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ROAD VERSUS RAIL

**The Case
for Motor Transport**

**by
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PREFACE

IN response to the demand for a plain statement of the facts of the development of motor transport, its relations with the railways and its present importance in the national economy, I have written this little book. A more detailed treatment of the subject may be found in my book, *The Problem of Motor Transport: An Economic Analysis*, by those who may wish to make a more thorough study of the subject.

The adjustments necessary in our transport system as a result of the rapid development of motor transport of recent years are one of the most important aspects of the gradual reorganisation of the economic life of Great Britain to meet the changed conditions and markets of the post-war world. Those of us who believe as I do that the future prosperity of the country will depend largely on the transport facilities available and their efficient working, feel that the time has come to cry halt to the tendency for Chancellors of the Exchequer to look on the motor interests as fair game for any increase in taxation, and for Governments to mete out different treatment to the two most important agents in inland transportation, railways and motor transport.

The days of unadulterated *laissez-faire* are over, and nobody would wish to see their return. There is, however, a great danger in ignorant or partisan

interference in the economic system. The country frankly cannot afford to neglect any possible improvement in economic organisation, and any action calculated to delay the introduction of improved processes or technique is bound to act as a brake on a return to prosperity, and to aggravate the national menace of Unemployment.

C. T. BRUNNER.

February, 1929.

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ROAD versus RAIL

THE CASE FOR MOTOR TRANSPORT

CHAPTER I

THE PRE-WAR SITUATION

§ 1. *Before the Motor*

IT is possible to understand the present only in the light of the past, and in order to appreciate the present-day problems which have arisen in consequence of the growing importance of motor transport, and to form a fair and unbiassed opinion with regard to them, especially in view of the strong vested interests whose policy it is to oppose the development of one of the greatest of our industries by propaganda and every other means in their power, it is necessary to begin at the beginning and take a brief survey of the position as it was before the motor-car was invented, and of the changes which have already been occasioned by its development.

Great Britain is fortunate in having inherited from the days of stage-coaches a first-class road system. With the coming of the railways the roads quickly lost their passenger-traffic, as the stage-coach could not compete with the steam locomotive in speed, and at the same time the canals lost, or in some cases were deprived by rather questionable means, of their goods traffic. The wonderful net-

work of roads which covers the country was allowed to become half derelict, its only users outside the towns being farm-carts and a few carriages and pony-traps.

This position was considerably modified in the last two decades of the nineteenth century by the development of the bicycle, a development which was much accelerated by the invention of the pneumatic tyre in 1888. The cyclists, with the help of the powerful organisation which they formed to further their interests, the Roads Improvement Association, were able to demand and obtain a better standard of road maintenance than had hitherto been considered necessary. Hence in the period immediately before the general introduction and use of motor vehicles, the annual cost of roads was increasing rapidly. It rose from £8,670,000 in 1890-1 to £14,646,000 in 1902-3. The quality of the roads improved correspondingly; in fact there was a reconstruction of road surfaces corresponding on a small scale to the reconstruction which was later made necessary by the growth of motor traffic, and the reasons for the general progress in the standard of highway maintenance at this time are almost entirely attributable to the propagandist activities of the pedal cyclists.

§ 2. *The Coming of the Motor*

The motor-car made its first appearance on the roads in this country about the year 1893, but for another three years it remained only a freak as it was subject to the same set of laws as the steam wagon, which included at that time among other things a regulation that every vehicle should be preceded

by a man carrying a red flag. It was really not until the Motor Car Act of 1903 that anything approaching freedom of development was permitted to the motor-car. From 1903 to 1910 the motor was developing steadily both in technical efficiency and in popularity, but its numbers were not at this time sufficiently great to influence materially either road costs or road policy. The rapid growth of motor traffic, upon which comment is to-day so frequently made by Parliament and the Press, is a comparatively new phenomenon and did not begin until about the year 1910.

During the seven years 1903-10 there was no appreciable increase in the annual cost of the roads. From £14,646,000 in 1902-3 this only rose to £15,288,000 in 1909-10. In no year was it less than £14,000,000 or more than the figure it reached in the last year of the seven. For practical purposes the cost of roads at this time was constant. The road surfaces were good enough to carry the traffic of those days at a stationary cost of repair. Horse and bicycle traffic were still increasing, but this in itself did not, of course, constitute a reason for an increasing expenditure on maintenance, since, if a road surface is suitable for the type of traffic it has to carry, the annual expenditure on maintenance should not vary with the tonnage of traffic carried over the road, but should be nearly constant. Motor traffic was certainly on the increase in these years, but not to such an extent as to constitute a serious problem. The main effect of the increasing number of motor vehicles running at more or less high speeds over water-bound macadam roads was to create a dust nuisance which undoubtedly served to check

the growth in the popularity of the motor-car in quarters where opposition to mechanical and technical development is not usually found. There was no question of an increasing cost of road maintenance due to motor traffic at this time, and on the other hand there is every indication that, had it not been for the development of motor traffic in the years following 1910, the annual cost of roads would have remained, subject to there being no changes in the price-level, at approximately the figure of £15,000,000 per year at which it had settled down in the first decade of the century.

§ 3. *The Motor Age*

The year 1910 marks roughly the beginning of the motor era. The number of motor vehicles of all kinds, which had gradually increased to 101,000 in 1909, reached 322,000 in the summer of 1914 at the outbreak of the War. The cost of the roads rose to £18,585,000 in 1913-14. The consumption of petrol, from 53,487,000 gallons in 1909-10, reached 119,867,000 gallons in 1913-14. The motor era had begun in earnest.

The first problem which became apparent was that, although the road system was more or less adequate in so far as it linked up every town and village of importance in the country, the road surfaces were far from adequate as a means of carrying a greatly increased motor traffic. At the beginning of the century there were some 175,000 miles of public roads in the country; the road system has remained at practically the same mileage, as since then less than 4,000 miles of new roads and streets have been constructed. In the main what has

happened has been the gradual adaptation of the more important, and in the last few years even of the less important of the old roads, to the needs of motor traffic.

The adaptation which has taken place since 1910 has involved nothing more or less than the reconstruction of the road surfaces to make them strong enough and smooth enough to carry motor traffic rapidly and economically. Fortunately the Government of the day was fully alive to the situation, and treated all the interests concerned with justice. Up to 1910 the annual cost of the roads had been defrayed almost entirely out of the highway rates, to which, of course, every ratepayer contributed. On the whole the system was considered by all to be quite equitable. Everybody needs roads and streets, as they are the only means of moving from place to place without trespassing on private property. Everybody contributed towards the payment for them, farmers, manufacturers, railway companies and others who used the roads for horse traffic, usually paying in proportion through their heavier rates. There was a school of thought which wished to make the bigger highways a national charge, but at any rate it was at that time quite rightly accepted as just that the public should pay for the public roads either in their capacity as ratepayers or as taxpayers.

§ 4. *Early Motor Taxation*

In general the system worked well, but it was immediately realised that it would be no longer applicable in the conditions which were beginning to prevail about the year 1910. The growth of

motor traffic was beginning to cause the cost of highways maintenance to increase, and it was very rightly decided that, as the reconstruction of the highways was being undertaken for the benefit of a particular section of the public, the motoring public, rather than for the good of the community as a whole, the extra expenditure on roads thus occasioned should be made good from the pockets of the motorists instead of at the expense of the general body of ratepayers.

Such was the principle underlying the Motor Taxes introduced by Lloyd George in his 1909 Budget. Previous to that motors had been subject to the ordinary carriage tax of £2 2s. per year up to 1 ton weight, £4 4s. between 1 and 2 tons, and £7 7s. if over 2 tons. On motor-cycles the tax was 15s. These taxes were really negligible. By the Finance Act of 1909 a new scale of taxation was introduced on a horse-power basis. The minimum tax was still £2 2s., but this only applied to very small cars up to 6½ h.p. For 10 h.p. cars the tax was £4 4s., and for 40 h.p. £10 10s. For the higher horse-power categories it was more steeply graded, rising to £42 for cars over 60 h.p. This tax was supplemented by a Petrol Tax of 3d. per gallon, later, to meet a war-time emergency, increased to 6d. Various rebates were allowed for doctors' cars and commercial travellers' cars, the object being to differentiate in favour of the car used for business purposes. The estimated total yield of these taxes for their first year was £785,000, and the estimate was more than justified by the results. The money raised by these two taxes, the motor-vehicle tax and the petrol tax, was at first called the "Road

Improvement Fund," and later more usually the "Road Fund."

§ 5. *The Road Board and the Road Fund*

At the same time as the 1909 taxes were introduced a Board, known as the "Road Board," was set up to decide how best to spend the money, all of which, of course, after deducting the cost of collection, was ear-marked for expenditure on the roads. The duties and functions of the Road Board were laid down as follows :

The Road Board shall have power, with the approval of the Treasury,

- (a) To make advances to county councils and other highway authorities in respect of the construction of new roads or the improvement of existing roads.
- (b) To construct and maintain any new roads . . . which appear to the Board to be required for facilitating road traffic.

For the purposes of this part of this Act the expression "improvement of roads" includes the widening of any road, the cutting off of the corners of any road where land is required to be purchased for that purpose, the levelling of roads, the treatment of a road for mitigating the nuisance of dust, and the doing of any other work in respect of roads beyond ordinary repairs essential to placing a road in a proper state of repair; and the expression "roads" includes bridges, viaducts and subways.

These terms of reference confined the Road Board almost entirely to capital work on the roads, which was exactly what was required. Had the various highway authorities been left to themselves, many of them would no doubt have been unable to

undertake the necessary capital work to reconstruct the road surfaces and make them suitable for motor traffic with the means at their disposal, and so would have become involved in a continually mounting expenditure on repairs for their old-fashioned roads, as motor traffic grew, aggravated by an ever-growing dust nuisance.

The first annual report of the Road Board put the problem in a nutshell :

The condition of road crusts is a most urgent problem. Upon that depends both the alleviation of the intolerable and injurious nuisance arising from mud and dust, and the mitigation of the burden of increasing cost of maintenance. Many miles of important roads are not constructed or surfaced so as to be suitable for motor traffic, which on surfaces properly constructed, and bound with waterproof bituminous binding material, probably causes less damage and wear than is caused by horse-drawn traffic, but is destroying and wearing existing water-bound road surfaces in many districts to such an extent that the cost of the frequent renewal which they require to keep them in fair condition imposes on the ratepayers quite a considerable burden. The most immediate and pressing need in connection with roads is to strengthen and improve the crusts and surfaces of rural and suburban roads so as to secure satisfactory road surfaces for the requirements of modern traffic, to alleviate the dust nuisance, and to check the waste that is being incurred by continuing to maintain roads having thin and inadequate crusts by the use of materials unsuited to the traffic requirements. . . . It is essential in order to obtain strong and durable road surfaces which will bear modern traffic that the old water-bound system of construction be super-

seded by the use of some bituminous binding material on all important roads which have to carry heavy and fast traffic.

The receipts from the Road Fund, i.e. the yield of the motor taxes and petrol tax, grew in proportion with the increase in motor traffic, and there was every indication in the few years preceding the War that a satisfactory solution had been found for the problem of road reconstruction. The Road Board confined its activities to helping local authorities by making grants of part of the cost of improvements undertaken by the authorities, so that the more a local authority was prepared to spend on its roads, the bigger was the grant which it might expect to get from the Road Board. Grants were never made merely to help an authority because the cost of maintaining the roads in its area was increasing ; this would have encouraged highway authorities to neglect to carry out improvements which had been made imperative by the growth of motor traffic, and would moreover have been wasteful, as it was only by reconstructing the road surfaces that the increasing cost of road maintenance could be checked.

§ 6. *Economic Importance of Motor Traffic before the War*

In the pre-war period motor traffic was not of very great importance from the point of view of the economic organisation of the nation. The first type of motor vehicle to attain a widespread popularity was the motor-cycle, which at that time was much in demand among youths and young men of the wealthier classes, but it was essentially a luxury

vehicle, its economic importance as a means of transport being negligible. The number of motor-cycles increased from 32,000 in 1904 to 36,000 in 1910 and 124,000 in 1914.

Private cars were beginning to be of importance before the War both as pleasure vehicles and as business vehicles for doctors, professional men, and commercial travellers. There were 47,000 cars in 1911 and 85,000 in 1914. Commercial goods vehicles were also increasing rapidly, from 25,000 in 1911 to 47,000 in 1914. They were not to any extent employed on long-distance haulage, which was work in which the railways still had a virtual monopoly, but their use for local delivery work was being tried out with some success. Hackney carriages were, relatively to their present numbers, most numerous, although the composition of this very mixed class of commercial passenger vehicles was somewhat different from what it is to-day. There were fewer vehicles of large seating capacity, and, relatively, many more of small seating capacity. The number of motor hackneys increased from 32,000 in 1911 to 51,000 in 1914. The taxi-cab had all but killed the horse-cab, and the motor-omnibus and motor-charabanc were making inroads on their horse-drawn equivalents. In the seaside and residential districts also, the motor hackney for occasional hiring and drives was proving a dangerous rival to the various types of horse-vehicle which had formerly fulfilled these functions.

However, the most important way in which the pre-war and post-war motor transport differ is this; the pre-war extension of the use of motor transport was not in any way at the expense of the railways,

and there was no question of competition between road and rail. To a certain extent it was at the expense of the pedal bicycle, as in the case of the motor-cycle, but in the main it was merely a replacement of horse vehicles by vehicles using mechanical means of propulsion. The wealthy were replacing their carriages by luxury cars, the doctor sold his gig and bought a coupé or two-seater, the farmer found a Ford a quicker means of getting to the local market than his old market-cart, and the pony-trap of the prosperous middle-class was being scrapped in favour of the more popular automobile. The same process was going on with commercial vehicles, although in the main the horse was holding its own for the heavier work.

One may well feel some sentimental regret for the passing of the horse, but consolation can be found in the fact that it was inevitable, and a necessary step on the ladder of progress for the good of the nation as a whole. Horse traffic is slow, insanitary, and, for most work, uneconomical. Relatively to the load carried, horse vehicles are much larger than motor vehicles. They take up more room in the streets because of this, and, what is worse, they take it up for a longer period of time, as under modern conditions they are unable to maintain a fair average speed according to present-day standards. Horse-vehicles thus tend to slow down the average speed of any traffic stream in which they may be, and are responsible for no small amount of traffic congestion in all dense traffic areas. It is difficult to conceive what the streets of any large town would be like to-day if it suddenly became necessary to revert to horse vehicles for all transport work.

CHAPTER II

MOTOR TRANSPORT AND THE WAR

§ 1. *Neglect of the Roads*

THE outbreak of the War upset the pre-war system of payment for road maintenance.

It at once became necessary to economise in man-power, and the withdrawal of labour from road maintenance work was one of the directions in which economies were sought. The price of labour and materials soared steadily, but in spite of this road costs, which had been rising rapidly during the four years previous to the War, tended if anything to fall. From £18,585,000 in 1913-14 they rose slightly to £18,833,000 in 1914-15 ; they then fell for two years to £15,938,000 in 1916-17, and subsequently rose slightly to £17,243,000 in 1918-19. In view of the rapid increase in the cost of labour and materials, which did not end until 1920, this meant that less and less maintenance work was being done each year. Capital work on the roads was suspended altogether.

The War found the highway authorities in the middle of the reconstruction work they were undertaking to make the roads suitable for motor traffic. They had to abandon this task and endeavour to maintain a *status quo* in regard to the standard of the roads, which was rendered all the more difficult by the tremendous amount of Government

traffic which the roads were having to carry. On the whole the roads stood up to the ordeal remarkably well, but it is nevertheless not surprising that they gradually degenerated for five years, and that, by the time a normal state of affairs was being attained in 1919, there was an enormous leeway of arrears in maintenance work, reconstruction of surfaces, and construction of new arterial and by-pass roads, to be made up. The £17,243,000 spent on the roads in 1918-19 included nearly £4,000,000 consisting merely of payments in respect of loan charges, and which, therefore, did not represent work done. The £13,600,000 actually spent on the roads that year was equivalent, after making allowance for the rise in prices, only to some £7,000,000 spent before the War. It is hardly a matter for surprise that expenditure on roads was very high in the years following the War.

The wear and tear inflicted on the roads, however, continued to increase annually. The consumption of motor spirit, which had been 120,000,000 gallons in 1913-14 and 140,000,000 gallons in 1914-15, rose to 192,000,000 in 1918-19, and in addition to this there was a steadily increasing use of substitute fuels, so that the actual increase in traffic was undoubtedly greater than would be expected, judging purely from these figures. The number of privately registered vehicles increased up to 1916 for every category, and then fell sharply till the end of the War, but the increase in the number of vehicles used for military purposes probably more than made up for this decline.

§ 2. *Use of Motor Transport in the War*

The War undoubtedly caused a set-back for civil motoring and especially for pleasure motoring on account of the shortage of petrol and the various restrictions, but the great use made of motor transport by the military authorities certainly did much to prove its possibilities and bring about the post-war boom. To some extent it might be said that motor transport won its spurs during the War. Some authorities, even, are of the opinion that motor transport contributed in no small measure to the Allied victory on the Western Front. In the latter part of the War, the Allied Armies, relying mainly on motor transport, were opposed to German Armies relying mainly on horses and railway transport. Given a road system of almost any description, the motor vehicle proved its superiority to the horse vehicle through its greater mobility, and its superiority to the railway through its lesser vulnerability. As Lord Curzon said, "The Allies floated to victory on a wave of oil."

§ 3. *Government Control of Motor Transport*

Apart from the Road Board there was little attempt by the Government to control the civil road transport industry during the War, until, towards the end of the War, it became completely paralysed, and the Government felt that they ought to take some measures to set it on its feet. Accordingly, in January 1918 a Road Transport Board was appointed by the President of the Board of Trade, and constituted as an Inter-Departmental Board

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attached to the Board of Trade with the following terms of reference :

To co-ordinate the work of existing Government Departments in connection with Road Transport ; to determine what further measures are necessary to ensure the most economic use of road transport and vehicles, and their efficient allocation for the transport of food, munitions, and other War material, and for the essential needs of the trade and industry of the country, and, subject to the direction of the Board of Trade, to give executive effect thereto.

The powers of the Road Transport Board were derived from the Defence of the Realm Act.

In the following year (1919) the Ministry of Ways and Communications was proposed as a result of the Select Committee of Transport of 1918 ; its functions as regards " roads and bridges and vehicles and traffic thereon " were as follows : it was to take over the powers and functions of the Road Board as described by the Development and Roads Improvements Funds Act of 1909. With regard to the Local Government Board it was to take over the " duties imposed upon the Local Government Board by or under the various Highways, Locomotives, and Motor Car Acts in regard to the regulation of traffic on, and vehicles working on highways and bridges."

The Ministry of Ways and Communications was also to have the power of deciding which should be " main " and which " other " roads, and of settling disputes between highway authorities about the cost of maintaining roads : in addition it was to examine all Bills promoted by local authorities about

omnibus routes, trackless trolley systems, or other matters: in short its object was the co-ordination of the various transport services.

§ 4. *The Ministry of Transport*

A Department on the lines of the Ministry of Ways and Communications was set up by the Ministry of Transport Act of 1919 with fairly extensive powers over road transport. By the same Act a Roads Advisory Committee was appointed "for the purpose of giving advice and assistance to the Minister with respect to and for safeguarding any interests affected by the exercise of the powers and the performance of his duties under this Act in relation to roads, bridges, and vehicles and traffic thereon." The principal powers of the Minister in respect of road transport were the power to establish transport service with the permission of the Treasury where he deemed it advisable, the power to make advances to local authorities for the construction, improvement, or maintenance of tramways, and for the promotion and improvement of transport services by land, to make orders concerning the strengthening, standard of maintenance, and maintenance of any bridge or culvert, the traffic using it or seeking to use it, and the appointment of any expenditure involved, and to hold whatever inquiries might be deemed necessary or desirable, and to give permission where conditions warranted it for the running of motor-omnibuses over new routes.

The increased interest taken by the Government in road transport towards the end of the War appears to have been forced upon it in the first place by practical necessity. However, in the

reconstruction period following the War, the Central Government still further increased its control over roads and road transport; the Road Transport Board was to have been superseded by the Ministry of Ways and Communications, but the Ministry of Ways and Communications Bill was scrapped in favour of the Ministry of Transport Act, which carried the process of centralisation even further than would have been done by the Ministry of Ways and Communications Bill, as it centralised the functions of traffic regulation and co-ordination, highways standardisation, and the making of loans to local authorities, whereas the Ministry of Ways and Communications was to have been responsible for little more than traffic regulation and co-ordination.

§ 5. *Road and Rail at the End of the War*

By the end of the War the Government was becoming fully alive to the important part motor transport was about to play in the national life, but there was very little hostility even then shown towards motor transport by vested interests. The general opinion was that road and rail transport were complementary, and that each would find its sphere of usefulness and take its place in the national economy without detriment to the other. On the whole the evidence at that time certainly tended to support such a view. The motor vehicle had largely ousted the horse vehicle, but was yet to prove a dangerous competitor to the railways. It was thought that the roads would act as feeders to the railways, and that, although they might possibly take a small amount of short-distance traffic from the railways, this would be more than made good

by the new business brought by them in their capacity of feeders. On account of the alleged greater expense of road transport it was supposed that the competition, such as it was, would be restricted to a few high-class commodities.

In addition to acting as feeders, motor vehicles were undoubtedly indirectly responsible for the growth in certain kinds of traffic which the railways looked forward to immediately after the War ; such traffic included motor spirit, road materials, and building material, as it was obvious that one of the first effects of the spread of motoring would be the decentralisation of housing, and one of the first requirements of motor traffic that something should be done to catch up with the arrears in maintenance and constructional work on the roads.

As is so often the case with mechanical inventions, it was some time before the full implications of the technical improvements in the construction of motor vehicles were realised. Just as the stage-coach proprietors had looked on with kindly contempt at the early experiments in using a steam engine to draw carriages on rails between Stockton and Darlington, so the railways had first looked upon the motor vehicle merely as a "rich man's toy," then merely as the supplanter of the horse-drawn vehicle, and finally they had grudgingly conceded that there might be something in the new motor transport industry after all, in fact that it might even aspire to be complementary to themselves, the proud monopolists of the transport world.

CHAPTER III

MOTOR TRANSPORT AFTER THE WAR

§ 1. *Rapid Growth and Diffusion of Motor Transport*

AS soon as the War was over the motor transport industry began to boom. The total number of motor vehicles of all kinds, which had increased from 114,000 in 1910 to 322,000 in 1914, had fallen to 189,000 by 1918, but by 1920 reached 551,000, thus exceeding the pre-war maximum, and by 1922 attained the enormous figure of 942,000, passing the million mark in the following year, and the two million mark in 1928. The number of private cars registered increased from 50,000 in 1918 to 250,000 in 1922, and 877,000 in 1928. Their pre-war maximum had been 85,000. Hackneys more than doubled their numbers in a few years. Commercial goods vehicles increased from 28,000 in 1918 to 135,000 in 1921, and 294,000 in 1928; the highest figure they had reached before the War was 47,000. Motor-cycles, which had numbered 124,000 in 1914, had fallen to 69,000 by 1918, but by 1920 had risen to 288,000 and in 1928 were 691,000.

The rapid extension of motor transport in the post-war period soon made it clear that the roads were far more competitors of the railways than complementary to them, and subsequent events have only tended to emphasise this view. Since

the War road transport has established itself as one of the principal industries, and has played a great and still growing part in the national economy.

At first the expansion was perhaps a little forced and feverish. The Government were disposing of large numbers of lorries at knock-down prices, and there were thousands of young men whose education and training had been cut short by the War who found themselves with little capital and no trade or business in which they could claim any special skill. Many of these men bought lorries, and without previous knowledge or experience attempted to set themselves up in business as haulage contractors. There was at the same time a mushroom growth of "traffic experts" who established road transport clearing-houses, and depended on the cut-throat competition and ignorance of costing of the amateur hauliers to beat down transport charges to an absolute minimum. This phase did not last long. The weaker of the haulage contractors and the worst of the "traffic experts" went out of business, mostly through bankruptcy, when the artificial post-war trade boom broke at the end of 1920 and beginning of 1921. The better-managed concerns meanwhile consolidated their positions and laid the foundations of a healthy and prosperous industry.

The steady growth of the new motor-transport industry has involved a considerable modification of the transport problem, and of the position of the various transport agents in the national life. For a full two generations the railways, with a little assistance from the canals, had held a monopoly of the means of transport. It was possible through this monopoly to make the service of transport

relatively cheap and so increase the demand for it to an extent never before dreamed of, and, by concentration of ownership, to produce a good organisation of the work to be done and avoid unnecessary duplication of services except where two or more railways served the same two towns. In Great Britain sufficient public control was maintained to protect the public from the grosser abuses of monopolistic control, a happy state of affairs which was not always the case in America, but nevertheless there were serious drawbacks from the national point of view. A modern industrial nation is entirely dependent on its transport system for its life, and the powers that control the transport system have, if they know how to use it, a pistol pointed at the heart of the nation. A concentration of the control of transport in a few hands is apt to prove a temptation to unscrupulous groups of men to attempt to hold up the nation to ransom, and the growth of motor transport has entirely changed the prospects of the success of such a move.

There has during the last few years been a marked tendency for the privately owned motor fleet to extend its sphere of influence partly at the expense of the railways, and partly also in all probability at the expense of the professional haulage contractor; this development has been greatest in the retail, catering and distributing businesses, and is due to several advantages which accrue to a firm in the possession of a private motor fleet, advantages which are especially great for a firm which has to concentrate on the distribution of goods rather than on their production. It is possible for a man, by owning his own transport, to arrange for that

transport to work according to his own convenience and that of his customers, a happy situation which is not always possible with hired transport. He is thus able to let customers know the exact date on which he will make delivery of goods ordered, an important asset for a man engaged in a highly competitive business. What is even more important, he can keep an eye on the goods until they are handed over to the customer and so check a good deal of petty theft and pilfering, and ensure that adequate care is taken to safeguard the goods against damage on the way ; he can keep in touch with the goods until they are delivered and know where they are at any particular time, which is not always possible on a railway, and he can use his vehicles for advertising his products.

High-class goods can be handled particularly well by private motor fleets, since the cost of transport per ton is for such goods relatively unimportant on account of their small bulk in proportion to value ; they are sold by brand rather than by grade and therefore require advertising, and a motor-lorry is a convenient and effective medium for this ; they are liable to pilfering, as they are usually made up in many small lots to be delivered at different addresses, and the risk of this is less by motor than by rail.

This latter development of privately owned motor fleets has made almost every trader an owner of instruments of transport, while the growth in the number of people owning private cars has been so great that almost all the prosperous classes and many of the less prosperous now own their own private means of transport. The railways, with

their concentration of control, still continue in operation, but there is no longer any chance of railway owners or employees, either in Great Britain or in any other modern state, finding themselves in a position through monopolistic power to enforce unreasonable demands on the community. In a sense the development of motor transport has reversed the previous tendency towards concentration of control, and brought back a position comparable with that which existed before the industrial revolution, when there was a wide diffusion of ownership of instruments of transport, and every merchant had his pack-horses and every gentleman his riding-horses.

In addition to the development of commercial goods vehicles, there has, of course, been an enormous development of passenger vehicles, both private and commercial. There were in 1928 877,000 private cars registered, which is greater than the number of incomes of over £400 a year. There were as well 691,000 motor-cycles and motor-cycle combinations; after making allowance for families owning more than one vehicle, it is probable that, out of the 10,000,000 odd households in the country, at least 12 per cent. can be classed as either motorists or motor-cyclists or both.

The commercial passenger vehicle has also developed beyond all expectation. There were 30,000 motor-omnibuses licensed in 1928. The development of the motor-omnibus business has followed much the same lines as that of the road hauliers, but has taken place rather later. Out of a medley of charabanc-owners running omnibus services, and men operating small fleets of 1, 2 or 3 'buses, a number of large

concerns have arisen, and at present there is a distinct tendency towards a diminution in the number of omnibus operators. This movement is inevitable in a business of this kind. The evils resulting from excessive competition over particular routes are too glaring to last long. The proprietors lose their profits, and the public suffer from the excessive speeding and jockeying of heavy vehicles. Especially during the last year or two there has been a big development in long-distance express omnibus services which are the last use to which mechanically propelled passenger vehicles have been put. These now link up most of the big towns, and are reminiscent of the stage-coaches, of which they are in fact a modernised version. The characteristic feature of these services is their cheapness; they run at approximately half the railway fare, but, of course, take considerably longer. The journey is, however, made as pleasant and comfortable as possible, the vehicles being usually exceptionally well appointed, and these services have obtained such a degree of popularity that it is sometimes necessary to book a seat some days beforehand in order to make sure of finding room.

The transport economics of Great Britain have changed almost beyond recognition since the coming of the motor. The practical monopoly of the railways, which formerly extended over almost the whole field of traffic, has been broken and is now reduced to very long-distance express passenger traffic, outer-suburban business traffic consisting of season-ticket holders; coals and minerals, and the coarsest and lowest classes of goods traffic. The geography of Great Britain is particularly favourable to motor

transport, as there are few areas too hilly for the economical use of motor vehicles, and those areas are not in the neighbourhood of the populous centres, and the short distance separating the various industrial districts, together with the comparative proximity of all the chief manufacturing areas to the coast, all tend to encourage the use of motor vehicles both for pleasure and business.

§ 2. *New Motor Taxation*

This development of motor traffic, which began immediately after the end of the War, made the problem of catching up with arrears of maintenance and completing the process of reconstruction to make the roads suitable for motor traffic even more urgent. The pre-war system by which the 1909 motor taxes and petrol tax were to yield a sum large enough to make good the increased annual cost of roads had broken down. The cost of all the items included in road work had advanced, but the taxation rate for motor vehicles was at its pre-war level. It was again necessary to adjust the motor taxes to a level at which they should make good the increased cost of roads, although it could not in justice be expected that they should at once do this, as the cost of roads, after five years of neglect and wear and tear by Government vehicles, was of course bound to be artificially inflated for several years after the end of the War. The artificial inflation could not with fairness be charged to civil motoring, which had been declining during the War years, and ought in strict justice to have been made good by the Government.

The cost of labour and materials advanced by

approximately 80 per cent. between the pre-war and the post-war periods; this estimate is probably on the low side, as there is evidence that unskilled labour of the type used for road work increased by a good deal more than this figure, but, if 80 per cent. be taken as a conservative estimate of the increase, it will be seen that it would be necessary in the post-war period to spend £27,000,000 on the roads in order to obtain the same amount of work and standard of maintenance as was obtained for £15,000,000 in the pre-war period. The purchasing power of gold in terms of goods has decreased since the pre-war period, and allowance for it must be made in assessing the proper payment to be demanded from the motor-transport industry.

In 1920 a Departmental Committee on the Taxation and Regulation of Road Vehicles was set up, and, following on their recommendations, the Petrol Tax was abolished, and a new scale of taxation to take effect in 1921 set up with the object of increasing the total revenue from motor taxation in order to secure the means for carrying on with the reconstruction of the roads. By the new schedule of taxation, private cars were to pay £1 per annum for each unit or fraction of a unit of horse-power, with a minimum of £6; motor-cycles were to pay £1 10s. per annum if under 200 lbs., £3 if over 200 lbs., and £4 for a combination. Hackney carriages were rated at from £15 for under 6 seats to £84 for over 32 seats in Metropolitan and special areas, and from £12 to £70 in other areas. The tax on commercial vehicles was graded from £10 on vehicles of 12 cwt. or less unladen weight to £30 for vehicles of over 4 tons.

Since the War the annual cost of roads has slowly increased. It was £29,079,000 in 1919-20, which was in some respects almost a War year so far as work on the roads is concerned, as it naturally was not possible to get into the peace-time swing again at once. In 1921-2 the cost was £42,679,000, and from that figure it increased slowly to £56,005,000 in 1925-6. This is the last year for which complete figures are available, but there is every indication that the cost has remained more or less constant since 1925-6.

In addition to the increase in the cost of road maintenance and the charges on loans raised to finance reconstruction work, there has also been a certain increase in the police force since the pre-motor era, and this has mainly been necessary to cope with the extra traffic-control work occasioned by the growth of motor traffic. The increase in Great Britain since the pre-motor era amounts to some 5,000 officers, and the annual cost of these officers is some £1,740,000. As most of this increase is undoubtedly due to increased traffic duties, it will be on the safe side to charge it up to motor transport. The account as between the motor-transport industry and the ratepayer will be dealt with more fully on a later page. Meanwhile it may be of interest to consider the taxes levied on the motoring public in the period immediately after the War.

§ 3. *Disadvantages of Petrol Tax*

The first change made in motor taxation after the War was to abolish the Petrol Tax which had been in force since 1909, and was finally abolished in

1920 on the recommendation of the Departmental Committee on the Taxation and Regulation of Road Vehicles on the grounds of :

(a) Practical operation : by reason of the difficulty of collection occasioned by the system of rebates. (This is less important, of course, with the 1928 Petrol Tax, as the only rebates allowed are for light oils used by fishing vessels and agricultural vehicles.)

(b) Principle : by reason of its failure to cover all liquid fuels used for mechanical traction.

(c) Scope : by reason of its application to imported fuel only.

This change was generally welcomed, as the Petrol Tax was not popular for a number of reasons. If it were to be considered a tax on road use as its advocates claimed, there could at best be supposed to exist only a very rough connection between this and petrol consumption. Petrol consumption tends to be high on bad roads, in bad weather, in hilly districts, and on vehicles which make frequent stops, whether through being held up in traffic or through making calls for the purpose of effecting deliveries or similar work. It is thus obvious that a petrol tax falls unduly heavily on the commercial-vehicle owner and on the man who uses his car for business.

A petrol tax also acts unfairly on the motor vehicle which has to do a large part of its mileage in urban areas. Traffic congestion necessitates frequent stopping and starting, and this involves waste of petrol. Again, broadly speaking, it is the commercial vehicle which does the greater proportion of its mileage in congested streets. The

owner of the pleasure vehicle can choose the time and place of his journeys, and naturally prefers the less congested and more picturesque rural roads. The claim of the advocates of a petrol tax that it is a tax on road use and therefore roughly on the damage each vehicle does to the roads, is particularly ill-founded in view of this fact. A strongly made urban road can stand up to a tremendous amount of traffic without appreciable damage, and the cost of its maintenance per ton-mile of traffic passing over it is therefore very low ; however, owing to the congestion and consequent blocks and stops at cross-roads, the consumption of petrol per ton-mile for vehicles running on such roads is considerably greater than under almost any other conditions. The same vehicle will consume up to 100 per cent. more petrol per mile in congested traffic than where traffic conditions are open, gradients and surfaces being the same. In effect this would mean under a petrol tax that the vehicle which has to do most of its mileage in congested roads pays up to double the amount of tax of more fortunately placed vehicles, in spite of the fact that, in so far as any relation may exist between road use and damage to the roads, the former vehicle would be doing less damage per ton-mile than the latter.

There are other factors which make a petrol tax fall too heavily on the commercial-vehicle owner. One of these is the fact that the unloaded weight of a private car is roughly 75 per cent. of its loaded weight, whereas the corresponding proportion for a commercial vehicle is 45 per cent. It is, therefore, necessary for the commercial vehicle to have a larger reserve of horse-power in relation to

its unloaded weight than the private vehicle, and the consequent difference in engine design involves lower efficiency and an extravagant petrol consumption when a commercial vehicle is running unladen.

Commercial vehicles, especially goods vehicles carrying fairly light loads, are usually more bulky in proportion to their weight than private vehicles. The greater bulkiness which is particularly noticeable in the case of box-vans causes the vehicle to offer a greater resistance to the wind and hence increases considerably the fuel consumption, but without adding in any way to the use made of the road. Heavy and compact loads are free from any such extra fuel factor. A petrol tax thus causes unfair discrimination against particular types of vehicle, and tends to hit retail shopkeepers particularly hard, since they are the chief users of the small delivery vans, which, with their relatively large surface to offer resistance to the wind, and their necessarily large mileage on congested city streets, are liable to victimisation on both scores.

§ 4. *Principles of Motor Taxation*

The motor-vehicle taxes which were imposed on the abolition of the Petrol Tax were a much fairer system and much more in line with modern principles of taxation. There are four recognised canons of taxation. A tax must be, firstly, equitable; secondly, certain, not arbitrary; thirdly, convenient in the time and manner of its payment; and, fourthly, economical in collection. It is necessary to consider the various possible ways of raising the revenue in the light of these principles. The first requisite

about a tax is that it should yield enough to be worth while collecting. Granted that, the basic principle in applying the tax should be equity of incidence, provided that an exact application along this line does not offend too obviously the principles of certainty, convenience, and economy. The difficulty begins when an attempt is made to define "equity." A good deal of difference of opinion is possible between individuals as to what constitutes "equity"; a tax levied according to the benefit received from it may, from some points of view, be considered equitable, whereas from another aspect a tax may appear equitable when it is regarded rather as a contribution by individuals towards a common expenditure according to ability to pay, or in the case of a service such as military service, according to ability to render it. The "benefit received" attitude towards taxation, practically speaking, makes taxation a form of insurance, and on the whole seems more suitable as a guiding principle in levying taxation than a contribution according to ability to pay. If motor taxes were levied according to ability to pay, they would bear too lightly on commercial motor vehicles, and too heavily on private vehicles. This would not be just, as it would in fact tend to subsidise commercial motor transport, which would be unfair to other transport interests.

Contribution according to benefit received, however, involves another difficulty, quite distinct from the very real difficulty of assessing the benefit received by any road user from the existence of a good road system. The difficulty is whether the tax should be imposed according to the benefits of

which advantage is actually taken, or according to the benefits of which advantage might be taken. Rather an interesting parallel exists in the payment for the water supply as to whether it is more equitable to pay according to the volume of water used, or according to the number of taps. There can be little doubt that the latter is the better method, since the expense consists almost entirely in having the water supply laid on. Once that is done, the cost to the supplier of the water is practically constant, whether much or little water is consumed. Similarly with the road system. The expense consists mainly in having and maintaining a road system suitable for the use of motor traffic. Given that, it makes comparatively little difference to the annual cost, as has been shown above, whether the road system be used much or little; a man who has a car doing 5,000 miles a year needs just as good a road system as a man with a car doing 15,000 miles a year. There is, therefore, no particular reason from the point of view of equity why the taxation should be made to vary with the mileage. The mileage is comparatively unimportant. It is the existence of the road system which matters. On the other hand, the owner of a heavy car certainly does need, on the whole, a costlier type of road than the owner of a light car, and, if the authorities are expected to supply a type of road suitable for heavy cars, but more expensive than would ordinarily be required by light cars, it is fair that the heavy car should be required to contribute at a higher rate than the light car.

§ 5. *Advantages of Motor Vehicle Taxes*

The motor-vehicle taxes appear to be in principle equitable, as, so far as can be judged, they are levied roughly in accordance with the costliness of the road surface required for each type of vehicle. They also fulfil the principle of certainty of incidence to a highly satisfactory extent. They are a tax which it is practically impossible to dodge, and everybody knows exactly how much they are required to pay and why they have to pay it. In this respect the motor-vehicle taxes are ideal. In the matter of economy of collection, the motor-vehicle taxes are probably superior to any other form. Economy of collection usually goes hand in hand with certainty, so that the fourth principle may be considered adequately fulfilled.

One of the chief drawbacks of the motor-vehicle taxes is in the matter of the third principle, convenience of payment. In this respect the present taxes are far from perfect. Direct taxes require the payment of a lump sum down at stated times, and this is inconvenient to most people. A petrol tax, which is the only serious alternative to the existing taxes, spreads the payment over a very large number of instalments, and so is less felt. This is the great argument in its favour.

A point which deserves special mention in favour of the motor-vehicle taxes is that, if anything, they encourage owners of private vehicles to make a full use of the roads. Motoring certainly tends to increase the sum total of happiness and health in the country, and there can be no doubt that, once a car-owner has paid his tax, he has every induce-

ment and inclination to get his money's worth. The cost of highways maintenance is not increased appreciably by his doing so. It is thus to the interest of everybody that he should do so, and that the nation as a whole should make full use of its road system.

CHAPTER IV

POST-WAR DEVELOPMENTS ON THE RAILWAYS

§ 1. *The Railways Act, 1921*

THE railways were under Government control during the War, and after the War were presented by the Government as a kind of parting present with the Railways Act of 1921. This act grouped the great majority of the railways of Great Britain into four groups, the London and North Eastern, including as its principal constituents the North Eastern Railway, the Great Central, the Great Eastern, the Great Northern, the North British, and the Great North of Scotland; the London, Midland and Scottish, of which the chief constituents were the London and North Western, the Midland, the Lancashire and Yorkshire, the Caledonian, and the Glasgow and South Western; the Southern Railway was to include the London and South Western, the London, Brighton and South Coast, the South Eastern, and the London, Dover and Chatham, and South Eastern and Chatham Railways, and the old Great Western Railway was to expand and absorb the various Welsh lines.

This was perhaps the first of the big post-war "rationalisation" movements, and in many respects it amounted to at least partial nationalisation.

The railways were put under public control in the matter of their charges through the appointment of an independent rates tribunal by the Lord Chancellor, the President of the Board of Trade, and the Minister of Transport. The function of the tribunal was broadly to decide on the reasonableness of rates or charges made by the railways, and on these lines fix standard charges. The basis of the fixing of the rates and charges is laid down in sections 58 and 59, undoubtedly the most important in the Act :

The charges to be fixed in the first instance for each amalgamated company shall be such as will, together with the other sources of revenue, in the opinion of the rates tribunal, so far as practicable yield, with efficient and economical working and management, an annual net revenue (hereinafter referred to as the standard revenue), equivalent to the aggregate net revenue in the year nineteen hundred and thirteen of the constituent companies and the subsidiary companies absorbed by the amalgamated company together with :

- (a) A sum equal to five per cent. on capital expenditure forming the basis on which interest was allowed at the end of the period during which the constituent companies and subsidiary companies were in the possession of the Government ; and
- (b) such allowance as may be necessary to remunerate adequately any additional capital which may have been raised or provided in respect of expenditure on capital account incurred since the first day of January, nineteen hundred and thirteen, and not included in the ex-

penditure referred to in the last preceding paragraph, unless it can be shown that such expenditure has not enhanced the value of the undertaking, and

- (c) such allowance as appears to the rates tribunal to be reasonable in respect of capital expenditure (not being less than twenty-five thousand pounds in the case of any work, and not being capital expenditure included in paragraph (a), on works which enhance the value of the undertaking, but which had not at the beginning of the year nineteen hundred and thirteen become fully remunerative :

Provided that, in determining the sum which charges will, with efficient and economic working and management, yield, the tribunal shall, with a view to encouraging the taking of early steps for effecting economies in working and management expenses rendered possible by or in anticipation of amalgamation, take into consideration the economies effected by such steps already taken, and shall make such allowance in respect thereof as the tribunal may consider fair and equitable to an amount not exceeding thirty-three and one-third per cent. of such economies.

The rates tribunal shall review the standard charges and exceptional charges of each amalgamated company at the end of the first complete financial year after the appointed day, or, if the appointed day is the first day of January in any year, at the end of that year, and, unless directions are given by the Minister to the contrary in manner herein-after appearing, at the end of each succeeding year, and the review shall be made on the experience of the operation of those charges for the period during which the standard charges have been in operation, or, if that period is more than three years, then on

the experience of the operation of those charges during the preceding three years.

If on any such review the rates tribunal find that the net revenue or the average annual net revenue obtained, or which could, with efficient and economic management, have been obtained, by the company during the period on the experience of which the review is based, is substantially in excess of the standard revenue of the company, with such allowance (if any) as appears to the tribunal necessary to remunerate adequately any additional capital which may have been raised or provided in respect of expenditure on capital account incurred since the date upon which the standard charges were fixed in the first instance, the tribunal shall, unless they are of opinion that owing to change in circumstances the excess is not likely to continue, modify all or any of the standard charges and make a corresponding general modification of the exceptional charges of the company so as to effect a reduction of the net revenue of the company in subsequent years to an extent equivalent to eighty per cent. of such excess:

Provided that the tribunal in making such modifications as aforesaid as respects one amalgamated company shall, so far as practicable, avoid making such modifications as would be likely to affect prejudicially the financial position of any other railway company.

If on any such review the rates tribunal find that the net revenue or the average annual net revenue obtained by the company during the period on the experience of which the review is based is less than the standard revenue of the company, with such allowance (if any) as appears to the tribunal necessary to remunerate adequately any additional capital which may have been raised or provided in respect of expenditure on capital account incurred since the date on which the standard charges were

fixed in the first instance, and that the deficiency is not due to lack of efficiency or economy in the management, the tribunal shall, unless in their opinion owing to change of circumstances the deficiency is not likely to continue, make such modifications in all or any of the standard charges and such a corresponding general modification of the exceptional charges of the company as they may think necessary to enable the company to earn the standard revenue with such allowance (if any) as aforesaid.

Further provisions were made in the Third Schedule to the Act with regard to Officers and Servants of the amalgamated railway companies of not less than five years' standing. Section 1 made every employee of each company absorbed automatically an employee of the amalgamated company, but the amalgamation obviously made many posts redundant, and Section 2 of the Third Schedule laid down that :

The amalgamated company may abolish the office or situation of any existing officer or servant which they deem unnecessary, and any existing officer or servant required to perform duties such as are not analogous or which are an unreasonable addition to those which as an officer or servant of the company from whom he was transferred he was required to perform may relinquish his office or situation.

However, any economies in staff which might have been rendered possible by the amalgamation, were made quite out of the question by Section 3 of the Third Schedule :

No existing officer or servant so transferred shall, without his consent, be by reason of his

transfer in any worse position in respect to the conditions of his service as a whole (including tenure of office, remuneration, gratuities, pension, superannuation, sick fund or any benefits or allowances whether obtaining legally or by customary practice of the constituent or subsidiary company) as compared with the conditions of service formerly obtaining with respect to him.

The Railways Act of 1921 undoubtedly did the country good service by bringing about the beginning of a much-needed rationalisation and amalgamation of the railways, but nevertheless as shown above it contained some exceedingly foolish provisions. In the first place with regard to staff, and particularly administrative and managerial staff, it prevented economies being obtained by making the railways continue to carry large numbers of comparatively well-paid "passengers" who had formerly held good positions in the constituent companies. These people are still a problem, as the railways have long suffered from a tendency to overman and underwork the managerial positions compared with commercial firms. America has shown us that most of the economies of rationalisation come from a reduction of staff, but on account of the vested interest and organised voting-power of the British railway staffs such economies were not even attempted by the 1921 Act.

Even less defensible than this were the provisions which have been outlined above with regard to the standard revenue. A commercial firm has to keep abreast of the time because it maintains or increases its profits by doing so, and if it does not do so its profits diminish. The Railways by Sections 58

and 59 of the Act are given very little motive to improve on the standards of efficiency of the year 1921. If they effect economies and improvements on the 1921 standards, only a small part of the increased profits so obtained may be retained by them, and the rest have to be passed on to the public by means of lower standard charges ; if, on the other hand, they maintain the 1921 standard of efficiency, and, owing to various circumstances find their revenue falling below the standard revenue, as, for instance, because their competitors prefer a more up-to-date standard of efficiency than that prevailing in 1921, then they are permitted to put up their charges on such traffic as is left to them and so maintain their standard revenue.

These provisions are unwise and reactionary to an extreme degree. They were based on the assumption that there were to be no major changes in the economic organisation of the country after the year 1921, and created a vested interest of railwaymen, railway managers, and railway shareholders by attempting to stabilise the position as it then was. It would have been as foolish to attempt to stabilise the canals and stage-coaches 100 years ago. The economic system changes continually with every improvement in technique and organisation. The railways obtained a position of great power and influence, amounting almost to a monopoly, after the decline of the canals and before the rise of motor transport. The framers of the 1921 Act apparently were under the impression that their importance in the national life would remain at about the same level. Subsequent events showed that they were mistaken. Motor transport has proved itself better

than rail transport for certain kinds of work, and its sphere is extending almost daily. While railway technique remains more or less constant or at least progresses very slowly, the technique of motor transport is making rapid strides and its importance in the national life is advancing accordingly. In this connection nothing could be more significant than the effect on the life of the community of the railway stoppage in September 1919 and the stoppage during the General Strike in May 1926, and motor transport has made great strides since May 1926, and to a large extent because of May 1926, just as the post-war boom in motor transport was undoubtedly accelerated by the railway strike in 1919, and the important part the motor was able to play even then.

The Railways Act of 1921 outlines an entirely wrong policy with regard to the railways. The problem of the present and the next decade is not how to maintain the *status quo* on the railways, but how best to transfer from rail to road those traffics which, from the point of view of the nation as an economic unit, can most efficiently be carried by road, and how to put the railways on their feet and in a position to make reasonable profits on the remainder of the traffic which it is in the interests of the nation to send by rail. It is obvious that, as the sphere of the railways is reduced, so their expenses, staffs, and capitalisation must be correspondingly reduced without fear or favour. Where possible the staffs must, of course, be retrained and found posts in the motor-transport industry and its ancillary trades. This, unfortunately, is not at all what is happening.

§ 2. *Overstaffing of Railways*

The amalgamations outlined in the 1921 Act were put into effect during the following year, and the main provisions of the Act came into effect as from 1st January 1923. The following Table shows the number of staff employed by the railways from 1922 :

31st March.					Total Rly. Employees in Great Britain.
1922	.	.	.	.	676,802
1923	.	.	.	.	681,778
1924	.	.	.	.	700,573
1925	.	.	.	.	702,062
1926	.	.	.	.	689,264
1927	.	.	.	.	683,077
1928	.	.	.	.	677,148

These figures most certainly do not indicate that substantial reductions are being made in railway staffs. There has been a small reduction since 1925, but in 1928 the figure was still above the 1922 level, and this small reduction seems to have been brought about by the railways ceasing to recruit labour rather than by cutting out dead wood. This is not good policy ; it means in effect that a man has to be employed to do a boy's work at a man's wage, which is not business. It also slows down promotion for the younger men on account of the large number of elderly men of mediocre ability who remain in the service while fresh blood is no longer being brought in. When an industry adopts this procedure the average age of its employees increases. This is expensive, as the older men require salaries which are relatively high compared with the duties they are expected to perform, duties which could be performed equally well by younger men for a smaller remunera-

tion. Motor transport, on the other hand, is helped by the young average age of the people it employs. This makes the industry both flexible and progressive.

§ 3. *Decline of Railway Traffic*

There is no doubt at all that there has been an immense increase in the travel-habit since the years before the War, but in spite of the wide-scale reductions in fares by granting cheap fares, in many cases at only half the pre-war charges, and excursion tickets to meet competition and encourage people to travel by rail, the railways have not been able to get their share of the increased passenger traffic, and during the past few years have clearly been losing ground as is shown by the following figures, quoted from *The Times* of 24th November 1928 :

TOTAL NUMBER OF PASSENGER JOURNEYS (ooo)

	1913.	1923.	1924.	1925.	1926. ¹	1927.
First Class .	88,212	101,225	95,220	91,534	81,444	78,905
Second Class .	56,456	48,350	32,925	32,091	29,648	29,135
Third Class .	1,405,032	1,622,191	1,618,109	1,619,762	1,430,787	1,542,973
Total .	1,549,790	1,771,767	1,746,854	1,743,318	1,541,879	1,651,013

¹ General Strike and Coal Stoppage.

This shows that the number of passenger journeys has been steadily declining in the past five years, more particularly first and second-class passengers. The railways appear to attribute this to the increase in the number of private cars, but are probably wrong. Private cars now go down the social scale far below first-class railway travelling, and have

done so for some years, so that this consideration scarcely applies. The real reason is probably the increase in the travel-habit. Taking all means of transport into account, people travel much more and much oftener now than they did a few years ago ; in consequence they naturally wish to travel as cheaply as possible on each journey and therefore do not use the more expensive classes.

There has undoubtedly been a decline in mineral traffic since before the War ; this traffic is not much affected by motor transport, and the chief reason for its decline is that the world demand for coal is less now than it formerly was on account of economies being effected in coal consumption by improved technical processes, and the use of substitutes such as oil, electricity produced by water-power and lignite. The figures are given by *The Times* as follows :—

TONS OF MINERAL TRAFFIC CARRIED
(ooo's omitted)

	1913.	1923.	1924.	1925.	1926. ¹	1927.
Fuel .	225,601	222,234	209,160	193,661	114,098	199,306
Other Minerals	71,067	6,0522	65,392	62,549	48,059	65,486
Total .	296,668	284,286	274,552	256,210	162,157	264,792

¹ General Strike and Coal Stoppage.

Most difficult of all is to gauge the true position with regard to general merchandise, but this traffic is probably increasing in total as technical improvements continue to be made and the total number of people employed to go up. As transport facilities

increase, and, so far as motor transport is concerned, become cheaper, and as an ever-increasing proportion of the output of the country's manufacturing industry consists of high-class goods, it is probable that the amount of general merchandise traffic involved in the production of every ton of finished goods tends to increase, so that the production index of manufactured goods is not much guide as an index to the amount of goods transport being done in the country. The railway figure for general merchandise has, however, according to *The Times* article referred to above, remained approximately constant during the past five years at a figure well below the pre-war level, from which it may be presumed that their share of the traffic is decreasing:

TONS OF GENERAL MERCHANDISE CARRIED
(ooo's omitted)

	1913.	1923.	1924.	1925.	1926.1	1927.
General						
Merchandise .	67,755	58,979	60,943	59,739	53,439	60,567

¹ General Strike and Coal Stoppage.

CHAPTER V

THE INCREASING BURDEN ON MOTOR TRANSPORT

§ 1. *New Taxation on Motor Transport*

THE tendency during the past year or two has been to put an increasing burden on the motor-transport industry. The rate of taxation on the larger classes of hackney carriage and most classes of commercial-goods vehicles was heavily increased as from the beginning of 1927 by the Finance Act of 1926. The tax on hackney carriages, the previous maximum for which had been £84, was raised to £120 for vehicles with a seating capacity of 64 persons, with an additional £1 10s. for each person in excess of 64. Commercial vehicles were subjected to a higher all-round rate of taxation reaching £26 for a 1-ton vehicle, £40 for a 2-tonner, £48 for a 3-tonner, £54 for a 4-tonner, and £60 for a 5-tonner.

In 1928, following a rapid decline in the price of motor spirit, a petrol tax was reintroduced at the rate of 4d. per gallon, estimated to yield in the first full year of its working £13,600,000. This in effect meant increasing the taxation of motor transport by over 50 per cent., even after making allowances for a few modifications which were made in the motor-vehicle taxes at the same time. To compensate road-transport interests to some extent, the petrol tax was accompanied by a slight reduction in

the rate of taxation for most classes of motor hackneys with seating capacities of not more than eight persons, and of commercial vehicles not exceeding 2 tons, to take effect from January 1929. Thus the tax on a four-seater motor hackney was reduced from £15 to £10, and on an eight-seater from £15 to £12, while the tax on a 1-ton commercial goods vehicle was reduced from £16 to £15, on a 1½-ton vehicle from £26 to £20, and on a 2-ton vehicle from £26 to £25. Hackney carriages seating over eight persons, and commercial-goods vehicles of more than 2 tons unladen weight, were allowed a rebate of 20 per cent. on the tax payable, provided they were fitted with pneumatic tyres.

§ 2. Annual Road Costs in Relation to Motor Taxation

The public may fairly expect the motor-transport industry to pay for the increased cost of roads necessitated through its requirements, and it has already been shown that for the post-war period this means any expenditure in excess of £27,000,000 per year, the sum necessary nowadays to maintain the roads at the standard at which they were maintained in the pre-motor period of 1903-10, at a cost then of £15,000,000 per year. Any tax levied on motor transport in excess of the figure thus obtained is an unfair victimisation of a particular industry. Motors must pay for the roads they need, just as railways must pay for the permanent way they need, but it is no more just to put a special punitive tax on motor vehicles than it would be to put one on railway rolling stock.

The actual position with regard to Motor Taxation

ERRATUM

N.B.—The deficit shown in the last column of the Table on page 57 corresponds, of course, to the deficit in expenditure on roads during the War years; vide page 58.

The figure for "Excess Cost chargeable to Motor Transport" for 1920-1 in the third column of the Table should read as £6,679,000.

	Actual Annual Cost of Roads.	Cost of Maintaining Roads on Pre-Motor Standard.	Excess Cost Chargeable to Motor Transport in Respect of Roads.	Excess Cost Chargeable to Motor Transport in Respect of Police.	Total Excess Cost Chargeable to Motor Transport.	Motor Taxation in Relation to Road Costs.		Total Taxes on Motor Transport.	Payment by Motor Transport Industry Compared with Excess Cost of Roads and Police.
						Motor Vehicle Taxes.	Petrol Tax.		
1920-1 ¹	£ 42,679,000	£ 36,000,000	£ 16,679,000	£ 1,750,000	£ 8,429,000	£ 7,775,000	£ 2,559,000	£ 10,334,000	£ 1,905,000 Excess
1921-2	46,681,000	27,000,000	19,681,000	1,750,000	21,431,000	11,220,000	—	11,220,000	10,211,000 Deficit
1922-3	46,476,000	27,000,000	19,476,000	1,750,000	21,226,000	12,584,000	—	12,584,000	8,642,000 ..
1923-4	47,591,000	27,000,000	20,591,000	1,750,000	22,341,000	14,628,000	—	14,628,000	7,713,000 ..
1924-5	52,914,000	27,000,000	25,914,000	1,750,000	27,664,000	16,485,000	—	16,485,000	11,179,000 ..
1925-6	56,005,000	27,000,000	29,005,000	1,750,000	30,755,000	18,056,000	—	18,056,000	12,699,000 ..
1926-7	56,000,000 (Estd.)	27,000,000	29,000,000	1,750,000	30,750,000	21,393,000	—	21,393,000	9,357,000 ..
1927-8	56,000,000 (Estd.)	27,000,000	29,000,000	1,750,000	30,750,000	24,518,000	—	24,518,000	6,232,000 ..
1928-9	56,000,000 (Estd.)	27,000,000	29,000,000	1,750,000	30,750,000	25,964,000 (Estd.)	13,600,000	39,564,000	8,814,000 Excess

¹ In this, the year of maximum inflation, the index figure of road costs was some 140% above the pre-war figure.

since 1920, when the highway authorities really began to make good the arrears of work left over from the War, has been as shown on the Table on page 57.

The excess cost of police was arrived at by multiplying the number of additional constables required since the pre-motor era, 5,000, by the present average total cost of a policeman, £343 per annum. Between 1921-2 and 1927-8 the motor-transport industry was apparently failing to make good the increased cost of roads over and above the pre-motor level of expenditure, but this is due to the fact that between 1914-15 and 1919-20 the roads had been neglected, and the making up of arrears did not really begin until 1921-2.

The cost of roads just before the War, during the War, and just after the War was as follows :

	Actual Cost of Roads.	Cost of Roads Adjusted to Post-War (1925) Price-Level.	Deficit on 1919-24 Level of Expenditure. (in terms of Post-War Price-Level)
	£.	£	£
1913-14 . .	18,585,402	30,468,000	—
1914-15 . .	18,832,582	24,780,000	5,688,000
1915-16 . .	17,167,473	18,263,000	12,205,000
1916-17 . .	15,937,610	13,739,000	16,729,000
1917-18 . .	16,336,987	12,996,000	17,472,000
1918-19 . .	17,242,554	13,471,000	16,997,000
1919-20 . .	29,079,139	19,516,000	10,952,000

In terms of post-war costs there was thus a total deficit of over £80,000,000 in the amount spent on road work during the War. The other Table shows that between 1920 and 1928 there was a net deficit of just over £64,000,000 in the amount contributed towards the increased cost of roads by the motor-transport industry. It is thus seen that there is no case whatever for saying that motor transport was

subsidised during this period. On the contrary, the alleged amount of the subsidy, £64,000,000, is some £16,000,000 less than the saving effected through the neglect of the roads during the War. This is a point of great importance, as there has been a good deal of propaganda since the War to the effect that motor transport, a rapidly growing industry, was being subsidised out of the rates. It is true that not the whole of the sums levied from the motor-transport industry was applied to expenditure on roads. In 1925-6 £10,500,000 was diverted to the National Exchequer, in fact stolen, in 1926-7 £16,000,000 and in 1927-8 £4,400,000. In 1928-9 the £13,600,000 raised by the Petrol Tax was applied to the relief of rates under the De-rating Bill, and the Exchequer also took a share of the Motor Vehicle Tax revenue. It is a fact that the sums which were diverted from motor taxes had to be made good out of the rates, but what was happening was clearly not that the ratepayers were subsidising motor transport, but that they were indirectly subsidising the Central Government!

Had the Petrol Tax not been reimposed in 1928, there can be no doubt that the steady rise in receipts from the Motor Vehicle Taxes would in a year or two have covered the full increase in road costs since the pre-motor period; this would certainly have taken place before the £80,000,000 deficit of the War years had been wiped out, and the motor-transport industry, if it kept up its rapid rate of increase, would have been able to look forward to a gradual reduction in taxation after that point had been reached, since the principle on which its taxes were levied was that they should equal the total

increase in road costs caused by motor transport, because road costs tend to increase very slowly if at all under present conditions, and there is every indication that the expansion of motor transport will continue for some years more.

§ 3. *Excessive Motor Taxation*

The actual course of events unfortunately did not follow the lines of equity. The motor-transport and ancillary industries have been one of the few bright spots in British industry since the War. They have had a hard fight for their present position, motor transport itself against the railways, and motor vehicle and tyre manufacturing against rival foreign firms, but they have come through the ordeal strong and fairly prosperous. The picture of a prosperous industry proved too much for the Chancellor of the Exchequer in the 1928 Budget, and he imposed a tax of 4*d.* a gallon on imported petrol. This had the effect of increasing the taxation burden on the motor-transport industry by more than 50 per cent., and of making the proceeds of the various taxes on motor transport shoot up for the year 1928-9 to nearly £9,000,000 more than the increased annual cost of roads.

From the point of view of equity this position is absolutely indefensible. From the point of view of public policy it is even worse. Great Britain has, thanks to the post-war growth of motor traffic, the best transport facilities in the world, and a healthy competition between road and rail has ensured not only that they are the best, but also that they are not too costly for the public. The exceptionally good transport facilities offered at

the present time have made possible the rapid development of many small luxury trades, especially trades needing expensive containers and packing, for transport by rail, more particularly in the South and Midlands. These trades have been encouraged and in many cases owe their existence to the extraordinarily good transport facilities provided by motor transport. They are trades of the greatest value to the national life, in so far as it is to them that the nation looks for relief of the unemployment problem. They have been expanding rapidly since the War, and their prosperity, fostered by and in some cases due to the motor transport industry, has done much to lessen the gloom of depression which overhangs the old staple industries of the country which were dependent mainly on rail transport.

The imposition of extra burdens on the motor-transport industry with a view to making it pay more than its share of the cost of roads is peculiarly unjust, since the extra burden to be borne by the road-transport industry is to be used to relieve the rates on the buildings, etc., of concerns employing manual labour. The railways *inter alia* are to be relieved of at least £4,000,000 of their rates and possibly a good deal more according to some estimates, and the sum of which they are to be relieved is to be utilised for subsidising certain classes of their traffic emanating from the heavy industries by allowing them rebates on the freight charges they would otherwise have to pay. This is, of course, to the advantage of the railways, which are able to subsidise and therefore, presumably, increase certain of their traffics at the expense largely of the motor-

transport industry, who are to provide the where-withal for the subsidy. In fact, to put the matter bluntly, the railways and particularly the heavy industries are being subsidised by the motor-transport industry.

§ 4. *Justice of Railways contributing to Rates*

It has been the fashion of the railways to bemoan their lot because the rates paid by them were partly highway rates, and it has been calculated that as much as £1,600,000 of the rates paid by the railways were used for highways maintenance. Since the Government's plans for de-rating were announced there has been no further propaganda to this effect, as the argument is inapplicable to the present position. It was formerly, however, a very favourite argument of the railway propagandists, but even then was without justification. £1,600,000 is only about 3 per cent. of the annual cost of roads, and there are few concerns in the country more interested in a good road system than the railways. Railways do not themselves transport goods actually between the places between which they are to travel (except in the case of private sidings), but between the stations nearest to those places. They thus always use the roads for the first and last part of the process of transportation, from the point of dispatch to the station, and from the station to the point of destination. They are, therefore, as interested as anyone in the country that the road system, and especially the roads up to stations, which are often not used except for railway traffic and passengers, should be maintained at a high standard. The railway companies are very great operators of

horse vehicles, of which they own nearly 30,000, and on which they pay practically no tax, although these vehicles are one of the chief causes of urban traffic congestion and ought to be taxed heavily. The railway contribution of £1,600,000 per annum towards the cost of the roads was a very reasonable payment for the benefit to themselves of a good road system. In view of their own very extensive road activities with untaxed horse vehicles and the big mileage of public roads which are used principally for getting to and from railway property, they seem even to have been let off rather lightly in respect of the contribution they used to make towards the cost of the roads.

§ 5. *Dangers of Ignorant Interference with Economic System*

Since the War the railways have, for various reasons which will be considered later, found themselves in a much poorer and weaker position than they were in before the War. It is, of course, natural and right to sympathise with them in their misfortunes, but if sympathy be allowed to go to the length of an artificial hindrance of their competitors and subsidising of themselves, grave harm may be done to the body politic. The country is undoubtedly undergoing a kind of industrial revolution in order to adjust itself to the much more difficult conditions prevalent since the War. Before the War Great Britain relied on her export trade to purchase the food and raw materials she imported, and, with the exception of one raw material, coal, for which there was a brisk and growing demand abroad, her exports consisted of manufactured goods, especially cotton

and woollen yarns and cloth, iron and steel goods and machinery, and ships. Great Britain's assets were her geographical position, early start in the industrial revolution, and plentiful and cheap coal. These are not to-day of such importance as they were. Other countries have gone ahead with their manufacturing processes and no longer need to import the products of our staple industries in the same quantities as before the War. East Central and Eastern Europe are still too poor to do so even if they wished. Coal is less important economically than it was before the War ; new processes are being discovered for economising in its use, and it has found powerful rivals in oil, water-power, and lignite.

Since the War there has had to be a change in the nature of the country's production for the simple reason that it has not been possible to find markets for the products of the old staple industries. A greater proportion of the country's brains and resources has had to be devoted to the problems of finance, commerce, and distribution, activities which have been accompanied by a considerable degree of success owing to the stability shown by the London Money Market during the War, and especially during the post-war fever of inflation which attacked the more important countries on the Continent.

There has also been a development of the smaller so-called luxury industries, partly, certainly to cater for the needs of the home market. There has, moreover, since pre-war days been a change in the direction of family expenditures. Less is spent proportionately on houses and servants, and families are smaller. Much more, however, is spent on what were formerly considered luxuries—cars, gramo-

phones, cinemas, tobacco, chocolates, silk stockings, etc. This is due in some measure to the middle-class woman's entrance into paid occupations, and probably even more to changing tastes and ideals. A larger part of the growth of the new industries than is generally supposed is nevertheless due to an expansion in the export of luxury products to the non-European markets. While Europe was at war the non-European countries were experimenting in mass production and improving their manufacturing technique in the staple industries, with the result that Great Britain was largely cut out of her former markets after the War. The increasing wealth of the non-European countries, however, made it possible to sell to them an increasing amount of luxury articles, for the manufacture of which their mass production plants are unfitted. In the European market Great Britain has, on a percentage basis, lost less of her staple industry products trade, but, as this market is still impoverished, the total has contracted compared with pre-war days, which makes it cold comfort to know that on a percentage basis British trade is not losing ground. This market is on the whole too poor to buy British-made luxury products.

The change in the direction of British industry which has been sketched above has been helped enormously by the transport facilities which have been available since motor transport became an established industry. The energies of our Governments ought rather to be directed towards expediting the change than towards hindering it in the supposed interests of the older industries. Any attempt unduly to burden motor transport, and thus to check the

development of the new industries with the object of bolstering up and subsidising the railways and the old industries, is bound to delay the process of adjusting the industrial system to post-war conditions, and will inevitably react undesirably on the problem of unemployment. The best help for the unemployed in the mining and heavy industries is to facilitate their transfer to the more prosperous industries rather than to encourage them to hang on in misery to the older and declining industries by subsidies and other artificial means. The rapidity with which the adjustment has been taking place already under natural conditions, without unduly penalising one set of interests by additional motor taxes or subsidising another, may be judged from the fact that between 1923 and 1928 the number of insured workers in the South-Eastern area, the area where so many of the new industries are springing up, increased by no less than 18·4 per cent., against an average increase over the whole country of only 6·1 per cent.

CHAPTER VI

ROAD-POWERS FOR RAILWAYS

§ 1. *Railways and De-rating*

WHILE the motor-transport industry has been steadily burdened with heavier and heavier taxes, the railways have been very successful in their attempts to reduce the burden upon them. During the last year or two their propaganda has been constantly harping on the heavy rates they have to pay to subsidise motor transport. Their total rates are some £8,000,000 per year, of which roughly £1,600,000 goes towards highway rates, and, when the provisions of the De-rating Bill come into force in 1929, they will be relieved of the greater part of this; the amount thus gained by them will come out of the pockets of the motor-transport industry via the Petrol Tax. The sum of which they will be relieved is to be devoted to subsidising and therefore increasing certain of their heavy traffics. The rebates allowed to such traffics will be considerable, 10 per cent. for agricultural traffics, 10 per cent. on pit props, 10 per cent. on ores and minerals delivered to blast furnaces, puddling furnaces, steel furnaces, and rolling mills, 30 per cent. on exported coal, and 25 per cent. on coal delivered to iron and steel works.

The railways had used their alleged heavy rating as a principal reason for being permitted to run road

services ; their intensive and successful propaganda campaign on this subject is still fresh in the public memory. It is a somewhat curious piece of irony that they should have been relieved of their rates as soon as they had obtained Parliamentary sanction for running road services.

It was shown on an earlier page that the present problem is not how to maintain the *status quo* on the railways, but how best to transfer from rail to road those traffics which, from the point of view of the nation as an economic unit, can most efficiently be carried by road, and how to put the railways on their feet and in a position to make reasonable profits on the remainder of the traffic which it is in the best interests of the nation to send by rail. The railways have failed to make appreciable reductions in their staffs since 1922 ; the railwaymen have been strong enough to maintain unimpaired, with the exception of a brief lapse immediately after the General Strike in May 1926, their guaranteed week of 48 hours, and, except for a temporary voluntary cut of 2½ per cent. in 1928, their relatively high wage-level, fixed in the post-war boom period. In view of stationary or falling traffics and cuts in passenger fares the railway position has become each year less sound, and, in the hope of improving it, they agitated for and obtained general power to run road services in August 1928.

§ 2. *First Railway Application for Road Powers*

The running of road services by railways, especially passenger road services, is not really such a new development as might be supposed. Such services have been operated here and there since 1903, and the Great Western in particular have been running

omnibus services quite unconnected with their trains for years in many parts of the West Country. Two of the constituent companies of the London and North Eastern Railway, the Great Eastern and the Great North of Scotland, have also been running omnibus services with full Parliamentary sanction on certain specified routes.

Soon after the War the question of the railways obtaining road powers was again brought up, and in 1922 the London, Midland and Scottish Railway introduced a Bill to give themselves road powers, and a Parliamentary Committee reported in their favour, but public opinion in general was opposed to the claim of the L.M.S. to be allowed to run motor services. The Parliamentary Committee on the Road Conveyance of goods by Railway Companies, however, reported in favour of permitting the railways, subject to certain restrictions, to engage in business as road carriers; they appear to have been much impressed by the disaster which would be suffered by the country if the railways, with their £1,300,000,000 capital, were ruined by competition from motor transport. The railways based their claim on their supposed right, as ratepayers, to run road services. In spite of the findings of the Committee, the Railways Roads Bill was withdrawn in June 1922, on the advice of the Ministry of Transport.

The reasons for the opposition to the railways varied among different sections of the community. The Local Government authorities expressed fear that the Bill would facilitate a railway monopoly of transport; the Federation of British Industries considered that the railways would do better to confine themselves to their own business, and that

their road services would be likely to be inefficient ; the Farmers' Union, the Co-operative Wholesale Society, several of the most important Chambers of Commerce, and many manufacturers' associations all opposed the railways' claim before the Select Committee of the House of Commons broadly on the grounds that a healthy competition between road and rail was to the interests of the trading community.

Another factor of importance in the withdrawal of the Bill was that the L.M.S. was acting alone without previously having come to an agreement on the course of action to be taken with the other groups, and that the support of the L.M.S. Bill by the other railways was under the circumstances less whole-hearted than it might otherwise have been.

§ 3. *Railway (Road Transport) Act, 1928*

In 1928, at the end of an intensive campaign, the four large groups obtained powers subject to various limitations to :—

provide, own, work and use road vehicles to be drawn or moved by animal, electrical or mechanical power in any district to which access is afforded by the system of the Company or the system of any railway committee owning or operating a railway on which committee the Company is represented and may by means of such vehicles convey by road passengers and passengers' luggage, parcels and merchandise.

There was widespread opposition to the passing of this Bill, coming mainly from the same sources as the opposition to the 1922 Bill, but on the whole it was

less violent, as the general railway situation was worse in 1928 than in 1922 and the position of motor transport correspondingly stronger. The opposition was to some extent routine and organised rather with the object of ensuring that the railways' road powers were suitably limited than of preventing such a development altogether. There was far less fear of a railway monopoly of transport in 1928 than in 1922.

The Railway (Road Transport) Act, 1928, is by far the most significant of recent developments in the transport situation. It constitutes the first official admission by the railways that its rival, the motor-transport industry, is more efficient for certain purposes than the railways, and we may expect that, if the railways do not use their powers unfairly to strangle motor competition, which in any case would be an extremely difficult task to-day, it will result in a further transference of traffic from rail to road, albeit to railway-owned road vehicles. The railways are apparently trying to solve the problem of increasing or at least maintaining their traffic and finding sufficient work for their redundant staffs, which have escaped the severe post-war pruning of the German and Italian railway staffs, by changing from railway companies to general operators of transport services. Their hope is that the diminution in the sphere of railways proper which it was pointed out would be in the best interests of the nation will be made up for by the expansion of their motor-transport interests, in fact that they will "gain on the swings what they lose on the roundabouts."

§ 4. *Railway Road Powers and the Public*

There are, however, grave dangers to the public in allowing the railways to run road services except under careful supervision. So far as passenger work is concerned the country is in most parts adequately provided with 'bus services, and it is, therefore, useless as a general rule from the point of view of the public to allow the railways to run services on routes which already have them. To allow them to buy out the present owners is also risky, since it again gives the railways local monopolies which are undesirable. The extreme size of the railway groups and their consequent somewhat cumbersome organisation tends to make inevitable a rather narrow and bureaucratic outlook, like a huge Government department, and, on account of the magnitude of the operations involved, and the vast extent of country over which they are spread, a considerable amount of red-tape is the natural result. Road services must in the nature of the case be more elastic than rail services, and the operators of them should show a certain willingness to make experiments and take risks which is very foreign to the bureaucratic temperament of our semi-nationalised railways.

The difficulty with an organisation like that of the railways is to combine centralisation of control with decentralisation of operation. Centralisation of control is necessary for a railway, but it means that changes come slowly. A subordinate has to make reports and convince superiors and committees interminably before anything is done,

With a stabilised and stationary industry such as railway transport this does not matter very much, but it would stop all initiative and advance in a new and progressive industry such as motor transport, and especially the carriage of passengers by road-motors. The effect on the country as a whole would be serious. The steady expansion and progress in the motor-transport industry is doing much to relieve the problem of unemployment, is increasing the amenities of life for all classes, and is providing the country with the best transport facilities in the world, which are nevertheless still improving. These are playing an enormous part in making possible the development of new industries to take the place of the old staple industries, and any attempt by the railways to stop or set back the clock will be fraught with danger, as it will make it increasingly difficult to maintain our standard of life in the face of world-competition. It is not so much that the railways will deliberately refrain from expanding their road services, but the railway managers, prejudiced as they are already in favour of railway as against road transport, are not likely to explore the possibilities of road transport with anything like the same enthusiasm as people interested primarily in the subject, and, from the nature of their habits and training on the railways, will find it difficult to adapt themselves to the enterprising, original, experimental frame of mind which managers of road-transport undertakings are trained and accustomed to show,

§ 5. *Proper Use of Railway-Owned Road Transport*

There is undoubtedly a large section of transport work which can best be accomplished by a combination of railway for one part of the journey and road for the other, and it is precisely in work of this kind that a railway-owned road service would be useful owing to the obvious advantage of having only one authority responsible for the whole of the transport service rendered. There is, of course, already a considerable amount of road-transport work performed by railway companies in the direction of collecting and delivering goods to and from their stations, but the railways certainly seem to have been handicapped through having always to carry the goods by rail between the stations nearest to the point of collection and the point of delivery instead of being permitted to ignore small stations and do the work at big central depots in the large towns, making use of road vehicles to transport goods and passengers to and from such depots.

The railways were constructed in the days of horse traffic, and their lay-out and general method of working are thus by no means ideal under conditions of motor traffic. As trains can only be run on the track, it is obvious that, except in the relatively rare conditions of firms possessing private railway sidings, the first and last part of the journey must in all cases be done by road, and in fact always has been by road. When horse transport was the most efficient known method of road transport, the effective radius for operating collection and delivery services by horse vehicle was not more than three or four miles, and hence railway stations were planted

every mile or two along the line in far greater numbers than are necessary under modern conditions of mechanical road transport. The railways continue to keep all these stations open and operate horse-transport collection and delivery services from them, whereas, now that a motor vehicle has an effective radius for collection and delivery work at least four times as great as that of a horse vehicle, these stations are clearly no longer necessary under a proper railway organisation. The loading and unloading should be concentrated at the larger stations, and the collection and delivery work for quite a large area performed by motor vehicles operated from the large stations. The railways certainly have the right to demand that the law should keep abreast of technical conditions and that they should not have their natural and logical development, in view of the improved efficiency of road transport, hampered by laws and regulations based on a set of conditions in the transport world which are no longer applicable at the present time.

One of the effects of the artificial limitation of the railways' sphere of collection and delivery work has been the retention of horse vehicles by the railway companies to an extraordinary extent. Owing to the present system of taxation these are economical enough to operate where the distances from which goods have to be collected and to which they have to be delivered are not more than a mile or two, but are nevertheless a great nuisance in the towns from the point of view of traffic congestion.

If it were made a clear policy for the railways to reorganise on these lines and centralise their work at a comparatively small number of large depots

where fleets of motor vehicles were kept primarily for collection and delivery work, it might also be economical for them to undertake transport work entirely by road for fairly short distances, as this could quite easily be worked in with their collecting and delivering without appreciable extra expense. It is not desirable, however, that the railways should be encouraged to undertake long-distance hauls by road all the way, as this work is even now being catered for by an overcrowded market of transport contractors, and it would be to the interest neither of the railways themselves nor of the contractors to enter a branch of work where the margin of profit is at present so low.

There is also a very good case for the closing of branch-lines by the railways, and possibly in some cases for reopening them as motor roads. The idea has much to recommend it. Signalling and station staffs could be dispensed with. Such a scheme should be a success wherever it was possible to send mineral traffic, except such as was destined for local consumption along a branch-line, by an alternative route. Better results, however, will probably be obtained by the closing of small intermediate stations which are no longer really necessary on the main lines.

Particularly pernicious, however, is the idea that it will be possible by direct Government interference to mark out exactly what business shall be done by the railways and what by road-transport interests, in order to eliminate the "wasteful competition" in which the rival forms of transport are said to be indulging. It is doubtful if the public would benefit much from this. The efforts of the railway

companies would be directed towards stopping the decline in their traffic, and "pegging" the position as it is at present. The reason for the decline in railway traffic is that the public and trading community are better served by motor transport, and hence it would obviously be against the general interest to attempt to compel them to use the form of transport which was affording them the less efficient service. It may be doubted whether at this stage it would be possible to stop the drift from rail to road by outside intervention, and the eagerness displayed by the railways in agitating for their road powers seems to constitute a virtual admission that their own branch of transport is now antiquated and unsuitable in many cases for modern conditions. A further transfer of traffic from rail to road is only to be expected in view of the greatly improved efficiency of road vehicles and the relatively stationary position of the railways so far as technical improvements are concerned, and will continue so long as the one is progressive and the other stationary.

The danger of a transport monopoly in the strict sense of the word is probably not very great, although the railways may greatly increase their influence by buying up transport undertakings. The road is free to all, and, so long as it remains so, a monopoly of road transport is as inconceivable as a monopoly of shipping, and for the same reasons. In the case of shipping anybody is free to try to get a monopoly who can, and several of the great lines attempt it by means of "conferences" and rebates to loyal shippers, but nevertheless the tramp steamer continues to flourish side by side with the great shipping

lines for the very good reason that it does not require much capital to purchase a small vessel, anybody is free to do it, and the sea is open and free to all-comers. A monopoly of road transport without the help of the law would be much more difficult to establish on account of the almost insignificantly small amount of capital required to set up in business.

CHAPTER VII

ECONOMICS OF ROAD AND RAIL TRANSPORT

§ 1. *Road and Rail at First Complementary*

THE development of road transport as the most important rival of the railways has been one of extraordinary rapidity, and has profoundly modified the position of the railways in the national economy. From the decline of the canal as an effective competitor of the railway in the middle of the nineteenth century until the beginning of the development of road transport at the end of the first decade of the twentieth century, the railways enjoyed a virtual monopoly of inland transport in Great Britain. Even in the earlier years of road transport they were not affected, and at first tended to view its development sympathetically, considering that motor vehicles would prove useful feeders to themselves. It was not until a year or two after the War that the full strength of motor transport as a challenger of the railway monopoly became apparent. Various circumstances contributed to this. There was immediately after the War a great boom in motor transport, and the number of vehicles increased rapidly. At the same time the tonnage carried by the railways began to show a tendency to contract, largely on account of the post-war trade depression which set in in 1921, and this was parti-

cularly marked in the heavy industries ; these were the industries which had expanded the most rapidly during the War, and which provided relatively the greatest demand for transport facilities. The smaller industries, engaged in making products of relatively high value and small bulk, were more and more attracted by the advantages of motor transport, which, although at that time somewhat more expensive on the whole than rail transport, nevertheless, at any rate over fairly short distances, offered a better and quicker service than the railways, a fact which was much appreciated by industries in which transport charges only formed a small proportion of the total costs.

The British railway system differs from that of other countries in being peculiarly adapted to the quick transport of high-class goods, within limits regardless of the cost. This is precisely the type of business for which motor transport is the most suitable, so it is not surprising that the competition between road and rail transport has been more acute, and the growth of the former at the expense of the latter more marked in Great Britain than in most other countries. In the United States, for example, the major part of the freight business of the railway is to transport bulky goods cheaply for long distances. A railway is on the whole better fitted to do this than a motor-lorry, and hence the transfer of business from rail to road has been less marked in the States than here, and the development of commercial vehicles proportionately to private vehicles less than here. In a country where the distances are as great as in the United States the road vehicle tends to specialise on the suburban

delivery work for each city, but, except in a few of the older and more thickly settled districts, is comparatively seldom used for inter-urban transport of goods, and, of course, still less for transcontinental transport. The railway is at its best with very long-distance work, since here the high average speed maintained by the freight-trains, the huge tonnage carried on each train, and the resultant economy in fuel and in staff, are to be seen to their greatest advantage.

During and immediately after the War there was a general opinion that road and railway were complementary, and that each would find its sphere of usefulness and take its place in the national economy without detriment to the other. It was thought that the roads would act as feeders to the railways, and that, although they might take a small amount of short-distance traffic from the railways, this would be more than made good by the new business brought in their capacity of feeders, and anyway that it was in the general interest that such short-distance traffic should go by road. On account of its supposed greater expense it was thought that the competition, such as it was, would be restricted to a few high-class goods. At first there was some reason for this point of view. Horse-drawn vehicles had always acted as feeders only, except for hauls between neighbouring towns in densely populated areas like Lancashire and the West Riding. Old habits are notoriously persistent, and there is no doubt that a sufficiently large number of firms replaced their horses by motors, but still used the railways for hauls of more than a few miles out of habit rather than as a result of careful consideration of the advantages of rail transport, to give colour

to the theory that road and rail were destined to be complementary. They certainly are complementary rather than competitive in countries where distances are great, such as the United States outside the Eastern industrial areas.

§ 2. *Cheapness versus Good Service*

By 1922 it became clear that, so far as Great Britain was concerned, the roads were far more competitors of the railways than complementary to them, and were in fact dangerous competitors; subsequent years have more than justified this view, and it is doubtful whether in Great Britain anybody now regards road and rail transport as anything but competitive. The earlier, and, as it proved, mistaken opinion was due to several misapprehensions on the part of those who held it as to what constituted the real nature of the problem of transport. They supposed the cost of transport to be more important for goods traffic than actually is the case, and the service rendered less important, and, on the other hand, they utterly failed to appreciate the all-important factor of cost for most passenger traffic, and apparently overlooked the fact that, if travelling is made pleasant, people travelling for pleasure do not mind if it is not very rapid. The facts are that a large proportion of the goods traffic in Great Britain compared with elsewhere consists of valuable articles taking up little space. As the transport costs included in the cost of production of such articles are negligible compared to their total cost of production, a small extra charge in return for a more convenient service is not objected to. If the motor vehicle is in a position to offer that service,

it will obtain the business within limits irrespective of the charge it makes for the service ; for business of this kind a competition which concentrates on offering lower rates is not likely to be of avail.

For the transport of bulkier products, where long distances are involved, the cost is a much more important consideration. It has been estimated that transport costs constitute forty per cent. of the total costs of production of the United States Steel Corporation. Obviously a difference of ten per cent. more or less in a rate of a concern of this kind will determine by which method a commodity shall be transported, but the proportion of British industry in any way comparable with this is very small indeed. Over a large part of British industry effective competition must concentrate on the efficiency and punctuality of the service provided, and this to an even greater extent than in the past, as the whole trend of modern development is to pay increasing attention to the problem of distribution rather than of production. Given products of equal quality, the market will be won by the concern which has at its disposal the better system of distribution, which means generally the one which studies the convenience of its customers.

Passenger traffic, on the other hand, is very sensitive to changes in the cost of transport, yet here the railways have tended to compete in the past too much in speed and too little in cheapness. The development of excursion traffic, generally speaking, would appear to contradict this, but, apart from that, changes have only been made in the way of allowing special reduced rates in relatively few cases apart from recent special rates to meet 'bus

competition. In the pre-war days, when motor competition was not important, the proportion of goods traffic carried at exceptional rates below the standard rates was estimated at nearly seventy-five per cent. The proportion of passenger traffic, other than season-ticket traffic, carried at special fares below standard fares was nothing like so high.

§ 3. *The Impact of Motor Transport on the Railways*

The sphere in which the motor vehicle was expected to be useful was that of short-distance traffic and high-class goods. In Great Britain, however, there is little traffic which is not, comparatively speaking, "short-distance," and, except for the transport of minerals, of which coal, the most important, may be in the future less in need of transportation services than it is at present, if an increasing proportion is to be utilised for the manufacture of electricity at the pit-head, a very large part of the goods traffic of Great Britain is of high-class goods. The average railway haul is approximately sixty miles, and, as the distance over which motor transport is potentially effective is at least 150 miles, it is clear that the proportion of the higher class traffic which is definitely non-competitive is not very considerable. The sustained fall since 1922 in the cost of motor vehicles, the cost of petrol, and repair and garage charges has also materially reduced running costs; the result of this is that relatively low-grade goods, formerly supposed to be within the exclusive sphere of the railways, can now be transported economically by motor. The range over which active competition

is possible has been widened, with the inevitable result that the railways have lost heavily to the roads in their goods traffic, especially the better paying section of it, but any decline in mineral traffic is to be attributed rather to the bad state of the coal and heavy industries. The motor-transport interests have found it more profitable to attempt to get the better-paying traffic, and in any case the whole transport system at collieries has been organised with a view to loading the coal into railway trucks in private sidings.

Even more striking than the loss of goods traffic to the roads has been the loss of passenger traffic. This may be attributed partly to the growth in the number of private cars, and partly to the development of omnibus and charabanc services, and has hit the municipal tramways of most towns to an even greater extent than the railways. The competition in goods traffic is in point of time the older, as it is only since about 1924 that the motor has made a real bid for anything but short-distance passenger traffic, with the exception, of course, of the seaside charabancs.

§ 4. *The Essential Problem of Transport*

Passenger transport is essentially a different problem from goods transport. In the case of goods transport, the position is that there is a certain quantity of commodities to be moved to various destinations. An increase in the cost of transport may slightly diminish the quantity of goods to be transported by increasing the cost of production a little, and by encouraging merchants to obtain their supplies from the nearest point of production

rather than from the factory producing the most suitable goods. A decrease in the cost of transport may, by causing a small fall in production costs, slightly increase the quantity of goods requiring transportation, but, in the main, the quantity of goods for which transport facilities are demanded is quite outside the control of the parties undertaking the service of transportation, being dependent principally on factors such as the state of trade in general and the prevalence or otherwise of strikes and lock-outs.

The amount of goods requiring transportation, which for practical purposes may be considered a fixed quantity, may either be carried by rail or by rival methods of transport. If it is not carried by rail it represents an irretrievable loss to the railways. Thus, suppose there are one hundred units of commodities requiring transportation. If thirty-five of these units are carried by road, then clearly not more than sixty-five can be carried by rail. The one hundred may be regarded as a constant quantity, or at any rate its magnitude is outside the control of both the railways and the roads, so that, whereas in the pre-motor days of the railway monopoly the railways would have obtained the whole one hundred units, they now have to share this with the roads. Any expansion of motor transport at a faster rate than the growth in the amount of commodities requiring transportation must necessarily inflict an irreparable loss on the railways because the demand for goods transport is relatively inelastic, and only grows slowly from year to year, actually diminishing in times of trade depression, more especially in the heavy

industries. An expansion of one form of goods-transportation service, if it be at a greater rate than this very slow rate of increase in the demand for transport facilities for goods, which is probably only slightly faster than the rate of general increase in trade, can only be at the expense of the competitive services. This applies to road, rail, and canal interests alike.

As against this inelasticity of demand which is characteristic of the goods-transport problem, the demand for passenger transport, on the other hand, is highly elastic. Passenger transport may be divided roughly into two classes, people travelling for business and people travelling for pleasure. The demand for pleasure-transport facilities tends to be more elastic than the demand for business-transport facilities, but both are much more elastic than the demand for goods transport. Hence the value of advertisements as a means of fostering the growth of the travel habit. It is the business of the party or parties interested in selling the transport service to persuade the business man to "go there and see it for himself" rather than write or 'phone about it, and to persuade the pleasure-seeker that he will obtain better value if he travels about, takes his holidays, and seeks his amusements farther afield rather than stays at home, neither of them particularly difficult tasks. It should, therefore, be possible for passenger traffic to expand almost indefinitely, and, in theory at least, for both the railway and the road transport interests to show increases in passenger traffic. The exact opposite is the case in goods traffic, but, as a matter of fact, the railways show decreases in all classes of passenger

business except season-ticket suburban passengers and excursions.

This is to be accounted for largely by the huge increase in omnibus services, which cover an enormous network of country. In the rural districts the omnibus has proved a great boon, since the 'buses usually run through the main street of the village, thus saving a walk to the station often a mile or two distant. The 'bus carries its passengers as nearly as possible between the actual points between which they desire to travel, and is stopped when required for the convenience, perhaps, of a single passenger. The railway train at best carries its passengers between the stations nearest to the points between which they wish to travel, and often the stations are not very close to these points. The 'buses also run at fares very much below what the railway fares were on the same route before a competitive 'bus service was instituted, and usually at little more than the special cheap fares introduced by the railways as a means of combating road competition. For rural services the 'bus has the advantage over the railway train of running as a smaller unit, thus eliminating a good deal of the waste involved through running passenger trains with an insufficient complement of passengers. For inter-urban services the 'bus company has the advantage of being able to give a more frequent service than can usually be offered by the railway.

§ 5. *Co-ordination of Road and Rail*

The steady drift of much of the best paying traffic from rail to road has made the railways anxious as to just what proportion of their traffic they are likely

to lose, and has brought a demand for the " co-ordination " of road and rail transport. This demand comes almost exclusively from the railway companies. The road transport interests are for their part suspicious of the intentions of the railway companies, and, as it has been put, fear that co-operation between themselves and the railways will be too much like the co-operation between Jonah and the whale. The example of the canals bought up and throttled by the railways two generations ago has been quoted, and perhaps somewhat groundless fears expressed lest motor transport should meet with the same fate.

The first practical move made by the railways was their application for road powers which was granted by Parliament in August 1928. It is too early yet to predict exactly what the results of this will be. If a large part of the road transport passed into the hands of the railway companies, it would certainly tend to strengthen the power of the railway unions and make the position of the general public worse in time of strikes, but in the view of the enormous number of private vehicles now licensed, and the increasing number of trade vehicles operated by private firms not in the transport business, the possible disorganising effect on the community's life of a transport strike is likely to become less and less as the number of privately owned vehicles increases.

The other danger pointed out is that, if we relied too exclusively on road transport, in time of war the life of the nation might be unduly disorganised through the cutting off of supplies of imported fuel, whereas railways use only home-produced coal. This is certainly a danger, but, in connection with it, it must

be said that the life of the nation would be quite impossible, if we lost control of our lines of communication, on account of the shortage of food, but that, if we retained command of the sea, it would be as easy to import petrol as wheat. In any case the country is always carrying a stock of petrol equivalent to from three to six months' consumption, whereas the supply of imported food is on an average barely six weeks' consumption, so that the food shortage would be acute some time before road transport began to suffer from a shortage of fuel.

CHAPTER VIII

EFFECT OF EXCESSIVE TAXATION

§ 1. *Economics of Motor Manufacturing Industry*

THE scale of taxation for motor transport is decidedly heavier in Great Britain than it is in any of her industrial rivals. This is not denied even by those interests which are opposed to motor transport, but the usual defence is that the motor-transport industry has no real case because British roads are maintained at so high a standard compared with Continental roads that the saving in wear and tear on tyres and the lower rate of depreciation of the vehicle through its smoother running under British conditions counterbalance the heavier rate of taxation. This is not altogether true ; British roads can be maintained at a higher level than Continental roads, not only because the rate of taxation per vehicle is heavier, but also and much more because the number of vehicles per mile of road is greater.

In 1928 the British motor transport industry was paying, as was shown above, nearly £9,000,000 more than the increased cost of roads due to the coming of motor vehicles on to the roads. This is bound to react adversely both on the prosperity of commercial-motor transport and on the increase in the consumption of private cars, and therefore on the motor-manufacturing industry directly, as the heavy rate of taxation is one of the main considerations which

prevent people from owning cars who otherwise might consider it. In any case the use of a private car for pleasure is strictly limited in European countries, since only a small part of the population can afford to take part in this form of recreation. There were in 1928 some 877,000 cars registered in Great Britain ; on the assumption that each of these represents a family, it would appear that only some 8 per cent. of the population can indulge in motoring in private cars owned in their own families, but, as a matter of fact, when allowance has been made for families with more than one car and for commercial travellers who do not use their cars for pleasure purposes, the proportion of persons included in the category of private motorists and their families probably falls to something like 6 per cent. at the most of the whole population.

The ownership of a car is to-day an ambition with by far the greater number of people in the income classes anywhere near the car-income level. In order to increase the consumption of cars one of two things must happen, either, with the cost of motoring at its present level, the number of incomes above the car-income class must be increased, or the cost of buying and running a car must be so reduced that the minimum car-income, if such an idea be permissible, comes considerably lower down the social scale. The first of these alternatives, that of a considerable increase in the number of persons in the higher income classes, is not likely to take place in the next few years. If it should occur at all, it will be a long-period tendency, and of little importance from the short-period view-point of the motor manufacturers.

The second alternative is a reduction in the cost of motoring sufficiently great to reduce the minimum car-income level. As saturation point is approached every effort is being made to bring down the minimum car-income by making motoring cheaper, and the taxes constitute an important part of the cost of motoring. This is based on sound enough reasons; in order to reach the lower income categories it is necessary to offer a cheap car. To construct a cheap car mass production is necessary, and this can only operate successfully when the market catered for is large and preferably expanding. As soon as production falls off, manufacturing costs will go up and the rate of decline will thereby be made progressive. In America the Ford group of industries have attempted to solve this problem by reducing prices every time the demand began to fall off, and so, by bringing down the minimum car-income still lower, to tap new income layers and bring them into the ranks of potential car-owners and thereby keep up their production. Something of this kind is bound to happen in Europe in the next year or two, and perhaps even now is appearing in a modified form, but at present the tendency is rather to try to ensure expansion of production by exporting the surplus of cars, than to attempt to obtain the same results by flooding the home market.

In view of the relatively high income at present required to place a person in the class of potential car-owners, a figure which makes car-owning an impossibility for more than 90 per cent. of the population of European countries, it is clear that development of the export trade only offers a temporary solution of the problem of maintaining an increasing

or even a stationary level of production of private cars. Sooner or later one of two possibilities will become inevitable. Either production will fall off, prices rise, and car-owning become more expensive and so rarer, or prices and motoring costs must be still further reduced. The most obvious of these to tackle is the cost of taxation, which, along with the heavy insurance premiums and high garage costs, proves one of the most serious obstacles to the reduction in the cost of motoring. The extent to which the market is already saturated and the difficulty which the manufacturers will have to keep up their rate of production may be judged from the following table, which was prepared by the Society of Motor Manufacturers and Traders to demonstrate the position :

APPROXIMATE DISTRIBUTION OF BRITISH INCOMES,
1927

Over £2,000 per annum	93,000
£1,500—£2,000 per annum	47,000
£1,000—£1,500 per annum	106,000
£900—£1,000 per annum	40,000
£800—£900 per annum	49,000
£700—£800 " "	63,000
£600—£700 " "	79,000
£500—£600 " "	116,000
£400—£500 " "	193,000
£300—£400 " "	401,000
£250—£300 " "	444,000
£200—£250 " "	811,000

From the above it is clear that the farther down the scale the car-income has moved, the greater is the number of potential car-owners who can be called into existence by a still further small reduction in the hypothetical minimum car-income. Thus a reduction of the minimum car-income from £700 to £600 increases the potential market by 79,000 ; a further

reduction to £500 brings an increase in the market of 116,000 ; a cut which makes a car a possibility for the £400 a year man brings in a possible additional 193,000 motorists, while a change in motoring costs sufficiently revolutionary to bring down the car-income to £300 a year would further increase the potential market by 401,000.

The expansion of the car-manufacturing industry in this country must nevertheless be very limited. As the lower incomes are reached the tendency becomes progressively greater to spend the surplus over the bare necessities of life on other things rather than cars. This is being and will be combated by intensive advertising and high-pressure salesmanship as in America, and, as is generally admitted, it is certainly a fact that there has been in response a change-over of middle-class expenditure from other things to cars. Equally important is the fact that at the lower levels the motor-cycle becomes a serious competitor of the light car.

The British motor industry, along with the motor industries of France, Italy, and Canada, has been suffering in the export trade from American competition. The European firms suffer on the whole because they are not large enough to take full advantage of the economies of mass-production. The British firms in particular run the risk of losing still more if they have to contract their production as saturation is reached. There were in 1927 786,000 incomes over £400 a year and 877,000 private cars. It is obvious that motoring costs must be substantially reduced if this number is to expand very much ; in any case it cannot expand for much longer, but the larger the total number of cars

licensed in Great Britain (which, of course, depends on costs), the larger will be the number of replacements each year, and thus the larger will be the scale of production on which it will be possible to organise the British motor industry. Without a large and steady home demand it will be impossible to organise a prosperous export business in motor-cars. The export business is, of course, still very large, but it is not expanding as it should. In 1925 Great Britain exported 19.0 per cent. of her total production of motor vehicles, in 1926 18.3 per cent., and in 1927 17.1 per cent. The corresponding figures of the United States for the three years were 3.9 per cent., 7.2 per cent., and 11.3 per cent. respectively. The percentage of the world's export trade in motor vehicles done by Great Britain was 6.5 per cent. in 1926, 6.3 per cent. in 1927, and 4.7 per cent. in the first half of 1928, while the United States showed steady improvement from 60.3 per cent. in 1926 to 68.3 per cent. in 1927, and 76.9 per cent. in the first half of 1928.

§ 2. *Heavy Taxation as a Check to Development*

In the Appendix a comparison is made of the comparative rates of motor taxation in Great Britain, France, Germany, Italy, and the United States. These figures show clearly the heavy burden on the British motor industry compared with Great Britain's principal commercial rivals. It is difficult to see just what is the aim of the legislators responsible for this state of affairs. The earlier motor taxes were always justified on the ground that the money was necessary in order to pay for the increased cost of roads. The present taxes cannot be justified

on these grounds, because they already yield nearly £9,000,000 more than the increased cost of roads due to motor transport.

Taxes are like import duties which may have one of two objects, either to raise the maximum revenue possible, or else to hamper and if possible kill the foreign industry which supplies the goods imported. It is permissible to wonder whether the object of the present excessive motor taxation is to raise the maximum revenue possible or to check the expansion of the motor industry, which, as it moves towards saturation point, becomes more and more sensitive to costs. On 1st January, 1928, there were 802,000 private cars in Great Britain and 671,000 in France, the population of Great Britain being slightly greater than that of France at the time, so that relatively there was very little difference in the development of motoring in the two countries. According to the *International Labour Review*, in 1928, if the level of real wages in London be taken as 100, the level in Paris was 56. If this represents anything like the general ratio of real income in the two countries, it is clear that, on an income basis, the development of motoring is much more advanced in France with its low level of taxation for light cars, the class amongst which any future increase must be sought. If the object of the Chancellor of the Exchequer were both to raise revenue and to take the long view, it is obvious that he would obtain the maximum revenue by encouraging the motor-car to reach the same income levels in Great Britain as in France and the United States, and this can only be done by a reduction in costs. As has already been shown, motoring corresponds

to-day to the £400 a year income level, but there are 401,000 incomes between £300 and £400. Apparently, however, it is thought more desirable to limit the expansion of motor transport and also the total amount of taxes raised from it for reasons best understood no doubt by the Chancellor of the Exchequer.

The amount of taxation levied from motor vehicles is exceptionally excessive in the case of commercial vehicles and more especially the heavier types, especially in view of the fact that the Petrol Tax is claimed to be a tax made roughly according to the wear and tear inflicted on the roads. It is a matter of common observation that the proportion of commercial vehicles is highest in the towns, where, owing to traffic congestion, the petrol consumption is very high, and, owing to the tendency mentioned above, for maintenance costs to rise much more slowly than ton-mileage, the road costs per ton-mile passing over them are particularly low, and that the proportion of private vehicles is highest in the country where petrol consumption is low, but where the cost of roads is very high per ton-mile, on account of the comparatively small number of vehicles over which a large amount of wear and tear due to natural conditions, such as frost, rain, and excessive heat, has to be spread.

As Great Britain is a small and densely populated country, and the number of vehicles to contribute to each mile of road to be maintained is therefore high, it would naturally be expected that the rate of motor taxation would be much lower than in countries where these conditions do not obtain. In the case of Great Britain, with her highly special-

ised industrial organisation for the manufacture of finished goods, it is of primary importance that motor transport should be better developed than in countries turning out bulky goods in large quantities, and, to secure better development, cheapness is essential.

§ 3. *Traffic Congestion and Saturation Point for Motor Vehicles*

It is possible that the heavy taxation of motor transport under the circumstances in Great Britain may have been with the object of checking expansion in order to limit congestion. It has even been suggested that a natural limit will be set by increasing congestion on the continued growth of motor traffic. There is, however, no evidence of widespread traffic congestion ; if all the motor vehicles registered in Great Britain, private and commercial, and all the motor-cycles were put on the road at the same time, there would be less than 12 vehicles per mile of road. Traffic congestion is confined to certain streets of the big towns at certain hours of the day ; outside the towns it does not exist.

In the country there is no reason to expect congestion to be a factor in slowing down the increase in the number of motor vehicles. The causes which are likely to operate in this are different for different classes of motor vehicle. For private cars there is obviously a limit placed by income on the number of people able to afford to run them, and therefore on the potential market in any country, but this limit will depend, of course, on the cost of motoring at any particular time, and will vary as the cost tends to increase or decrease, and as the

number of incomes above the car-income level increases or decreases with the state of trade and the growth or decline in the population.

The income factor is less important in the case of motor-cycles, as the number of people theoretically able to afford them is always likely to be a good deal larger than the number of people actually owning them. The great majority of people with incomes large enough or nearly large enough to enable them to afford a car either have one or would like to have one, but probably a majority of the people able to afford a motor-cycle have no ambition whatever to do so.

For motor hackneys there is evidence that saturation point is already in sight, taking the class as a whole. At any rate the increase of this class in numbers since 1924 has been negligible. Within this class motor-omnibuses are expanding rapidly, but this increase is being fully counterbalanced by the decrease in the number of vehicles kept for hire, which, in turn, is due to the increase in the proportion of the people owning private cars.

The probable expansion in the numbers of commercial goods motor vehicles is the most difficult of all to forecast with any degree of accuracy. Theoretically it would appear only to be limited by the amount of goods to be transported, the possibility of moving along the roads to perform the service of transporting them, and the relative cheapness of running costs, as the prime consideration in determining the allocation of the traffic between the roads and the railways.

§ 4. *Organisation to Prevent Unjust Taxation*

The natural expansion of the motor industry which is necessary for the prosperity of the country will be checked and hindered and the country suffer accordingly, so long as the industry is penalised on account of its lack of organisation and present inability to present a united front and state a plain case, by being compelled to pay nearly £9,000,000 a year, and the amount will increase, in taxation for which no justification can be found, and the proceeds of which will be utilised to subsidise the industry's competitors. The older transport industries are well supported in Parliament and the Press and can make their voices heard when necessary, and their views listened to with respect and consideration. It is nobody's business to speak for the motor-transport industry, and, so long as this is the case, nobody will speak for it with any degree of authority. Under present conditions it is unable to gain an adequate hearing in the Press and probably also in Parliament. The Press are not to be blamed for partiality in this respect, because they have no one permanent organisation representative of motor-transport interests with which to deal, and the various societies representative of special sections of the industry, although occasionally united in the face of a threat to the industry, usually oppose each other, sometimes with bitterness, on minor points and side-issues, so that the Press and the Public may be forgiven for not knowing that motor transport has a strong case, and is now suffering from unjustifiable impositions in order to subsidise its competitors, impositions which

are far larger and more iniquitous than any of the payments the railways are making in respect of rates. The railways made these payments the basis of their propaganda and indignant appeals to the public. They based their claim to run road services on the fact that they were paying large sums in highway rates. On the strength of this claim they were first allowed to run their own motor services, and next were promptly relieved of their rates. This shows the value of properly organised propaganda. The lack of it on the part of the motor-transport interests is already costing the industry nearly £9,000,000 a year against the former railway contribution to the highway rates of some £1,600,000 a year, and is likely to cost considerably more in the future, the amount increasing annually.

When Governments require funds they go to the unorganised and take them. The organised are left alone. This principle is morally indefensible but practically sound, and politicians, who as a class are notoriously cowardly and like to follow the line of least resistance, observe it assiduously. The treatment of motor transport in recent years is a glaring instance of this. Somewhat similar in its injustice was the treatment of property-owners during the War, who at that time had no organisation powerful enough to secure them justice when the Government embarked on a deliberate policy of inflation, but instead of allowing rents to rise along with the price-level, wages, salaries, and profits, artificially kept them down to the nominal pre-war level, although money had depreciated in value to half of what it had been then; in fact, they compelled property-owners to

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subsidise tenants out of their own pockets in order not to offend the extremists, and this against the advice of every economist consulted, a fact which has a very direct bearing on the Post-War Housing Problem. Similarly no economist would advise the artificial check placed on the expansion of motor transport, which bears directly on the Unemployment Problem, but organisation as well as a good case is necessary in order to secure justice.

CHAPTER IX

MOTOR TRANSPORT AND THE UNEMPLOYMENT PROBLEM

§ 1. *Demand for Labour*

MOTOR transport has come to play an enormous part in the national economy, and is now one of the leading industries. A very large part of the transport business of the country is done by road, although it is impossible to give an exact estimate of it on account of the large number of separate undertakings involved, many of which are not engaged in transport as a business, and also of the private motorists who are not in business at all. Hence, unlike rail transport, there are and probably at present can be no adequate statistics to show the work done by road transport.

The expansion of the motor-transport industry has been of immense benefit to the country from the point of view of the unemployment problem. The tendency in general since the industrial revolution has been for every technical improvement to result in a lessened demand for labour to turn out the same quantity of work, but motor transport has proved an exception to this rule. The small size of the transport unit in the motor-transport industry involves a very considerable employment of

intelligent semi-skilled labour, of which the supply in the country is very great ; for the amount of transport work done, the amount of labour employed is far greater than on the railways ; this is because the railways have in the past spent an enormous amount of capital and labour on the construction of their permanent way, stations, and plant, but the maintenance of their properties and the running of their services does not involve much labour by comparison. For the running of motor vehicles and their cleaning and repair there is a steady day-to-day demand for large numbers of work-people, and even with their permanent way, the roads, maintenance work is a comparatively heavy annual charge as against the work involved in their construction.

The present tendency is towards "rationalisation" in industry ; this means that in all branches of industry combines are being formed and amalgamations taking place with a view to reducing costs and improving organisation. From the point of view of unemployment this is unfortunate, as one of the economies brought by "rationalisation" is to increase production without increasing staffs, or even to obtain an increase in production concurrently with an actual decrease in staff. The effect of improved machinery has also been to increase the output per worker, and the general effect in highly industrialised nations such as Great Britain or the United States is for the increase in population to go entirely into motor transport, distribution of various kinds, and personal and professional services, while the numbers employed in agriculture, mining, and industry either remain constant or decline.

§ 2. *Change in Occupations of Working Population*

In Great Britain there was an increase in the number of insured persons employed of 645,000 between July 1923 and July 1928, but of this figure 327,000 represented the increase in the number of persons employed in distribution; this total includes a large number of transport workers employed by firms engaged in distributive work; 50,000 is the increase in people employed directly in road transport, and 43,000 in motor-vehicle manufacture. If the increase in the number employed in building (100,000) and in various services such as hotels (56,000) and laundries (23,000) be taken into account, it will be seen that the number employed in industry proper, transport other than road transport, and mining combined remained approximately constant over the period. The number of persons entering paid occupations each year is still in excess of the number retiring or dying, and industry properly speaking does not at present seem capable of absorbing the increase which largely finds its way into motor transport, either directly, or indirectly to the motor fleets of the firms engaged in distribution. Building has during the last year slowed down and is now ceasing to absorb the rising generation to a much greater extent than is necessary to make good the industry's losses by death and retirement. Hence it is necessary to look to personal and distributive services (including transport) of various kinds for help in solving the unemployment question.

The example of America would suggest that the problem of unemployment is not solely one of bad trade. There the position is that the volume of

production of the agricultural, mining, and manufacturing industries is increasing rapidly each year, but owing to "rationalisation," mass production, improved machinery and technique, and better all-round organisation, the number of people employed in the more obviously productive occupations tends to fall steadily, and the American unemployment problem in a nutshell consists of the interval between workpeople leaving the so-called productive industries and finding positions in distribution and services of various kinds. Distribution and especially motor transport there as here is employing a growing proportion of the working population. The problem of production is no longer of major importance, and under modern conditions tends to be overshadowed by the problem of distribution. Standardised goods can be produced very cheaply, as modern transport conditions make it possible to-day to work for a very large market. The difficulty is to find the market, develop it by means of a first-class system of distribution and judicious advertising, and then hold it against competitors; of primary importance in this task is the convenience of the system of distribution to the customers.

§ 3. *Old and New Industries*

It will be appreciated from this that it is an exceedingly dangerous experiment on the part of the Government to tax the motor-transport industry, as shown on an earlier page, to the extent of nearly £9,000,000 a year more than their share of the annual cost of roads, by means of the Petrol Tax. They are undoubtedly doing this with the

object of relieving the old staple industries through the De-Rating Bill. In fact, however, they are succeeding only in helping the heavy industries as the textile districts will not benefit much under the Bill which favours districts with high birth-rates. The mining and heavy industry districts have high birth-rates, but the textile districts have not.

The question of unemployment is undoubtedly the most pressing problem of the day, and the policy of all political parties is said to have the object of mitigating it. Nevertheless it remains with periodical fluctuations at anything from 1,000,000 to 1,250,000; it must be remembered, however, that the number employed increased in five years by 645,000 and the number unemployed remained roughly constant. It cannot be said that the Government have been conspicuously successful in solving the unemployment question; they are not to be blamed for that as other Governments would have been equally unsuccessful. The point is that no Government as such can solve the riddle of unemployment; it will only be solved by the natural growth and expansion of industries and services giving employment, whether under a Capitalist or a Socialist system makes no difference at all. No responsible person of any party wishes to see the industries and services of the country do anything but prosper and expand, and it may safely be assumed that any Government which could bring prosperity would do so; unfortunately no Government can do this. All they can do is remove all hindrances to industries setting themselves on their feet; whether the industries are run by so-called private enterprise

or by Socialist corporations does not affect the question. They can only prosper and expand through the actions of whoever controls them.

§ 4. *Bad Effect of Subsidies*

A Government which taxes an industry unfairly, far from removing hindrances to its development, is putting them in its way. The £9,000,000 odd per annum charged to motor transport in this country for the sake of subsidising the heavy industries is preventing the industry from expanding in the way in which it would otherwise expand, and is therefore causing it to find less employment than it would if it were not unjustly burdened. The justification claimed for this is that the heavy industries will find more employment and so make up for any loss suffered elsewhere, but it is doubtful if even under such circumstances any really appreciable recovery in the heavy industries will take place. Subsidising the coal export trade will not be very helpful, as it will only lead, as so often before, to retaliatory measures by other coal-producing countries, and the net result will be that the world price of coal will go down and nobody be much better off. The total market for coal outside America, as already explained, is not so large as it was. Instead of fighting to get a larger share of a smaller total market by subsidies and starvation-wages for miners, it would be more useful to spend a little more on research with a view to finding other uses for coal and coal by-products and so increase the total markets. Meanwhile the immediate problem is not artificially to buttress up a languishing industry by subsidies, but to make it as easy as possible for the miners to leave the coal trade

and find employment in trades which are expanding, and to allow the expanding industries to expand as fast as they can under natural conditions.

The engineering, iron and steel, and ship-building industries will also be helped by the de-rating. These are industries which were artificially inflated during the War by the demand for munitions and ships, and which before the War also had been rather inflated by the piling up of armaments. These industries have been contracting since the War, which is only to be expected. The shipyards, for instance, increased their already inflated capacity by 115 per cent. during the War, and obviously this does not represent a peace-time level of production. Between 1923 and 1928 the number of people employed in general and marine engineering, iron and steel, and shipbuilding declined by 202,000, most of the decline taking place in the first year or two. The number employed in coal-mining fell by 128,000. It is at the least very doubtful whether the employment given by these industries will be permanently increased by the De-Rating Bill. There is much less doubt about the fact that the additional and unfair taxation imposed on the motor-transport industry in the form of a petrol tax of 4*d.* a gallon is having the effect of hindering the natural growth, and hence the employment afforded by that industry.

In addition to the direct motor-transport industry which has been created, partly, it is true, at the expense of horse and rail transport, but, to a far greater extent, to cater for a demand for transport facilities which were non-existent before its time, several important subsidiary industries have been brought into being, thanks to its growth. Of these

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the most important is, of course, the manufacture of cars and commercial vehicles.

§ 5. *Employment Provided by Motor Transport*

At the Census of Production in 1907, the annual number of cars and commercial vehicles manufactured was 12,000 ; at the time of the 1924 Census it was 132,000, valued at over £40,000,000, of which 105,500 were cars and 26,500 commercial vehicles, and there has been a steady and well-maintained expansion since then ; for 1927 the total production was 209,000, of which 157,000 were cars and 52,000 commercial vehicles ; the development in the past few years in commercial-vehicle manufacture, in which Great Britain shows a marked superiority, has been particularly noticeable. In addition to cars and commercial vehicles there is an annual production of upwards of 120,000 motor-cycles ; the rate of increase for this figure is small and not nearly so great as the rate of increase for cars. For 1924 it was estimated at the Census of Production that the value of repair work done to motor-cars and commercial motor vehicles was approximately £12,000,000, and of parts and accessories manufactured £16,500,000.

The number of persons employed in the United Kingdom in the construction and repair of road motor vehicles, exclusive of motor-cycles, and in the manufacture of parts, tyres, and accessories was 34,000 in 1907 when the first Census of Production was held, and 219,000 at the time of the second Census of Production in 1924. In 1927 it was 257,000, and, as the average weekly earnings were

80/7½, the total wages bill of this army amounted to over £1,000,000 a week.

Other industries which have been called into being by the growth of motor transport are the refining and distribution of motor spirit and motor oils, the production of road materials, and the garage industry for retailing spirit, oil, spare parts, accessories, and tyres to the motoring public, for undertaking minor repairs, and, to a certain extent, for housing motor vehicles. It is impossible to do more than make an estimate of the numbers employed in these three classes, but probably not less than 40,000 persons were employed in the transport, refining, and distribution of oil in the British Isles in 1928, probably another 60,000 in garages in addition to persons already included as engaged in the manufacture and repair of motor vehicles, and perhaps 25,000 in the production and distribution of road materials.

In the summer of 1928 there were 294,000 commercial motor vehicles licensed of which 9,000 were steam wagons and some 53,000 vehicles over 4 tons ; if it be assumed that 260,000 of these were always in operation, it might be taken that 200,000 of them employed one man each and 60,000 two men each, making the total employment afforded directly by commercial goods vehicles 320,000. There were at the same time 93,000 hackney carriages, including 30,000 omnibuses and charabancs. The employment afforded by the 'buses is probably 50,000 per year, as many of them carry two shifts of two men each, and possibly 60,000 per year. The remaining vehicles, including taxis and cars for private hire, probably do not afford regular employment for much more than 20,000 people. It would perhaps be fair

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to take 80,000 as the traffic staff involved in the road passenger transport industry. Below is given an estimate of the employment given directly and indirectly by the motor-transport industry in 1928 :

Direct Employment

Commercial Goods Transport	320,000
Passenger Goods Transport—Traffic Staffs	80,000
Passenger Goods Transport—Depot Staffs	20,000
Chauffeurs, etc.	40,000
Total Directly Employed	460,000

Indirect Employment

Manufacture of Cars and Commercial Vehicles (1927)	257,000
Allowance for Motor-Cycles	13,000
Petrol Refining and Distribution	40,000
Garages	60,000
Road Materials Manufactured	25,000
Construction and Repair of Roads (£56,000,000 spent, at least 50 per cent. wages at £3 per week)	135,000
Total Indirectly Employed	530,000

The total amount of employment afforded by the motor-transport industry is therefore not far short of 1,000,000 persons, including those directly and indirectly dependent on the industry for their livelihood. From the point of view of employment provided, motor transport must take precedence over rail transport. The motor-transport industry and its auxiliaries form one of the largest employing groups in the country. To a small extent there has been a process of displacement of men engaged in horse transport, and perhaps to a very slight extent even of railwaymen, although this is doubtful, but in the main the employment given by the motor-transport industry has been in addition to that already available, and its tremendous expansion in Great Britain since the end of the War has undoubtedly

done much to mitigate the post-war trade depression, and to find regular and, in the main, well-paid employment for large numbers of men who would otherwise be without work. The growth of the export trade in motor vehicles was also up to 1927 one of the most promising features of post-war industry, but received a slight set-back in the following year; the increases in businesses of this kind are helping to fill the gaps caused by the prolonged depression and falling off in exports in the old staple industries of cotton, iron and steel, shipbuilding and coal. The export of motor vehicles and chassis in the first half of 1928 was some 15,000 units exclusive of motor-cycles, exports of which are in number slightly more than all other vehicles together, and a large export trade has also grown up in motor and motor-cycle parts.

With their dependents at least 3,000,000 people, or 7 per cent. of the population of the country, are dependent on the motor-transport industry for a livelihood. This proportion is still increasing, and represents a very remarkable contribution towards the solution of the unemployment question. The best method of approach to that problem is by instituting and developing new industries and services rather than by wasting efforts in preventing a natural contraction taking place in those industries for whose products the demand has fallen off. True statesmanship would be shown much better by far-sighted assistance in the opening up of such new industries and services than in attempting to prevent the decline of others which it is inevitable must decline. A certain shifting in the distribution of the population is bound to occur if workers cannot find regular

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employment in the coal and heavy industries in the same numbers as before ; this shifting of population ought to be encouraged and every effort made to guide workers in these industries into new and expanding occupations with as little friction as possible.

CHAPTER X

MOTOR TRANSPORT A NATIONAL ASSET

§ 1. *Motor Transport and Strikes*

QUITE apart from the unemployment question, motor transport has brought enormous benefits to the body politic. In the first place there has been a great increase in the power of resistance of the community against industrial upheavals. In the railway strike of 1919 it was seen that a stoppage on the railways was quite a serious matter, and had a crippling effect on the life of the community in spite of the running of skeleton services by volunteer labour. In the General Strike of 1926 it was found that the railway stoppage was a much less serious matter than had been expected, as the available road vehicles were, by then, sufficiently numerous to do the more urgent work, and, whereas to run a railway effectively requires the services of a few skilled "key" men, there are hundreds of thousands of people able to drive motor vehicles, and almost anybody can be taught the art in a few days. This tends to strengthen the hands of the Central Government, since no transport strike can starve a country with a large number of motor vehicles at its disposal. Ever since 1926 there has been a considerable increase in motor transport, and it would not be unfair to say that the

community is finding itself each year in a stronger position in the matter of transport monopolies.

§ 2. *Growth of Railway Monopoly*

The growth of motor transport is resulting in a steady decentralisation of the ownership of the means of transport and breaking down of the quasi-monopolistic position of the railways. The beginning of the concentration of instruments of transport came with the express stage-coach, which made it unnecessary for large masses of the more prosperous urban classes to run their own means of transport, and the building of canals in the eighteenth century made it possible for the trading community also to dispense to a large extent with private ownership of the instruments of transport. The development of the railways in the second quarter of the nineteenth century, however, had the immediate result of concentrating the ownership, or, more strictly, the effective control of the means of transport into a very few hands. This was not the original intention of the railway builders, and must be looked upon largely as an accidental consequence of their policy. The original idea was that private individuals should, on payment of a reasonable toll, run their own vehicles on the railway at their own expense ; such a system was soon found to be unworkable and was replaced by the present system of the railway undertaking the business of transport and the risk involved in return for a small payment by the trader, or in the case of passenger transport, by the person requiring the service of transport. Horse vehicles, of course, continued to exist in the railway era, but, with the great increase in the average length

of haul of merchandise, their scope was very limited ; they became, in fact, of use only for very short hauls and for collection and delivery work on behalf of the railways. The ownership of a private horse-drawn passenger vehicle was in the country mainly a means of conveying people to and from the nearest station, and in the towns a form of ostentatious but comparatively useless expenditure designed to show off the degree of prosperity attained by its possessor.

In fact, for a full two generations the railways, with a little assistance from the canals, held a monopoly of the means of transport. It was possible through this monopoly to make the service of transport relatively cheap and so increase the demand for it to an extent never before dreamed of, and, by concentration of ownership, to produce a good organisation of the work to be done and avoid unnecessary duplication of services except where two or more railways served the same two towns. In Great Britain sufficient public control was maintained to protect the public from the grosser abuses of monopolistic control, a happy state of affairs which was not always the case in America, but nevertheless there were serious drawbacks from the national point of view. A modern industrial nation is entirely dependent on its transport system for its life, and the risk of monopoly in this sphere is the great danger of an industrial civilisation.

§ 3. Decentralisation of Ownership of Transport

The development of motor transport has made a certainty of the failure of a monopolistic coup against the community. The early development of the pro-

professional haulier using petrol or steam vehicles placed the control of the instruments of transport in many instead of in few hands, and thereby decreased the possibility of unsocial action against the rest of the community by those engaged in transport activities, and the later development of privately owned motor fleets has made almost every trader an owner of instruments of transport, while the growth in the number of people owning private cars has been so great that almost all the prosperous classes and large numbers of the less prosperous classes now own their own private means of transport. The railways with their concentration of control still continue in operation, but there is now no chance of railway owners or employees, either in Great Britain or in any other modern state, being in a position through monopolistic power to enforce unreasonable demands on the community. In a sense the development of road transport has reversed the previous tendency towards concentration of control, and brought back a position comparable with that which existed in the pack-horse days when there was a wide diffusion of ownership of instruments of transport extending to all merchants and all other individuals of the prosperous classes.

The diffusion of the ownership of instruments of transport has the unfortunate consequence that it makes co-ordination of road and rail transport much more difficult. It would be a comparatively easy matter for the railways to make agreements with the larger and better organised haulage contractors, but it is difficult to see how it would be possible for agreements to be made which would cover privately owned motor fleets and private

cars, yet the competition between road and rail applies to privately owned motor fleets and private cars quite as much as to vehicles operated by professional hauliers.

Railways not only require an enormous capital for construction, quite beyond the means of one individual, but also a good deal of highly skilled and specialised labour, such as engineers and traffic controllers, for operation. The diffusion of road transport is due to the fact that it requires little capital, except for the construction of the road itself, which is publicly owned and financed, and no special skill to operate, or at any rate only such skill as can quickly be acquired by the ordinary intelligent individual. As designs became simpler and more foolproof, even the repair work becomes semi-skilled rather than skilled, and can be undertaken by almost any mechanic. There is, therefore, no possible hold over private owners of road transport to force any concentration of ownership, or even to bring about any co-ordination with rail transport; the tendency is rather in the opposite direction, for each individual to be his own transport owner and operator.

§ 4. *Dangers of Centralisation*

The effect of the diffusion of ownership of instruments of transport, which is in progress at the present time, is to bring back something of the self-sufficiency of the small unit which prevailed under the system of domestic industry. In general present tendencies are towards centralisation. A single public electricity undertaking may supply light and heat to a million homes which formerly used candles,

lamps, and coal ; a water company supplies water for houses which at one time relied on pumping up water from private wells in their gardens. This process no doubt makes for economy and is all very well so long as the electricity company and the water company continue to operate smoothly, but it places the ordinary individual completely at the mercy of any group which may find itself in a position to tamper with the electricity or the water supply. Motor transport acts as a defence and corrective influence for this tendency, the dangers of which are mitigated by the knowledge that, whatever essential services are tampered with, the public will still be able to move, and movement is the key-note of modern life.

It is impossible to set the clock back entirely and ignore all the modern innovations in technique and industrial organisation because of the risk of concentrating power, but it is best, while acquiescing in the concentration of power, to take all reasonable precautions against its abuse, and one of the most important of these precautions is the encouragement of motor transport by all legitimate means as being in the best interests of the public, and the most effective safeguard of the rights of the ordinary citizen in his constant struggle against losing his rights and individuality in the herd.

§ 5. *Travel Habit and De-Urbanisation*

Quite apart from these rather theoretical considerations, the place of motor transport in the national economy is one of great and growing importance. It is mainly on account of its development that the travel habit and the riding habit

have been fostered. The former, by which is meant the habit of taking recreation by moving about the country, is certainly one which should be encouraged, as its social effects are all to the good, since moving about and seeing new country broadens people's outlook and gives them interests other than of a purely local character. The riding habit, on the other hand, is of very doubtful social value. It is responsible for much of the traffic congestion in large towns, and is breeding a race suffering from lack of exercise through sedentary occupations, but too lazy to walk for even a short distance.

In Great Britain the development of the motor-omnibus has been particularly successful. This has been due to various reasons, among which are the great expense of taxis, and the cheapness of the 'bus compared with the railways, passenger fares on which are very high compared with the Continent. The motor-omnibus is doing a great social service in the more out-of-the-way villages, and also in some which could hardly be so described, by bringing them into closer contact with the towns. The omnibus, charabanc, and private car are probably doing an even greater service to the towns by bringing the countryside nearer and making it possible for the town worker to spend his leisure time in beautiful surroundings. Decentralisation of the urban areas and the spread of "bungaloid growths" over what were once purely agricultural districts has æsthetic disadvantages which give rise to much unfavourable criticism in the Press, and rightly, as they are often unnecessarily ugly, but the improvement in the health and physique of the next generation which will follow this change in habits of life will show

that even their ugliness is counterbalanced by the advantages of living under healthy conditions.

The motor-van also is performing a similarly useful service by bringing the town's wares to the villagers' doors, and this is having, apparently, the wholly desirable effect of making prices for goods (other than country produce) in the villages come more into line with those of similar goods in the towns by reducing the margin of profit, which was often formerly too high, of the rural retailer. It is far better for the villages to be supplied by van from the big stores in the neighbouring town, than for several retailers to attempt to make a living by charging large profits on a small turnover under conditions in which their services are not really required.

Much more important from the point of view of the country's economic welfare is the part which motor transport has come to play in the development of the new industries. The type of business in which Great Britain is specialising needs plentiful and rapid transport services ; it is unpopular nowadays to tie up large amounts of capital in carrying more stock than necessary, and it is only through the most highly developed transport system in the world that it is possible for British business men to transact business on the narrow margin of stocks which it is nowadays customary to keep on hand.

§ 6. *Co-ordination of Motor-Transport Interests for Self-Defence*

The motor-transport industry and the others which depend on it or rely on its services must face

a critical period. For some years it has been expanding rapidly and therefore has been difficult to organise for defensive purposes. As certain sections of it have been both prosperous and unorganised, it has had to suffer from the steady imposition of more and more taxation. Had the proceeds of these taxes been utilised for road improvements and the construction of new roads, the saving in time and wear and tear to vehicles might have compensated the industry, but the new taxes, which are millions in excess of anything the motor industry can justly be called upon to pay for the roads, are being spent on very different objects, with the result that the ratepayers are having to pay much more towards the roads than they should, and the proceeds of the taxes are being spent on the Government's fancy schemes.

Each fresh impost evokes applause from the well-organised enemies of the motor-transport industry, and a few querulous protests and complaints from the semi-organised fragments of the motor-transport interests which Governments know they can safely ignore. Governments have to obtain money for new schemes from somewhere, and perhaps naturally tend to follow the line of least resistance and raise new taxes in those quarters which are least likely to organise an effective protest. Under the circumstances they are scarcely to be blamed for selecting the motor-transport industry.

The remedy for this state of affairs is in the hands of the industry. The voting power of motor transport is enormous with something like 1,000,000 people employed either in the industry itself or in its ancillaries, and 1,500,000 motorists and

motor-cyclists interested in its taxation. Many of these people have dependents with votes almost equally interested in motor taxation. Although numerically almost as strong as the coal industry, its political influence is negligible. The industry is very far from presenting a united front to its rivals. The societies representing the private motorist are in favour of a petrol tax, under which the luxury car escapes proportionately with the smallest payment and the commercial vehicle is relatively the most hard hit. The commercial-vehicle interests, on the other hand, like the motor-vehicle tax system which treats them comparatively easily but is hard on the luxury car. The result of their disagreements is that the motor-transport industry has to put up with both systems of taxation simultaneously because neither section of the industry has been sufficiently far-seeing to grasp the fact that the real problem is first to reduce the total amount paid by the whole industry to a fair figure, and, only after that has been done, indulge in internecine feuds as to how much the various sections of the industry should respectively pay.

The representatives of the ancillary industries, of course, have their own point of view which is not always very long-sighted. They want to see plenty of motor transport on the roads, but do not always mind whether it is railway-owned or not. It is obviously not to their true interest to see road transport in the hands of the railways unless they have reason to believe that the railways will develop it as fully and rapidly as it would otherwise be developed, and the probability is that they will not.

The only way by which the industry can get a

square deal over taxation is by each section taking the long view and settling minor differences, and if necessary sacrificing immediate advantages, for the sake of the future expansion and prosperity of the industry as a whole, which will benefit everybody connected with it. A much stronger central organisation than any now existing is necessary to co-ordinate the various sections of the industry and ancillary trades for the purpose of self-defence and especially for watching legislation aimed against their prosperity and well-being.

The strength of the railways is that whereas a few years ago they were unpopular with the public, they are now the reverse. This has been brought about by a judicious expenditure on advertising and propaganda, and by taking the public into their confidence by explaining their working and their accidents and delays in the Press. They also obtained a large measure of public support for their Road Powers Act by explaining their difficulties and putting their case before the public. Meanwhile the motor-transport industry has done practically nothing. Their case is a very strong one, far stronger than the railways', but the public do not know about it and are not very sympathetic because they have never been told or had the industry's difficulties explained to them in the same way as those of the railways. The industry cannot afford to let things drift; operating costs will not continue to fall indefinitely and technical progress will in time become slower. If the industry suffered a set-back at this stage, it would have an incalculably injurious effect on the new industries and an upsetting effect on the daily habits of almost every person

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in the country. To avoid this and to protect its own existence on its present level all interests must combine and present a united front in order to secure fair play and enforce their just demands. The country is in a period of transition and depends on the motor-transport industry to see it through. The plain duty of every individual is to help the necessary changes in the economic structure to come as smoothly as possible and not to attempt to reverse the process and encourage industries which ought to be allowed to contract.

APPENDIX

In the following table the comparative motor-vehicle taxes (State and Municipal) are given for various types of vehicles for Great Britain, France, Germany, Italy, and the U.S.A. :

MOTOR-VEHICLE TAXES (STATE AND MUNICIPAL), 1928

Private Cars.	Treasury H.P. Rating.	Great Britain.	France.	Germany.	Italy.	U.S.A. (Indiana)
Austin " 7 " .	7-9	£ 2 4	£ 2 4	£ 2 4	£ 2 4	£ 2 4
Fiat " 12 " .	10-48	8 0 0	3 7 11	6 5 0	4 18 11	1 0 10
Chrysler " 65 " .	23-5	11 0 0	6 15 10	11 14 0	9 4 4	1 0 10
Renault " 45 " .	45-0	24 0 0	16 16 3	31 2 0	30 3 6	1 0 10
		45 0 0	43 6 2	77 15 0	99 4 0	1 13 4
Commercial Goods Vehicles (Pneumatic Tyres).	Capacity in Tons.					
Morris . . .	1	20 0 0	8 13 3	9 4 4	4 2 10	4 3 4
Thornycroft . .	3	38 8 0	19 0 5	23 5 8	10 9 11	7 5 10
Scammell . . .	12	48 0 0	27 6 11	40 8 10	13 14 7	41 13 4
Commercial Passenger Vehicles (Pneumatic Tyres).	Seating Capacity.					
Dennis . . .	20	36 0 0	11 14 4	18 7 8	21 18 5	25 0 0
Lancia . . .	28-30	57 12 0	16 16 3	22 1 2	3 13 6	37 10 0
Leyland . . .	31	86 8 0	26 3 11	23 5 8	5 16 6	63 15 0

Franc at 124 to £. Mark at 204 to £. Lira at 925 to £. Dollar at 41. 24.

ERRATUM

In the above Table the Italian tax on a Dennis passenger vehicle should have been given as £1 18s. 5d.—not £21 18s. 5d.