the Report of Mr. Monroe that these courses have been very successful, in Cork especially, where the arrangements were conducted by a committee, consisting of the foremen of the principal shipbuilding and mercantile establishments in that city, and the audiences were never less than one thousand, and on one occasion exceeded twelve hundred, and were composed principally of large numbers of intelligent artisans. In Lurgan, also, the lectures were attended by large and attentive audiences, who manifested their interest in the subjects discussed by asking a variety of questions at the close of the course.

In conclusion, we notice with satisfaction that the National Association for the promotion of Social Science have acceded to the invitation of the Town Council of Belfast to hold their next congress in Belfast. The meeting has been fixed to take place in September,\* 1867, and we feel confident that the members of this Society will avail themselves of the opportunity to again manifest their interest in the Association for the promotion of Social Science, which they evinced in so marked a manner on the occasion of the Association's former visit to Dublin in 1861.

III.—The Condition of our Railways considered with reference to their Purchase by the State. By Joseph T. Pım, Esq.

[Read, Tuesday, 18th of December, 1866.]

The condition of the Railways of Great Britain and Ireland has for the past few years increasingly occupied public attention. It has caused much dissatisfaction both to the public and to the shareholders—to the public because railways have failed to afford them the accommodation they desire; and to the shareholders because railways have failed to return them the profits they had

expected.

People have begun to doubt the soundness of the foundation on which our railway system is based, to lose faith in the universality of the superiority of private enterprise over that of the State, and to think that our system does not compare favourably with those of continental countries. In short, the conviction is rapidly forcing itself on the public mind that private enterprise, practically uncontrolled and undirected by the State, has failed, as regards our railways, in giving to the nation a commensurate return for its outlay; and that the time has come for us to retrace our steps in railway The opinion is rapidly growing that the State should legislation. resume the power it has conferred on the many trading corporations by which our railways have been constructed and managed, that it should purchase their entire property, and that we should start afresh on a sounder principle of management; whether directly by the State, as in Belgium; or indirectly through companies of lessees

<sup>\*</sup> The meeting is announced to commence on the 11th of September.

under State control, as in France; by which means the great desiderata, uniformity of management, low fares, and careful con-

sideration for the public good, might be obtained.

At the first mention of the idea of the purchase or management of our railways by the State, some persons exclaim that such a thing would be setting up a monopoly, and altogether contrary to the principles of free trade. It seems to me that people very often invoke the principles of free trade without very well knowing what those principles are, and I cannot well see what free trade has to do with the question one way or the other. But if any system is contrary to the principles of free trade, it is the railway system as it is, for does not Parliament protect existing lines by refusing to allow the construction of competing ones solely as competing lines? And as to setting up a monopoly, are not railways now, virtually, so many monopolies, and necessarily so ? And would it not therefore be but the transference of those monopolies to the State--the transference from the management by directors, who are responsible only to the small number of partners in those monopolies—the shareholders, to the management by the Government, which would be responsible to the large number of partners in the monopoly—the whole nation?

It is the very fact that railways are and must be monopoles that is the strongest argument in favour of their purchase and control

by the State.

Whilst I strongly advocate Government interference as a remedy for the many defects in the management of our railways, I hope it will not be thought that I am wanting in admiration for the brilliant triumphs of private enterprise for which Great Britain has been so remarkable, and which have been no where more conspicuously won than in her railway system. It must be remembered that the first English railways were successfully carried out in spite of the incredulity and ridicule of both learned and ignorant, and the opposition of the rich and the powerful; that in no country more triumphantly than in England have natural difficulties been overcome by engineering science; or, even before the success of railways had been proved by experience, have capitalists more courageously advanced their money for their construction.

But I cannot at the same time avoid the consideration, that the railways of this wealthiest of nations, which possesses the ablest engineers, the most skilful artizans, the greatest abundance of coal and of iron, the vast manufacturing and commercial experience of its people, and, excepting Belgium, the densest population and the largest traffic, have, notwithstanding all these great advantages, cost more in their construction, charge more for the conveyance of passengers, and pay their shareholders worse than those of most of the great countries of Europe, without surpassing them in the comforts and conveniences they afford their passengers in almost any respect

except in that of speed.

Many of the evils in our Railway System of which we have now to complain are to be accounted for by the fact that railways were first constructed in England; and we are now reaping the fruit of SART XXXIII.

our want of experience when starting a system which has so immensely outgrown the ideas of its founders. Other countries, profiting by our experience, have set out on the sounder basis of government direction and control, and have thus avoided many of the difficulties into which we have fallen.

In consequence of the ignorant opposition of landowners and others to the construction of lines through their districts in the early stage of railway history, the defective legislation of Parliament on the subject, and the want of any central authority, our so-called Railway System, instead of being the filling in of an originally comprehensive, well-considered, and fore-seeing plan, is rather an unsystematic network, the result of piece-meal design

and accidental combination.

The cumbersome forms of parliamentary procedure have made the process by which the right to construct a railway is obtained most difficult, uncertain, and expensive; and the unsuitableness of a Parliamentary Committee to decide on the merits of rival railway schemes has often been proved by the most ill judged As a consequence, many railways have been made that were not wanted, and where they were wanted they have not been made; and the decisions arrived at by Parliament on railway matters have been most contradictory and irreconcilable. The laws relating to the purchase of land by railway companies have been so much too favourable to landowners, that the enormous sums which they have been able to obtain by way of compensation for injury done to their property, which has, as a rule, been improved by the passing of railways through it, can only be spoken of as spolution.

These statements I make on the authority of Robert Stephenson. to whose paper, entitled the "Railway System and its Results," which he read in 1856 before the Institution of Civil Engineers, and which is to be found appended to Smiles' Life of George Stephenson, I would refer my hearers for most valuable and interesting

information respecting the defects in railway legislation.

\*Table No. 1. in the printed statistics, which I have taken from the article on Railways in the Encyclopædia Britannica, will show the comparative cost of railways per mile in Great Britain and Ireland, and in the chief states of Europe, in the year 1857.

By this table it will be seen that, while the cost per mile of Irish railways has been somewhat below the average, Scotch railways have been much beyond, and English railways more than double the average.

Of European railways those of Germany have been the most cheaply constructed, while those of France have cost the most.

Table No. 6, also taken from the same source, will show on what items the enormous average cost of British railways has been expended, and it will be seen what a very large proportion has gone for parliamentary expenses and for the purchase of land, amounting together to more than a fourth of the total cost.

For Statistical Tables, see page 390, et seq.

By Table No. 2, taken from Thom's Directory, it will be seen that, in 1864, the total outlay of capital on the railways of the United Kingdom had reached the gigantic sum of £425,000,000, or as much as half our national debt; and, if we take the estimate of Table No 6 as correct, it will be found that the enormous sum of £25,000,000 has gone for parliamentary expenses, and £85,000,000 for the purchase of land and for compensation to landowners for so-called injury to their property; or altogether that £110,000,000 have been spent before a sod could be turned for the construction of our railways. Much of this excessive preliminary expenditure night have been avoided if railways had been constructed by the State; or, even if made by private enterprise, had railway legislation been improved.

This unnecessary expenditure will, to a large extent, show why, with higher fares and larger traffic, British railways have not paid so well as those of the Continent. It is part of the penalty we pay for that jealousy of Government interference which we associate with our ideas of freedom; but, as in Belgium, which also enjoys free institutions, railways have been made and are managed by the State, and, with the lowest fares in Europe, produce a larger profit than ours, I can see no reason why we might not have had better railways for less money, without any infringement of our liberties, had the control of our railway system been undertaken by the State, and had they been constructed on a definite plan, and managed, as in Belgium, by a central authority for the public good.

As a proof that this heavy preliminary expenditure was unnecessary, it may be stated that many English lines have been constructed at a comparatively small cost; the cheapest in 1857 being the Carlisle and Silloth, at about £6,500 per mile, while the Birkenhead, Cheshire, and Lancashire Junction cost the enormous sum of £70,000 per mile, chiefly in consequence of a protracted parliamentary contest, as the line runs through a level country with no great engineering difficulties.

In Scotland the Forth and Clyde line cost only £5,500, while the Caledonian cost £43,000 per mile; and in Ireland the Limerick and Foynes cost £5,300; and the Dublin and Kingstown £53,000 per mile.

These facts will sufficiently prove that our railway system has been by no means as well designed as it might have been, and has been vastly more costly than there was any necessity for; and while the shareholders have lost heavily by this excessive and unnecessary outlay of capital in the construction of their railways, the public has also suffered, either from the attempt to produce a dividend by means of increased fares, or by the bad accommodation which may naturally be expected on a railway that does not pay its shareholders properly. For this reason the construction of competing lines, instead of being beneficial to the interests of the pub-

<sup>\*</sup> It should be observed that these comparisons are between railways with only a single line, and railways with a double line of rails. The different circumstances of the railways compared must, also, be considered. But these points are far from being sufficient to account for the enormous disparity of cost.

lic, as is generally supposed, has been in reality unfavourable, for as one railway between any two towns has always been found capable of carrying all the traffic, so the construction of a competing line has, in the long run, been prejudicial to the public. Railway companies have never for any length of time maintained a competition injurious to themselves; they have always, after a short period of reduced fares, combined against the public, and agreed to divide the traffic.

So far I have confined myself to the consideration of the defects in the original construction of our railways—the results of the system established or sanctioned by the legislature. I now come to the question of the faults in the management, for which, while we may look on them as the natural fruits of the system, we cannot

but hold railway directors responsible.

Amongst these I would mention, in the first place, the excessive competition between rival companies, not for traffic, but for territory—for branch lines, which, while they acted as feeders to one line, were to sap the traffic of the other; this unwise competition leading to enormous parliamentary expenditure, and the branch lines often, when made, being found to be either unnecessary or at least premature, and so sapping the profits of the successful company as well as those of its opponents.

Secondly, the excessive rates for goods and passengers, the very insufficient accommodation for third-class passengers, and the almost universal attempt to drive third-class passengers into the second class, and second-class passengers into the first class; also the general illiberality of management and the want of regard for the interests, convenience, and feelings of the public; and the prevalence of the idea that the interests of railway com-

panies and of the public are antagonistic.

On this latter point, and on the question of fares, I will here read an extract from the paper by Robert Stephenson to which I

have already referred\* .—

"It may be thought that, with respect to fares, the interests of "railway companies and of the public are antagonistic. Regarding "the question, however, with a more enlarged view, it will be " readily seen that, so far from those interests being opposed, they "are in all respects identical. Fares should be regulated by direct-" orates exclusively by a consideration of the circumstances which "produce the largest revenue to the companies; and the circum-"stances which produce the largest revenue are those which most "induce travellers to avail themselves of railway facilities " regards the public, it may easily be shown that nothing is so desi-"rable for their interests as to take advantage of all the opportuni-"ties afforded by railways. As regards railways, it is certain that "nothing is so profitable, because nothing is so cheaply transported, "as passenger traffic. Goods traffic, of whatsoever description, must "be more or less costly. Every article conveyed by railway requires " handling and conveyance beyond the limit of the railway stations; "but passengers take care of themselves, and find their own way,

" at their own cost, from the terminus at which they are set down. "It is true that passengers require carriages somewhat more expen-" sive in their construction than those prepared for goods; but this "expense is compensated for by the circumstance that they are "capable of running, and do run, a much greater number of miles; "that the weight of passengers is small in proportion to the weight " of goods, and that consequently the cost for locomotive power is less. "It has been shown that ir 1,000,000 passengers, weighing 8,000,000 "tons, have been conveyed, during the past year, over an average dis-"tance of 12 miles, yielding a revenue of more than £0,000,000 ster-"ling. This gives, at the least, 2s. per ton per mile for the weight of " passengers conveyed. Coals are conveyed, in some instances, at one "halfpenny per ton per mile. It is to be recollected that trains are "usually capable of transporting at least two or three times the " number of passengers ordinarily travelling by them, and that the " weight of the passengers, in all cases, is in extremely small pro-"portion to the gross weight of a train, as, on an average, there "will be 14 passengers to every ton, and each train will readily "convey 200 passengers. The cost of running a train may be " assumed in most cases to be about is. 3d. per mile; therefore 100 " passengers, at five-eighths of a penny per mile per passenger, would "give 5s. 21d per train per mile, which may be taken as about the "average of train earnings throughout the year. It is obvious, "therefore, that anything beyond five-eighths of a penny per mile " per passenger may be rendered profitable, even if the passenger "train is only half-filled. Hence all directorates should look to the " maximum amount of gross revenue to be derived from large pas-" senger-traffic, which maximum amount is only to be obtained by " affording enlarged public facilities and temptations to travel. "results, then, that the interests of the public and of the companies " are identical, and not antagonistic."

This is very strong evidence in favour of low fares, and, coming from a man of such vast practical knowledge and experience on

railway matters, is particularly valuable.

Now let us see how these principles, so clearly laid down by Mr. Stephenson, have been carried out by British railway directors.

Table No. 3, which I have compiled from Bradshaw and other foreign Railway Guides, will show, in a comparative statement, the fares which are charged per mile in several different countries of Europe. By this it will be seen that Belgian railway fares are the lowest, and British fares the highest \*

I find that the receipts per mile from passengers in Belgium are almost as great as in England, although the fares are only about one-third as much as English fares, from which it follows that the number of passengers per mile in Belgium must be not far from three times as much as in England. By Table No. 4, which I have taken from "The Statesman's Year-book," it will be seen that the

<sup>\*</sup>There is one peculiarity as regards Belgian fares that requires explanation. In Belgium, as the length of the journey increases, the rate per mile decreases, and this in a rapid proportion, and the same rule applies to goods as well as to passengers.

population per square mile is somewhat more dense in Belgium than in England, but not sufficiently so to account for the much larger traffic, clearly showing the result of low fares in inducing traffic.\*

In other countries of Europe, where the population is not even so dense as in Ireland, railways pay better dividends with much lower fares than ours.

As regards accommodation to third-class passengers, I find that our railways for the most part merely keep within the strict letter of the law respecting parliamentary trains, so that, out of the eight chief lines out of London, only those to Dover and Brighton run more than one third-class train; while, as a rule, there are about eight through trains per diem; and, moreover, that this solitary third-class train on each line takes, on an average, about twice as long on the journey as the express; and, as regards the lines out of Dublin, I find the same fact as far as number of trains is concerned; and I find by the statistics in Table No. 2 that the traffic receipts from these third-class passengers, for whom so little accommodation is provided, are larger than those from either first or second-class passengers; so that in fact there are about five times as many third as first-class, and about twice as many third as second-class passengers in Great Britain.

Contrasting this state of things with the continental system, I find that in France about half the trains carry third-class passengers, and, in other countries, trains not third-class are quite the exception; and, as a rule, I believe the third-class carriages on the continent are as good as, or better than, our second-class in Ireland; the result of this greater attention to the comfort and accommodation of third-class passengers on the continent, combined with much lower fares, being a very much larger traffic. As an instance of this, I may adduce the case of Prussia, in which

<sup>\*</sup> The paragraph to which this note refers is somewhat incorrect—the comparison between the fares in England and Belgium being for the year 1866, and the comparison between the receipts being for the year 1865. In 1865 the Belgian fares per mile were, First Class, 1.23d.; Second, 92d.; Third, 61d, for every length of journey. In 1866 the system of reducing the fare per mile, according as the length of journey increased, was introduced, and consequently the average Belgian fares are now very much less than they were in 1865, and it is intended by the Belgian government that they shall be still further reduced. Therefore, although the present Belgian fares are not much more than onethird as much as English fares, for the purpose of the comparison I should have said that Belgian fares were about two-thirds as much as English fares. The reduction of 25 per cent. on return tickets in England must also be taken into account; no such reduction being made in Belgium. But as this reduction is not usually allowed to Third-class passengers, from whom more than one-third of the total passenger receipts in England is obtained, this does not amount to so much as would at first sight appear. In addition to this, however, the inference which I have drawn from the fact of Belgian fares being lower than, and the receipts as much as in England, is not necessarily correct; for if the average distance travelled by each passenger in Belgium were greater than in England, or the proportion of First and Second-class passengers in Belgium larger than in England, the same result might follow, viz.—that with lower fares in Belgium than in England the receipts should be as large, and this without a larger number of passengers.

country, in the year 1862, the number of passengers were, in round numbers:—

First class		•••	Half a million.
Second class	••		Four millions.
Third class			Twelve millions.
Fourth class			Eight millions.

Now this was in a country not so densely populated as Ireland: and with fares about one-third less than Irish fares, the gross receipts per nule were £2,056 against £881 in Ireland, in 1864, or two and a-half times as much. These facts I give on the authority of the "Statesman's Year-book."

So much respecting the loss sustained by the public directly by the present system of railway management. There still remains, however, the indirect injury to the interests of the public, in consequence of *financial* mismanagement; in which case, though the shareholders are the direct losers, the public must ultimately suffer. Of this financial mismanagement the two cases that are just now attracting so much attention, the London, Chatham, and Dover, and the North British Railway Companies are striking instances.

The consideration of all these evils, in the past and present condition of our railways, leads me to the conclusion that, being inherent in the system, they will always exist so long as it remains unchanged, and that the only means of improvement is to be found in Government intervention.

The railway system of Great Britain has become too vast to be left to the uncontrolled management of a number of private companies, and facilities for intercourse are too essential to every sort of progress, to be left in the hands of men who are not responsible to the public, and over whom the voice of public opinion has but little influence.

Surely it cannot be in accordance with sound political economy that the great highways of a country, over which almost its whole traffic must pass, and which ought to be managed with the most careful consideration for the public good, should be left in the hands of men whose sole function is the return of a dividend to a proprietary, small as compared with the whole nation. A uniform and comprehensive management can only be obtained by a central authority. No great reduction of charges can reasonably be expected or asked from directors, the necessities of whose position make the next dividend their houzon; and especially is a liberal and far-seeing policy impossible so long as a large proportion of railway shares are held by speculators, to whom the coming dividend is the first and only consideration.

The idea of the purchase of our railways by the State, although it seems to come before the public as quite a new thing, is really but the revival of an old controversy by the coming into operation of the Railway Act of 1844.

As all railway companies which have come into existence since 1844 are hable to the provisions of this Act, they would have had no right to complain, however much they might have been

surprised, had Government determined to put it into operation; but Government wisely refrained from expressing any opinion on the subject, and appointed instead the Royal Commission of 1865 to take evidence and report on the whole question of State interference. It may, therefore, be assumed that upon the nature of the report of this Commission it will largely depend whether Government will take any or what action in the matter. The case as regards Ireland seems to stand in a somewhat different position from that of Great Britain, on account of the small extent of her railways, and their much worse condition comparatively. The evidence respecting Irish railways having been taken first, and published in anticipation of the report, very general public attention has been attracted to the subject, and much discussion has taken place concerning it in the newspapers and elsewhere.

The indefatigable exertions of Mr. Galt have awakened public opinion on the question, and the feeling in favour of Government interference is daily increasing. Many now advocate exceptional treatment of Ireland in the matter, and recommend that the experiment of State intervention should be tried first in this country, as being more easily dealt with, and as most requiring an improvement

ın her raılway system.

The depressed condition of Ireland is a constant cause of uneasiness and regret to all concerned in her welfare, and it is hard to conceive how any measure could better tend to stimulate her industry and advance her prosperity, than a measure which would amalgamate her railways under a centralized system of management, and with an extensive reduction of charges. If this could be accomplished by Government interference, without injury to railway proprietors, and without loss to the State, no

greater boon could be conferred upon this country.

But Ireland has peculiar reason to expect liberal treatment from Parliament in the matter of her railways, in that Parliament has already twice rejected admirable opportunities of giving to her a well-designed and cheaply constructed railway system. Firstly, when the Irish Railway Commission of 1838, of which Lieut. Thomas Drummond and Sir John Burgoyne were the chief members, reported in favour of the construction of railways in Ireland by the State, and according to the plan which they drew up; and secondly, when Lord George Bentinck proposed, at the time of the famine, that the £10,000,000 which were advanced by the State for the employment of the starving people, should be made use of to assist in the construction of railways through Ireland, instead of being almost altogether wasted on unnecessary public works, as unfortunately was the case.

Table No. 8 will give some idea of what the present condition of Irish railways is. A more detailed statement to the same general effect has already been laid before you by Dr. Hancock. Besides those mentioned in the list, two are absolutely bankrupt; many which had got their bills, or the construction of which had been actually begun, have come to a stand-still for want of funds; and only about half a dozen of those that are working can be said to be

anything approaching to successful.

Although they have cost less per mile than the railways of most of the countries of Europe, they return a smaller profit to their proprietors, and, though the population of Ireland is more dense than that of France, Prussia, Bavaria, Switzerland, Austria, or Hanover, the receipts per mile are only about half as much as they are in those countries, while the fares are from 25 to 50 per cent higher.

There must be some cause for this state of affairs, and, doubtless, our railway directors would attribute the undeniable failure of Irish railways, as commercial undertakings, to the poverty of the country and its want of inhabitants. But this gloomy doctrine I cannot accept as a sufficient mode of accounting for their want of success.

It is no part of the province of this paper to enter into the details of Irish railway management, but I cannot but think that a stranger, who should have the leading facts placed before him, would come to the conclusion, and rightly in my opinion, that to injudicious management, as well as to the poverty of the people, the commercial failure of our railways may justly be attributed.

The head and front of the offending of railway directors has been their trying, by high charges and stinted accommodation, to make up for want of traffic, instead of adapting their system to the poverty of the country, and placing the advantages of railways within the reach of the poor by low fares, and thus stimulating the progress of the country and creating an increase of traffic. There seems to be in Ireland a complete want of community of interest and feeling between railway directors and the public, and some railway boards seem to be satisfied to be always at loggerheads with their customers. It is hard to imagine how this state of things could conduce to the prosperity of a railway company.

Our railway system is composed of too many disjointed members, each of which so much values its individuality, that, even in their own interests, irrespective of those of the public, they cannot be got to unite. Witness the fact that the 113 miles of railway that connect the two chief towns of Ireland, are the property of three different companies, with three boards of directors, and three separate sets of managers and officials, and of rolling stock.

This is a good specimen of Irish railway economy, which seems to consist in having a great many people to do, unfortunately, very little work, and then high prices and scanty accommodation to make the very little work pay.

I find that it requires the collective wisdom of about two hundred directors to manage the 1,800 miles of Irish railways, carrying a traffic producing a million and a half in the year; while I suppose a dozen or twenty directors suffice for the 1,300 miles of the London and North-Western, with its receipts of over six millions in the year; and so many boards of directors represent so many secretaries, and traffic managers, and engineers, and office clerks, and rolling stocks. Amalgamation alone would produce a large annual saving of expense.

Unification is the order of the day. It required a Cavour and a Bismark to effect it as regards Italy and Germany; and, as our railway magnates seem as little inclined to surrender their sove-

reignties as the petty rulers of the now amalgamated States of Italy and North Germany, I think we have small chance of having it carried out in the case of our railways, without the interference of the strong hand of Government. But the great desideratum is a reduction of fares, and this is more than railway directors can, or even ought to give. They are of necessity managing for the present, and not for the future, and for a proprietary whose exigencies forbid their denying themselves of any present income in the hope of future gain, no matter how certain may be the prospect of ultimate profit resulting from an increased traffic consequent on an extensive

reduction of charges.

In the Blue Book of evidence before the Railway Commission, I find the chairman of the Great Southern and Western Railway almost the only director amongst those examined, who does not believe that a large reduction of fares would ultimately produce an increase of traffic sufficient to recoup the loss. He stated that he "takes a very desponding view of the prospects of Irish railways," that "he thinks Ireland is in a poor condition, and does not think "we can expect any great increase in the passenger traffic;" and "he "has not a shadow of a doubt that a reduction of the fares and "charges on their railway would be too hazardous an experiment to "undertake;" and "cannot imagine any number of years in which" increased traffic "would make good to their proprietors the deficiency "in their dividends which would naturally follow" a large reduction of fares.

Lord Clancarty, director of the Midland Great Western Railway, stated that "in the year 1861, very much at variance with his views, "the Board decided upon raising the fares ten per cent. He told them "at the time that he thought such a step would be injurious to the "revenue of the company, and would render the railway company "extremely unpopular;" and the result of the addition of ten per cent. to the fares "has been a decided loss." "He several times "moved that a change should be made in the fares," but without "Having failed in obtaining any general reduction of success. fares," he offered "to guarantee the Company, or rather the Baronies, "against any loss on their passenger traffic for six months," on "the "extension from Athlone to Galway." "However," his offer "was "refused, and the consequence will be to the Baronies a loss proba-"bly not much under £1,000 on that part of the line for the cur-"rent half year." He thinks railway boards, "from the circumstance " of their constitution, are almost compelled to study how to create "a dividend, in order to raise the price of the shares in the market." "He thinks it unfortunate that the Government did not, in the "outset, undertake the control of the whole railway system in Ire-"land," as our railways would then have been much better laid out; "but even now the Government might exercise a wholesome con-"trol over the further development of the railway system." "The " present system of railway management by separate boards is inse-"cure, and has in some cases been disastrous in its consequences." "He thinks the whole principle of amalgamation would be most "desirable, but none so desirable as to have them [the railways]

"under the control of the Government, none that could possibly "have the same beneficial results." He "thinks there should be "responsible management; that is, a responsibility to the public." And "believes" that, under Government control, "a well-regulated "system would pay well, and cause an enormous amount of traffic to be developed." "They would be able to harmonize the whole " system and network of railways over Ireland, so as to enable people "to travel from one part of the country to another without perpe-" tual interruptions, arising from having to cross the lines and invade "the boundaries of discordant companies." "The opportunity "appears to him favourable for putting the whole railway system " of Ireland into good order;" and he hopes "it will not be over-"looked." "He does not see any other solution of the matter" than that "the Government should become the absolute owners of the "railways." "He is satisfied that it would not only be beneficial "as an experiment" on behalf of the railways of England and Scotland, "but that it would be of the utmost value in developing "the resources of Ireland." "One matter for consideration, of "great importance to the public, would be the lowering of railway "charges, so as to develop the resources of the country, which is "not done under the existing system " \* Railway boards "being afraid of lowering their charges, lest they should by so "doing mour a loss, and might be unable to return to the high "rates." He "believes that the Government, becoming sole owner, "and acquiring an entire control over the railways, would see its "way to what might be done. He is satisfied that the experi-"ment of lowered fares might be safely made, and as the effect " would be to open up the resources of the country, the government "would, no doubt, in the public interest, exercise the powers it " would acquire in that direction."

Lord Lucan, chairman of the Great Northern and Western Railway [Athlone to Westport and Ballina], "considers that the reason "why the railways have conferred so little benefit upon Ireland is, "that the companies are too poor to work the traffic at prices which "would encourage the people to make use of the railways." "In "the case of his own company he is firmly of opinion that, if they "could afford to have a smaller dividend for the next four or five "years, by lowering their fares considerably, not less than fifty per "cent., at the end of five years they would pay a larger dividend "than at present." "He thinks that, unless you reduce the fares "fifty per cent., you will not materially increase the traffic." "He " would propose that the first-class passenger should be carried for "a penny per mile; the second-class passenger for three farthings " per mile; and the third-class passenger for a halfpenny per mile. "He would propose that the truck, which he believes is generally "charged in England sixpence, and also in Ireland sixpence, should "be reduced to three-pence. He would propose that all heavy "goods be carried at one halfpenny per ton per mile. He has not "the smallest hesitation in saying that, if this could be done, in "the course of four or five years there would be such an increase

" of traffic as would entirely restore the revenue."

"He thinks the only course to take is for the Government to "possess themselves of the whole of the railways in Ireland." "They [the Government] should buy them up; Government should negotiate, and his belief is that the whole of the ordinary " stock of the railways could be purchased at 75 per cent. by a 31/2 'per cent. stock." "He thinks that the preference shareholders, " generally, would accept a 3½ per cent. stock for a 5 per cent. divi-"dend." "In his opinion the purchase by Government of the rail-"ways in Ireland would be most popular. On the part of some of "the directors there might and probably would be objections, but " not on the part of the shareholders, and certainly not on the part "of the public." "His belief is that the greater part could be "bought by negotiation, and in the other cases by compulsory arbi-"tration." "He does not anticipate that 'the latter' would be "necessary" "His recommendation is, that the Government should "at once possess themselves of the different railways, now not less "than 54 in number, and that they should lease them to large com-"panies." "He considers that the whole of the 54 Irish railways "should be leased to three companies only." "If these lines were "let by the Government, they must be let under conditions. " of the conditions would be a maximum fare, and another a mini-" mum accommodation." "He would place the companies to whom "he would propose to lease the lines under the control of a Govern-"ment board sitting in London" "But would give them as much "liberty as possible, after securing from them the conditions of " maximum fares and minimum service." As regards the construction "of new lines, "all the lines (now) authorized by Parliament, "whether in process of construction or not, should be completed on "the earliest day, and, were Government credit to be given, there "would be a great saving in the cost." "The lines must be com-"pleted by the companies or by the Government. It would save " great expense, and therefore be greatly to the interest of the public, "to substitute the credit of the Government for the credit of the "companies." As regards additional lines beyond those now authorized. "the Government, in his opinion, should only construct "new lines where the counties agree to give the land, and where a "certain amount of local subscription is offered." "He considers " that the Government should neither lose nor benefit by the rail-"ways in Ireland." "If, at the end of say five years, the traffic did " not increase to the extent expected, it would be for the Govern-"ment to increase the fares; but, in his opinion, the receipts would "more than recover themselves," and "there would be no loss from "the reduced rates and fares." "He recommends" that "what loss "should occur in the receipts in the meantime should be added to "the amount paid in the purchase of the railways," the deficit "being raised by a Government loan of 3½ per cent."

Mr. Cawkwell, General Manager of the London and North-

Mr. Cawkwell, General Manager of the London and North-Western Railway, "is decidedly of opinion that the railway traffic "of Ireland has never yet been half developed." He would "sug-"gest that the whole of the railways in Ireland should be reduced "into three or four distinct systems." With concentrated manage-

ment under judicious Government control, "he has no doubt that "the shareholders would be very much benefited." "The public "would, no doubt, be also benefited." "They would be much "better served." "It would be a great improvement, a great advan-" tage to the railway system, and to the public also" "He is sure "that the traffic would be better treated and better developed than "it is now." "Anything that would alter the present system would "be a benefit." "He does not see any objection to the Government "proposing a reduction in the rates on the Irish railways, and "bearing the loss, if any, until the increase of traffic became suffi-"cient to balance it, because he does not think that there would "eventually be any loss. He believes that the traffic would work "itself round, and that there would in the end be no loss." "The "population of Ireland cannot afford to pay high fares in many "cases, and if that state of things was met by making arrangements " for market purposes, and for attending fairs, he has no doubt that "the traffic might be very largely increased" "With regard to "goods traffic, there is no doubt that a reduction in the charges in "many cases would very much increase the traffic."

This resume of the evidence of a few leading railway authorities before the Royal Commission might be much further prolonged by the additional evidence of many other gentlemen, both railway and commercial, and all tending in the same direction—that of Government interference; but what I have already quoted is sufficient for my case, and more than enough for the time of the meeting. I must, however, at the risk of trespassing upon your patience, add one more link to the chain of evidence. In the report given in the Irish Times of the speech of the Chairman of the Great Southern and Western Railway Company, at their meeting in February last, he is stated to have spoken as follows in reference to reduced rates:—"No greater fallacy can exist in the minds of any portion of the public than the idea that increased traffic can be got without increased expenditure. To my mind it has been proved to perfect demonstration that expenditure exactly increases in proportion to receipts." The first part of this statement no one will deny, but the latter part is so contrary to ordinary commercial ideas, that I cannot but think there must be some inaccuracy in the report. But, moreover, this idea if it exists, is completely disproved by the remarkable results following the reduction of Railway fares in Belgium.

Between the years 1856 and '64, Belgian Railway fares, for both goods and passengers, were reduced on an average about 28 per cent, and in the same period the traffic was doubled, and produced an increase of gross receipts of over  $10\frac{1}{2}$  millions of francs, while the working expenses increased by only about  $3\frac{1}{2}$  millions of francs, or, in other words, for an increased cost of only  $21\frac{1}{2}$  per cent, an increased

gross income was obtained of over 45 per cent.\*

<sup>\*</sup> Since the paragraph to which this note refers was written, I find that I am in error in stating that the reduction of 28 per cent. on railway charges in Belgium, between 1856 and 1864, was for both goods and passengers. The reduction was only on goods; and while the weight of goods carried in 1864 was more than double what was carried in 1856, and the receipts from goods

These statistics are taken from the evidence of Professor Sullivan before the Railway Commission, and the result is shown in Table

In the first column is shown the per-centage of reduction of fares; in the second, the amount by which the receipts would have been reduced had the traffic remained the same; but the traffic having been doubled by the stimulus of low fares, the receipts were actually increased by over ten millions, while the working expenses were only increased by a little over three millions of francs. In the meanwhile a number of new lines had been opened, and the interest on the additional capital expended for their construction is shewn in the last column, and, adding this amount to the increase of working expenses, and deducting the sum from the gross increase of receipts, we have a net gain of 5,781,000 francs.

Nothing could be more conclusive than this evidence in favour of an extensive reduction of railway charges. I may add, moreover, that, at the beginning of this year, Belgian rates were again very considerably reduced by the introduction of the sliding scale according to distance, amounting on long journeys to a reduction of more than

50 per cent.

This completes my case against our present railway system, and in favour of State intervention as regards Irish Railways, as an ex-

periment on behalf of the United Kingdom.

It would be impossible for me within the limits of this paper to enter into detail as to the mode of carrying out such a scheme, and it has been rendered the less necessary by the fact that this branch

of the subject has already been brought before you.

The Railway Act of 1844 lays down the means by which Government purchase should be carried out, but does not arrange for one eventuality which unfortunately is too much the rule in Ireland—namely, the case in which railways are paying no dividend. Lord Lucan suggests, instead of the provisions of this act, that the Government should purchase by open negotiation, and, failing this, by forced arbitration. He thinks that railway companies would be so glad to sell on fair terms, that there would be no necessity for the

increased by 52½ per cent., the receipts from passengers was increased in the same period by only 39 per cent, clearly showing the effect which the reduction of charges had in inducing a great increase of goods traffic. I am also wrong in stating that the amount in the second column of Table 7, is the amount by which the receipts would have been reduced by the reduction of rates, had the traffic remained the same. It represents the gain to the public in the year 1864 by the reduction of rates for goods; in other words, the difference between the actual receipts for goods carried in 1864, and what would have been the receipts for the conveyance of the same weight of goods at the rates of 1856. It will be seen that these inaccuracies do not at all affect the argument. Indeed, the true facts make my case rather stronger, for while the passenger traffic (in the fares for the conveyance of which no reduction was made), increased by only 39 per cent, giving a like per-centage of increase of receipts, the goods traffic, (the rates for which were so much reduced), increased by over 106 per cent. giving an increase of receipts of 521 per cent. The result of the reduction of rates for goods has proved so satisfactory, that the Belgian Government, while still further reducing goods rates since 1864, have adopted in 1866 a very 1educed scale of passenger fares.

use of compulsory powers on the part of the Government. The Government could raise the money at  $3\frac{1}{2}$  per cent., and should not, in his opinion, look for any larger return than this from the railway

companies to which they would lease the lines.

I think the mode proposed by Lord Lucan the most feasible, and prefer the plan of leasing the lines to one, two, or three companies for a term of years, and on certain specified conditions as to fares and accommodation, to that of direct Government management, as being more in accordance with our commercial ideas and our system of government, and more likely to suit the requirements of the country. In this case there ought to be, as suggested by Lord Lucan, a permanent Government railway board in London, which should have a certain amount of control over the lessees, and by which the rates should be revised at specified periods.

As regards passenger fares, whilst I should look forward to an ultimate reduction to the rates proposed by Mr. Galt—namely, one farthing per mile third class, one halfpenny second class, and three farthings first class, I think that the reduction proposed by Lord Lucan, as already stated, namely, to one halfpenny, three farthings, and one penny, with a corresponding reduction for goods and cattle, sufficient for the present, and I feel little doubt that five or ten years

would restore the receipts to a paying level.

If this low scale of fares were adopted, I should consider any reduction for return tickets or for excursion trains quite unnecessary, and as regards third-class passengers, I should make it an essential condition that all trains that did not run an average speed, including stops, of a specified number of miles per hour, should carry third-class passengers; and by the express trains which ran beyond this speed an increased scale of fares might be charged. This is the case in Belgium, where they carry third-class passengers by many of the express trains, but charge an extra price of 20 per cent for all classes.

You will see by Table No. 2, that the total capital expended on Irish Railways in 1864 was, in round numbers, £25,000,000 Mr. Dargan estimates that Government could purchase all our railways for about twenty-two millions, and the estimate of other railway authorities is much under this amount. As this sum could be raised by Government at about 3½ per cent. interest, taking Mr. Dargan's estimate as correct, we find that a net income of £770,000 would pay the State. Mr. Dargan is of opinion that by amalgamated management there would be a saving of one-fifth in the working expenses, or, in other words, that the total under this head of £750,000 in Table No. 2 would be reduced to £600,000. A gross income therefore of £1,370,000 would save the State from loss, so that the rates which, as shown in the table, produced a gross income of £1,581,000 in 1864, might at once be reduced by a seventh. But as a reduction of fares would certainly induce an increase of traffic. I think that a reduction of one-fifth on the present rates might at once be adopted without resulting in loss, were the purchase by the State carried out, and the plan of a gradual reduction of rates preferred. As, however, I think nothing would give such a stimulus to progress in this country as an extensive reduction of railway fares, I should prefer the immediate adoption of the scale of rates proposed by Lord Lucan, and if the Government would not agree to take the risk of loss, so firmly am I convinced that after a few years the great increase of traffic would bring back the receipts to a paying point, that I should be willing that a special tax should be laid on Ireland alone, to guarantee the State from loss; although I think that, as the experiment would, more or less, be for the good of the United Kingdom as a whole, it would be more just that the risk should be borne by the Imperial Exchequer.

In Belgium, Prussia, and the German States, about one-third of the whole railway system was constructed, and is managed by the State. In France railways were partly made by the State, are all under State control, and will after the lapse of a certain time become the property of the State; and in fact in all European countries

railways are more or less a State institution.

I can see nothing antagonistic to liberty or contrary to sound political economy in State proprietory management or control of our railway system; and I am convinced that without State intervention our railways never can be made as advantageous to the

nation as they ought to be.

I fear I have already exceeded the limits of propriety by the undue length of this paper. The subject is at once so comprehensive and so dependent upon details, that I have found further condensation impossible. Few questions of reform are of so practical a character, or so much affect the interests of every individual in the State without distinction, as that which I have advocated this evening. Few are more worthy of the consideration of this Society, which in its deliberations knows neither party, nor class, nor sect; for, in the words of Mr. Gladstone:—"I know of no " method by which a boon could be conferred on Ireland so com-" prehensive in its operation, so impartial, so free from the taint of " suspicion of ministering to any particular interest, or the views or " convenience of any particular class-one affecting the whole popu-" lation, and all conditions without distinction, and that would be so "universal in its effect, as the better development of the Railway " System in Ireland."

#### APPENDIX.

Since the foregoing Paper was written, I have obtained some further information respecting the condition of foreign railways and their relation to the State, chiefly extracted from the "Statesman's Year-book"; and which I give here in the form of an Appendix, in order not to break the continuity of the original Paper, which is printed almost precisely as read.

Table No. 5, which I have added to the Statistical Tables, and give on the authority of the Report in the "Railway News" of 24th November of a Paper read by Mr. R. Dudley Baxter before the

Statistical Society of London, will show the distribution of railways in the different States of Europe in proportion to their area and population per square mile By this table it will be seen that, next to Great Britain, Belgium has the most extended network of railways,\* having, according to the "Statesman's Year-book," altogether 1,301 miles of railway in 1866, of which upwards of a third, or 467 miles, was constructed and is managed by the State; the remainder is in the hands of private companies; but as, according to the terms of the original concession of these latter, they will lapse to the State in 90 years from the period of their construction, the entire system will in process of time become national property. The average cost of the State railways amounts to £18,280 per mile, and the gross receipts were, in 1865, £2,862 per mile, producing a net income of £1,508 per mile, which would be about  $8\frac{1}{4}$  per cent. on the capital. The State railways, then, of Belgium have been constructed at a moderate cost; the fares charged on them are the lowest in Europe, the gross traffic receipts almost the highest, and the net result better than that of almost any line in England; and to the credit of the management it may be mentioned that not one passenger was killed for some years; and that, of 100,000,000 passengers carried since 1835, only six were killed by accidents resulting from the service.

In France, with the exception of about 200 miles, the whole railway system is in the hands of six great companies, who have under their management about 8,000 miles of railway. With one exception, those lines all radiate from Paris to the boundaries of France. The lines were laid out under Government supervision, were partly made by Government with Government capital; and on about half the capital expended the State guarantees 4 per cent. interest, and 65 per cent. as a sinking fund, by which the railways w.ll all have been paid for and become State property after the lapse of 99 years from the date of the concession. They have cost, on an average, about £32,000 per mile, which is the highest average cost next to that in England. The fares are under Government control; and. according to Mr. Baxter, the per centage of gross traffic receipts on capital expended was in 1865 one per cent. higher than in England and for some years past the average dividends have been over ten per cent.

More than a third of the railways of the whole of Germany have been constructed by the different States, and pay dividends varying from 5 per cent. in Prussia to 15 per cent. in Baden. In Hanover, Baden, and Wurtemberg all the railways are State property; and in Saxony and Bavaria the greater portion, and in Prussia about one-third, of the railways are State property, and the moome derived from them forms a large portion of the revenues of the different States.

As the condition of the railways of India is of particular interest, as showing the system adopted by our own Government for their

<sup>\*</sup> In proportion to area.

development in that important possession of the British crown, I will quote a portion of the very interesting description of our Indian railway system given in the "Statesman's Year-book," to which I am

already so much indebted for my information:—

"It was determined by the East India Government to guarantee "to the railway companies, for a term of 99 years, a certain rate of "interest (viz., 5 per cent.) upon the capital subscribed for their "undertakings; and, in order to guard against the evil effects of "failure on the part of the companies, power was reserved by the "Government to supervise and control all their proceedings by means " of an official director in England, and of officers appointed for the " purpose in India. The land required for the works connected there-" with was given, and continues to be given, by the Government, free " of expense, and the stipulated rate of interest is guaranteed to the " shareholders in every case, except that of the traffic receipts of the "line being insufficient to cover the working expenses, in which " event the deficiency is chargeable against the guaranteed interest. "Should the net receipts, on the other hand, be in excess of the sum "required to pay the amount guaranteed, the surplus is divided in "equal parts between the Government and the shareholders, until "the charge to the Government for interest in previous years, with "simple interest thereon, has been repaid, after which time the "whole of the receipts are distributed among the shareholders. The "railway companies have the power of surrendering their works, "after any portion of the line has been opened for three months, "and of receiving from the Government the money expended on the "undertaking; and, on the other hand, the Government has the "power, at the expiration of a period of 25 or 50 years from the "date of the contracts, of purchasing the railways at the mean value " of the shares for the three previous years, or of paying a propor-"tionate annuity until the end of the 99 years, when the land and "works will revert to the Government, unless the railway companies " have previously exercised their powers of surrender."

"The total length of lines open or in course of construction by "the eight Indian railway companies is 4,944 miles," of which 3,332 miles are now open. "The total expenditure of capital on the lines "which were open, or in course of construction, amounted on May "1st, 1865, to £54,942,029." "The total amount estimated to be "required for the undertakings, as now sanctioned, will reach "£77,500,000."

"Up to the end of 1864, the Government had advanced £13,160,539 to the railway companies for guaranteed interest, but about £3,300,000 had been paid back out of the earnings of the railways, leaving nearly £10,000,000 still due to the Government. The charge upon the Government was £2,567,743 in the year 1864; but the receipts from traffic which went in diminution of this charge amounted to about £1,000,000, and in 1865 realized £1,300,000. It is calculated that year by year the revenues will approach nearer to the amount of the guaranteed interest, so that

"at last, the Government will not only be relieved of the annual payment altogether, but the railways will begin to earn more than the guaranteed rate, and discharge their debt for previous advances out of half the excess profits above five per cent."

This satisfactory condition has been arrived at by the East Indian Railway Company, which has just declared a dividend for the past half-year of one half per cent. beyond the guaranteed five per cent., after paying back to the Government half the surplus profits.

# RAILWAY STATISTICS.

## 1.—COMPARATIVE VIEW OF RAILWAYS IN DIFFERENT EUROPEAN STATES.

NAME OF STATE.	Year	Miles open	Capital Expended.	Capital per Mile	Traffic Receipts per Mile.	Working Expenses per Mile	Nett Receipts per mile	Per-centage of Net Receipts on Capital
France Austria Prussia Germany Belgnum Great Britain—England Scotland Ireland	1854 1856 1856 1855 1856 1857 1857	2,913 1,586 2,503 2,226 445 6,706 1,243 1,070	£ 74,772,994 25,876,786 35,295,043 29,185,250 7,294,783 263,145,238 35,084,288 16,760,300	£ 25,668 16,378 14,101 13,111 16,391 39,275 28,225 15,664	£ 2,706 2,190 1,877 1,816 2,158 3,161 2,107 1,091	£ 1,191 1,150 968 897 1,260 1,564 941 465	£ 1,515 1,040 909 919 898 1,597 1,166 626	6.6 6.3 6.2 5.7 5.5 4.1 4.1

	Miles Open	Total paid up Capital Shares and Loans	Amount per Mile.	Total Working Expenses	Total Receipts	Net Receipts	Per-centage on Capital.
England	£ 8,890 2,105 1,794	£ 357,833,415 42,334,017 25,316,006	£ 40,249 20,159 14,168	£ 13,535,813 1,713,962 750,530	£ 28,667,649 3,766,309 1,581,606	£ 15,131,836 2,052,347 831,076	4°23 4 85 3 28
United Kingdom	12,789	425,483,438	33,191	16,000,305	34,015,564	18,015,259	4 23

	Miles.	Number of Passengers	Number per Mile	Passenger Receipts	Amount per Mile.	Live Stock, Goods, and Mail Receipts	Amount per Mile	Total Receipts per Mile
England	8,890 2,105 1,794	197, 164,661 20, 205,455 11,902,049	22,178 9,597 6,633	£ 11,808,277 1,263,295 844,028	£ 1,328 601 470	£ 16,859,372 2,503,014 737,578	£ 1,896 1,192 411	£ 3,224 1,793 881
United Kingdom .	12,789	229,272,165	17,826	13,915,600	1,086	20,099,964	1,572	2,658

	Proportion per cent of No of Passengers			Proportio	non per cent. of Receipts from Passengers.			Proportion per cent of Total Receipts	
	1st Class	2nd Class	3rd Class	1st Class	2nd Class	3rd Class	Season Tickets.	Passengers	Gcods.
England Scotland Ireland Average—United Kingdom	11 90 13 32 12 97 12 08	30·27 9 89 30·16 28·47	57.83 76 79* 56 87 59 45	26.00 25 39 24 93 25 89	34 62 15 37 31 25 32 66	36 49 56 76 41 47 38 62	2 89 2.48 2 35 2 83	46 28 37 93 62 44 46·10	53 72 62 07 37 56 53 90

e Several Scotch Railways run trains with only 1st and 3rd Class Carriages, which accounts for the small proportion of 2nd Class, and the large Proportion of 3rd Class passengers in Scotland.

3—FARE PER MILE IN DIFFERENT EUROPEAN STATES.

4—DENSITY OF POPUL
BURDPEAN

STATES	1st Class	2nd Class	3rd Class
Belgium (10 miles) Belgium (50 miles) Belgium (90 miles) Wurtemberg Bavaria Baden Saxony Prussia Hanover Switzerland Italy Holland France Austria Great Britain & Ireland	d 1 23 -69 -55 1 30 1 31 1 33 1 25 1 52 1 73 1 72 1 72 1 82 2 220	d '92 '46 '37 '85 '87 '91 105 115 120 129 1'40 137 160	d 61 34 28 58 58 58 77 76* 76 86 86 95

\* And 4th class 38

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4 —DENSITY OF POPULATION IN DIFFERENT EUROPEAN STATES.

STATES.	Date of Census.	Population per Square Mile.
Belgium England and Wales	1863 1861	432 347
Saxony	1861	328
Holland	1861	309
Great Britain & Ireland	1861	253
Baden	1861	233
Italy	1864	220
Wurtemberg	1861	219
Ireland	1861	181
France	1861	177
Prussia .	1861	171
Bavaria .	1861	158
Switzerland	1860	157
Austria .	1857	148
Hanover ,	1861	127
Scotland .	1861	101

5 —TABLE SHOWING THE EXTENT OF RAILWAY AS COMPARED WITH THE AREA AND POPULATION IN DIFFERENT EUROPEAN STATES IN 1864.

STATES.	Square Miles per Railway Mile	Population per Railway Mile
England and Wales .	6 5	2,257
Belgium Great Britain & Ireland	_   ~ ~	3,625
Scotland	1 9.0	2,238
Ireland	17.1	1,470 3,260
Switzerland	190	3,257
Prussia and Germany	-9-	3,~31
(except Austria) .	20.0	3 525
France	260	4,607
Holland .	290	9,066
Italy .	4Í O	9,084
Austria	63.0	9,375

## 6 - APPROXIMATE ANALYSIS OF AVERAGE COST OF BRITISH BAILWAYS, 1857.

•	Per Mile.	Per	Cent
Law and Parliamentary Expenses Land and Compensation Construction Locomotives and Rolling Stock Interest on Stock, Discounts, Bonuses, Dividends from Capital, &c.	£ 2,000 7,000 17,500 3,000 5,500	or or or or	6 20 50 9 15

## 7 - RESULTS OF REDUCTION OF RAILWAY FARES IN BELGIUM, 1856 TO 1864.\*

Per-centage of reduction.	Proportionate Reduction of Receipts	Actual increase of Receipts.	Increase of Working Expenses	Five per cent on additional outlay of Capital
27 729	Francs 6,670,000	Francs 10,524,000	Francs 3,189,000	Francs.
	al increased expenditure	4,743,000		
		5,781 000	= Actual net gain.	

### 8 - CONDITION OF IRISH RAILWAYS, 1864.

THIRTEEN RAILWAYS paid no dividend on either all or a portion of their Preference Stock.

SEVEN RAILWAYS paid full dividends on Preference Shares, but no dividend on their Ordinary Shares.

SEVEN RAYLWAYS paid a lower dividend on their Ordinary Shares than the rate on Government Funds at their present price.

SIX RAILWAYS paid a higher dividend than the Funds, but under 5 per cent.

ONE RAILWAY paid a dividend over 5 per cent.