolution would take place in the great realm of typography. A great number of these machines had been manufactured, and a single printer purchased ten of them. The trial proved deceptive, and the printers soon cast aside as worthless the instrument which had cost its inventor a great deal of money and labor.

One of the principal causes of this failure was the distribution, that is to say

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*Translated for the Cincinnati *Commercial*, from the *Revue de Paris*.

the return of the type used in composition to their places in the cases. The compositor was obliged to distribute them with his hands, as is being done now, then to put the equal letters together in order to place them in the openings of the type setting machine. It is easily seen that this preparatory composition made the compositor lose already in advance all the advantages which he derived afterward from the performance of the composition by the machine. The machine was obviously incomplete. It was all-important, therefore, to perfect it, or rather invent a distributing machine which would place the types in the order in which they must be to serve again for the formation of words; it was impossible to derive any benefit from the former machine without adding the latter to it. The inventor, therefore, had to go to work again, and to-day we see at the Exposition both the perfected machine and the *distribu'er*, all manufactured by Messrs. Fridore Delcambre, Cruys & Co. The first time that I saw this type-setting machine, I could not repress my admiration, and I should have willingly awarded a grand prize to its inventor. I did not see and could not see whether there were imperfections about it. I scarcely ventured to make it work or ask explanations about it, so much I was afraid of having my fond hopes dispelled.

In effect, there is a fascination in the spectacle presented by the types falling so nimbly and noiselessly under the pressure of the fingers which touch the keys of the finger-board, one believes that perfection in this attractive trade has been attained. The types are detached one after another, glide through small channels on an inclined plane and form a number of words from which the compositor takes enough to fill his galley, which is attached to the end of one of the above-mentioned channels. But I had to restrain my admiratiou. I had to examine carefully and conscientiously what future this new machine might have. To describe all its details would be tedious and would not give my readers an adequate idea of its value. Therefore, it seems to me preferable to speak at once of the results of my investigation.

The machine itself works certainly very well, and if the all-important thing was to drop the types regularly, I should hasten to state that a most valuable increase in the rapidity of type-setting had been accomplished. But it is complicated, and three persons are required to work it, one to distribute, the second to compose, the third to arrange the words in the galley. I do not care whether women or children may be employed to fill one or more of these places. The advantage or loss are to be calculated according to the time used by the compositors and not by the number of the hands employed. Now I do not hesitate to say that the fact that three persons are required to work the machine neutralizes the advantages to be derived from it.

In the present system of type-setting, when a compositor loses time by repeatedly reading the copy which he has before him and correcting what he has set up, it is he alone that loses, and this loss of time, which is renewed very often during the day, and frequently caused by trifling things, is sustained only by himself and does not injure two other persons. Here, on the contrary, whenever he stops, his two assistants at the galley and the distributor must do so too. This is more serious than it seems at first, and would almost suffice to make us question the value of the whole invention.

On the other hand, it is to be regretted that the compositor working at the finger-board can not himself correct what he has set up. It happens often that the compositor sets up a word of which he is not quite sure, and corrects it on reading the end of his line, being better informed by the subsequent words which he has read since then and which give him the true sense of the phrase. In punctuating, above all things, this way of correcting is the best. Now, to do this, the compositor must have the copy before him. By repeatedly examining it, he will afterward be saved the trouble and vexation of having his proofs disfigured by an endless number of corrections. The compositor arranging the lines in the galley of Delcambre's machine does not see the copy at all. It is in the hands of his companion working at the finger-board, who continues to touch the keys as if the man at the galley need not see the manuscript at all, and as if the second part of the labor was not inseparable from the first. These considerations deprive the type-setting machine of its importance and dispel the enthusiasm with which we contemplate it at first. And yet all this is nothing compared with the great difficulty of distribution, which is not surmounted by the machine.

The distributor attached to the type-setting machine is destined to save it, or at least counteract its imperfections. Instead of doing so, instead of facilitating the process of distribution, it impedes it. I can not explain the details of the distributor, which would take too much space, and will say merely that, as in setting up, the compositor must give his attention to the distribution, and that the work is performed by his will, under his fingers, and while he is reading his copy. He who has seen our compositors engaged in distributing is astonished at the rapidity and skill with which they perform this part of their typographical trade. It seems impossible that the work should be done better and with greater regularity and quickness. In effect, this hand, which is in incessant motion and which seems to have an eye on every finger, will a long time yet successfully defy the mechanical distributor. The advantage of the latter is, that it puts back in the cases entire words, which may be placed again in the type-setting machine without recomposition, which was one of the weak points of the first invention. This advantage, however, has to be dearly purchased. The manner in which it is constructed does not permit the compositor to read directly the lines which he is about to distribute. He is obliged to have recourse to a mirror reflecting them in a precarious and imperfect manner. In distributing, quick and unhesitating reading is of the highest importance. The mirror arrangement is not calculated to facilitate the operation. It is precarious already in broad daylight. You may imagine how it will be at night or when the sky is overcast. I must say, therefore, greatly to my regret, that the distributing machine does not perfect the type-setting machine, and as the latter in itself is of no use, the problem of mechanical type-setting has not yet been solved.

Let us now turn to another machine, that of Mr. Flamm, and constructed by M. Coyen-Carmouche. This machine, I must confess, embarrassed me not a little accustomed to hear our printers talk of a Danish machine which I did not see at the Exposition, and of Delcambre's machine, both of which use ordinary types, we had thought all researches in this direction would follow the same

beaten track. Mr. Flamm did not look at the matter in this light, and, regardless of what had been tried prior to him, bravely entered the lists with a machine entirely suppressing the typographical case and the letters which it contains. An alphabet, with all its accessories, capitals, marks of punctuation, is all he cares for. He does not suppress the compositor, but certainly the material which the compositor uses at present. To tell the truth, Flamm's machine makes mattrices in place of setting type, and the *clicheur* is here indispensable. The letters which are to compose the words are placed in a reservoir turning on a pivot; these letters imprint themselves at the pleasure of him who works the apparatus in a paste or *flan* prepared beforehand, and placed under the above mentioned reservoir. To facilitate this operation the inventor has had every letter, or marks engraved on the surface of the reservoir; the compositor presses on it and thus lowers the letter that he needs. The *flan*, which becomes a matrix, is supported by a small wagon which moves under the reservoir as is required, transversely or longitudinally; the former movement is required for the formation of the lines; the latter to obtain the length of the pages and to divide the lines.

On seeing this very ingenious and well-working machine, an expert will at once ask himself how the justification of the lines is to be brought about by it. With moveable letters, when the words do not terminate the line, and the space of a few letters which cannot be separated from their words remains vacant, the evil is remedied by an enlargement of the intervals between the words of the line; in the Flamm's system this is impossible. But to obtain the same result Mr. Flamm has placed under the reservoir an apparatus with a moveable needle; this needle touches a small bell and indicates at once to the compositor when it is time to think of this sort of work. He proceeds then to enlarge or narrow the intervals between the last words. An experienced hand will find no trouble in surmounting this difficulty.

However, this is not the only difficulty, there is a much greater one. The real difficulty is to be found in the correction. To correct what is set up, fresh paste has to be spread over the imperfect part, and the composition of the word or the line has to be recommenced. The difficulty is much increased in case the corrections to be made augment or diminish the number of lines. This difficulty seems to me so great, that it seems to me Flamm's machine can only be used in reprint, ing printed matter, not necessitating any change or important corrections.

Now, it must be stated that as a labor-saving machine, Flamm's invention is not very remarkable, for it does not work more rapidly than an ordinary compositor. Its whole advantage then would consist in the suppression of the printing material; but, to judge from the prices affixed to the machines, it is doubtful whether they do not require a capital equivalent to that of our ordinary offices.

Flamm's machine for lithographers is much more practical, and will do better service than his common printing machine. For the rest, he is not the only inventor who has thought of supplanting type-setting by matrices. An American has exhibited a machine which, though constructed in a different manner, leads to the same results, with the exception of its advantages to lithographers. My censures regarding justification and correction are applicable to it as well as to Flamm's machine. For the rest the inventor admits that he has not yet found

"*le dernier mot*," (the last word). He is happy at having invented the principle of his machines, and calls upon other inventors to perfect it. This is shown, at least, by the words which he graciously printed in reply to the questions which I put to him: "The inventor of this type setting machine desires to have it understood that he claims by no means to have reached perfection."

HOW MEXICAN SILVER MINES ARE WORKED.

A newly discovered mine belongs to any person who denounces it, provided a shaft of at least ten varas in depth be sunk on the vein within sixty days after it is denounced. A claim consists of 200 varas square. Mines that have been abandoned, or those in which work has been suspended for a space of four consecutive months, may also be denounced. The reducing and crushing work (*haciendas de benficio*) are considered as having been abandoned, and may become the property of whomsoever denounces them when they no longer serve for their original purpose—when the roots have fallen in, and the machinery has been removed—but the owner has a delay of four months to resume operations if he wishes to preserve his property. A miner or the proprietor of metallurgical works cannot be expropriated by his creditors, who may take possession of a mine and work it for their own benefit until the debt contracted by the owner is extinguished; but they are compelled by law to allow him sufficient means to maintain himself and family. A shepherd or a laboring man accidentally discovers near these *crestones*, which rise above the surface, quartz containing metallic substances. He endeavors to procure some rock at a depth where it has not felt the action of the atmospheric air, builds a fire in which he casts a few pieces of ore at a very high temperature, and if specks of silver are observed the mine is denounced for the purpose of securing possession of it to the discoverer. The law requires a shaft to be sunk in the vein of at least ten varas within 60 days after the denouncement, at the expiration of which if the mine has been ascertained to be new one, or to have ceased to be the property of a former denouncer, a grant is made of 200 varas square. The grantee then procures partners to develope the mine, should he lack capital for that purpose. The value of the mine is divided into twenty-four shares, called *barras*, the half of which is given over to the capitalists, named *aviadors*. The regular development of the mine then commences. When a depth has been reached where silver is generally the most abundant, and the quantity of water and expenses of extracting not yet too considerable, the yield is very remunerative; at this stage of development, reducing works are erected (*haciendas de beneficio*) frequently on a large scale not always based on the future general yield of the veins. At the same time underground work is carried on to facilitate mining operations, as also the extraction of the ore, and the draining of the mine. When mines in the bonaza condition are in the hands of one individual, as in the case of Counts de Valenciana and Reglas, and the Marquis de Rayas, these works are remarkable not only for their magnificence and extent, but for their utility in less prosperous times, when without them the ores becoming poorer could not be extracted

through the older communications. In most cases at the present day the 24 barras, which constitute the shares of a mine, are divided into small fractions, and represent numerous conflicting interests which seem to combine but for one purpose, that of realising from the undertaking as much as possible, disregardful of the evil consequences which may affect the future prosperity of the mine. Their motto appears to be, "Sufficient unto the day is the profit thereof." The consequences of this view of mining operations is that no regular and methodical course is pursued, the richest ore only being extracted at several places at the same time, or where it is most easily obtained, masses of poorer ore being left behind, the working of which is resumed when the bonzana ceases. It is difficult to understand why a small amount of these enormous profits is not devoted to researches which are undertaken, only when the expenses exceed the profits, and the prospects of a profitable investment are doubtful. When the zone of the greatest yield has been worked through, if the depth is such as to render the cost the cost of extraction too considerable, the bonzana ceases. The poorest ore left in upper parts of the mine is then worked, and, as the greatest expense is the draining, the water is allowed to fill the lower works. For some time the reserve of ore of medium yield is sufficient to cover expenses; but beyond a certain point, day or contract work for a certain weight of ore extracted is no longer profitable; and in order to guard against the chances of loss, the miners are allowed an interest in the profits, say one-sixth, one-third, and even one-half of what they extract. The owner furnishes tools, light and powder, the draining and hoisting being also at his expense. This is called *partido*; the miners, who are then called *buscones*, prefer it to day or task work, and as it is voluntary labor they take it easy, and find a certain charm to be indebted to chance for their salary, which will frequently, in one week, be enormous, after working for a month or more without earning scarcely sufficient for their maintenance. Gradually the resources are exhausted, and the number of men only required by law are kept at work, in order to retain possession of the mine, and new *aviadores* are found who supply the funds necessary for the expense of draining and continuing the work in the lower part of the mine, running prospecting drifts at points where ore was expected to be found, but which had been neglected when the mine was full of water.—*New Orleans Price Current.*

CO-OPERATIVE SHIPBUILDING.

Perhaps we should have said co-operative shipowning, but that the two are very closely connected with each other. Our purpose is to illustrate a phase of the co-operative principle which is now, and has been for some years, in successful operation in the maritime provinces. We allude to the system of shipbuilding and owning in shares, a system which is largely practised both in New Brunswick and Nova Scotia, and which we believe to be capable of a much wider range of application than it has yet received. The extent to which shipbuilding operations have been carried in the maritime provinces is almost without a parallel, and in proportion to their population they have more shipping than any

other similar population in the world, the co-operative system contributing more than any other cause to this result. In the remarks we are about to make we shall refer more particularly to New Brunswick; but they are equally true in a general sense when applied to the sister province of Nova Scotia. From a reference to official papers, we find that the total amount of shipping on the registry books of the province in the year 1865 (the latest return published) was 1,019 vessels, measuring 349,675 tons, and that the quantity of the new shipping built during that year amounted to 148 vessels—65,474 tons. Twelve of these vessels measuring 11,774 tons, were sent home for sale, and it is pretty good evidence of the superiority of New Brunswick-built shipping when we find that they average from 10s. to 20s. per ton higher in price than Quebec-built vessels. A large number of those remaining are, however, owned and sailed by parties residing in the province, and very many of them were built under this system of co-operation. The comptroller of customs of St. John, in his last report, says:—"The business of shipowning in shares, which has now become general in New Brunswick, has done much to bring about an improved state of affairs, and has tended during the last few years to increase very materially the wealth of the country. The earnings of our vessels abroad, which are constantly coming into the province in the shape of exchange, have assisted greatly to prevent derangement in our monetary affairs. It is not an uncommon thing for a good spruced class vessel of this country to keep herself in good repair and insured, and pay for her first cost in four years, and sometimes even in two or three years." The mode of procedure is something as follows:—A number of individuals join together to build a vessel of a certain size and class, probable expense is easily ascertained, and she is divided into 64 shares; these are taken by as many individuals as there are shares, or are distributed as may be found most convenient; the payments are spread over as long a time as the vessel may take in building, usually three, six, and nine months; the outfit is ordered in England, and very frequently the first freight can be handled in time to pay the cost of outfit. There are some regulations of a peculiar kind with regard to the management. The business of the vessel is usually conducted by one of the shareholders, but if the management should not be considered satisfactory, five-eighths of the shares can take possession of her upon giving bonds to the other owners that she shall be kept in good order, and if the vessel should run in debt those who have taken possession of her are alone responsible. On the other hand, the minority share no portion of the profits which may be made during that time. Each shareholder is allowed to underwrite his own share, and, as it is the practice of all who extensively own in this way to distribute their shares among a great number of vessels, considerable advantage is derived from this source. Under this system we see there are a number of individuals, each of whom is interested in procuring freight, or otherwise forwarding the interest of the vessel. The captain probably owns a share, and the result is that these vessels are sailed cheaper and make more money for their owners than any other. We remember hearing a story that at the time of the war between the Greeks and the Turks it was remarked that the Greek vessels were seldom or ever captured, and the reason assigned was that every soul on board, from the captain

to the cabin boy, had an interest in the vessel: and whether the story be true or not, there can be no doubt that it is owing to the operation of some such principle that the success of co-operative ship building and owning is indebted. A few instances, taken from among a great many others which have come to our knowledge, may serve to illustrate the extent to which the system is carried. One gentleman residing at Fredericton owns shares in 25 vessels, in most of them only a sixteenth, and in none of them more than a quarter. Another at Dorchester has in the same way shares in 24 vessels, from a sixteenth to a quarter; and in St. John there are many parties who are interested in different vessels from two to three up to 20 or even 30 shares. It will be observed that there is little or no risk in this business (especially when the sharer's shares are distributed among so many vessels). The vessel, too, is always kept well insured, and many families derive a steady and even handsome income from this source. It should be noticed that, as a general rule, the class of vessels built and run in this way are not of large size; a great many of them are brigantines and schooners, ranging from 150 to 300 tons, and a good spruce vessel, built to class four years at Lloyd's, is considered the best kind. They may not be quite so durable as hocmatic, but they cost less, and carry a larger cargo on the same draught of water.—*Montreal Trade Review.*

RUSSIA, PRUSSIA, PERSIA AND INDIA IN TELEGRAPHS.

The following are said to be the exact terms of the arrangements lately entered into by the Russian and Prussian Governments with Messrs. Siemens Brothers, of London, and Siemens, Halske & Co., of Berlin and St. Petersburg, in relation to the construction of a new line of telegraph between England and India through their respective territories. The latter firm have for many years been under contract with the Russian Government to maintain their lines of telegraph in working condition, one of the partners residing for that purpose at Tiflis, in the Caucasus. The Russian Government have now agreed to give a right of way through Russian territory, free of cost, and a concession for working a new line of telegraph and stations for twenty-five years from the date of opening. The government yield to the company their right of forwarding messages to and from India upon the Imperial Telegraph lines, and engage to hand over to the company all such messages touching Russian territory for transmission over its lines. The company is to work the line by means of its own officials. In return for these privileges the Russian Government exact a royalty of less than one-third of the existing internal tariff—that is to say, a royalty of five francs per message, which is to be diminished rateably as the through tariff between England and India is diminished from the existing rate of £5 1s. On the other hand, the Prussian Government engage to construct and to maintain two special lines through North Germany at their own expense, and to hand them over to the company for the period of twenty-five years. For these services of construction and maintenance, and for the privileges mentioned in the concession, the Prussian Government charge 2½ francs per mes

sage, to be reduced as in the case of Russia, in the event of the through tariff being reduced. All messages to and from India, touching German territory, will be handed over by the German officials to the company for transmission over its lines. A right of landing cables on German territory is given to the company. As there are no private telegraph lines in Russia or in Prussia, the company will enjoy a complete monopoly of all the through messages. The Electric and International Company also agree to lease two wires of the cable lately laid to Hanover to the Company. The British Government assist the whole arrangement and engage to give every facility for the transmission of messages over the lines which they work in Persia, between India, Ispahan and Teheran. The Persian line in British hands consists of two wires, and works very well. The British Government also promise to reduce the tariff over the Persian lines and the Persian Gulf cable so soon as an increase of messages shall occur in consequence of the new lines. The Prussian and Russian Governments permit the transmission of half messages to and from India of ten words each at half the present tariff, and it is expected that the same concession will be made by the British Government. At present no message can be charged at less than twenty words. The company will lay a submarine cable in the Black Sea, 280 miles in length, between the Crimea and the Circassian coast. By means of these several arrangements an English company will hold and work an uninterrupted line of telegraph from England to Persia, the line from Teheran to India being already in the hands of the British Government. The few sections of the line which consist of submarine cables are laid in shallow water, where repairs can be effected without delay or difficulty. The cost of land lines is only one-third or one-fourth that of submarine lines, and the great interest which the respective governments possess, through whose territories it is proposed to pass, that their countries should form the telegraphic highway to India and the East will, it is considered, insure the efficient maintenance of the contemplated communication. Negotiations are in progress with the Persian Government for an independent line in the company's hands between the Russian territory and Teheran. Immediate steps will be taken to raise a portion of the capital in England and to commence the work.

EGYPTIAN AGRICULTURE.

The report of Mr. Stanley, the English Consul at Alexandria, states that the present condition of the agricultural industry of Egypt has been so entirely diverted from the rotation of crops in its normal state that any person now going through the country to take a view of the produce of the soil would be altogether misled. The enormous profits which were realised by the growth of cotton during the American war have caused this. When the Cotton Supply Association sent out their Secretary, Dr. Forbes, to India, that gentleman was bearer of a memorial to the late Viceroy Said Pasha, praying his Highness to use every possible effort to encourage the cultivation of cotton. The reply was characteristic, aad evinced a correct impression and almost a prophetic dread of the revolution

that would be produced by an immoderately enhanced price of cotton. He said: "Prices alone will prove a sufficient stimulus without any effort on my part; but God forbid that I should ever see the abandonment of the ordinary succession of crops for the production of cotton, to the exclusion of those products on which we subsist." Within a short period of that time Egypt, which had ever been a large exporter of grain, of beans, &c., had to seek food from other countries, and became an extensive importer. Grain was considerably dearer in the interior than at Alexandria. In some places absolute famine ensued. An undesirable change was wrought, the recovery from which will be as slow as its accomplishment was rapid. The value of land was quadrupled, wages rose in an equal ratio, laborers earned so easily sufficient for their wants that they became indolent, an excessive luxury sprang up, and that not of a nature to benefit the commercial world, being displayed in a demand for white slave girls, costly pipes and other such appliances which (the consul remarks) do not much benefit the industrious world without. Meanwhile the land, from the constant crops of cotton in succession, has become impoverished. Cotton, however, has long been, and must continue to be, the most important production of Egypt. It is sown in March or April and arrives at maturity in August or September. An average yield in good summers is 300 lbs to the acre; the New Orleans variety has been found to yield 800 lb. per acre; but it is found unmarketable, and is therefore little cultivated. Cotton seed has also become an important source of profit. In 1858 the ardeb of 270 lb. sold for 25 tarif piastres, now it sells from 65 piastres to 75 piastres. Formerly it was not of sufficient value to justify of its being sent to Alexandria, and it was used as fuel. Now it is all shipped to Europe, and from it is pressed an excellent oil, and from the refuse a cake is made which is said to be more nutritious than linseed cake. The cattle murrain, which commenced in Egypt before it proved so severe a scourge in England, destroyed, the first year, 800,000 head of horned cattle. In lower Egypt almost every animal was destroyed, and it will take years to restore the number of animals.

THE RAILWAY REPORT OF INDIA.

The annual report on railways in India, by Mr. Juland Danvers, has just been presented. The traffic for the year 1866 was affected by the commercial troubles as well as by droughts in some parts of the country and unparalleled floods in other parts. Still the two great companies, the East Indian and the Great Indian Peninsular, realized profits during the earlier half which enabled them for the first time to divide more than the 5 per cent interest guaranteed. To prevent any check to the progress of construction of the various lines from the difficulty of rising capital, the Government have at times made advances of more than a million sterling. At the beginning of the year there were 3,331 miles open, 205 were finished during the twelve months, and 101 miles since, thus raising the total to 3,637. The completion of the Great Indian Peninsular to Nagpore places India in a greatly improved position for providing this country with cotton. As regards the works in course of construction, it is expected

that the East Indian line to Jubbulpore will have been opened to the public on the 1st of the present month and that the Great Indian Peninsular will, by October or November, 1868, effect a junction at that place which will establish a through communication between Bombay and Calcutta. The total length of railways remaining to be constructed and for which a Government guarantee has been granted is 2,005¼ miles. In addition, proposals have been considered for three lines, namely, one 570 miles from Baroda to Delhi, one of 500 miles, to unite the Scinde and Punjab, and one of 250 miles from Lahore to Peshawur. The first would cost £6,840.000, the second £6,000,000, and the third £5,000,-000, making a total of nearly 18 millions. It has been determined not to authorize the Lahore and Peshawur, and no decision has yet been come to with respect to the others, but surveys are being carried on. There are also projected, which are evidently not regarded with disfavor by the Government, for a chord line for the Great Indian Peninsular railway to the sea coast and an extension of the East Indian across the Hooghly into Calcutta. The financial public may, therefore, still have to exercise vigilance to prevent a repetition of the old system of a too profuse grant of guarantees, by which English capitalists are tempted to come under commitments that not only prevent capital from being directed to any other country than India, but also prove extremely burdensome when any revulsion occurs from a period of inflation in the money market. The fact that the native population continue to abstain from furnishing any portion of the capital of these undertakings adds especial weight to these considerations. Out of 43,398 shareholders and debenture holders, the native proportion, which was in the previous year only a little over 1 per cent is now actually below that amount. The total capital thus far raised for the Indian lines is £67,254,820, and the further lines already authorized will raise this to £88,000,000. The receipts of the year ended the 30th of June, 1866, were £4,537,235, whilst the expenses of working and maintenance were £2,225,-425, showing a net profit of £2,304,534—a result which contrasts favorably with the working expenditure of our largest English companies, notwithstanding the adverse influence of dear fuel. At the existing rate of freights, coal and coke, before they are landed in India, cost 50s. per ton, and the extra charges, so far as the western and southern districts are concerned, raise the cost to about 60s. The East Indian Company have exceptional advantages from the coal-fields near Calcutta, and the cost to them of coal per train mile is 8¼d., while on the Great Indian Peninsular it is 1s. 6½d. Coal from Australia and Labuan is being tried, but wood is looked to as the resource that must in many cases be relied upon, and with that view planting on an extensive scale should take place it is considered, annually for severally years to come.

THE TRAFFIC IN SHIP TIMBER.

The Toledo *Blade* says that one of the most remarkable features of the traffic at Toledo at present is the large quantity of ship timber shipped to tide water. In 1866 this trade was deemed very large when, prior to the 15th of August, about 540,000 cubic feet was sent forward, but the business this season has been

more than double that of last year, amounting from the opening of navigation to Saturday last to almost one million cubic feet. This timber, it should be known, is all of oak, principally of the "white" variety. It is rafted hither down the river and through the canal, and is here loaded into vessels constructed for that particular trade. There is now a fleet of ten or twelve vessels engaged exclusively in this traffic. As showing the activity in the business this season, we have collected from our files the following figures, exhibiting the amount of timber shipped, its destination from here, and number of cargoes taken away from the opening of navigation to Saturday last, July 27 :

	No. Cargoes.
To Buffalo	40
To Clayton	4
To Kingston	14
Total	58

The quantity shipped to each of the above ports is shown below :

	Cubic feet.
To Buffalo	716,500
To Clayton	46,000
To Kingston	185,000
Total	948,000

The timber shipped to Clayton was intended for local purposes, and nearly all of it has or will go into the lake marine. A considerable portion of that shipped to Buffalo (or Tonawanda) will be used in building for the lake marine, but by far the greater part of it goes forward to New York, where it is used in the construction of vessels. It may be safely asserted that Toledo furnishes more than one half of all the white oak timber used at Buffalo and New York in the construction of vessels. Ship builders at both the ports named are very partial to the oak from the Maumee country, as the demand which necessitates so large shipments is evidence.

As shown above, there has been shipped to Kingston fourteen cargoes, aggregating 185,500 cubic feet. This timber, as we are informed by the captain of a vessel employed in the timber trade, is not designed for use at Kingston. It is purchased for the use of the British Government, and from the port named above is shipped direct to England. We learn that there also the timber from this locality is estimated very highly for its strength and durability. Of the quantity shipped on English account all has been destined for the navy yards, to be used in the construction of war vessels.

RAILROAD REPORTS.

NEW YORK AND NEW HAVEN RAILROAD.

The earnings and expenses of this company from operations for the five last fiscal years ending March 31, were as follows :

	1862-3.	1863-4.	1864-5.	1865-6.	1866-7.
Passengers	$801,754 18	$1,134,899 23	$1,500,333 74	$1,548,580 18	$1,612,638 25
Freight	166,614 78	214,354 02	263,904 30	340,017 79	333,381 99
Mails, &c.	68,068 81	75,519 06	83,053 77	93,614 75	122,239 81
Total earnings	$1,036,437 77	$1,424,772 31	$1,847,291 81	$1,982,212 72	$2,068,260 05

From which were paid on account of operating—

Transportation	$222,302 91	$318,614 23	$485,452 68	$469,689 31	$548,817 60
Repairs of road, &c	109,535 84	54,417 59	220,915 10	385,485 84	324,798 60
Repairs of equipment	137,069 61	151,690 46	226,296 16	221,712 39	247,319 54
Fuel, oil and waste	83,880 62	136,188 20	214,902 27	194,143 39	173,497 09
Haulage by horse-power	29,552 60	43,399 50	77,128 75	78,692 30	69,790 75
Total expenses	$582,341 58	$704,309 98	$1224,694 96	$1,349,723 49	$1,364,243 58
Earnings less expenses	$454,096 19	$720,462 33	$622,596 85	$632,489 25	$704,016 47

This road (including 15 miles of the Harlem Railroad) extends from New York to New Haven, a distance of 76 miles. It is a double track throughout.

The following shows the mileage of trains, the number and mileage of passengers, and the tons and mileage of freight in each year:

	1862-3.	1863-4.	1864-5.	1865-4.	1866-7.
Trains (passenger), mileage	418,743	465,617	530,138	535,126	551,604
" (Freight), "	97,024	104,308	104,623	101,340	109,150
" (Service), "	3,043	485	17,994	36,110	16,089
Total trains, "	518,810	570,410	652,755	672,576	676,843
Passengers carried	1,174,171	1,455,155	1,833,575	1,848,915	1,885,898
" " one mile	41,348,675	53,660,428	68,736,307	66,709,592	65,211,107
Tons of freight carried	74,707	94,726	168,360	119,742	127,765
" " " one mile	4,429,874	5,539,174	6,048,608	6,737,444	7,359,912

The "general account" showing the total financial transactions of the company for each year, is given in the following statement:

	1862-3.	1863-4.	1864-5.	1865-6.	1866-7.
Cash on hand April 1	118,643 28	$242,015 81	$3 0,410 10	$166,445 42	$407,051 80
Mortgage b'ds sold	110,000 00	.....	.....	.....	.....
Materials on hand	88,258 03	90,515 17	222,347 22	262,321 98	338,998 41
Allotted stock	.....	.....	.....	1,001,025 00	995,000 00
Inc. of acc'ts pay'le	73,276 45	80,330 55	11,499 12	.....	117,260 60
Land sold	.....	.....	150 00	.....	.....
Earnings less exp.	454,096 19	720,462 33	622,596 85	632,489 25	704,016 47
Total	884,273 95	1,133,323 89	1,187,003 29	2,162,281 65	2,562,327 28

Per contra, as follows, viz.:

					0
Coupons	$129,120 00	$129,120 00	$129,120 00	$129,120 03	$129,120 03
Loss "Canal R.R"	20,349 24	9,908 47	28,905 03	44,799 97	30,705 1
Dividends	360,000 00	376,500 00	324,897 00	144,852 00	550,000 00
Reduction of accounts payable	.....	.....	.....	82,411 55	.....
Bonds, retired and purchased	.....	.....	.....	.....	920,500 00
Fractional shares on allotment	.....	.....	.....	7,190 00	.....
Equipment (new)	2,089 94	52,384 19	167,487 85	37,855 22	51,452 63
Real estate (purc'd)	.....	.....	.....	.....	30,740 00
Schuyler f'd settlem	.....	.....	.....	970,002 70	64,540 29
Railr'd (new works)	183 66	12,493 61	7,826 01	.....	21,508 54
Materials on hand	90,515 17	222,347 22	362,321 98	338,998 41	247,024 59
Cash on h'd Mar. 31	242,015 92	330,410 10	166,445 42	407,051 80	516,736 05
Total	844,273 95	1,133,323 89	1,187,003 29	2,162,281 65	2,562,327 28

The financial condition of the company, as shown on the general balance sheets at the close of each year, is exhibited in the following figures:

	1862-3.	1863-4.	1864-5.	1865-6.	1866-7.
Stock (100 shares)	$3,000,000 00	3,572,800 00	3,619,600 00	5,000,000 00	6,000,000 00
Bonds due Dec. 31, 1866	912,000 00	912,000 00	912,000 00	912,000 00	11,000 00
B'ds due Oct. 1, '75	1,088,000 00	1,088,000 00	1,088,000 00	1,088,000 00	1,068,500 00
Profit and loss	622,995 22	827,869 08	967,543 90	940,396 18	934,587 52
Accounts payable	131,367 14	211,697 69	223,196 81	140,785 26	258,045 86
Total	5,754,362 36	6,612,366 77	6,810,340 71	8,081,181 44	8,272,133 38

Against which are charged as follows, viz.:

Railroad, &c	4,643,832 84	4,656,426 45	4,664,102 46	4,656,302 46	4,677,811 00
Loss by Schuyler fraud	.....	572,800 00	619,600 00	1,599,202 70	1,663,742 99
Equipment	712,492 85	764,877 34	932,365 19	970,220 41	1,021,673 09
Real estate (including leases)	65,505 66	65,505 66	65,505 66	65,505 66	96,245 66
Forfeited stock	.....	.....	.....	.....	48,900 00
Materials	90,515 17	222,347 22	362,321 98	338,998 41	247,024 59
Cash	242,015 84	330,410 10	166,445 42	407,051 80	516,736 05
Total	5,754,362 36	6,612,366 77	6,810,340 71	8,081,181 44	8,272,133 38

CINCINNATI, HAMILTON AND DAYTON RAILROAD.

The earnings and expense account of the Cincinnati, Hamilton and Dayton Railroad Company yearly for the last five years, ending March 31, gives the following results:

	1862-63.	1863-64.	1864-65.	1865-66.	1866-67.
Passenger earnings	$348,893 39	$457,162 85	$546,810 15	$545,666 09	$457,665 26
Freight "	446,633 03	526,758 46	614,944 53	748,678 38	737,001 15
Mail and express earnings.	47,167 21	56,115 94	47,421 12	46,690 66	41,763 10
Rent of track, &c	27,286 66	32,568 59	30,328 56	20,531 34	62,933 49
Miscellane's	7,323 57	10,722 63	2,442 35	.....	2,173 67
Gr's income	$877,403 86	$1,083,328 47	$1,241,856 71	$1,361,566 47	$1,301,536 67
Oper'g exp's	390,936 81	554,507 12	738,628 92	829,276 95	847,594 10
	$486,467 05	$528,821 35	$503,227 79	$532,289 52	$453,942 57

From which were disbursed the following, viz.:

Interest on bonds	$93,601 66	$93,380 00	$112,169 75	$112,164 50	$123,151 88
Interest and exchange	.....	.....	.....	1,575 80	39,127 06
Taxes	20,693 46	30,699 17	58,356 14	95,016 05	68,920 56
Insurance, &c	.....	2,430 82	4,074 00	4,590 00	2,194 65
Ordin'ry disbursemt's	$114,295 12	126,509 99	$174,599 89	$213 346 35	$233,394 15
Extra'ry disbursem'ts	1,358 50	21,553 72	51,242 07	.....	65,720 00
Total p'd from earn'gs	$115,653 62	148,063 71	$225,841 96	$213,346 35	$299,114 15
Dividend fund	$370,813 43	380,757 64	$277,385 83	$318,943 17	$154,828 42
Dividend and tax	222,247 42	239,963 91	257,894 72	270,000 00	297,328 00

The financial condition of the company as exhibited on their balance sheet at the end of each year, (31st March,) is shown in the following statement:

	1863.	1864.	1865.	1866.	1867.
	$	$	$	$	$
Capital stock	2,155,800 00	2,500,000 00	3,000,000 00	3,000,000 00	3,260,800 00
1st mort. bonds	384,000 00	384,000 00	379,000 00	379,000 00	9,000 00
2d "	950,000 00	1,250,000 00	1,250,000 00	1,250,000 00	1,250,000 00
3d "	.....	.....	.....	.....	500,000 00
Div. fund, surplus	243,723 75	384,517 48	498,133 59	547,076 76	404,577 18
Current accounts	254,668 89	477,747 53	430,250 31	437,000 05	243,435 44
Bills payable	.....	.....	44,412 07	383,000 00	529,724 93
Total	3,988,192 64	4,996,265 01	5,601,795 97	5,996,076 81	6,197,537 55

Against which are charged as follows, viz.:

	$	$	$	$	$
Construction	2,648,206 38	3,364,049 42	3,897,229 06	3,920,736 12	3,930,423 36
Equipment	481,082 79	499,086 19	593,209 13	826,107 09	991,195 26
Real estate	285,581 54	303,859 98	344,551 10	338,123 60	343,883 09
Wood & materials	48,150 42	167,966 56	272,882 58	288,177 24	233,946 52
Wood lands	.....	17,659 32	24,245 56	16,245 56	12,540 00
Bills receivable	44,601 14	112,848 33	17,847 33	24,152 24	21,696 70
Stocks and bonds	91,947 26	138,147 26	203,089 65	234,417 33	149,333 93
Accounts current	76,950 58	139,304 62	158,706 32	78,930 12	77,046 12
Dayton & Mich. RR.	.....	.....	36,002 16	171,845 57	323,117 96
Cash & cash assets	311,582 53	253,343 33	90,034 84	97,844 97	112,354 61
Total	3,988,192 64	4,996,265 01	5,601,795 97	5,996,076 00	6,197,537 55

The actual nett earnings of this company in 1866–67 amounted to $220,548 42, but from this was paid $65,720 00 (discount onbonds issued) which left for dividends $154,828 42. The dividends paid with tax thereon amounted to $297,328 00, the difference ($142,499 58) having been taken from accumulated earnings. It is evident from this that the road earnings were not sufficient to pay more than half the amount thus disbursed. The deficit in nett earnings is due, perhaps, to temporary causes, chief among which is the loss of freight from short crops, but also the increased rate of wages paid to employees. These difficulties time will remedy. But is it politic to pay dividends under such circumstances, and especially while increasing both the stock and bond accounts in the interest of connecting roads, which, at least for many years, will not return one half the interest on the outlay. We allude to the Atlantic and Great Western Railroad, and the leased roads with which this once flourishing company have become saddled. The large floating debt of the company is to be paid off by an issue of ten years 8 per cent. bonds.

MICHIGAN CENTRAL RAILROAD.

The fiscal year of this company ends May 31. The results of operations for the past five years read as follows :

	1862–63.	1863–64.	1864–65.	1865–66.	1866–67.
Passengers	$889,682	$1,262,415	$1,771,814	$2,061,335	$1,824,226
(Av. p pass. p. m. cents	2:49	2:41½	2:59	2:72	2:69
Freight	1,983,757	2,073,274	2,233,529	2,208,592	2,285,522
(Av. p. ton p. m.) cents	1:99	2:25	3:06	2:60	2:49
Miscellaneous	73,121	98,859	140,076	176,563	215,743
Total gross earnings	$2,946,560	$3,434,548	$4,145,419	$4,446,490	$4,325,491
Expenses	1,272,360	1,720,125	2,406,149	2,808,376	2,826,777
Net earnings	$1,674,200	$1,714,423	$1,739,270	$1,638,114	$1,498,715
" per cent	56.82	49.92	41.96	36.84	34.64

The general income account, varying somewhat from the above figures, exhibits the total revenue and disbursements as in the following statement :

	1862–63.	1863–64.	1864–65.	1865–66.	1866–67.
Balance from previous years	$312,194	$772,636	$1,002 894	$708,385	$460,803
Receipts from earnings	2,947,917	3,417,186	4,121,213	4,415,279	4,333,705
Total revenue	3,260,111	4,189,822	5,124,107	5,159,664	4,794,507

From which amounts were disbursed as follows, viz.

Expenses	$1,272,360	$1,720,125	$2,406,149	$2,808,376	$2,826,777
Sinking fund	84,500	84,500	84,500	84,500	84,500
Interest and exchange	617,657	600,217	622.691	643,726	628,081
Cash dividends—July	(3) 181,713	(6) 363,432	(12) 757,889	(4) 259,648	(5) 349.135
" —January	(5) 302,860	(6) 363,432	(6) 378,942	(5) 344,035	(5) 375,135
Stock dividend, July, 1865	.....	.....	.....	(6) 389,472	.....
U. S. tax on dividends	28,385	21,753	69,985	55,723	26,926
" on receipts		33,469	95,280	113,381	60,503
Total disbursements	$2,487,475	$3,186,928	$4,415,722	$4,698,861	$4,351,057
Balance to next year	$772,636	$1,002,894	$708,385	$460,803	$443,450

The general balances are shown in the following accounts, as of May 31, yearly :

	1863.	1864.	1865.	1866.	1867.
Capital stock	$6,057,436	$6,315,906	$6,491,386	$6,982,867	$8,070,166
Bonds	7,999,489	7,740,989	7,565,489	7,463,489	7,268,989
U. S. tax on coup	4,956	5,435	158	58	4
Unpaid dividends	437	1,598	660	1,059	965
Jack'n, Lans'g & Saginaw RR. Co.	.....	.....	.....	.....	233,469
Bills & sundries	.....	.....	15,492	279,915	.....
Balance of income	772,636	1,002,894	708,385	460,803	443,450
Total	$14,834,955	$15,066,822	$14,781,570	$15,188,190	$16,017,543

Per contra the following are shown :

Construction, &c.	$13,805,576	$13,805,576	$13,805,576	$14,316,423	$14,930,814
Materials	.....	.....	174,026	288,065	209,887
Cash, loans, &c.	654,725	807,841	224,606	75,750	333,660
Jol. & N. Ind. RR.	168,225	168,225	168.225	168,225	168,225
Jacks'n, Lans'g & Sag'w bond ac't	.....	.....	.....	.....	8,055
Land accounts	.....	.....	214,173	125,911	122,036
As'ts in offi's h'ds	168,310	75,736	137,069	145,737	152,110
Bills & accounts	38,118	209,444	39,596	68,078	92,753
Total	$14,834,955	$15,066,822	$14,781,570	$15,188,190	$16,017,543

THROUGH FREIGHT LINES.

That success should attend the establishment of great lines of transportion managed by a central directory could never be doubtful. That they have become a success, the semi-annual circular report of the business and earnings of the "Blue Line," which commenced business January 1, 1867 proves beyond cavil. This shows the following facts :

Freight moved East	40,050.94 tons.	Net earnings	$701,064 81
" " West	26,281.26 tons.	" "	491,688 44
Total	66,332.20 tons.	Total net earnings	$1,192,753 25

The number of miles run was 8,800,856, and the number of tons carried one mile, 62,534,422, at an average rate of 1.92 cents per ton per mile. Proportion of freight East, 61.46, and West, 38.54 per cent.

The division of earnings was made as follows :

Hudson River railroad	80,828 11	Michigan Central railroad	$305,616 47
New York Central railroad	383,930 05	Chicago, Burlington and Quincy railroad	4,129 89
Great Western (Can.) railroad	289,217 39	Chicago and Alton railroad	20,300 01
Boston and Worcester Western Railroad and others east of Albany	$106,925 29	Illinois Central railroad	1,706 04
Total amount distributed			$1,192,753 25

The number of regular "blue cars" now in the line is 402. The approaching fall and winter business, it is estimated, will require 1,500 to 2,000 cars for its accommodation.

COMMERCIAL CHRONICLE AND REVIEW.

Rates of Loans—Prices of Railroad Stocks—Stock Exchange—Prices of Governments—Course of Consols and American Securities at London—Import and Export of Coin and Bullion—Movement of Coin and Bullion—Course of Gold at New York—Course of Foreign Exchange at New York.

Business during July was characterised by the dulness which ordinarily prevails during that month. The most notable feature in trading circles was a decided improvement in confidence, inspired by the splendid crop prospects throughout the country, which, thus far have not been doomed to disappointment through the occurrence of unfavorable weather. This revival of hope, however, has not been attended with any exaggerated preparations for the fall trade. Merchants

appear to be governed by a strictly conservative feeling, and deem it prudent to wait for the demand rather than anticipate it. Manufacturers have probably made ample preparation for the Fall trade; and, apparently apprehending that there is danger of the markets being overstocked, some have curtailed their production during the latter half of the month. The jobbing trade has been cautious rather than sanguine; less, however, from any doubts of their being an active demand for goods than from a supposition that the markets may be oversupplied.

As the natural consequence of the general quiet in trade, money has been very abundant, and speculation in Wall street active. The banks have had large idle balances, and the rate of interest on demand loans has ranged at 4@5 per cent., and during the last week of the month balances were loaned at 3 per cent.

The following are the rates of loans and discounts for the month of July:

RATES OF LOANS AND DISCOUNTS.

	July 5.	July 12.	July 19.	July 26.
Call loans	4 @ 6	4 @ 5	4 @ 5	4 @ 5
Loans on Bonds and Mortgage	6 @ 7	6 @ 7	6 @ 7	6 @ 7
A 1, endorsed bills, 2 mos	6 @ 7	6 @ 7	6 @ 7	6 @ 7
Good endorsed bills, 3 & 4 mos	7 @ 8	7 @ 8	7 @ 8	7 @ 8
" " single names	9 @10	9 @10	9 @10	9 @10
Lower grades	11 @15	11 @15	11 @15	11 @15

A protracted depression in railroad stocks succeeded by the prospects of unusually large grain freights, had prepared the market for a brisk upward movement, and the dealers entered upon the "summer campaign" with an unusual unanimity of view as to the upward tendency of values, and the result has been a much more rapid advance than was realised within the same period last year. The following comparison shows the prices of stocks at the close of July, 1866 and 1867:

	July 26, 1866.	July 30. 1867.		July 26, 1866.	July 30 1867.
N. Y. Central	104¾	108¼	Cincinnati & Pittsburg	84⅞	93⅛
Erie	64⅞	76¼	North Western	35¾	50¼
Hudson River	120	120¾	" " pref	64⅞	71⅛
Reading	111⅜	107¾	Rock Island	99⅛	102⅛
Michigan Southern	83¾	81¾	Fort Wayne	101¼	106⅜

The aggregate transactions in stocks at both boards during the month were 2,240,991 shares, against 1,577,646 shares in July last year. The total sales from January 1 to the close of July are 13,580,850, which is about 10,000 shares less than for the same period last year.

The following table shows the volume of shares sold at the New York Stock Exchange and the open Board of Brokers in the two first quarters and the first half of the current year, in the month of July and since January 1:

VOLUME OF SHARES SOLD AT THE STOCK BOARDS, JULY, 1867.

	1st Quarter.	2d Quarter.	Hlf year.	July.	Since Jan. 1.
Bank shares	7,815	11 153	18,968	4,784	23,752
Railroad "	5,079,773	4,910,358	9,990,136	1,888,124	11,878,260
Coal "	67,800	25,405	93,205	31,563	124,768
Mining "	123,857	91,188	215,045	63,110	278,155
Improv'nt "	81,269	103,435	184,704	47,585	232,289
Telegraph "	117,973	153,118	271,091	109,620	380,711
Steamship "	228,683	215,873	444,556	58,133	502,694
Expr'ss&c "	17,674	104,480	122,154	38,067	160,221
At New York Stock Ex	2,072,406	2,074,351	4,146,757	900,241	5,046,998
At Open B'd	3,652,443	3,540,659	7,193,102	1,340,750	8,533,852
Total 1867	5,724,849	5,615,010	11,339,859	2,240,991	13,580 850
Total 1866	6,172,087	5,842,110	12,014,197	1,577,646	13,591,843

United States Securities were very firm and active throughout the month. The low rate of money has caused a steady home demand for investment; while the extreme ease in the London money market has encouraged a partial movement for shipment. The price of Five-twenties at London has varied but little, and as gold has risen over two points, bonds on this side have correspondingly advanced. Toward the close of the month the advance in prices appeared to have increased the number of sellers, and prices fell off from the previous high figures. The amount of Government bonds and notes, State and city bonds, and company bonds, sold at the New York Stock Exchange Board in the two first quarters and the first half of the current year, in the month of July and since January 1, is given in the statement which follows:

BONDS SOLD AT THE N. Y. STOCK EXCHANGE BOARD.

	1st quarter.	2d quarter.	Half-year.	July.	S'ce Jan. 1.
U. S. bonds	$18,702,650	$40,388,350	$59,091,000	$10,171,900	$69,262,900
U. S. notes	4,792,480	3,347,600	8,140,080	4,170,600	12,310,680
St'e & city b'ds	8,884,100	7,601,650	16,485,750	3,683,000	20,168,750
Company b'ds	2,216,200	2,367,700	4,583,900	615,000	5,198,900
Total 1867	$34,595,430	$53,705,300	$88,300,730	$18,640,500	$106,941,230
Total 1866	32,600,540	36,414,350	69,014,890	14,765,500	83,780,390

The great increase in the sale of bonds has taken place since the establishment of the Government Department of the Stock Exchange Board of Brokers.

The daily closing prices of the principal government securities are shown in the following statement:

PRICES OF GOVERNMENT SECURITIES AT NEW YORK, JULY, 1867.

Day of month.	6's, 1881. Coup.	6's, 1881. Reg.	6's, (5-20 yrs.) 1862.	6's, (5-20 yrs.) 1864.	6's, (5-20 yrs.) 1865.	Coupon new.	5's, 10-40 1867.	5's, 10-40 yrs. C'pn.	7-30s 1867.
Monday 1	109⅛	109	110⅝	107⅛	107⅝	.....	.....	100⅝	106½
Tuesday 2	.....	109	110¾	107⅝	107¾	106⅝	.....	100¾	.....
Wednesday 3	109⅛	109⅛	.....	.....	107⅝	106¾	.....	101¼	106½
Thursday 4	(National Holiday)								
Friday 5	109⅜	.....	111½	108⅝	108⅜	.....	107⅜	102½	107¼
Saturday 6	.....	.....	111⅜	108⅝	108½	.....	.....	.....	107⅛
Sunday 7	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monday 8	109⅜	109⅜	111½	.....	109⅛	107⅜	.....	102¼	107⅜
Tuesday 9	110¼	110	111¾	109¼	109½	108¼	108⅛	102½	108⅛
Wednesday 10	110⅜	110⅛	111⅞	.....	109¾	108⅛	108¾	102⅝	.....
Thursday 11	110¾	.....	112¼	109⅞	109⅞	108⅜	108⅝	102⅝	108¾
Friday 12	110⅝	110½	111¾	109⅝	109¾	108¼	108⅜	102¼	108¼
Saturday 13	.....	.....	111¾	.....	109½	108⅜	108⅝	102⅜	108
Sunday 14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monday 15	110½	.....	111¾	109⅞	.....	108	.....	102	107⅞
Tuesday 16	.....	.....	.....	.....	109	.....	108	102	.....
Wednesday 17	110	.....	111⅝	109	109¼	107¾	108	101¾	.....
Thursday 18	110½	.....	111½	108⅞	.....	107⅞	.....	102	107½
Friday 19	.....	110⅛	111¾	109⅛	109½	108⅛	108	102¼	.....
Saturday 20	.....	.....	.....	.....	.....	108¾	108⅜	102¾	107⅞
Sunday 21	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monday 22	110⅜	110¼	111⅝	109⅜	109½	108¾	108⅝	102⅜	107⅞
Tuesday 23	110½	.....	.....	109½	109¾	108¾	108⅝	102⅜	108⅜
Wednesday 24	110⅜	110¼	111⅝	109½	109½	108½	108¾	102¼	108
Thursday 25	110⅜	.....	111½	109⅜	.....	108½	.....	102⅜	108
Friday 26	.....	.....	111⅝	109½	109⅝	108⅜	108⅜	102¼	107⅞
Saturday 27	.....	.....	111½	109⅛	109½	108⅜	.....	102¼	.....
Sunday 28	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monday 29	110⅛	110	111⅛	.....	109¾	108⅛	108	102⅛	107¾
Tuesday 30	.....	.....	111⅝	109¾	109½	108¾	.....	102¼	.....
Wednesday 31	110¼	110¼	111½	109½	109⅝	108¾	108¾	102¼	.....
First	109⅛	109	110⅝	107½	107⅝	106⅝	107⅜	100⅝	106½
Lowest	109⅛	109	110⅝	10 ½	107⅝	106⅝	107⅜	100⅝	106½
Highest	110¾	110½	112¼	109⅞	109⅞	108¾	108⅝	102½	108¾
Range	1⅝	1½	1⅝	2⅜	2¼	2⅛	1¼	1⅞	2¼
Latest	110	110	111	109	109	108	108	102	100

The quotations for three years compound interest notes on each Thursday of the month have been as shown in the following statement:

PRICES OF COMPOUND INTEREST NOTES AT NEW YORK, JULY, 1867.

Issue of	July 3.	July 11.	July 18.	July 25.	August 1.
July, 1864	119 @119¼	119¼@119¼	.....@.....	.....@.....	.....@.....
August, 1864	118¾@119	118⅞@119⅛	119 @119¼	119 @119¼	119⅛@119⅜
October, 1864	117¾@118	117⅞@118⅛	118 @118¼	118¼@118⅜	118⅜@118⅝
December,'64	117 @117¼	117⅛@117⅜	117⅛@117⅜	117¼@117½	117⅜@117⅝
May, 1865	116½@116¾	116⅝@116¾	116⅝@116⅞	116⅞@117⅛	116⅞@117⅛
August, 1865	115½@115¾	115⅝@115¾	115⅝@115⅞	115⅞@116⅛	115⅞@116⅛
September,'65	115 @115¼	115 @115¼	115⅛@115¾	115¾@115¾	115⅝@115⅝
October, 1865	114¼@114¾	114¼@114¾	114⅝@115⅞	114⅞@115⅛	114⅞@115⅜

The first series of figures represents the buying and the last the selling price, at first-class brokers' offices.

The following are the closing quotations at the regular board on Friday of each of the last seven weeks.

	June 14.	June 21.	June 28.	July 5.	July 12.	July 19.	July 26
Cumberland Coal	30¾	.....	33¼	...	40¼	38½	38⅞
Quicksilver	28	27¾	31⅞	32	33¼	....	34⅝
Canton Co.	....	....	47	....	4[illegible]	48¼	52¼
Mariposa pref	20	19¾	21½	24⅞	23½	23½	....
New York Central	101⅝	102⅛	104¾	105⅛	105¾	106¾	109⅜
Erie	60⅛	59¾	66⅜	68⅛	70⅜	71⅜	74⅜
Hudson River	108½	108½	109¾	109⅞	110	1 6½	119⅞
Reading	106¾	107⅝	109¾	110	103¾	104¾	107¾
Michigan Southern	68¼	70½	78¾	81⅜	79⅝	79½	83
Michigan Central	113	x.d107	110½	....	110	110	112½
Cleveland and Pittsburg	76⅛	77¾	84⅞	86½	91¾	91	91½
Cleveland and Toledo	118	120½	120	121¾	119½	121	124⅛
Northwestern	34⅞	35⅛	42⅜	45⅞	44¾	44⅞	48⅝
" preferred	59½	59¼	65⅛	67½	68	70⅞	72⅝
Rock Island	89⅞	90⅜	95¾	97½	97	99⅜	104
Fort Wayne	97¼	98	103¾	100¾	101¼	101¾	166¼
Illinois Central	....	120¼	121½	122	....	....	119

The closing prices of Consols and certain American securities (viz. U. S. 6's 1862, Illinois Central and Erie shares and Atlantic and Great Western consolidated bonds) at London, on each day of the month of July, are shown in the following statement:

COURSE OF CONSOLS AND AMERICAN SECURITIES AT LONDON—JULY, 1867.

Date.	Cons for mon.	American securities U. S. 5-20s	Ill.C. sh's.	Erie shs.	A. & G.W	Date.	Cons for mon.	American securities U. S. 5-20s	Ill.C. sh's.	Erie sh's.	A. & G.W
Monday 1	94½	72¾	79¼	43¼	25	Sat'day.20		(*Holiday*)			
Tues... 2	94⅜	72¾	79⅜	43⅜	....	Sunday.21	....	....	....	....	....
Wedne. 3	94⅜	72¾	79¼	43¾	....	Monday22	94⅜	72¾	x76½	46¾	22¼
Thurs.. 4	94¼	72¾	79⅜	44¼	....	Tues. .23	94¼	72¾	76¾	46¾	22¼
Friday. 5	94⅜	72¾	79¼	44	....	Wedne.24	94¼	72¾	76¼	47	24
Sat'day. 6	94½	73	79¼	43¾	....	Thurs..25	94¼	72¾	76½	48¼	23¾
Sunday. 7	....	....	....	....	....	Friday..26	94	72¾	76¾	47¾	23
Monday 8	94¾	73	79¼	44¼	....	Sat'day.27	93⅞	72⅝	76¾	47⅞	23
Tues .. 9	94⅝	73⅜	79¾	43¾	....	Sunday.28	....	....	....	....	....
Wedne.10	94⅞	73¾	80¾	44¼		Monday29	94	72½	76¾	48½	22½
Thurs..11	94⅞	73⅜	80½	45¼	....	Tues...30	94	72½	76¾	48¼	22½
Friday..12	94¾	73¼	80½	45½	....	Wed...31	94	72½	77	48⅜	22
Sat'day.13	94¾	73¼	80½	45½	24						
Sunday.14	....	....	....	....	....	Highest	94⅞	73¾	80¾	48¾	25
Monday15	94¾	73	80½	47	23¾	Lowest	93⅞	72½	76½	43¼	22
Tues...16	94¾	73¾	x76¾	46¾	23½	Range	1	⅜	4	5¾	3
Wedne.17	94¾	73½	x77¼	46¾	22½	Lo (Since Jan. 1)	90	67¾	72½	35¾	22
Thurs..18	94⅝	73¾	80½	46½	22½	Hi (Since Jan. 1)	96	75½	82¾	46½	26
Friday..19	94½	72⅝	x76¾	46¼	22	Ra (Since Jan. 1)	6	7¾	10	10¾	4

The lowest and highest quotations for U. S. 6's (5-20 years) of 1862 at Frankfort in the weeks ending Thursday have been as follows:

July 4.	July 11.	July 18.	July 25.	Aug. 1.
	77¼@77¾	77⅜@77¾	76⅝@77⅜	76⅝@76⅞

The import and export of coin and bullion at the port of New York in the two first quarters and the first half of the current year, and in the month of July, and the total since January 1, have been as shown in the following statement:

IMPORT AND EXPORT OF COIN AND BULLION.

	First Quarter.	Second quarter.	Half year.	Month of July.	Since Jan. 1.
Receipts from California	$6,109,861	$6,899,555	$13,009,416	$2,662,139	$15,671,555
Import from foreign ports	409,077	1,147,619	1,556,696	64,391	1,621,087
Total receipts	$6,518,938	$8,047,174	$14,566,112	$2,726,530	$17,292,642
Export to foreign ports	6,566,958	18,028,709	24,595,667	10,578,424	35,174,091
Excess of exports	$48,020	$9,981,535	$10,029,555	$7,851,894	$17,881,449

The following statement shows the amount of receipts and exports in July and since January 1, for the last seven years:

	California Receipts		Foreign Imports		Foreign Exports	
	July.	Since Jan. 1.	July.	Since Jan. 1.	July.	Since Jan. 1.
1867	$2,662,139	$15,671,555	$64,391	$1,621,087	$10,578,424	$35,174,091
1866	6,754,669	23,175,014	345,961	1,506,147	5,821,459	51,603,589
1865	1,092,805	10,035,127	253,640	1,319,163	723,986	18,630,745
1864	711,645	6,534,216	128,052	1,555,066	1,947,329	31,099,450
1863	726,027	8,022,940	182,245	1,026,013	5,268,881	25,900,850
1862	1,961,468	13,943,535	29,001	750,556	8,669,337	36,034,688
1861	2,055,368	21,175,405	6,996,498	32,906,166	11,020	3,260,458

The course of the gold premium has been steadily upward, the price having advanced from 138 to 140⅝. The remittances of specie for the settlement of bankers' credits and on account of Erie and Illinois Central stock returned, as well as for United States coupons due July 1st, have been quite considerable, the total exports from New York for the month being $14,301,702. The exports and receipts from customs duties together amount to $24,096,106; while the receipts from California, from abroad, and from the payment of coin interest aggregate $14,032,901. It thus appears that the withdrawals from the market for the month exceed the receipts by $10,063,205; yet, at the close of the month, the amount of specie in the banks was $969,098 more than at the beginning; showing that $11,032,303 of gold was drawn from outside sources, a large proportion having doubtless been drawn from Washington, Philadelphia and Boston, being the proceeds of July coupons paid in those cities. From the statement below it will be seen that the withdrawals for the first seven months of the year exceed the supply from California and interest disbursements by $47,370,818. This large deficiency has been made up chiefly from sales by the Treasury, overland receipts from the mines, and coupon disbursements by the Treasury at other cities forwarded here for sale. The following formula shows the details of the movement in the first two quarters and first half of the current year and in July, with the total movement since Jan. 1:

GENERAL MOVEMENT OF COIN AND BULLION.

	1st quarter.	2d quarter.	Half year.	July.	Since Jan. 1.
In banks at commen't	$13,185,222	$8,522,609	$13,185,222	$7,768,996	$13,185,222
Rec's from California	6,109,861	6,899,555	13,009,416	2,662,139	15,671,555
Imp's f'm for'n coun's	409,077	1,147,619	1,556,696	64,291	1,621,087
Coin interest paid by U. States	10,838,303	17,793,025	28,631,328	16,306,371	39,937,699
Total repo'd sup'y	$30,542,463	$34,362,808	$56,382,662	$21,801,897	$70,415,563
Exp. to for'n count's	$6,566,958	$18,028,709	$24,595,667	$14,301,702	$38,897,369
Customs duties	33,170,628	27,185,886	60,356,514	9,794,404	70,150,918
Total withdrawn	$39,737,586	$45,214,595	$84,952,181	$24,096,106	109,048,287
Excess of withdra'ls	$9,195,123	$10,851,787	$28,569,519	$2,294,209	$38,632,724
Specie in b'ks at close	8,522,609	7,768,996	7,768 996	8,738,094	8,738,094
Deficit made up from unreported sources	$17,717,732	$18,620,783	$36,338,515	$11,032,303	$47,370, 8

The statement which follows shows the daily fluctuations in the price of American gold coin, as quoted at the Gold Room during the month of July:

COURSE OF GOLD AT NEW YORK, JULY, 1867.

Date.	Open'g	Lowest.	High'st.	Closing.	Date.	Open'g	Lowest.	High'st.	Closing.
Monday..... 1.....	138¼	138	138¼	138¼	Sunday.....21.....	.....	.....	.....	.....
Tuesday..... 2.....	138¼	138	138¼	138¼	Monday .....22.....	140	139¾	140	139⅞
Wednesday... 3.....	138¼	138¼	138¾	138¼	Tuesday .. .23.....	140	139⅝	140	139⅞
Thursday..... 4.....		(Holiday.)			Wednesday..24.....	139¾	139⅜	139¾	139⅜
Friday..... 5.....	138⅞	138⅞	139¼	138⅞	Thursday....25..... ..	139¼	139¼	139⅝	139⅜
Saturday..... 6..	139⅛	138¾	139⅛	139	Friday .....26.....	139⅛	139⅛	139⅝	139⅝
Sunday..... 7.....	.....	.....	.....	.....	Saturday.....27.....	139¾	139¾	140⅛	140
Monday..... 8.....	139	138½	139	138⅝	Sunday ....28.....	.....	.....	.....	.....
Tuesday..... 9.....	138½	138⅜	138⅞	138⅜	Monday.....29.....	140⅜	140⅛	140⅜	140⅜
Wednesday...10.....	138¾	138⅝	138¾	138⅝	Tuesday.....30.....	140¼	140	140¼	140¼
Thursday.....11.....	138⅝	138⅜	139¼	139¼	Wednesday..31.....	140	139¾	140	140
Friday.....12.....	139½	139	139⅜	139⅛					
Saturday.....13.....	139¼	139	139⅞	139⅛	June ..1867.....	138¼	138	140⅝	140
Sunday .....14.....	.....	.....	.....	.....	" 1866.....	154⅜	147	155¾	149
Monday .....15.....	139¼	139⅛	139⅝	139⅝	" 1865.....	141	138½	146½	144
Tuesday.....16.....	139⅞	139¾	140⅜	140¼	" 1864.....	222	222	285	255
Wednesday..17.....	140½	139⅝	140⅜	139⅝	" 1863	144¾	123¼	145	128½
Thursday.....18.....	139⅝	139½	139⅞	139⅞	" 1862.....	109	108¾	120⅜	115
Friday .....19.....	139⅞	139¾	140	139¾					
Saturday.....20...	139⅝	139¾	139¾	139¾	S'ce Jan. 1, 1867	132⅞	132⅛	141⅝	140

Foreign exchanges have ruled firm at the specie shipping point throughout the month. The supply of commercial bills has been very light; a moderate amount of acceptances has been drawn against shipments of Five-twenties; but there has been a large deficiency, which has had to be made up by the shipment of specie. After midsummer the foreign bankers usually settle their European credits; but, although the remittances for that purpose have been large, an impression prevails that, owing to the very low rates of interest at London, a considerable amount of balances has been allowed to remain unsettled.

The following table shows the course of foreign exchange daily for the month:

COURSE OF FOREIGN EXCHANGE (60 DAYS)—AT NEW YORK.

Days.	London. cents for 54 pence.	Paris. centimes for dollar.	Amsterdam. cents for florin.	Bremen. cents for rix daler.	Hamburg. cents for M. banco.	Berlin. cents for thaler.
1.....	109¾@110⅛	517½@513⅛	40¾@41¼	78¾@78¾	36 @36⅜	72 @72⅜
2.....	109¾@110⅛	517½@513⅛	40¾@41¼	78¾@78¾	36 @36⅜	72 @72⅜
3.....	109⅞@110⅛	516¼@513⅛	40¾@41⅜	78 @78¾	36 @36⅜	71½@72¼
4.....		(Independence Day.—National Holiday.)				
5..	110 @110¼	513¾@512½	41¼@41⅜	79 @79¼	36⅛@36¾	72¼@72½
6.....	110 @110⅛	513¾@512½	41¼@41⅜	79 @79¼	36⅛@36¾	72¼@72½
7.....	.....	.....	.....	.....	.....	.....
8.	110 @110⅛	513¾@512½	41¼@41⅜	79 @79¼	36⅛@36⅜	72¼@72½
9.....	110 @110⅛	513¾@512½	41¼@41⅜	79 @79¼	36⅛@36⅜	72¼@72½
10.....	110 @110⅛	513¾@512½	41¼@41⅜	79 @79¼	36⅛@36⅜	72¼@72½
11.....	110 @110⅛	516¼@512½	40¾@41¼	78⅝@79	36¼@36⅜	71½@72
12	110¼@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72¼
13.....	110 @110⅛	516¼@512½	40¾@41¼	78⅝@79	36¼@36⅜	71½@72
14.....	.....	.....	.....	.....	.....	.....
15.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
16.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
17.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
18.....	110 @110¼	516¼@512½	40¾@41¼	78¾@79¼	36¼@36¾	71¾@72¼
19.....	110¼@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72 @72½
20.....	110 @110¼	516¼@512½	40¾@41¼	78½@79	36 @36⅜	71½@72¼
21.....	.....	.....	.....	.....	.....	.....
22.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
23.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
24.....	110⅛@110¼	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
25	110⅛@110¼	512½@511¼	41 @41¼	78¾@79¼	36⅜@36½	72¼@72½
26.....	110¼@110⅜	512½@511¼	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
27.....	110⅛@110¼	513¾@512½	41⅛@41⅜	79 @79¼	36⅜@36½	72¼@72½
28..... ..	.....	.....	.....	.....	.....	.....
29.....	109⅞@110	515 @512½	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
30.....	110 @110¼	513¾@512½	41¼@41⅜	79 @79¼	36⅜@36½	72¼@72½
31.....	110 @110¼	513¾@512½	41¼@41¾	79 @79¼	36⅜@36½	72¼@72¼

Days	London.	Paris.	Amsterdam.	Bremen.	Hamburg.	Berlin.
July	109¾@110⅜	517½@511¼	40¾@41⅜	78 @79¼	36 @36½	71⅜@72½
June	109¾@110⅜	518¾@511¼	40¾@41¼	78¼@79¾	36 @36⅝	72 @72¾
May	109⅜@110⅜	520 @510	40¾@41⅝	78⅝@80	36 @36⅜	71¾@72¾
Apr	108¾@10 ⅞	522½@512½	40¾@41¼	78⅜@79½	35⅞@36¾	71¾@72½
Mar	108 @109¼	525 @515	40¾@41½	78 @79½	35⅞@36¾	71⅜@72½
Feb	108⅜@109	522½@515	40¾@41¾	78½@79¼	36 @36⅜	71½@72⅜
Jan	108⅝@109½	520 @513¾	41⅛@41⅝	78½@79¼	36⅛@36¾	72 @72¾
Since Jan. 1	108 @110½	525 @510	40¾@41⅝	78 @80	35⅞@36¾	71¾@72¾

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

Quarterly Report of the New York City National Banks—Quarterly Report of the Nationa Banks of Boston and Philadelphia—Monthly Range of sales of Bank Stocks—New York, Philadelphia and Boston Bank Returns.

The Comptroller of the Currency, Mr. Hulburd, has prepared with unusual promptitude the following abstract of quarterly reports of the National banking associations of the cities of New York, Philadelphia and Boston, showing their condition on the morning of the first Monday in July, 1867, before the commencement of business on that day. We add for comparison previous returns issued this year:

QUARTERLY REPORTS OF THE NEW YORK CITY NATIONAL BANKS.

Resources.

	January.	April.	July.
Loans and discounts	$157,967,294 27	$152,863,769 78	$147,467,891 66
Overdrafts			128,567 82
Banking house	5,626,886 76	5,719,027 50	5,080,915 68
Other real estate			338,992 37
Furniture and fixtures			292,229 08
Current expenses	431,050 92	1,674,995 66	383,237 49
Premiums	637,324 70	941,100 96	1,173,142 56
Cash items (including revenue stamps)	78,758,830 91	69,414,067 77	9,978,332 50
Exchanges for Clearing House A. M.			94,273,528 78
Due from National banks	9,583,978 64	7,947,324 06	9,340,153 34
Due from other banks and bankers	4,136 978 64	2,689,883 83	2,959,935 04
U. S. bonds to secure circula'n	42,487,800 00	42,467,800 00	42,487,800 00
Other U. S. Securities to secure deposits	5,170,300 00	4,800,900 00	4,869,000 00
U. S. bonds and securities on hand	15,781,250 00	15,123,950 00	15,092,000 00
Other stocks, bonds & mortg's	4,534,610 36	6,260,178 78	6,230,048 21
Bills of National banks	2,228,868 00	1,439,115 00	3,070,538 00
Bills of other banks	69,488 00	69,699 00	45,758 00
Specie	10,547,117 30	5,718,722 60	6.034,306 43
Fractional currency	41,402,117 59	34,700,372 21	211,087 32
Legal tender notes			43.173,962 56
Compound Interest notes	22,785,940 00	25,939,480 00	24,240,100 00
Aggregate	$402,149,026 42	$337,790,364 23	$416,871,526 84

Liabilities.

Capital stock paid in	$75,009,700 00	$75,009,700 00	$75,009,700 00
Surplus fund	17,573,506 57	17,301,440 86	17,796,281 98
National circulat'n outstand'g	34,257,816 00	34,972,371 00	34,775,030 00
State bank notes outstanding	406,037 00	379,353 00	339,265 00
Individual deposits	201,962,194 16	175,493,039 91	216,186,740 21
United States deposits	2,319,414 34	2,789,205 55	3,005,090 38
Deposits of U. S. Disbursing Offices	4,884 47	996 70	996 70
Cashiers checks outstanding			1,477,222 72
Due to National Banks	52,466,889 22	51,841,582 80	49,704,962 26
Due to other banks and bankers	13,278,308 39	12,508,466 93	12,294,349 49
Profit and loss	4,870,196 27	7,491,207 48	6,281,788 10
Aggregate	$402,149,036 42	$377,790,364 23	$416,871,526 84

QUARTERLY REPORTS OF THE NATIONAL BANKS OF BOSTON AND PHILADELPHIA.

Resources.

	Boston.		Philadelphia.	
	April.	July.	April.	July.
	$	$	$	$
Loans and discounts	56,811,075 24	58,197,191 40	32,215,000 01	33,905,149 14
Overdrafts		1,476 49		6,876 93
Banking house		1,365,394 51		1,085,547 54
Other real estate	1,420,072 61	41,075 02	1,183,073 57	101,835 40
Furniture and fixtures				87,373 25
Current expenses	31,165 78	255,295 44	435,596 12	147,617 64
Premiums	55,145 25	67,769 88	395,847 33	404,888 73
Cash items (including revenue stamps)	4,516,321 66	857,395 67	1,032,735 19	350,932 32
Exchanges for clearing house, A. M.	.....	4,947,090 71	.....	5,343,305 11
Due from National banks	8,458,871 83	7,919,982 93	4,805,130 79	4,547,220 44
Due from other banks and bankers	248,084 03	141,289 42	460,494 75	467,412 33
U. S. Bonds to secure circulation	29,044,350 00	29,044,350 00	13,118,000 00	13,118,000 00
Other U. S. Securities to secure deposits	1,925,000 00	1,900,000 00	2,047,600 00	2,222,200 00
U. S. bonds and securities on hand	3,947,550 00	4,036,500 00	3,288,580 00	2,663,700 00
Other stocks, bonds and mortgages	1,084,150 00	1,149,650 00	1,057,42 24	1,447,047 81
Bills of National banks	1,355,611 00	2,406,604 00	422,935 00	898,398 00
Bills of other banks	635,244 00	3,722 00	30,364 00	16,793 00
Specie	454,986 52	725,278 28	792,037 43	417,109 98
Fractional currency	6,085,087 49	103,479 84	8,410,253 34	144,307 40
Legal tender notes		6,623,512 00		9,160,769 03
Compound interest notes	11,531,180 00	9,331,980 00	8,348,470 00	7,298,990 00
Aggregate	$127,604,785 51	129,119,097 59	78,045,537 82	83,833,524 05

Liabilities.

	$	$	$	$
Capital stock paid in	43,550,000 00	42,550,000 00	16,017,150 00	16,517,150 00
Surplus Fund	6,849,511 10	6,896,267 37	5,175,784 01	5,332,437 83
National circulation outstanding	25,309,509 00	25,221,746 00	11,006,790 00	11,004,241 00
State b'k notes outstand'g	311,258 00	288,304 00	135,085 00	125,185 00
Individual deposits	39,011,725 13	37,413,277 43	35,516,987 95	41,217,662 67
United States Deposits	1,465,594 19	2,213,219 49	1,887,404 12	1,644,962 30
Deposits of U. S. disbursing offices	.....	31 30	.....	411,890 56
Cashiers checks outst'd'g	.....	101,799 61	.....	.....
Due to National Banks	10,108,134 06	10,814,017 35	5,622,989 44	5,592,515 85
Due to other banks and bankers	1,150,696 80	1,044,135 24	974,533 83	962,411 47
Profit and loss	948,356 23	2,576,299 80	1,708,813 47	1,025,067 37
Aggregate	$127,604,785 51	129,119,097 59	78,045,537 82	83,833,524 05

The following table shows the monthly range of sales of bank stocks at the New York Exchange Board of Brokers for the first six months of the current year:

Banks.	January.	February.	March.	April	May.	June.
America	135 –135	134 –134	....–....	135 –135	137½–137½	....–....
Amer. Exchange	115 –115	115 –115½	115 –115	116 –116½	112½–113	115 –118
Butchers' & Drov.	125 –125	.. .–....	....–....	....–....	....–....	....–....
Central	102 –110	109 –111	110 –112	109½–110¼	109½–111	111 –114
Chatham	....–....	140 –140	....–....	....–....	....–....	....–....
Commerce	110½–115	112 –114	113 –116	112 –115	114 –119	112½–114
Commonwealth	106 –106	104½–106	106 –108	106 –106	....–....	110 –112
Continental	100 –102	101 –105	103 –104	102½–103	103½–104	104 –106¼
Corn Exchange	....–....	....–....	119 –119	118½–119	....–....	123 –123
East River	100 –100	....–....	....–....	.. .–....	100 –100	100 –100
Fourth	102 –105½	103½–104½	104 –105½	104 –105	105 –107½	107 –110
Hanover	108½–108½	....–....	110 –110	112 –112	115 –117	113 –113
Import. & Traders'	112 –113½	112 –113	112 –113	109½–110	110 –111	111 –113
Irving	.. .–....	....– . .	....– ...	104 –104	....–....	....–....
Leather Manufact	....–....	....–....	....–....	....–....	180 –180	....–....
Manhattan	....–....	....–....	....–....	135 –135	135 –135	.....–...
Market	....–....	135 –135	....–....	....–....	....–....	....–....
Mechanics'	116 –116	117 –117	....–....	117 –117	118 –118	114 –114
Mechan. B. Assoc	111 –111	110 –111	....–....	111 –111	....–....	....–....
Merchants'	115 –115	....–....	115 –116	114½–115	116 –116	114 –114
Merchants' Exch	108 –108	105½–105½	....– ...	....–....	107½–107½	110 –110
Metropolitan	123 –123	123 –124½	123 –126	124 –125	125½–125½	131 –131
National (Gallatin)	110 –110	110 –110	....– ...	....–....	110 –111	110 –111
New York	116 –116	117 –118	118 –118	....–....	....–....	....–....
Ninth	....–....	....–....	....–....	....–....	....–....	115 –115½
North America	106 –107	105 –106	....–....	105 –106	105 –107	108½–109

BANKS.	January.	February.	March.	April.	May.	June.
Ocean	----–----	102¾–103	101 –103	101 –102	101 –102	102 –105
Oriental	---– ...	----–-- ..	130 –130	----–----	----–----	----–----
Park	----–----	...–----	....– ...	140 –142	140 –148	145 –148
Phœnix	106 –107	104 –106	106 –108	----–----	105 –106	106 –108
Republic	----– ...	----–----	114 –114	114½–115	115 –115	115 –116
St. Nicholas	----–----	----–----	----–----	105½–107½	----–----	----–----
Seventh Ward	----–----	... –----	----–----	----–----	110 –110	110 –110
Shoe and Leather	110 –112	112 –112	112 –112	111¼–112	115 –111½	110½–113
State of New York	106 –108	106 –107	108 –109	109 –110	106 –111	110 –114
Tradesmen's	----–----	----– ..	----–----	----–----	145 –145	143 –143
Union	119 –119	115 –116	. ..–----	117 –117	117 –117	----–----

Below we give the returns of the Banks of the three cities since Jan. 1 :

NEW YORK CITY BANK RETURNS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Legal Tend's.	Ag. clear'gs
January 5. ...	$257,852,460	12,794,892	32,762,779	202,533,564	65,026,121	486,987,787
January 12.....	258,935,488	14,613,477	32,825,103	202,517,608	63,246,370	605,132,006
January 19.....	255,032,223	15,365,207	32,854,928	201,500,115	63,235,386	520,040,028
January 26	251,674,803	16,014,007	32,957,198	197,952 076	63,426,559	568.822,804
Febru ry 2... .	251,264,355	16,332,984	32,995,347	200,511,596	65,944,541	512,407,258
February 9.....	250,268,825	16,157,257	32,777,' 00	198,241,835	67,628,992	508,825,532
Febru'ry16.....	253,131,328	14,792,626	32,956,309	196,072,292	64,642,940	455,833,829
Febru'ry23.....	257,823,994	13,513,456	33,006,141	198,420.347	63,153,895	443,574,086
March 2.....	26 ,166,436	11,579,881	33,294,433	198,018,914	63,014.195	46 ,534,5 9
March 9 ...	262,1 1,458	10,868,182	33,409,811	200,2 3,527	64,523,440	544,173,256
March 16.....	263,0 2,973	9,968,722	33,496,685	197,958,804	62,813.039	496,558, 19
March 23... .	259,400,315	9,143,913	33,519,401	19 ,375,615	60,904,958	472, 02,378
March 30 ...	255,.82,364	8,522,6 9	33.669,195	188,480,250	62,459,811	459,850,602
April 6.....	254,470,027	8,138,813	33,774,573	183,861,269	59,021,775	531,835,184
April 13.....	250,102,178	8,856,229	33.702,047	182,861,286	60,202,515	525,933,462
April 20.....	247,561,731	7,622,535	33,648,571	184,090,256	64,096,916	447,814,375
April 27.....	247,737,381	7,404,304	33,601,285	187,674,341	67,920,351	446,484,422
May 4.....	250,87 ,558	9,902,177	33,571,747	195,721,072	70,587,407	559,860,118
May 11.....	253,682,829	14,959,590	33,595,869	200,342,832	67,996,639	524,319,769
May 18.....	257,961,874	15,567,252	33,63 ,301	201,436,854	63,828,501	503,675,793
May 25.....	256,091,805	14,083,667	33,697,252	193,673,345	60,562,440	431,732,622
June 1.....	252,791,514	14,617,070	33,747,039	190,386,143	58,459,827	442,675,585
June 8.....	250,477,298	15,699,038	33,719,088	184,730.335	55,923,1 7	461,734,216
June 15.....	246,228,465	12,656,389	33,707,199	180,317,763	57,924,294	460,968,602
June 22.....	243,640,477	9,399,585	33,633,171	179,477,1 0	62,816,192	442,440,804
June 29.....	242,547,954	7,768,996	33,542,560	186,213,257	70,174,755	493,944,356
July 6.....	246,361,237	10,853,171	33,669,397	191,524,312	71,196,472	494,081,990
July 13.....	247,913,009	12,715,404	33,653,869	197,872,063	72 495,708	521,259,463
July 20.....	249,580,255	11,197,700	33,574,948	199,435,952	73.441,301	491,830,952
July 27.....	251,243,830	8 73 ,094	33,596,859	200,608,886	74,605,840	481,097,226

PHILADELPHIA BANK RETURNS.

Date.	Legal Tenders.	Loans.	Specie.	Circulation.	Deposits.
January 5.....	$20,209 064	52,312,317	903,663	10,388,820	41,308,327
January 12.....	20,006,255	52,528.491	903.320	10,380,577	41,023,421
January 19.....	19,448,099	53,45 ,307	877,548	10,381,595	30,048,645
January 26.....	19,363,374	52,168,473	880,582	10,384,683	39,001,779
February 2.....	19,269,128	55,35 ,130	871,564	10,430,868	39,592,712
February 9.....	19,659,250	52,384,329	873,614	10,449,982	39,811,595
Febru'ry16.....	18,892,747	52,573,130	867,110	10,522,972	40,050,717
Febru'ry23.....	17,837.598	53,394,721	841,223	10,556,434	38,646,013
March 2.....	18,150,657	51,979,173	816,843	10,5 1,600	39,367,388
March 9.....	17,521,705	51,851,463	832,655	10,572,068	37,314,672
Earch 16	16,955,6 3	50,5 8,294	858,022	10,580,911	3 ,826,001
March 23...	16,071,780	50,572,490	807.4 3	10,611,987	34,5 1,545
March 30..	15,856,948	50,880,306	602,148	10,631,532	34,150,285
April 6.....	15,882,745	50,998,231	1 64,719	10,651,615	33,796,595
April 13.....	16,188,407	51,283,776	546.625	10,645,367	34,827,683
April 20...	16,582,296	51,611,44	485,535	10,647,234	35,820,580
April 27.....	16,737,901	51,890,959	382,817	10,638,021	36,234,870
May 4	17,196,558	53,054,267	386,053	10,639,695	37,371,064
May 11.	17,278,919	53,474,388	408,762	10,627,953	38,172,169
May 18.....	16,770,491	53,826,320	402,978	10,630,831	38,230,833
May 25	16.019,180	53,536,170	369,133	10,635,520	37,778,783
June 1.....	16,881,109	52,747,308	334,393	10,637,432	37,332,144
June 8.....	16,880,720	53,158,124	346,615	10,642,920	37,252,614
June 15.....	16,300,010	53,192,049	388,261	10,046,298	37,174,269
June 22.....	15,964,424	52,968,441	373.308	10,642,224	37,333,279
June 29.....	16,105, 61	52,538,963	365,187	10,641,311	36,616,847
July 6.....	16,922,675	52,420,272	461,951	10,640,201	37,077,456
July 13.....	16,234,914	52,802,352	419,399	10,641,770	37,885,226
July 20.....	16,608,860	53,150,569	371,744	10,637,651	38,170,418
July 27.....	. .....	43 104,475	333,118	10,633,750	37,829,640

BOSTON BANK RETURNS.

(Capital Jan. 1, 1866, $41,900,000.)

	Loans.	Specie.	Legal Tenders.	Deposits.	Circulation—National.	Circulation—State.
January 7	$97,009,342	1,183,451	17,033,387	40,824,618	24,580,367	312,664
January 14	98,401,778	1,334,300	16,829,[illegible]95	40,246,216	24,997,446	311,749
January 21	95,298,982	1,078,160	16,59[illegible],99	38,679,604	24,275,162	301,911
January 28	97,891,329	1,058,329	16,816,481	39,219,241	24,716,597	302,298
February 4	97,742,461	956,569	16,394,604	39,708,053	24,691,075	306,014
Febru'ry 11	97,264,162	873,396	1[illegible],102,479	39,474,359	24,686,663	505,603
Febru'ry 18	96,949,473	929,940	15,398,333	38,900,5[illegible]0	24,765,420	305,603
Febru'ry 25	95,33[illegible],900	779,402	15,741,046	37,893,963	24,953,605	303,228
March 4	95,050,727	958,887	15,9[illegible]8,103	38,316,573	24,675,767	301,430
March 11	92,078,975	695,447	15,719,479	36,712,052	24,346,631	289,538
March 18	93,156,486	568,[illegible]94	16,270,979	36,751,733	24,809,523	299,133
March 5	92,661,060	516,184	16,557,905	36,751,725	24,738,722	299,091
April 1	91,723,347	435,113	17,[illegible]12,423	37,056,388	24,843,376	206,025
April 8	91,679,549	456,751	16,860,418	37,258,775	24,851,522	296,011
April 15	91,712,414	376,343	16,815,355	37,218,525	24,838,819	287,205
April 22	92,472,815	343,712	16,549,598	38,207,548	24,852,200	286,701
April 29	92,353,922	329,854	16,9[illegible]26,564	37,837,092	24,81[illegible],437	284,982
May 6	92,671,149	589,878	16,571,736	38,721,769	24,784,332	283,806
May 13	92,428,114	517,597	16,552,421	38,504,761	24,80[illegible],992	283,514
May 20	92,633,587	507,806	16,499,319	37,874,852	24,838,469	283,491
May 27	92,228,677	441,072	16,883,361	37,132,051	24,805,860	280,961
June 3	92,694,925	571,526	17,173,901	37,0[illegible]6,894	24,725,794	279,275
June 10	93,436,167	436,767	16,767,854	36,033,716	24,804,153	268,768
June 17	93,725,428	511,095	15,719,795	36,039,933	24,771,778	271,048
June 24	92,951,163	470,544	15,758,396	36,521,129	24,768,947	267,294
July 1	92,996,703	617,456	16,055,141	37,475,337	24,727,3[illegible]3	266,353
July 8	94,747,778	915,298	15,065,466	38,251,040	24,801,823	266,494
July 15	95,046,458	833,466	15,397,828	38,640,431	24,771,683	264,922
July 22	95,096,5[illegible]1	650,203	15[illegible]427,625	38,328,613	24,744,291	252[illegible]696
July 29	95,594,214	361,878	15,543,401	38,548,722	24,653,742	256,564

CONTENTS FOR AUGUST.

OFFICE OF THE

Atlantic Mutual Insurance Company,

51 WALL STREET, cor. of William, NEW-YORK,

NEW YORK, January 25th, 1867.

The Trustees, in Conformity to the Charter of the Company, submit the following Statement of its affairs on the 31st December, 1866:

Premiums received on Marine Risks, from 1st Jan., 1866, to 31st Dec., 1866.		$8,282,021 26
Premiums on Policies not marked off 1st January, 1866		2,188,325 15
Total amount of Marine Premiums		$10,470 346 81
No Policies have been issued upon Life Risks; nor upon Fire Risks disconnected with Marine Risks.		
Premiums marked off from 1st Jan., 1866, to 31st Dec., 1866		$7,632,236 70
Losses paid during the same period	$5,683,895 05	
Returns of Premiums and Expenses	1,194,173 23	
The Company has the following Assets, viz.:		
United States and State of New York Stock, City, Bank and other Stocks.		$6,771,885 00
Loans secured by Stocks, and otherwise		1,129,350 00
Real Estate and Bonds and Mortgages		221,260 00
Interest and sundry notes and claims due the Company, estimated at		141,866 24
Premium Notes and Bills Receivable		3,837,735 41
Cash in Bank		434,207 81
Total amount of Assets		$12,536,304 46

Six per cent interest on the outstanding certificates of profits will be paid to the holders thereof, or their legal representatives, on and after Tuesday the Fifth of February next.

The outstanding certificates of the issue of 1864, will be redeemed and paid to the holders thereof, or their legal representatives, on and after Tuesday the Fifth of February next, from which date all interest thereon will cease. The certificates to be produced at the time of payment, and cancelled.

A dividend of Twenty per cent is declared on the net earned premiums of the Company, for the year ending 31st December, 1866, for which certificates will be issued on and after Tuesday the 2d of April next.

By order of the Board,

J. H. CHAPMAN, Secretary.

Trustees.

JOHN D. JONES,
CHARLES DENNIS,
W. H. H. MOORE,
HENRY COIT,
WM. C. PICKERSGILL,
LEWIS CURTIS,
CHARLES H RUSSELL,
LOWELL HOLBROOK,
R. WARREN WESTON,
ROYAL PHELPS,
CALEB BARSTOW,
A. P. PILLOT,
WILLIAM E. DODGE,
GEO. G. HOBSON,
DAVID LANE,
JAMES BRYCE.
LEROY M. WILEY,
DANIEL S. MILLER,
WM. STURGIS,
HENRY K. BOGERT,
JOSHUA J. HENRY,
DENNIS PERKINS.
JOSEPH GAILLARD, JR.
J HENRY BURGY.
SHEPHARD GANDY.
CORNELIUS GRINNELL,
C. A. HAND,
B. J. HOWLAND,
BENJ. BABCOCK,
FLETCHER WESTRAY
ROB. B. MINTURN, JR.
GORDON W. BURNHAM,
FREDERICK CHAUNCEY,
JAMES LOW,
GEORGE S. STEPHENSON,
WILLIAM H. WEBB,
PAUL SPOFFORD.

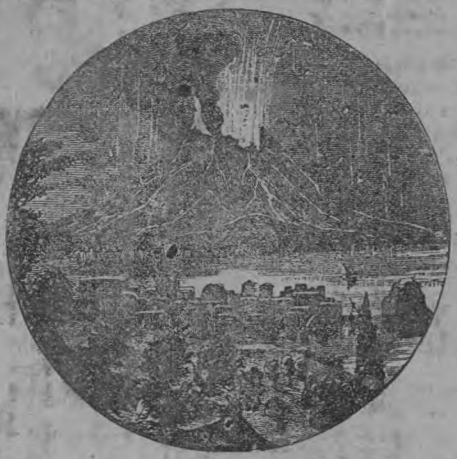
JOHN D. JONES, *President.*
CHARLES DENNIS, *Vice-President.*
W. H. H. MOORE, 2*d Vice-President.*
J. D. HEWLETT, 3*d Vice-President.*

LOSSES PAID IN 47 YEARS,

$19,127,410.06

ÆTNA

CHARTER PERPETUAL.



INCORPORATED 1819.

INSURANCE COMPANY,

OF HARTFORD, CONN.

Ass'ts, July, 1866,	*$4,075,830.55*
Liabilities,	*221,236.35*
Net,	**$3,854,594.20**

Agencies in all the Principal Cities and Towns throughout the United States. Policies issued without delay.

Loss by Portland Fire, July 4th, 1866.

The amount covered by Ætna Policies on property destroyed or damaged was *$206,854.* Our total loss will not vary much from *$165,000,* and was promptly adjusted and paid. This sum is 4 per cent., upon the Company's assets, an amount less than our Government and State taxes paid last year, or a proportion equal to a *$4,000* loss for a Company of *$100,000* assets.

The necessity for Insurance and the value of wealthy, strong corporations, is forcibly illustrated by this fire. Several weak Insurance Companies are destroyed. Portland has a population of 35,000; was handsomely built, mostly fine brick or stone structures—protected and screened by upwards of 3300 shade trees—bounded on three sides by water—indeed, literally, almost rising from the ocean—and with a good steam fire department—yet it has *$10,000,000* of property consumed in a few hours—and on a holiday when its people are least occupied—from the very insignificant cause of a contemptible fire cracker.

Remember the trifling origin of fires that sweep away in a few hours the earnings of years. Consider your best interest, and give the Ætna Agent a call if you need proper Insurance security. Pay a fair rate of premium for a good and genuine article, and with these lights and experiences before you, procure your Insurance with shrewd judgment.

Fire and Inland Navigation Policies Issued at as favorable rates and rules as are consistant with reliable indemnity.

Branch Office, 171 Vine St. Cin. J. B. BENNETT, Gen. Agt.