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**MONOPOLIES, CARTELS AND TRUSTS
IN BRITISH INDUSTRY**



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TORONTO

MONOPOLIES, CARTELS AND TRUSTS IN BRITISH INDUSTRY

BY

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PROFESSOR IN THE TECHNISCHE HOCHSCHULE OF CHARLOTTENBURG

MACMILLAN AND CO., LIMITED
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This book was first published under the title " Monopole, Kartelle und Trusts," by Gustav Fischer, Jena, in 1909. (Second German edition, 1927.) I owe my thanks to Messrs. Fischer for giving their consent to its translation.

TO MY FRIEND
SIR HUGH BELL, BART.
IN GRATITUDE AND
RESPECT

PREFACE TO THE FIRST ENGLISH EDITION

THIS book was written and more especially translated in the hope of offering to Englishmen interested in the economic problems of their country, some account of its present industrial organisation. That organisation is characterised by monopolist tendencies which run counter to the hitherto prevailing régime of free competition. In England, the pioneer in economic history of competition, this development should excite the greatest interest ; yet it is in England of all countries that the least recognition has been given to the economic importance of this new form of industry.

The present work attempts to explain the existing organisation of English industry by a study of the history of monopoly and competition, and at the same time to give an analysis of English cartels and trusts as they now are. I have tried to approach my subject without *parti pris*, and solely to describe and analyse. As I regard the historical alternation of monopoly and competition as an economic necessity which dogmas and evaluations unavoidably coloured by contemporary prejudice cannot affect, I have no personal bias to discount. It is, however, the duty of science to show what facts give or have given rise to these two systems of industrial economy respectively, and though itself without ulterior motive to assist those who wish to be guided by knowledge in the attainment of their objects.

I should be grateful for any corrections on points which

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I have misunderstood or treated insufficiently ; and I must in conclusion express my warmest thanks to my translator. To his energetic and intelligent assistance the appearance of this book in English is primarily due.

HERMANN LEVY.

HEIDELBERG, *April* 1911.

PREFACE

I HAVE no intention of writing a preface summarising the main ideas of the following enquiry. I should like, however, to explain shortly how the material was collected, on which my account of former and existing monopolies and my theoretical conclusions are based. I owe very much to the excellent work of various English economic historians, and most of the facts used in treating of existing monopolist associations to Mr. Macrosty's very instructive book. For Parts I. and III. of my essay there were many previous books, both general works and monographs, from which I could gather useful facts and hints and which suggested promising lines of enquiry; but for Part II. I found practically no precursor. The laborious pioneer work of extracting details of former English monopolist associations out of long-forgotten Parliamentary Reports was, however, lightened by the delight of being one of the first in the field.

It was, of course, necessary to spend a considerable time in England. For some years the British Museum and the Patent Office were my headquarters during my holidays. The library of the former provided me with the historical information I needed, and the trade papers preserved in the latter explained to me the present day. For investigation into English industrial conditions the examination of these papers is especially necessary.

We in Germany, if only by reason of the number of theses produced, possess a large collection of more or less useful studies of particular industries, but in England such

things only exist, if at all, in the case of the main industries. It is extraordinary that there are no monographs on the economic position of such things as iron and salt mining, the cement trade, industrial spirit and whisky distilling, the tobacco trade or engine making. The enquirer must turn to trade papers for information on their economic or technical position, their geographical connections or their finances. To these I added prospectuses of large undertakings—often very instructive material for my purposes—and reports of important events in the *Commercial and Financial Supplement* to the 'Times,' the 'Financial Times,' the 'Manchester Guardian,' and that admirable paper, the 'Economist.' But such a collection, taken mostly from newspapers and interested parties, could not, of course, be used without considerable scientific caution, and required to be interpreted in the light of personal statements, of criticism from the opposing interests and of explanations from the leaders of the industries in question.

I cannot sufficiently acknowledge the assistance I have received from all kinds of persons, many of them friends gained at the time of my studies in rural economy who were all connected with urban industries. For valuable information as to the steel and iron trade, I have particularly to thank Sir Hugh Bell and the editor of the 'Iron and Coal Trades' Review,' Mr. Jeans; for the paper trade, Mr. Dykes Spicer, Sir Albert Spicer, and Lord Northcliffe; for tobacco, Mr. A. C. Churchman; for the salt and soda industries, Sir A. Mond, M.P.; for the tinplate trade, Lord Glantawe; for coal mining, Mr. D. A. Thomas, M.P. My attempts to gain information even of the most elementary kind from the directors of large textile undertakings generally failed, and I cannot help feeling that the leaders of these monopolist associations desire to avoid discussion. I am the more grateful to Mr. W. B. Morison, of the London Stock Exchange, for placing his great experience of the textile industry and its combinations at my disposal. My investigations led almost continually to comparisons

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between English conditions and tendencies with those of German and American monopolies, and I derived much help from the results of my former visits to America.

In conclusion I would draw attention to the Appendices, in which I have included certain documents which I could not quote in sufficient detail in the text and to which I would particularly direct the reader. More especially would I recommend even those who are otherwise unwilling to spend time in studying appendices to read Lord Furness's speech. It is a most excellent illustration of that movement towards the concentration and combination of large industrial undertakings which has led many English industries towards new organisation on a monopolist basis, and which will continue to do so in the future.

HERMANN LEVY.

HEIDELBERG, *October* 1909.

PREFACE TO THE SECOND EDITION

SEVENTEEN years have passed since the first edition of this book appeared. Such a lapse of time is in itself very important in the quick movement of modern economic development. But the war and its aftermath have brought into English economic life such transformations as cannot be matched in previous decades. English national economy was to a great extent cut off during the war from its regular sources of imports. After the war it experienced an extraordinary boom, which quickly changed into a condition of chronic depression not yet dispelled. English industry in particular, like that of other countries, was subject during the war to State regulation, with motives and problems of organisation and production altogether different from those of entirely free enterprise. New industries have sprung up in England since 1914, or have waxed important where they were formerly insignificant. England has more or less gone over to Protection since 1925. New social conditions have appeared, attended by severe shocks—marked by the most important English strike ever known, the coal strike of 1926—and have altered the preliminary conditions of organising Production. All these changes called for a new examination of the development of English trusts and cartels at the present time. Nevertheless, I consider that even these great changes in the background of English industry and in the whole frame of the English economic structure, have little altered the underlying facts of the development of monopolistic organisation in England. Many new organisations, sufficiently described

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in this second edition, have arisen ; many old conflicts between Competition and Monopoly are now settled and replaced by new problems ; the statistics of the first edition have had to be supplemented. But the reader and economist will find that the movement towards concentration, described in 1909, has suffered no change in principle in its main tendency, but shows rather a continuous forward movement. There has been no change in the regularity of this development as it was before the war, but this new edition adduces a number of events which occurred between 1909 and 1926 and show the increased force and expansion of the process. Meanwhile official literature on English cartels and trusts has been increasing in an important degree, especially by the 'Report on Trusts,' 1919, which was reprinted in 1924. Shortly before the completion of my second edition appeared the book of Mr. Patrick Fitzgerald, who had contributed important articles on " combinations " to the 'Statist' from 1922 to 1924, and has now collected them into a volume, which I have utilised, full of information. But I have not found it necessary to change my theoretical judgments of English trusts and cartels in spite of the important changes and new facts brought to light. In contrast to Fitzgerald, whose work is primarily descriptive, I have endeavoured in my first, and still more in my second edition, to exhibit the whole problem of concentration in English industry as it appears to-day, in connection with the general problem of the organisation of English industry. The more imperatively the disorganisation of world economy after the war demands a reconciliation of the economic interests of Europe, the more important will be these problems to the national economy of Germany.

HERMANN LEVY.

BERLIN, *January 1927.*

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APPENDIX I

A CARTEL AGREEMENT OF 1835

(' Report of the Select Committee on the State of the Coal Trade.'
House of Commons, 2nd August, 1836, pp. 7-9.)

It was handed in, and was as follows: Articles of agreement made this day of 1835, between the several persons whose names are subscribed, being owners or lessees of certain collieries within the counties of Northumberland and Durham.

1st. The owners or lessees of each of the undermentioned collieries, will by a written document appoint a representative, with full powers to act for such colliery, and to bind the owner or owners during the continuance of this agreement.

2d. That the representative shall have such an acquaintance with the general management of the concerns, and the money transactions of the colliery he represents, as to be able at all times to state correctly the quantity of coals sold, and the price actually received for the chaldron or ton, of both round coals and small, and shall be responsible for any irregular allowance or other deduction from the price at which his coals ought to be sold, or for any other violation of either the letter or spirit of this agreement.

3d. That the owners or lessees shall have the power of changing their representative, upon giving notice in writing to the chairman,

4th. That a committee for the Tyne, consisting of nine members (selected from the representatives), shall be appointed by lists to be sent from each colliery, to act for one year, subject to re-election at the expiration of every 12 months; but though it is desirable that the committee should consist of the number above stated, for the purpose of settling the basis for the respective ports and collieries, the committee shall nevertheless be competent to form among themselves a sub or execute one for the purpose of carrying the provisions of this agreement into effect, so that such committee shall not consist of less than three for the Tyne.

5th. That five constitute a quorum, that the votes be taken by ballot, and that the decision of the majority shall bind the parties to this agreement in all cases, except where an appeal is allowed.

6th. That the parties to this agreement will adopt the existing basis for the collieries, whose quantities are now fixed, till such quantity shall have been objected to by the committee or the representatives, and finally settled by the referees, and in settling the quantity to be allowed to any colliery, the committee or referees to be guided by the powers of working and leading proportion of the different sorts of coal, their respective selling prices and facilities of shipment. But that in estimating the powers of the respective collieries for the purpose of fixing the basis, such portions of their respective powers as are applied to the producing of coals sold, foreign or land-sale, shall not be taken into the account.

7th. That impartial reference shall continue to be the great leading principle on which the arrangements of the trade must be governed, and that it must be applied to settle the quantities between the different ports or rivers, forming parties to this agreement, as well as between individual collieries.

8th. That before an appeal be entertained from a river or district, a majority of the representatives of the collieries of such rivers or district must have declared their conviction of the propriety of it, and have made such request in writing to the united committee.

9th. That the dissatisfied river or district shall name their referee, and that the united committee shall do the same, and that those two gentlemen shall name a third as umpire, previous to their entering upon the inquiry.

10th. That the whole expense shall be equally divided between the appealing part and the trade at large.

11th. That the referees shall have power to reduce or to augment the quantity of such appealing river or district, and such decision shall be final.

12th. That the above principles which are to guide the reference in the case of rivers or districts, shall be applied to individual collieries appealing from the decision of the respective committees in the district to which they belong, except that it shall not be necessary for any individual colliery to obtain leave of the committee of the river to which it belongs, to make an appeal from their decision.

13th. That as soon as this agreement shall be signed, the rivers and districts shall be at liberty to appeal to the present united committee, but in case no appeal is made previous to the com-

mencement of 1836, that then no change of basis as between the rivers or districts shall take place, except at the commencement of each year, and then only in case the river or district shall have given four months' notice to the then existing united committee of their intention to make such appeal.

14th. That in the case of individual collieries, they shall be at liberty to appeal also as soon as the agreement shall have been signed ; but in case no appeal is made previous to the commencement of 1836, then no change of basis shall be made except at the termination of any six months, and then only on the representative of such colliery giving three months' notice previous to the 1st day of January and the 1st day of July in any year to the respective committees of his intention to make such appeal.

15th. That the decision of the referees shall take effect in the case of rivers or districts from the commencement of the year, in the case of individual collieries from the commencement of the six months succeeding the period when he shall have given such notice.

16th. That the committee or referees shall have power to summon the parties to this agreement, or their agents, to answer any interrogatories, and to produce any documents necessary to enable them to give full effect to this agreement, but such power not to justify calling for the private accounts of the colliery.

17th. That the parties so summoned shall, for non-attendance or refusal to answer or produce such documents, forfeit £20, to be returned only in cases where an appeal to a general meeting of representatives the majority shall decide in favour of the party appealing, the committee at such meeting not to vote upon the appeal against their decision ; the votes at such meeting to be taken by ballot.

18th. That the relative prices of every description of coal be fixed by the committee and the representatives of each colliery, subject to an appeal to referees.

19th. That no colliery, without leave of the committee, shall vary the fixed price agreed on between such colliery and the committee, as the selling price of that colliery, under a penalty of 5s. for every chaldron so sold, subject to an appeal to referees in case of dispute.

20th. The committee in concert with the committee of the Wear and Tees, and the other parties to this agreement, shall make such issues of round coal from time to time, as may be necessary to meet the demand.

21st. Any colliery where particular difficulties of shipment may be reasonably apprehended at particular seasons of the year, or

other causes, may be allowed such quantity, from time to time, in anticipation thereof, as the committee shall deem proper; any colliery thinking itself aggrieved by the refusal of such leave, the claim to be decided by reference.

22d. All coal to be sold by weight, either by the ton of 20 cwt. or the chaldron of 53 cwt.; any colliery found by the inspector giving over-weight to be fined 2s. 6d. for each and every cwt. of excess on an average of 10 waggons; every colliery to have a weighing machine, in proper order, in a convenient situation, under a penalty of £20.

23d. Any colliery exceeding the issue beyond 100 chaldrons, or 2 per cent. upon the basis, to finish a ship, shall forfeit for every chaldron so exceeding 5s., and such excess shall also be deducted from the issue to the colliery for the next month.

24th. That each party shall deposit, in the hands of trustees, a promissory note, payable on demand, to the amount of £20 per 1000 on its respective basis, as a security for the payment of fines and the general performance of this agreement, the committee to fix the amount of fines in every case not specially provided for; the trustees to consist of the chairman and the committee.

25th. That the inspectors of the Tyne, Wear and Tees, shall, as often as the committee of either river may deem it expedient, examine together the measure of all the collieries of the different ports comprehended under this agreement, that the weight per chaldron may be kept moderate and uniform, as provided in rule 22d.

26th. No freighting or upholding freights or prices to be permitted without permission from the committee of the river or district in which the respective collieries are situated under a penalty of 5s. per chaldron on the quantity of coals so vended, subject to reference.

27th. That all the parties to this agreement shall strictly adhere to such regulations as to the sale of coals in London by the coal-factors as the united committee shall, from time to time, agree upon.

28th. That if, at any time during the continuance of this agreement, the united committees shall deem it expedient, for any temporary purpose, to grant an additional issue of coals to the markets upon the coast, they shall have power to do so under such modifications and upon such terms as they may consider expedient.

29th. That it be imperative on the committee to enforce the penalties incurred under this agreement, and collect the same once a month, and pay the same to the Newcastle secretary for the general purposes of the trade.

30th. This agreement to commence on the 30th day of January 1836, and to continue from year to year, during the pleasure of the parties hereto, any of whom may withdraw, on giving six months' notice, in writing, to the united committee previous to the end of any year after the first year, and thus terminate this agreement.

31st. If circumstances should arise to render it expedient that this agreement should terminate otherwise than before provided for, and that, at a meeting of the representatives of the three rivers, and the other parties to this agreement, called for that purpose, four-fifths of the parties hereto shall so think it expedient, then this agreement shall terminate.

32d. No party to be bound by signing these rules until they shall have been agreed to and signed by the proprietors of every colliery upon the Tyne, and until the coal-owners of the Wear, Seaham, Tees, Hartley, Cowpen and Netherton, shall have signified their willingness to act in concert with the Tyne committee upon the general principles of this agreement.

33rd. That in case any difference of opinion should arise between the respective committees, or any individual coalowner and the committee of the district to which he belongs, upon the construction of any of the above articles, or upon any other point not herein provided for, that the same shall be submitted to reference.

APPENDIX II

COMBINATION OF WORKS. LORD FURNESS'S SPEECH

(Report of the Eighth Annual Ordinary General Meeting of the Shareholders of Richardsons, Westgarth & Co., Ltd. Held on Tuesday, Dec. 29, 1908).

THE usual routine with regard to our annual meeting has this year been interfered with on account of a proposal which has been made to your Directors for the amalgamation of our business with those of several other engine building firms on this coast. I may at once say that I was in no way responsible for the proposal, and am neither directly nor indirectly interested in the scheme except as your chairman and as a shareholder in your Company, but the commercial possibilities of such an amalgamation are in the opinion of your Directors so important, that we feel it our duty, even at the sacrifice of very considerable time, to investigate the position thoroughly and to take part in what are proving to be very prolonged negotiations.

You will, I know, agree with me that the past year has been one of the most disastrous in the annals of the North-East Coast, involving as it did the practical stoppage of the engineering industry for no less than seven months by the engineers' strike, this in our own case being preceded by partial stoppage and complete disorganisation owing to sectional strikes in the shipyards. We have lost, in fact, an entire year, and the immense efforts we have made in laboriously building up additional branches to our business by the creation of new departments for the manufacture of steam turbines, pumping machinery, steel works' equipment and electric installations, have been ruthlessly upset by one of the most ill-advised and calamitous strikes on record. The general public have grown so accustomed to the continuous succession of strikes that nothing short of the stoppage of the nation's railway system or coal supply creates more than ordinary interest, but the alarming fact remains that British industries are being jeopardised

and British capital destroyed to an extent unparalleled in British industrial history. Take our own case as an example. We have three works, in Hartlepool, Middlesbrough, and Sunderland, with staffs of highly trained technical experts for the conduct and development of our various manufactures, each department having an organisation of designers and draughtsmen complete in itself. To supervise the actual manufacture there is a further organisation of works managers, departmental foremen and assistants, and in addition the usual commercial and clerical staffs, numbering in all some 250 men, whose services cannot, of course, be dispensed with the moment the general body of employés decide to go out on strike. At the commencement of the strike it also happened that we had an unusual number of important contracts in process of erection in various parts of the kingdom, and at a stroke everything was brought to a complete stoppage, this being followed by the virtual paralysis of our entire business for seven weary months, each successive month bringing possibilities of settlement by various proposals, including the intervention of the Board of Trade, whose good offices were so flouted by the men as to result in the resignation of Mr. Barnes, the General Secretary of the Amalgamated Engineers' Society. For ourselves, we were compelled to see our profits turned into losses, grass actually growing in our yards, our customers disappointed and disgusted, and our prospective business brought to a dead standstill by reason of our inability to accept orders. In the town, as you know, men were brought to beggary, women and children to the verge of starvation, and tradesmen's savings reduced almost to vanishing point. This, then, is the sorry picture of a strike for which there was no justification whatever and which was blindly persisted in notwithstanding many friendly efforts, including those of a Cabinet Minister and the men's leaders.

We are still among the wreckage, but let us hope that this epidemic of strikes is over, for otherwise it will be quite impossible to maintain the prosperity which has hitherto been associated with the engineering industry on this coast. Indeed, even with a mutual desire to recover lost ground, it is problematical whether we can do so unless we adopt methods by which the cost of production can be reduced by the elimination of wastage. The position we have to face is one of intense competition, and what that competition means is well illustrated by the fact that our once highly-remunerative forge department, together with many others in the district, is now practically closed, as we can obtain forgings at considerably lower prices than we can either produce them ourselves or buy them in this country. This competition

will surely spread to other departments unless we adopt wise measures, and the points we must always keep prominently in view are—that there must be no strikes, that greater individual interest must be taken in the day's work, that contract dates must be kept and the confidence of buyers restored, and that the cost of production must be reduced.

If commercial success is to be achieved by any scheme of amalgamation, however, it is obvious that it can only result from increasing the excellence of our manufactures and decreasing the cost of their production. Any attempt at artificially creating a range of selling prices higher than the market standard prevailing at any given time is foredoomed to failure, as we should deservedly lose our trade by sacrificing the goodwill of our friends and customers. The one objective must, therefore, be to beneficially influence the shipbuilding industry by supplying machinery at prices which will compare favourably with those of other competing centres, and at the same time secure, if possible, a fair manufacturing profit. It is unquestionable that marine engine building presents an ideal proposition for the application of such a scheme, and if it becomes an accomplished fact and is carried out with an enthusiastic determination to make it a great success, then, in my opinion, it cannot fail to have a favourable and permanent influence on the shipbuilding industry on this coast.

Experience has shown that the highest success in any manufacture can only be obtained by specialised production in large quantities under expert management. The production of marine machinery, and the mass of detail in particular connection therewith, involves so many trades, each requiring a separate department, that specialised production in bulk under highly concentrated management becomes practically impossible for the average engine builder; but under an adequate scheme of amalgamation the entire proposition is simplified and is feasibly desirable. For example, the firms considering this scheme have, during the past seven years, supplied complete engine equipment to 1206 steam-ships, having an aggregate horse-power of 2,150,000. The detail alone in connection with the yearly output of 172 sets of machinery is enormous, and were it standardised and manufactured under modern conditions, profits would be obtained which, under the present conditions, are quite impossible.

In view of the highly progressive nature, not only of the manufacture of marine and other machinery but also of its design, every single builder is now constantly face to face with heavy expenditures for plant in order to keep pace with the times. Take another example: since this Company was formed, seven years ago, we

have spent £133,000 in new machinery and buildings, besides another £140,000 or thereabouts in maintaining our three works in a high state of efficiency, this expenditure being entirely apart from the cost of our turbine works, which are practically independent and constitute what is to us an entirely new business, and which have involved an outlay of fully £50,000. We are, of course, not alone in this expenditure, as all firms recognise that it is necessary for their very existence, and, heavy as it is now, it will undoubtedly become more so in the future by reason of the ever-increasing severity of competition throughout the industrial world. By amalgamating several of these big businesses, however, and localising, as far as practically possible, the manufacture of standard details, this enormous aggregate expenditure could either be very greatly reduced or, if spent as freely as at present, would inevitably result in far greater profit-earning capacity. This is to my mind the most important requirement of the present-day engineering manufacture. Experience has proved beyond question that in order to exist at all every engine manufacturer must, no matter how well his works may be equipped at present, continue to spend money very freely, and the essence of the contemplated scheme of amalgamation is to spend that money in such a manner as will enable a united body of manufacturers to meet competition with far greater success than is possible as independent units, each repeating the other's work in a fashion which, in years to come, will be regarded as tantamount to commercial suicide. The suggested amalgamation is therefore a commercial proposition of the first order, its anticipated effect being to conserve and ultimately to considerably enhance the value of the capital embarked in the industry, an effect which will apply equally to all the capital invested in engineering works on this coast. This is possible because an amalgamation offers facilities for the high development of an organisation on commercial, technical, and practical lines quite beyond those afforded by independent competitive units. Of course, any scheme of amalgamation decreases internal competition and automatic benefit would accrue under that head, but it would be a mere bye-product in comparison with the central aim and object, viz. : decreased cost of production. It would, of course, require time and immense energy on the part of everyone concerned to organise a new departure, but there would be compensation in the fact that the energy would be centred in the useful channel of progressive construction rather than in competitive destruction, and, therefore, it would beget that enthusiasm which is invariably associated with success.

It is a pertinent fact that all the firms on the coast buy many details in this country cheaper than they themselves can produce them, and yet the manufacturers of these details make very substantial profits. They do so, of course, by specialised production and concentrated management. Again, we all make details which cost us just as much as we could buy them for, and we content ourselves with the thought that they contribute their quota to our working expenses. To obtain the profits we now lose, however, is only possible if the scheme of amalgamation is sufficiently large, so that unless all the firms at present interested in the matter are in agreement it cannot be carried through.

Under the present system engines and boilers are built by each of the firms to the requirements of the several classifications, and whilst the average result of each firm's productions closely approximates that obtained by the others, yet each builder has some points of excellence, either in design, method of manufacture, arrangement of parts, quality of material or of workmanship, which in combination would yield greater excellence, and being reflected in the higher general efficiency of the entire machinery, would tend to place British construction on a higher plane in the markets of the world. Again, each firm has an expensive staff, producing designs practically identical with those of its competitors, as well as pattern-shops producing equally identical patterns. The useless expenditure under these two heads alone may be estimated from the fact that the designs and patterns for a cargo boat's engines cost about £500 to produce, and for passenger steamers a correspondingly higher figure.

It is impossible for me to enumerate within the limits of a speech all the sources of economy that are open to such an amalgamation, but its possibilities are sufficiently indicated if you consider the matter on its broad lines. The adoption of a single scheme of buying under the control of the commercial directors would alone tend to a considerable diminution in first cost.

With regard to the works, one system of organisation would be established, all antiquated tools would be replaced, and the latest methods of manufacture adopted. Overtime, which is at all times highly expensive, would be abolished as far as manufacturing conditions permitted, and night-shift at high rates of pay only resorted to when it was warranted by the conditions of trade and obtainable prices—the productive capacity of the whole of the works acting in union would in all ordinary circumstances dispel the conditions which lead the individual to resort to overtime. Broadly, the leading principle would be to limit the working hours to the standard length of the working week and to divide the work

amongst the various shops to that end—an arrangement, one would suppose, that would be as satisfactory to the workmen as it would undoubtedly be to the employers.

An important advantage to the shipbuilders would result from contract deliveries being strictly maintained, as in the event of local pressure relief could always be given by one or other of the amalgamated works. There would also be no reason why ships should not always be engined in the port in which they are built, as the same standard of workmanship would prevail in each of the amalgamated works. Last year the expenses incurred in this connection alone amounted approximately to £18,000 for insurance, towage, etc., all of which represents unnecessary cost, apart altogether from the loss involved by the delay in completion consequent on the ship's absence in a distant port for approximately a fortnight.

It is intended to retain the identity of the several firms as at present, and each firm would therefore trade under the name upon which its business has been built up, and by which its productions are known and celebrated the world over. Moreover, the local boards of management would continue and the executive staffs would be retained, as only by their united efforts could the new scheme of organisation be developed with despatch and success.

I would again emphasise the fact that I am simply putting before you the proposition which has been put before your Directors, and before all the firms interested in this matter, and it is only by force of circumstances and not by intention that it falls to my lot to give public expression to the views which prompted any of us to give the scheme our consideration. I am convinced, however, that if we are to advance our industries and protect the capital invested in them we must recognise facts and modernise our methods, and in dealing with this scheme we must also endeavour to sink personal considerations of every kind. We cannot but realise that the industrial world is advancing at a pace unparalleled in its history. To have been told ten years ago, or even five years ago, that Japan would be building, and building with the greatest success, her "Dreadnoughts," her fast torpedo boat destroyers, and her 23-knot passenger liners, would have been regarded as a dream, yet they are accomplished facts. Continental competition is also, as you know, increasing by leaps and bounds, but in spite of all I am convinced that we can hold our own, nay, more than hold our own, if we will but shake off the incubus of our stereotyped industrial methods. In Germany, which is in the forefront of industrial progress, there are some hundreds of amalgamations of one kind and another, so there it

has been amply demonstrated that the secret of commercial success lies in a policy of combined effort. At this stage I cannot say whether the scheme will mature or not ; if it does it will involve an adjustment of our capital to a basis which, it has been decided, shall be the standard basis for every firm, although on that point I am unable, and it is altogether unnecessary that I should say more on the present occasion. Your Board propose to you that this meeting shall stand adjourned until a convenient date, and that in the meantime you will patiently await the maturing of the negotiations that are now afoot, relying upon the ability and zeal of your Directors to safeguard and protect your interests in every possible way, and as soon as the negotiations are sufficiently advanced we will lose no time in putting the matter fully before you for your final decision.

APPENDIX III

ORGANISATION OF MONOPOLY. THE INDUSTRIAL SPIRIT CARTEL

(Ridley's 'Wine and Spirit Trade Circular,' Nov. 8, 1907, pp. 828-9.)

THE INDUSTRIAL SPIRIT SUPPLY COMPANY, LIMITED

UNDER the above title a "Trust"—as some people may be inclined to dub such an association nowadays—has been formed, through the hands of which will pass all the spirits sold for methylation or for use for industrial purposes, by the following firms :

ENGLAND.

London : J. & W. Nicholson & Co., Ltd ; Hammersmith Distillery Co., Limited (Haig & Co.).

Liverpool : Preston's Liverpool Distillery Co., Limited ;
A. Walker & Co., Vauxhall (now merged in the Distillers' Company, Limited).

Bristol : Bristol Distilling Co., Limited.

SCOTLAND.

Bo'ness : Jas. Calder & Co., Limited.

Edinburgh : The Distillers' Company, Limited.

IRELAND.

Belfast : United Distilleries, Limited.

The only firm manufacturing spirits for industrial purposes which is absent from the above combine as shareholders is that of Messrs. King, Howman & Co., Limited, Derby ; but an arrangement has been made under which all their output, which is not very considerable, will pass through the hands of the new distributing centre. The secretary is Mr. C. Honeywill, and his firm, Messrs. Honeywill Brothers, of Mark Lane, London, E.C., will act as agents for the Company.

This Combine is perhaps in some ways the most important movement which has ever taken place in the spirit trade, and

viewed in conjunction with the drift in Scotland and Ireland towards a "Trust" of all the manufacture for beverage purposes of spirits by the patent still process, must be accepted, for good or evil, as another step towards a gigantic spirit trust, embracing the manufacture of patent still spirits in the three kingdoms.

The Combine may partly have originated in the competition, which from time to time has existed, of the methylators among themselves, which competition was accentuated and aggravated by the fact that every now and then, when a surplus of grain spirit had to be got rid of in Belfast and in Scotland, not to speak of Liverpool and Bristol, the surplus was generally placed by a cut under the figure at which the regular makers could quote. The whole difficulty, competition, or whatever it may be called, has now been accommodated by those who caused the trouble having been admitted into the Combine, and receiving shares in it, their fraction having, of course, to come out of the share of the regular makers of the old informal association. In its immediate effects upon trade profits in the methylated business the new move is to be commended in the interest of all concerned. The methylator will have to compete as usual, but he will not have to compete with a rival who has bought his spirit at less money.

The Company is not a Company for profit; profit must be made or not made at the distillery. It is purely a distributing concern at a price to be fixed, from which there is to be no departure to any individual buyer, no matter how large the purchases of that individual methylator or manufacturer may be.

The advantages of such a combination are obvious. In the first place, as just mentioned, a uniform price is ensured; secondly, a great saving of carriage is made. It will be at once seen, that to have the nearest outlet for the spirit appropriated to the particular distillery which can with least carriage serve the customer must mean a great saving on the whole to the Combine. It will be none of the members' interest to increase, at the expense of another member of the Company, their output; that is defined by the proportion of orders to which the member is entitled to by his share in the Company.

It will at once be asked by those who know anything of the methylating trade, what provision has been made for dealing with those distillers who themselves methylate the spirits they make? Such distillers would obviously have a small pull over those who had to pay a commission to the agents on sales to the methylators or manufacturers. This has been met by providing in the Articles of Association for the payment into the Company's funds, by the

distillers who methylate, of a sum per gallon equal to the selling commission payable by the Combine to the agents.

The point just mentioned is the only resemblance to the well-known "pooling" process, by which those who sold more, paid into, and those who sold less than their proportion received, out of the "pool," so much per gallon.

That the Industrial Spirit Supply Company is in itself apparently not a formidable engine of capitalism would seem to be shown by its registered capital being £1000 in twenty shares of £50 each. In fact, as at present constituted, it is merely an invoicing office, through which all the output of spirits sold by the above-named distillers for methylating or manufacturing purposes must pass. We share then the declared opinion of the promoters that it is at present a most innocent association of manufacturers formed to prevent undercutting of prices, and to afford buyers of spirits for industrial purposes a guarantee that there is no lower price than the one at which they are buying.

It will be able to regulate the inflow and outflow of spirits, with Messrs. Honeywill's hands, as it were, on the tap, so that the possible inroad of the German Centrale may be controlled, by a fall in the price on the one hand, if that Spirit Ring wants to send in spirits here, or be provided with spirits from this side, if the surplus here, and the price over there, warrant the shipment to the Continent of British spirits.

While we indicate above that apparently the general effect, at present, of the new Supply Combine will be of benefit to the traders concerned, we cannot conceal the view which must present itself to the mind of those who have studied the question of monopolies, that they always begin by disclaiming any intention of, at any time, bearing hardly on those whom they supply, and thereby bearing hardly on the dependent industries, and finally on the public. We know of a certain place the way to which is paved with good intentions, and we cannot but foresee that this monopoly within another nearly organised monopoly, may turn out ultimately of anything but advantage to the industries which may be concerned in the production and distribution of industrial and methylated spirits.

Fortunately, perhaps, for those branches of our national commerce which have to look to supplies of cheap alcohol in competition with Germany in particular, where the alcohol used for purposes other than drinking is subsidised and thus rendered artificially cheap for the industries using it, and for consumption for motive power, lighting and heating purposes, we, in order to enable our manufacturers to compete, have lately granted the same drawback to spirits industrially used as to those exported.

As the new Combine heralds an approaching rise in the price of industrial spirits, we see foreshadowed in this a movement which might become dangerous, if the distillers should become too desirous of profit. Happily, however, there is a constant check at present existing in the German article, which will be always on the watch to come in if the price here of the British article is unduly pushed upwards. At present, the Combine would be quite safe at some pence higher, but it is quite likely that in another six months to a year the volume of German production may again bring down the figure over there to a dangerously low point. However, a move up or down becomes now a matter of twenty-four hours with the central bureau of the new Supply Company.

APPENDIX IV

ADDENDUM TO THE REPORT OF THE COMMITTEE ON TRUSTS

(Cd. 9236 of 1919, reprinted 1924 ; by Mr. Ernest Bevin, Mr. J. A. Hobson, Mr. W. H. Watkins, and Mr. Sidney Webb.)

WE have signed the above Report because we find nothing to disagree with in its recommendations ; but we feel that it does not adequately express the gravity of the situation, and that the proposals fall far short of what—in the terms of reference to the Committee—will be necessary to safeguard the public interest.

The fact is that Free Competition no longer governs the business world. The common assumption that the rivalry of traders affords a guarantee that the price of commodities will oscillate closely about the necessary cost of production—whatever may have been its degree of truth in the past—is now, in this country, nowhere to be implicitly relied on. It is nowadays open to doubt whether we ever buy anything at the cost of production. We find that capitalist combination, in one or other form, and at one or other stage of production, transportation and distribution, now loads in varying degrees the price of practically everything that we purchase.

Such a conclusion has momentous implications. The consumer cannot be sure that he is charged no more than is required to defray the necessary costs of production and distribution. The wage earner cannot be convinced that any reduction in the expenses which may be effected by labour-saving machinery or other improvements will be reflected in a fall in price to the consumers. The Government has no assurance that any new tax will not be made a pretext for the levy on the public in enhanced prices of much more than the return to the Exchequer. The primary object of combination or association between businesses in a trade is to raise the level of profits by eliminating competition among the various firms. The larger gains which are admittedly thus

obtained are attributable mainly to three sources :—(1) The saving of wasteful costs of competition ; (2) the reduced expenses of production by better technical and business organisation ; (3) the monopolistic fixing of prices at " what the trade will bear." We may observe that this last source of gain, involving usually an actual rise in prices, almost always and of necessity involves a lower aggregate production than would have emerged had the arrangement not been made. It amounts, in fact, to restriction of output.

The importance of the first and second gains suffices to explain why combination is not always followed by an actual increase of selling prices, but sometimes even by a reduction. An effective monopoly may sometimes find it more profitable to abstain from a reduction of prices that it could well afford to make than to raise prices, which would cut down its sales and lessen the economy of large scale production. In general, however, it is found that the formation of a combination or agreement is attended by a " regulation " of output and an actual rise of prices, due to the fact that most of the organisations control articles or services so essential to the community that the elasticity of demand is slight.

These surplus gains, whether due to an actual rise of price or to a failure to reduce price in correspondence with reduced costs, are got at the expense of the whole public of consumers, whose interests the Committee is enjoined to safeguard. We believe that they amount, in the aggregate, to a very large sum annually.

We do not suggest that any action should be taken to prevent or obstruct combination or association in capitalist enterprise. Apart from the experience that no such interference can be made effective, we have to recognise that association and combination in production and distribution are steps in the greater efficiency, the increased economy, and the better organisation of industry. We regard this evolution as both inevitable and desirable. It is, however, plain that the change from competitive rivalry to combination calls for corresponding developments to secure for the community, both safeguards against the evils of monopoly, and at least a large share of the economic benefits of the better organisation of industry which it promotes.

It has not been possible for the Committee, in the time and with the means at its disposal, to work out a programme of what will in the near future be required for these purposes. We think that this task should be the first duty of the suggested Trusts and Combinations Department of the Board of Trade. We may, however, indicate the following directions in which, as it seems to us, remedy might be sought.

I.

Profiteering may in some cases be kept in check, without preventing the better organisation to be obtained by combination, by the existence of a rival who cannot be persuaded to enter the combination, and who can be relied upon to serve only the public interest. The Co-operative Movement, which returns to its customers in proportion to their purchases all the surplus that it makes over cost, serves incidentally as a check on profit-making combinations, into none of which will it ever consent to enter. The national factories have been found by the Government extremely valuable in this respect during the war. If they could be continued in peace for the production of certain essential commodities, for the protection of the public of consumers, their value in serving as a check upon capitalist combinations might be considerable.

II.

In considering the prevalence of capitalistic combinations in British industry, it is impossible to leave out of account the check upon profiteering which may be afforded by foreign imports. This operates, however, only so long as the foreign producers are not also brought within the combination. Whilst the imposition of import duties would increase the power of combinations to raise prices, " Free Trade " is not, in itself, a complete safeguard against it.

Nor is the objection to the profiteering of capitalist combinations removed by the imposition of a tax which diverts to the Exchequer some or all of what is unnecessarily extracted from the consumer. Such a tax, whilst levied apparently upon profits, may be held to make the Government *particeps criminis* in these overcharges. Such a tax has the further evil that the Government has even an interest in the increase of his gains. It may be better to have an Excess Profits Duty than not to have it, when there are Excess Profits about ; but it would be far more profitable to the community (and, therefore, also to the Exchequer) if there were no excess profits to tax.

III.

The only effective safeguard against the absorption by a capitalist combination of more than the necessary return appears to be the control of prices. We regard the experience, during the war, of the full and precise " costing " of every part of a commodity as affording valuable suggestions for the future fixing by

Government Departments of a Maximum Price for particular articles which can be standardised. Where, as in the case of gas and electricity, such a prescribed price can be made to vary with the amount of profit taken by the capitalist producers, such a "sliding scale" of prices and dividends appears a useful expedient. It involves, it will be noted, the full application of two principles which may be destined to ever-wider application in business, but to which the business world is at present hostile, namely, Publicity and Measurement.

IV.

Where, as is evidently the case in various highly organised capitalist enterprises, competition is being rapidly displaced by combination, largely monopolistic in its structure and powers, and tending to restrict output with a view to raising prices or preventing their fall, we hold that it is contrary to the public interest to allow such enterprises to remain in private hands. In some cases their functions may more advantageously be assumed by the Co-operative Movement. In others their place may be taken by Municipal Enterprise. Where the enterprise is national in scope, and especially where its product enters into practically universal consumption, we see no alternative to State Ownership. But State Ownership does not necessarily imply State Management. In some cases it may be preferable to lease the enterprise, with prescribed schedules of price and wages, and other necessary conditions, for management either by a Local Authority, a Co-operative Society, or a joint stock company. The subject, in our view, urgently needs further study.

(Signed) E. BEVAN.

J. A. HOBSON.

W. H. WATKINS.

SIDNEY WEBB.

24th April, 1919.

LIST OF AUTHORS REFERRED TO

- ABBOTT, G. *Essay on the Mines of England*. London. 1833.
- ANDERSON, A. *Geschichte des Handels*. Riga. 1778. (Translation from English edition of 1764.)
- ASHLEY, SIR W. J. *History of English Industry*. Leipzig. 1896.
- *The Adjustment of Wages*. London. 1903.
- BABBAGE, C. *Economy of Manufactures*. London. 1833.
- BAINES, E. *History of the Cotton Manufacture*. London. 1835.
- BANFIELD, T. C. *Industry of the Rhine*. London. 1848.
- BEACH, C. F. *Monopolies and Industrial Trusts*. St. Louis. 1898.
- BERNOULLI. *Reisebeschreibungen*. 1784.
- BOSENICK. *Der Steinkohlenbergbau in Preussen*. Tübingen. 1909.
- BOWLEY, A. L. *National Progress in Wealth and Trade*. London. 1904.
- BRAND. *History of Newcastle*. London. 1789.
- BRASSEY, LORD. *Papers and Addresses*. London. 1894.
- BRENT, N. *A Discourse of Free Trade*. London. 1645.
- BRENTANO, L. *Arbeitsverhältnis gemäss dem heutigen Recht*. Leipzig. 1877.
- *Die beabsichtige Neuorganisation der deutschen Volkswirtschaft*. 1904.
- BRODNITZ, G. *Betriebskonzentration und Kleinbetrieb in der Englischen Industrie*. 1908.
- BROWN, F. C. *Shipbuilding Depression*. 1926.
- BROWNE, S. *The Laws against Engrossing*. London. 1767.
- BUCHANAN, D. (ed.). *Wealth of Nations*, by A. Smith. 1814.
- BUNNING, T. W. *The Duties on Coal*. Newcastle. 1883.
- BUTLER, D. B. *Portland Cement*. London. 1905.
- CAHILL, J. R. *Report on Economic and Industrial Conditions in France*. London. 1925.
- CHAPMAN, S. J. *Work and Wages*. London. 1904.
- *The Cotton Industry*. London. 1905.
- CHAPTAL. *De l'industrie française*. Paris. 1819.

LIST OF AUTHORS REFERRED TO 349

- CLAPHAM, J. H. *Woollen and Worsted Industries*. London. 1907.
- COX. *Staatseinrichtungen Englands*. Berlin. 1867.
- CUNNINGHAM, W. *Growth of English Industry and Commerce*. Cambridge. 1907.
- DAVIES, J. *An Answer to those Printed Papers published in March last by the late Patentees of Salt*. London. 1641.
- DIETZEL, H. *Das Produzenteninteresse der Arbeiter und die Handelsfreiheit*. Berlin. 1903.
- *Sozial Politik und Handels Politik*. 1902.
- DODERIDGE. *The Tinnners' Grievances*. London. 1697.
- DUNN, M. *View of the Coal Trade*. Newcastle. 1843.
- *The Coal Trade of the North of England*. Newcastle. 1844.
- EDINGTON, R. *A Treatise of the Coal Trade*. London. 1823.
- FECHNER. *Direktionsprinzip im Silesien*. 1900 and 1902.
- FITZGERALD, P. *Industrial Combination in England*. London. 1927.
- FLOWER, P. W. *A History of the Trade in Tin*. London. 1889.
- GALLOWAY, R. L. *History of Coal Mining*. London. 1882.
- GARDINER, R. *England's Grievance Discovered*. Newcastle. 1655.
- GERBER, C. F. *System des deutschen Privatrechts*. Jena. 1852.
- GOLDSTEIN, G. *Die Entwicklung der deutschen Roheisenindustrie seit 1879*. 1909.
- GOTHEIN, E. *Konzentration in Kohlenbergbau*. 1904.
- GRAY, W. *Chorographia or a Survey of Newcastle-upon-Tyne*. 1649.
- GROSSMANN. *Glasindustrie*. Leipzig. 1908.
- *Bedeutung der chemischen Technik*. Halle. 1907.
- HASBACH, W. *Zur Characteristih der englischen Industrie*.
- HELM, L. *British Industries*.
- HEUSER, E. *Pfälzisches Porzellan*. Speyer. 1907.
- HEYMANN. *Die gemischten Werke im deutschen Grosseisen-gewerbe*. Stuttgart. 1904.
- HIRST, F. W. *Monopolies, Trusts, and Cartels*. London. 1903.
- *Safeguarding and Protection*. London. 1926.
- HODGSON, W. B. *Competition*. London. 1870.
- HOOPER. *British Industries*.
- HORSTER. *Die Entwicklung der sächsischen Gewerbefassung*. Krefeld. 1908.
- INAMA-STERNEGG. *Deutsche Wirtschaftsgeschichte*. Leipzig. 1901.

350 LIST OF AUTHORS REFERRED TO

- JACOBSTEIN, M. *The Tobacco Industry in the United States*. New York. 1907.
- JEANS, J. S. *Trusts, Pools and Corners*. London. 1894.
- *The Iron Trade of Great Britain*. London. 1906.
- *British Industries*.
- JUSTI, J. H. G. VON. *Polizeiwissenschaft*. 1760.
- *Abhandlung von den Manufakturen*. Copenhagen. 1767.
- KLOSTERMANN. *Das allgemeine Berggesetz*. Berlin. 1884.
- KNAPMANN, K. *Das Eisen- und Stahldrahtgewerbe in Allena*. Leipzig. 1907.
- KOCH, W. *Die Konzentrationsbewegung in der deutschen Electro-industrie*. Munich. 1907.
- LAWSON, W. J. *American Industrial Problems*. London. 1903.
- LEVY, H. *English Cartels of the Past*. 1907.
- *Large and Small Holdings*. Cambridge. 1911.
- *England und die Konzentrationsbewegung in der deutschen Industrie*. 1926.
- *Einfluss der Zollpolitik auf die wirtschaftliche Entwicklung der Vereinigten Staaten von America*. 1906.
- *Entwicklungsgeschichte einer amerikanischen Industrie*. 1905.
- *Die Stahlindustrie der Vereinigten Staaten von Amerika*. Berlin. 1905.
- *Der Weltmarkt 1913 und heute*. Leipzig. 1926.
- *Amerika als Wirtschaftsmacht*. Leipzig. 1923.
- *Concentration in German Industry*. 1926.
- LEWIS, F. H. *The Cement Industry*. New York. 1900.
- LEWIS, G. R. *The Stannaries*. London. 1908.
- LIEFMANN, R. *Schutzzoll und Kartelle*. Jena. 1903.
- *Kartelle und Trusts*. Stuttgart. 1920.
- LIST, F. *Der internationale Handel*. Stuttgart. 1841.
- MACAULAY'S *History of England*.
- M'CULLOCH, J. R. *Dictionary of Commerce*. London. 1882.
- *Treatises and Essays*. Edinburgh. 1859.
- *Principles of Political Economy*. Edinburgh. 1825.
- *Essay on the Rate of Wages*. Edinburgh. 1826.
- MACROSTY, H. W. *The Trust Movement in British Industry*. London. 1907.
- MALTHUS, T. R. *Essay on the Principle of Population*. London. 1817. (5th edit.)
- MALYNES, G. *Lex Mercatoria*. London. 1622.
- MARTIN, G. *La grande industrie en France*. Paris. 1900.

LIST OF AUTHORS REFERRED TO 351

- MEADE, A. *Coal and Iron Industries of the United Kingdom*. London. 1882.
- MILL, J. S. *Political Economy*. 1848.
- MISSOLDEN, E. *Free Trade*. London. 1622.
- MONTAGUE, F. C. *History of England*. London. 1907.
- MORGENROTH. *Exportpolitik der Kartelle*. Leipzig. 1907.
- NICHOLLS, H. G. *The Forest of Dean*. London. 1858.
- PALGRAVE's *Dictionary of Political Economy*.
- PARKER, HENRY. *Of a Free Trade*. London. 1648.
- PAXMANN. *Wirtschaftliche Verhältnisse der Kaliindustrie*. Berlin. 1907.
- PIERCE. *The Tariff and the Trusts*. New York. 1907.
- PORTER, G. R. *The Progress of the Nation*. London. 1851.
- PRICE, H. HYDE. *The English Patents of Monopoly*. Boston. 1906.
- RAFFEL. *Englische Freihändler vor A. Smith*. Tübingen. 1905.
- ROBERTS, L. *The Treasure of Traffike*. London. 1641.
- ROGERS, J. E. THOROLD. *History of Agriculture and Prices*. 1866, 1882.
- *Industrial and Commercial History of England*. London. 1892.
- SCHLÖZER. *Staatsanzeigen*. Göttingen. 1783.
- SCHMOLLER, G. *Grundriss der allgemeinen Volkswirtschaftslehre*. 1908.
- SCHULZE. *Chemische Industrie*.
- SCHULZE-GÄVERNITZ. *Englischer Freihandel und Britischer Imperialismus*. Leipzig. 1906.
- SCHUSTER UND WEHBERG. *Der Wirtschaftskrieg. England*. Jena. 1917.
- SCHÜTZ. *Die alt-württembergische Gewerbefassung*. 1850.
- SCOTT, W. R. *Records of a Scottish Cloth Manufactory*. Edinburgh. 1905.
- SCRIVENER, H. *History of the Iron Trade*. 1841.
- SMITH, ADAM. *Wealth of Nations*. 1776.
- SOLGER, H. *Der Kreis Beuthen*. Breslau. 1860.
- SOMBART. *Der moderne Capitalismus*. Leipzig. 1902.
- *Die Deutsche Volkswirtschaft*. Berlin. 1903.
- SOPWITH, T. *The Award of the Dean Forest Commissioners*. London. 1841.
- SPICER, A. D. *The Paper Trade*. London. 1907.
- STEIDA, W. *Die keramische Industrie in Bayern*. Leipzig. 1906.

352 LIST OF AUTHORS REFERRED TO

- STEUART, SIR JAMES. *Principles of Political Economy*. London. 1767.
- STILLICH, O. *Steinkohlindustrie*. Leipzig. 1906.
- TAYLOR, J. *Statements respecting the Profits of Mining in England*. London. 1825.
- THOMAS, D. A. (Lord Rhondda). *Growth and Direction of the Foreign Trade in Coal*. 1903.
- THOMAS, F. MOY. J. and R. Morley. London. 1900.
- THUN. *Die Industrie am Niederrhein*. Leipzig. 1879.
- TOOKE AND NEWMARCH'S *History of Prices*. 1838-1857.
- TOYNBEE, A. *The Industrial Revolution*. London. 1884.
- TROELTSCH, W. *Die Calwer Zeughandelscompagnie*. Jena. 1897.
- TUCKER, J. *Cui Bono?* London. 1782. (3rd edit.)
- UHDE. *Produktionsbedingungen des deutschen und englischen Steinkohlenbergbaues*. Jena. 1907.
- UNWIN, G. *Industrial Organisation*. Oxford. 1904.
- *Gilds of London*. London. 1908.
- WARDLE, T. *Report on the English Silk Industry*. 1884.
- WEHBERG, 261, 275, 292; see Schuster.
- WHITE, A. G. *The Electrical Industry*. London. 1904.
- WIESE, VON. *Entwicklung der Rohrtrinkfabrikation*. Jena. 1903.
- WILKINS, R. *The Sope Patentees of London's Petition opened and explained*. London. 1694.

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