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I.—*The Relation of the State to the Railways.* By Joseph John Murphy, Esq.

[Read Tuesday, 24th April, 1866]

EVERY careful observer of the changes of public opinion must have noticed, that there is very much less dislike among us now than there was twenty years ago, to the intervention of the State in the ordinary business of society. Paradoxical as it may appear, I believe this change is to be traced to the introduction of free trade. The protective system was a gigantic system of State intervention of a totally wrong kind. While it lasted, the efforts of the best thinkers on political economy were concentrated on its abolition; and, until it was overthrown, the question of what kinds of State intervention were right and desirable could scarcely be approached with a hope of satisfactory result.

A notion, however, appears still to exist, that State intervention for the purpose of making railways more useful would be "a relaxation of the strict principles of political economy, to be justified, if at all, only by the exceptional circumstances of Ireland." Now this is a double misconception. Ireland is, no doubt, a poorer country than Great Britain; but to relax the application of the principles of political economy in the case of a poor country, would be as reasonable as to relax the application of medical science in the case of a patient of weak constitution. And the intervention of the State for the purpose of providing the country with the most efficient railway communication possible is not opposed to the principles of political economy. In every country in the world stone roads are a matter of State concern, and are paid for out of the taxes. Every one regards this as a duty of the State, and it is impossible to give any good reason, other than one of mere convenience, why the same rule should not be applied to iron roads.

Of course it may be said, in reply to this, that the railways have been made and are worked by the companies, and that the present system ought not to be interfered with unless a very good case can be made out for doing so. No doubt this is true: it is my present purpose to show that such a case does exist. But let me first speak of the general theory of the subject.

The problem of political economy, regarded as a practical art, is to employ all the resources possessed by a people to the best advantage for their wealth and happiness. These resources are of very various kinds, and may be thus roughly enumerated: 1st. Gifts of nature, as land, mines, and fisheries: 2nd. Labour: 3rd. Skill, whether natural or acquired, inventiveness, and all other mental powers: 4th. Capital, or accumulated means: and 5th. Credit. Now, for a people to turn these various resources to the best account, very different methods are required, according to circumstances. Inventiveness and skill are best stimulated by competition; and competition is best secured by leaving enterprises to be taken up and prosecuted by any one that will. For this reason, all enterprises that can be wrought on a comparatively small scale, and do not need vast combinations, are best in private hands; and these are the great majority. Nothing would be gained, for instance, and the indefinite possibilities of improvement would be lost that are contained in the inventiveness of individuals competing against each other, if all the iron-foundries in the country, or all the building-yards, were united under one management. But where there is little room for inventiveness, and where the power of forming combinations on a vast scale is the essential matter, the State is in some cases the best agent, because it is greatly superior to all other agencies in the power of covering the whole country. The post-office is the best instance of this kind. It is an enterprise in which there is but little room for inventiveness, and of which the utility and success depend altogether on unity of management. Its utility would be destroyed if it were under a separate management in every town; and for these reasons it is capable of being managed, and is exceedingly well managed, by the State.

The post-office is a standing answer to those who maintain that a government, at least a British government, cannot do business. The British post-office is the greatest mercantile enterprise, and, for a very great one, probably the most successful, in the world. The instances of flagrant mismanagement which have caused the business ability of our government to be rated so low have been all in the army and navy department. But the peculiarity of these is, that their efficiency is only tested now and then. The efficiency of the post-office, on the contrary, is tested every day before the whole nation; and were the railways to be under the control of a department of the government, their management, in this all-important respect, would be similar not to that of the army and navy, but to that of the post-office.

I have enumerated credit among the national resources that ought to be turned to the best account. Now, the credit of the State is better than that of individuals or companies; it can borrow at lower

rates of interest ; and this is most important in enterprises where very large sunk capitals are required. We thus come to the conclusion, that private enterprise is most likely to succeed where skill, inventiveness, and careful attention to details are chiefly required ; but State enterprise, where vast credit, and the power of making combinations to cover the whole country, are chiefly required. I admit that these principles need much caution and many qualifications before they can be applied to our railways. I will proceed to show how I think they are to be applied, but first I have to speak of the necessity of a change.

In one point of view it needs no proof that the Irish railways have not been successful. They do not pay their shareholders. Except only the Dublin and Kingstown railway, the original shares of every railway in Ireland are at present quoted below par. This of itself, however, is not a reason for asking the State to do anything for them ; if it could be shown that the railways had done all the good they were capable of doing to the country at large, though at a loss to the shareholders, the State could do nothing better than leave the shareholders to bear the present loss, and reap any future profit. But such is not the case. There is the most conclusive evidence that the Irish railways are not of anything like the use to the country they might be.

It is well known—and if any particular authority is asked for, I refer to the evidence of Mr. Mallet, C.E., in the blue book on the Irish railways—it is well known, I say, that it is possible on long runs to carry goods with a large profit at $\frac{1}{2}$ d. a ton per mile if there is no back freight, or at $\frac{1}{4}$ d. a ton per mile if there is back freight. Mr. Bidder states in his evidence, that coals could be carried in Ireland at a profit for three-eighths of a penny a ton per mile, to which must be added 5d. a ton for terminal charges, irrespective of distance. At present the usual charge on goods in Ireland is 1d. a ton per mile—a charge which is prohibitory on many kinds of traffic for long distances. Under the present high rates, there is so little goods traffic on our railways, as to suggest the conclusion that from the comparative poverty of our country in minerals the materials of a large goods traffic do not exist. But more thought and more information will show the fallacy of this conclusion. We have, it is true, little coal, and none that would pay to export ; but we need the coal of Great Britain, and if the rates were lowered to $\frac{1}{4}$ d. or even to $\frac{1}{2}$ d. a ton per mile, and if the needful accommodation for transferring direct from ships to railway waggons were provided at the seaports, there is every reason to believe that the railways would be able to do a large and increasing business in the supply of coal to the towns in the interior. It is a mistake to think that coal cannot compete with turf. I believe Irish country gentlemen are pretty well convinced that turf is an expensive fuel, for all but that diminishing class of small farmers whose labour and that of their horses has no assignable money value.* Back freight to the sea-

* Of course, if the long-sought process for making turf into a compact fuel is ever found, this will nearly destroy the coal trade in Ireland, but it will create a new trade of probably greater value to the railways as well as to the country at large.

port towns would not be wanting. At present, even cattle are driven along the road when they might be carried by the railways, and traffic in heavy agricultural produce, as potatoes and hay, scarcely exists on long distances, such as from west of the Shannon to Dublin. (See Mr. Meldon's evidence). Traffic of that kind would come into existence if the rates were sufficiently lowered, and the waggons could carry manure as back freight into districts where coal is not needed. Besides, though our country contains very few of the more valuable minerals, we have in many places large quantities of ores, building stone, and slate, which are now mostly useless for want of cheap transit. (See Mr. Mallet's evidence.) We have thus every reason to believe that the materials for a large goods traffic do exist in Ireland, and that such a traffic would come into existence if the rate on goods were lowered at first to $\frac{1}{2}$ d. a ton per mile, and afterwards, on lines where back freight was offered in sufficient abundance to rely on filling the waggons, to $\frac{1}{4}$ d.

The case is even stronger with respect to passenger fares. Passenger fares in Ireland are about the same per mile as in England. Now this is *prima facie* wrong, because the people in Ireland have less money to spend: wages and other income scarcely average half the English rate, so that the scale of charges which may be the most remunerative to the companies in England, may be such as to prevent people from travelling in Ireland. Besides, the companies themselves, in Ireland as well as in Great Britain, furnish us with a "reduction to an absurdity" of their scale of fares. On particular occasions they run excursion trains at fares of one-half, one-third, or one-fourth, of the usual rates. By this means they "fill the trains," obtain large receipts, and generally think they have achieved a success: though some persons are of opinion that excursion trains are a mistake, and that what is gained by the excursion traffic is lost by the ordinary traffic. But, however this may be, the system is too inconsistent with itself to be right. If the usual high fares are right, the exceptional low fares are wrong, and the converse. And it seems foolish to think of "filling the trains" *now and then* by means of low fares. They ought to try to fill every train. It is stated by several trustworthy witnesses (Blue Book on Irish railways), that men to a great extent make journeys on foot rather than pay the railway fare. This shows the present rates, even for third-class passengers, to be actually prohibitory. The usual rates for third class passengers are about 1d. a mile. Now, if goods can be carried in large quantity at $\frac{1}{4}$ d. a ton per mile where there is back freight, and yield a good profit, at what fraction of a penny per mile might passengers be carried? Passengers, it must be remembered, are a commodity of which there is nearly always back freight to be had. I believe that third-class fares ought to be reduced to not more than $\frac{1}{4}$ d. a mile, and the other fares in the same proportion.

We have only seen so great a reduction made in one case. I refer, of course, to the penny postage; we know how completely successful it has been, doing incalculable good to society without any ultimate loss of revenue, and I believe the result of a great and general reduction of railway charges would have the same effect. It is scarcely worth

while to argue so self-evident a proposition, as that a great reduction of charges would bring a great increase of traffic; and in the case of goods I believe the change would very soon improve the income of the present owners of the railways, for the goods traffic of Ireland has as yet almost to be created.* With respect to passengers I do not feel quite so confident, but I believe after some years the passenger traffic would be more remunerative than at present.

But why not leave the railway companies to make the reduction for themselves? Because it is impossible. Every reduction of railway, postal, or other charges causes an immediate loss of revenue; and boards of directors cannot endanger the dividends on their shares, or perhaps the interest on their bonds, in order to try an experiment with their traffic which may be several years before it is successful. For an indefinite time—for this generation at least—no great and general improvement is possible except by the agency of the State. Shareholders cannot afford to wait the result of such an experiment, but the State, with its vast credit, can afford.

I have now to detail the way in which, as I believe, this can best be done. But I must premise, what many of the witnesses before the Commission on Irish Railways have overlooked, that in equity the State as well as the railway companies is bound by the Act of 1844, and that any attempt to give less favourable terms to the shareholders than are intended by that act would be a breach of national faith. All railways made under acts passed since the date of that act are subject to its provisions, and this includes the great majority of the lines both in Ireland and Great Britain.

That act, which we owe to the late Sir Robert Peel and the present Chancellor of the Exchequer,† provides that any railway constructed under its provisions may, at the end of 21 years from the commencement of the railway, be valued at 25 years purchase on the average of three years' dividend, and purchased by the Government, with the consent of Parliament. But if the owners of the railway believe that, from any exceptional circumstances, it is worth more than 25 years' purchase on the dividend, they may appeal to an independent tribunal to decide on its value. I believe it is desirable to put that act in force with respect to the Irish railways. In the case of most of the Irish railways, the 21 years are not yet expired, and the act does not apply to those which obtained their parliamentary powers before 1844. But in those cases to which the act does not apply, there would be no injustice in obtaining a new act for the purpose of purchasing any railway under its provisions, with the consent of such a majority of the shareholders as is usually held sufficient to bind the minority in cases of lease, amalgamation or sale.

Railways are usually worth about 20 years' purchase of the divi-

* During the whole of the year 1863 the Irish railways carried only a thousand tons of goods, including minerals, per mile; those of Great Britain, in the same year, carried about nine thousand—Dr. Hancock's *Report on the alleged violence of the working classes in Irish towns, as an impediment to the employment of capital.*

† I speak of Mr. Gladstone, not of Mr. Disraeli [October, 1866.]

dividend; this may be regarded as the normal value, and if they were to be bought at 25 years' purchase, this would have the effect of giving the shareholders a bonus of 25 per cent. on the market price of their shares. But, owing to the better credit of the State, this may be done without loss to the State, but, on the contrary, with a large gain. Suppose the case of a railway held in £100 shares, paying 5 per cent. and quoted at par. For one of these shares the State would have to pay 25 years' purchase on £5=£125. But the State can borrow at $3\frac{1}{2}$ per cent., and would raise the £125 by creating an annuity of £4 7s. 6d. or $4\frac{3}{8}$. Thus the State would become the owner of a property bringing in £5 a year, at a charge of only £4 7s. 6d. a year; the difference, 12s. 6d., is exactly an eighth of the £5 which the share brings in annually, and this very large proportion of the nett income would be available for the purpose of reducing railway charges.

In this way the dividend-paying lines should be purchased. Of course, when a railway is in a state of great, but it is hoped only temporary depression, as the Midland Great Western is at present, it would be unjust to purchase at a price calculated on the average of three disastrous years. And when lines pay no dividend, they would have to be valued on other principles; but it would, I think, be perfectly fair to ascertain the market-value as nearly as possible, and pay a bonus of 25 per cent. on that, so as to place the shareholders on a relative equality with those whose shares are valued by the dividend. Of course, the necessity of paying something for the lines that are earning no dividend would tell against the goodness of the bargain that the State would make. But there is another circumstance that would tell in its favour. About $5\frac{1}{2}$ millions of the capital of the Irish railways, being more than a fifth of the total capital invested in them, is represented by renewable bonds, and government loans, the average interest on which, in 1864, was about $4\frac{1}{2}$ per cent.* The bonds, as they fall due, could be paid off by the State with money borrowed at $3\frac{1}{2}$ per cent., and the shareholders would have no claim whatever to any bonus on the transaction; so that the saving between the rate of interest now paid, and that at which the State can borrow, amounting to rather more than £50,000 a year, might be set against the expense of paying for those railways that are earning no dividend, or would cost more to purchase than 25 years' purchase on the dividend. £50,000 a year capitalized at $3\frac{1}{2}$ per cent. would be equal to £1,430,000 very nearly. Supposing this loss and this gain to balance each other exactly, the outlay required on the part of the State for the purchase of the Irish railways may thus be approximately calculated.

At the end of 1864, the total capital of the Irish railways, with some small exceptions to be mentioned afterwards, and including all kinds of shares and loans, was £23,885,494, and the earnings on this, that is to say, the receipts, deducting working expenses, but not deducting interest, were at the rate of 3.48 per cent. on that

* See Appendices A and B to the Blue Book on Irish railways.

capital. Supposing that these earnings are a fair basis for the valuation of the lines, and, for the sake of round numbers, calling the capital 24 millions and the earnings $3\frac{1}{2}$ per cent., then $3\frac{1}{2}$ per cent. on 24 millions is £840,000, being the actual annual income of the Irish railways, and 25 years' purchase on this would be 21 millions, for which sum the State could become the absolute owner of the Irish railways. This 21 millions would be borrowed at $3\frac{1}{2}$ per cent., involving an annual charge of £735,000, so that the State would incur an annual charge of £735,000, and become the owner of property bringing in £840,000, thus gaining £105,000 a year.

I have used round numbers, in order to show that I do not offer this calculation as an estimate which I can stand over, but only as a very rough approximation; and I make it chiefly in order to show the principles on which the calculation should be made, supposing the precise data to be before us.

It would probably be necessary to add a considerable per centage to the value of the railways as estimated in 1864, for new lines and improvement in old ones. But, on the other side, it is to be remembered that the gross earnings are not available for dividend, and are not a proper basis of valuation; a considerable deduction ought to be made from them on account of the progressive deterioration of the lines.

The above statement does not include the lines which were not working at the end of 1864. Their capital was £1,105,985. Those lines, of which the construction is at a stand-still for want of capital, could probably be purchased for a mere fraction of the sum they have cost; but those which are now in progress ought probably not be purchased until their value has been tested by actual working. There is also the Bagnalstown and Wexford line, which is, or was lately, in the Bankrupt Court; its capital is £188,352, but, no doubt, it could be bought for a mere fraction of that sum. In the case of a railway being out of repair at the time of its purchase by the State, of course it ought to be put into repair, but it would be only just to do this at the expense of the company.

It would probably be desirable not to pay for the railways by the issue of consols, but to create a new $3\frac{1}{2}$ per cent. stock for the purpose, guaranteed against reduction for say 21 years, and with interest payable quarterly. This last would be a popular feature. Of course such a stock would be transferrable in exactly the same way as consols, and would have the same security. The new stock would, no doubt, be taken to a very large extent by the present share and bond-holders; consequently, very little direct borrowing would be required, the disturbance of the money-market would be very slight, and the State would not have to borrow under any disadvantageous circumstances, even on the supposition that the railways were to be all purchased at once; but this is by no means a matter of course; they may be purchased gradually, one by one.

I have shown that, on my conjectural estimate, the State would gain £105,000 a year on the transaction, by the favourable rates at which it can raise money. To this is to be added the saving of expense and the gain in efficiency that would follow on placing all the Irish

railways under one central management. I do not venture on any estimate of this, but those witnesses before the Royal Commission who know the most about railway management appear inclined to rate it the most highly. I refer especially to Mr. Dargan and Mr. Bidder.

Supposing the State to become the owner of the railways, we have now to consider how their management is to be provided for. I have already stated that I have not the very low opinion of the ability of the State to manage business which we often hear expressed, but I admit that it would be most unadvisable to entrust a department of the government with the duties of keeping the lines in repair, ordering rolling stock, purchasing coals and other stores, and hiring and paying the servants. In other words, government itself should not work the railways, but only supervise their working, fix the fares, and arrange, or at least approve, the time tables. The railways should be leased for a term of say 21 years. It would, I think, be most desirable that they should be all leased together; but if no one individual or company would undertake so large a business of the kind, or if a better rent could be obtained by dividing them, they should be leased in three or four groups; say the Northern, the Midland, the Southern, and the South-Eastern. Of course the returns, under the system of greatly reduced charges, would be quite impossible to estimate; and a fixed money rent would be out of the question; for the lessees, like the present railway companies, could not take the risk involved in the reduction. It would be necessary for the State to guarantee a certain amount of traffic to the lessees, which should be sufficient to secure them against loss on running the least possible number of trains that would carry on a traffic; and any receipts in excess of this guaranteed amount should be divided between the lessees and the State, in a proportion to be agreed on in the lease. The government ought, of course, to reserve to itself the right of requiring additional trains to be run, or of revising the scale of charges, retaining the same terms as to guarantee and profit.

It would of course be necessary that the lessees should give security for keeping the lines in order, and for the fulfilment of their contract in all respects; and perhaps the best way of doing this would be to value the rolling stock, and require the lessees to purchase it, allowing them to pay for it in equal annual instalments spread over the entire period of the lease, and charging interest at the rate of 4 per cent. on the balance remaining due. The paid instalments would constitute a constantly increasing guarantee fund, and an increasing guarantee fund is necessary to provide against the progressive deterioration of railways. In the event of the lease not being renewed on expiration to the same parties, it would be necessary to provide for the State purchasing back the rolling stock at a valuation.

It ought to form one of the conditions of the lease, that the details of management and the profits of the lessees should be open to the inspection of government, and known to the public. There ought also to be a clause imposing a penalty on any failure in punc-

tuality, when such might have been prevented,* and habitual want of punctuality, or culpable carelessness, should cause the forfeiture of the lease.

It is most probable that under such a system all the lines in Ireland would be leased to one company. There are only 1,800 or 2,000 miles of railway in Ireland, the London and North-Western railway company alone has about 1,200 miles under its management, and a larger traffic than that of all Ireland. And as such a company would not own the line, but only the rolling stock and floating capital, a comparatively small capital would be required; perhaps two millions or less (see Mr. Bidder's evidence). This circumstance would be attended by an advantage which is not evident at first sight. The dividends would be paid on a much smaller capital than at present, and consequently the difference between efficiency and inefficiency, or between extravagance and economy in the management, would tell on the dividends much more perceptibly. A saving of £20,000 a year, for instance, would be but two shillings per cent. on the present railway capital of Ireland, estimating it at 20 millions, and would be unfelt and unknown by the vast majority of the shareholders; but on a capital of only two millions it would make the difference of one per cent., an amount which every shareholder understands. This would be a stronger inducement to efficient and economical management than any other that it is possible to conceive. Besides, the management under the proposed system would, in all probability, be in the hands of a few business men, who would be large shareholders, and would give their whole time and attention to the business; and such management would be incomparably superior to that which is at present carried on by boards of directors and servants paid by salaries. By the system of government ownership and supervision of the railways combined with private management, which I have endeavoured to sketch out, we should unite the advantages of the vast credit of the State and the unity of plan that government can command, with the skill, efficiency, and, in so far as there is room for it, the inventiveness of private enterprise.

But the plan would be incomplete if it did not provide for future extensions of our railway system. Any new works required to increase the efficiency of the present lines would have to be made by the State. I mean additional lines of rail, sidings, sheds, wharves, and short junctions between existing railways. The State should execute any such works, if the lessees were willing to pay say four per cent. on their value. But as for new railways, I do not think the State could undertake the duty of deciding what railways should be made, and of making them. New lines ought, in the first instance, to be left to private enterprise, as at present, and they might be bought by the State afterwards. In order to avoid anything like the position of a monopolist, government ought to pledge itself not to oppose any railway bill on the ground of the line being a competing one. But there would be little danger of competition.

* As a general rule, failure in punctuality ought not to be excused; but in such cases as heavy snow or floods I do not see how the penalty could be reasonably enforced.

Competing lines have mostly been made by already existing companies ; there are not many instances, I believe, of their being made by new and independent ones. Of course the State might guarantee the present owners of the railways against loss by reduction of charges, and in this way the country might obtain the benefit of low rates without the State becoming the owner of the railways. I think this course is as likely to be decided on as any other, and I certainly should not say a word against it ; but I believe the more thoroughgoing course of buying them up would be safer, because it would enable the State to use its credit, and its power of attaining unity of management in such a way as to effect the greatest possible economy.

I have now shown how, as I think, it is possible to do very great good to our country at a comparatively very small risk. But I do not deny that there is some risk. To ask a guarantee implies that there is risk, or at least that it is reasonable to believe there is. And the question arises, who is to bear it? Ireland only, or the United Kingdom ?

I have already stated my belief before this society, that, in a pecuniary sense, Great Britain owes us nothing, and that the taxation of Great Britain and Ireland ought to be equalized. Consequently, if I regarded this as an Irish question only, I should say that we ought to take the risk ourselves ; that if, at the end of a 21 years' lease, the working of the Irish railways under the new system were to show a loss, the loss should be made good out of either the Irish county rate or the Irish income tax. But I do not regard it as a purely Irish question. If the proposed system is tried in Ireland, and proves decidedly successful, as I believe it will if properly tried, it will certainly be extended to Great Britain ; and the reasons for trying it in Ireland first are partly, no doubt, that Ireland needs the change more ; but partly, also, and perhaps chiefly, that the Irish railways constitute a small and compact system of uniform gauge. If Irishmen are wise, they will try to understand and argue this question on its merits, and not repeat the mistake which has done our country so much harm, of asking exceptional favours for themselves. And if my voice could reach the government and legislature, I would remind them that in the last generation they gave the United Kingdom the blessing of cheap postage, and I would urge them to follow up the example by giving in this generation the blessing of cheap railway transit.

For Discussion, see p. 319.

II.—*The Financial Position of Irish Railways.* By W. Neilson Hancock, LL.D.

[Read Tuesday, 24th April, 1866]

Mr. William John Hancock exhibited the following Tables, compiled by Dr. Hancock, to shew the financial position of Irish Railways, and explained the views of Dr. Hancock in respect of the statistics thus shown.