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The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century

BY

L. C. A. KNOWLES,

of Girton College, Cambridge
M.A., LL.M. (Cantab), LITT.D. (Trin. Coll., Dublin),
Professor of Economic History in The University of
London : Sometime Dean of the Faculty of Economics
in The University of London : Lecturer at the London
School of Economics

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To the Memory of
DR. WILLIAM CUNNINGHAM,
ARCHDEACON OF ELY,

*A Great Teacher and Master
of English Economic History.*

*This Book is humbly dedicated by one
who is thankful to have been his pupil.*

PREFACE

IN this book I have tried to bring out the causes which led to the coming of machinery and which made Great Britain the workshop of the world for a large part of the nineteenth century.

I have wished especially to lay stress on the world position of the United Kingdom during the past century owing to the developments of mechanical transport which were the inevitable outcome of the mass production by machines. English experiments in the control of labour conditions by legislation and the development of the labour movement along the lines of trade unionism and co-operation have attracted much attention both at home and abroad, but the changes wrought in the world's trade and in the economic relations of States to one another by the coming of the railway and steamship have hitherto not received the attention so stupendous a revolution deserved. I have endeavoured to emphasize this and to show how the developments in transport produced the new British Empire, the new constructive imperialism and the new agriculture of the last quarter of the nineteenth century. I have also tried to show that the necessity for controlling the new methods of transport combined with the new national rivalries they created by the penetration of continents and the diminution of distance, were important factors in the growing State control, so characteristic of the late nineteenth and early twentieth centuries.

I am moreover of opinion that it is easy to exaggerate the social evils of the industrial transformation known as the Industrial Revolution. There were many compensations and the progress of the change before 1830 was so gradual that it allowed considerable time for readjustment. It was the newness of the cotton and coal industries which attracted attention and brought old standing industrial evils to light. When the factory system spread more rapidly after 1830, with the introduction of machine tools to make machinery, the social safeguards had been devised in the shape of Truck Acts, Factory Acts and Trade Unions, which afforded an ever increasing measure of protection to the workers.

I have further tried to account for the great change in public opinion after 1870, which led to the growth of State control, not merely in industry, but in commerce, agriculture, transport and imperial relations.

I regard the nineteenth century as the product of French ideas of personal freedom combined with English technique. This book is an attempt to describe the development and effects of the new technique in the country of its origin, and it will shortly be followed by another describing the evolution of France, Germany, Russia and the United States under the influence of the ideas of liberty, equality and fraternity combined with machines, railways, telegraphs and steamships.

It has always been a tradition of the Staff of the London School of Economics to give unwearied and ungrudging assistance to colleagues, as I have found to my great advantage. I owe special thanks, however, to Mr W. T. Stephenson,

who read through the whole of Parts IV and V on Mechanical Transport and saved me from many errors, though he is in no way responsible for any opinions I may have advanced. Professor Bowley has also been ever ready to place his unrivalled knowledge at my disposal and has kindly allowed me to use the tables on *p.* 168 and *p.* 217 from his works. Dr T. Gregory has generously permitted me to utilize his "Tariffs. A Study in Method," for the information on *p.* 353 as to tariffs and preferences in the Crown Colonies. Mrs George and Miss Buer have read Parts II and III in manuscript and have given me valuable suggestions. Mr Headicar has been most helpful, as always, about books. Only those who know my handwriting will realize the debt I owe to my typist, Miss Blackburn.

L. KNOWLES.

Killagorden, Truro.

THIRD EDITION

Since writing this book I have been engaged in expanding Part VI into two volumes on *The Economic Development of the Overseas Empire*. I have, however, endeavoured to bring this section up to date. I have also added an Appendix on recent railway developments in England, and have made some other alterations in the text.

FOURTH EDITION

The publication of Ashton's "Iron and Steel in the Industrial Revolution" has made it necessary for me to re-write those parts dealing with this subject. I have made several other changes with a view to bringing the fourth edition up to date.

L.C.A.K.

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APPENDIX

THE RAILWAY ACT OF 1921*

A NEW era in railway history was begun with the reorganisation of the British railway system after the War. The Act of 1921 hastened the process of amalgamation, provided a new experiment in the control of railways by the State and set up a new method of settling wages and other disputes in which railway workers were involved.

There were still in 1921 no less than 214 separate railway undertakings in Great Britain.† Of these 121 were to be combined into four groups, so as to create larger units. These larger units were expected to show great economies in working, in the building of railway equipment and in the handling of traffic. The highest group of railways outside the four combines was formed by the urban and suburban railways of the London area, worked mainly by electricity and confined chiefly to passenger traffic.

The idea was that each of the four groups was to be a unit which would give economic working.

The railways were amalgamated into (1) a Southern, (2) a Western, (3) a Midland, North-Western and West Scottish and (4) an Eastern, North-Eastern and East Scottish group. The old historical names such as the London and North-Western dating from 1846, the Midland from 1844, the Great-Northern from 1845, and the London and South-Western from 1839, all disappeared and only the Great Western retained the name it inherited from 1835.

*Grouping under the Railways Act, 1921; Acworth *Economic Journal*, March, 1923. Communications (Resources of the Empire Series). W. T. Stephenson, *Railways of the United Kingdom*, p. 173.

†The present number is eighty-eight of which thirty-three are not working Companies. Further of the fifty-five, four form the Underground Group and ten are joint lines, the property of the Big Four.

According to the Act the companies were to settle their own terms of amalgamation and present them to an Amalgamation Tribunal. Should they fail to agree the Tribunal would itself undertake the task of combining the companies. As a matter of fact the amalgamation of over a thousand millions sterling of capital and of powers and lines which had grown up as we have seen in the most haphazard fashion, was carried out by the companies themselves, under the stimulus of the Act and approved by the Tribunal.* Competition was not, however, abolished. In the amalgamation each of the big four absorbed other companies which had extensions into the territory of its rival, and as long as two companies run to Exeter and Plymouth, or two lines serve London and Manchester, so long will competition exist. The competition really centres round the towns and the industrial centres, so that while the bulk of the territory is non-competitive, the bulk of the traffic is still competitive, as Sir William Acworth pointed out. A limitation of this competition by agreement seems inevitable in the future.

Instead of having to apply to Parliament whenever such an agreement is arrived at, as was necessary in the olden days, with the result that such an agreement was usually refused in order to maintain competition, a much simpler and cheaper procedure has been substituted in an appeal to the Ministry of Transport, which is empowered to sanction such a proceeding by the issue of an Order. Thus the Ministry of Transport has control over all future agreements regulating competition.

It is interesting to see how Parliament, after doing its best for over three quarters of a century to keep alive and stimulate competition, has now completely abandoned that attitude and has itself forced on amalgamations and made the path easy for further cessation of competition.

*The chief exception was the Caledonian Railway.

The benefit of the savings which it is hoped will ensue under the new grouping is to go as to 20 per cent. to the Company making the saving, and 80 per cent. to the customers in reduction of rates.

The old statutory maximum rates, above which the companies could not go, but below which they might vary their rates, subject to control if they wished to move them upwards, are now a thing of the past. New schedules of rates have been drawn up after examination and will be fixed by a new body, the Railway Rates Tribunal. This is a business body, the function of which is to fix rates that shall actually be paid. It is to fix the charges at such an amount as shall yield to the companies the standard net revenue of 1913, with sundry named additions, provided they work with efficiency and economy. The companies may only lower the standard rates by exceptional rates varying between 5 and 40 per cent. of the standard rate. The right of appeal by the trader, either for or against an exceptional rate, is maintained, and the Tribunal has to review all the exceptional rates and standard charges at intervals. The whole system of returns, accounts and statistics has been overhauled and more information is now available as to the cost of working the railways and the sources of their revenues.

The vast task of classifying the goods and of fixing the new standard rates was thrashed out between the Railway Rates Committee and the Traders Co-ordinating Committee. It then went to the Railway Rates Advisory Committee and on to the Railway Rates Tribunal, which in 1926 is concerned with the final fixing of the rates.

In addition to these changes a new body was set up to deal with labour questions—the National Wages Board. On it are represented the Railway Companies, the railway workers and the railway customers, i.e., the public, under an independent Chairman. Below this body each company has a series of Councils and there is a Central Wages Board on

which the Companies and the employees alone are represented. The final appeal lies, however, to the National Wages Board. Thus the wages and conditions of employment are no longer left to the companies to decide, but in the last resort the public, too, is brought in and its wishes considered, so that the exploitation of the public by an industry in which there can be no foreign competition is avoided. There is, however, no compulsion on the companies or the employees to obey the award, and strikes have taken place by bodies of workers who refused to accept the decision of the National Board. How important labour remuneration is in the costs of working may be seen from the fact that 120 millions sterling, or 52 per cent. of the total receipts of the railways in 1924 was absorbed by salaries and wages, and 47 millions, or 20.5 per cent. went to the remuneration of capital.*

Thus the Act of 1921 is yet another attempt to provide an alternative to state railways.†

*Ry. Returns, 1924.

†I am indebted for assistance on the technical points to my colleague, Mr. Stephenson, who is in charge of the Railway Department at the London School of Economics.

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