

**INTERNATIONAL
COMBINES IN
MODERN INDUSTRY**

ALSO BY ALFRED PLUMMER

EXERCISES IN ECONOMICS

A supplementary textbook for class or private use, containing a large number of frequently recurring questions with model solutions.

In demy 8vo, cloth, 85 pp. 2s. net. Second Edition.

SOME PRESS OPINIONS

"A volume which contains a surprising amount of information carefully arranged and carefully printed."—*Scottish Educational Journal.*

"This is a stimulating and suggestive little book."—*Schoolmaster.*

"The author has adopted a method which makes economics interesting even to the uneconomic mind."—*Piebs.*

See Isaac Pitman & Sons, Ltd., Parker St., London, W.6.3

INTERNATIONAL COMBINES IN MODERN INDUSTRY

BY

ALFRED PLUMMER

B.LITT., M.Sc. (Econ.), LL.D.

VICE-PRINCIPAL OF RUSKIN COLLEGE, OXFORD
SOMETIME LECTURER IN ECONOMICS AND COMMERCE IN
UNIVERSITY COLLEGE, SOUTHAMPTON



LONDON
SIR ISAAC PITMAN & SONS, LTD.

1934

X : 517.1-1

G4

SIR ISAAC PITMAN & SONS, Ltd.
PITMAN HOUSE, PARKER STREET, KINGSWAY, LONDON, W.C.2
THE FITMAN PRESS, BATH
FITMAN HOUSE, LITTLE COLLINS STREET, MELBOURNE
ASSOCIATED COMPANIES
PITMAN PUBLISHING CORPORATION
2 WEST 45TH STREET, NEW YORK
SIR ISAAC PITMAN & SONS (CANADA), Ltd.
(INCORPORATING THE COMMERCIAL TEXT BOOK COMPANY)
FITMAN HOUSE, 381-383 CHURCH STREET, TORONTO

11370

PRINTED IN GREAT BRITAIN
AT THE FITMAN PRESS, BATH

PREFACE

AS soon as one seriously begins to gather the materials for a book on International Combines the scarcity of general works on this subject ceases to be a mystery. It would not be easy to trace the remarkable ramifications of international combines of all kinds even if abundant sources of information were available; but, as it is, the task is made doubly difficult by the paucity of materials. Even the experts employed by the League of Nations have not yet been able satisfactorily to surmount this obstacle. Moreover, many of the looser international combines are, as yet, so unstable and impermanent that they are dissolved, modified, reconstituted and, perhaps, dissolved again even as one writes; while the majority of the more closely-knit international concerns and trusts do not choose to "tell the world" very much about themselves and their operations.

A. P.

RUSKIN COLLEGE
OXFORD

CONTENTS

PREFACE	PAGE V
-------------------	-----------

CHAPTER I

INTRODUCTORY SURVEY	I
-------------------------------	---

Free competition and scarcity as assumptions in economic theory—Planning not necessarily governmental—International capitalistic organizations—International combines in the nineteenth century and the early years of the twentieth century—The Necker Salt Union—The Nobel Dynamite Trust—The chemical industry—Borax Consolidated—Cement and powder—"Sofina"—Iron and steel products—Oil—Incandescent lamps—Glass bottles—I.R.M.A.—The effects of the outbreak of war in 1914—Post-war progress of international combines—Is the movement becoming more comprehensive and monopolistic?

CHAPTER II

TYPES OF INTERNATIONAL COMBINES	14
---	----

A rough classification—The characteristics of international cartels—Cartels of producers of staple commodities—Conditions essential to their success—Coffee—Rubber—Sugar—The Chadbourne Plan—Tin—Pulp—The characteristics of "concerns"—And of international trusts—The holding company method—The artificial silk, or rayon, industry—Courtaulds and associated companies—The electricity supply industry—The Du Pont de Nemours concern—General Motors—The Standard Oil Trust—The international metal combine—The Unilever combine—Sundry other international concerns—International trusts and "international businesses" compared—Ivar Kreuger and the Swedish Match Co.—The Ford Motor Co.—Dunlops—The electrical manufacturing industry—Telephones and telegraphs—Cables and Wireless, Ltd.—Imperial Chemical Industries—Sewing cotton—Vickers, Armstrong-Whitworths, and Rolls-Royce

CHAPTER III

FORMATION (I): AIDS AND INCENTIVES	54
--	----

"Causes" or initial impulses—Conditions favourable to the formation of international combines—The Shipping Rings or Conferences—The International Linoleum combine—Calcium Carbide—Petroleum—International buyers' combine—The Association of Bone-glue Manufacturers—The

International Federation of Master Cotton Spinners' and Manufacturers' Associations—The Bismuth Syndicate—The Convention Internationale des Glaceries—The Aluminium industry—The tobacco combines—The Convention for the Development and Progress of the International Electric Lamp Industry—The British Thomson-Houston Co.—Aniline dyes—National combines or groups and the formation of international combines—The potash industry—The European Mercury Consortium—The nitrate industry—The International Steel Cartel—Tin restriction, stocks, and prices—The problem of stabilization—The International Tea Cartel—The Wheat Agreement—State action and international combines—The International Zinc Cartel

CHAPTER IV

FORMATION (II): OBSTACLES 106

The obstacles to the formation of national and international combines are similar—The problem of the coal trade—Disparities in conditions and costs of production—All producers not equally interested—National laws and international combines—The attitudes of various States

CHAPTER V

MARKETS, TARIFFS, AND QUOTAS 116

Possible conflicts between national public policy and international private arrangements—The British dyestuffs industry and the international dyestuffs agreement—Reservation of the home market—Do international combines make protective tariffs unnecessary?—Effects of changes in tariff policies—Steel and copper—Export markets or non-reserved territories—Quotas: their negotiation and revision—Loyalty and discipline within international combines—Steel rails—The International Aniline Convention—The International Tube Cartel—Quebracho—Mercury—The International Steel Cartel and the vexed question of quotas—Fines and compensations—Aluminium; wagons, and tin

CHAPTER VI

EFFECTS AND TENDENCIES 141

International combines, the working classes and the intermediate consumers—Arguments for the combines—Prices and output—The consumers' defences—The policy of preserving the high-cost producers—Competition, potential and actual—The "competition of substitutes"—Synthetic substances—Illustrations from the nitrate, rubber, zinc, mercury and copper industries—Do international combines impart stability of prices?—The combines and the wage-earners—Wages—Employment—The trade unions—International trades unionism

CONTENTS

ix

CHAPTER VII

PAGE

FUTURE PROSPECTS 161

Are international combines to be condemned or encouraged?—Can they be controlled?—They would gain from a closer approximation of purchasing power and consuming power among consumers—Agriculture is the key—Modern international economic organization is ahead of political organization—The international combines and the New Age—They may contribute to world peace

APPENDICES : DOCUMENTS RELATING TO INTERNATIONAL
COMBINES AND INTERNATIONAL TRADES UNIONISM 167

BIBLIOGRAPHY 187

INDEX 189

INTERNATIONAL COMBINES IN MODERN INDUSTRY

CHAPTER I

INTRODUCTORY SURVEY

1 At least two of the assumptions of classical economics can no longer be retained. In the first place, the assumption that free competition is the rule, to which combines and monopolies are but occasional exceptions, has steadily become less and less satisfactory as actual competition has diminished during the past half-century. In the second place, the assumption that scarcity is the rule and plenty the exception can hardly have general application in a world so obviously oppressed by abundance. Indeed, it is the advent of abundance which, having first produced bouts of intense competition, has afterwards resulted in a desire for more orderly and peaceful planning of production and marketing; for the conscious balancing of producers' outputs and consumers' demands. "Economic planning" or the "need for economic planning" are popular phrases of the moment.¹ But planning and control from the centre is not, after all, a very new idea; nor does it always and necessarily take the form of *governmental* or state planning and central control. There may be—and in fact there has been in the near past—an increase of economic planning and central control, not by governments, but by huge capitalistic organizations, not a few of which are international in

¹ Cf. Art. by P. T. Homan in *Quarterly Journal of Economics*, November, 1932, pages 102-22.

scope, their planning being limited only by the confines of the habitable world. Within the last thirty or forty years international organization has made new departures in the economic as well as the political sphere. Great industrial, commercial, and financial organizations have begun to operate on an unprecedentedly colossal scale, extending their complex network of activities even to the ends of the earth. Dr. Liefmann refers to these organizations, especially the great international ones, as the "high spot" of modern capitalism, "of the spirit of enterprise which exploits all technical achievement for the purpose of gain, the system to which the modern world has entrusted the satisfaction of its needs."¹

Various words are commonly used to describe the forms of international industrial organization with which this book deals—cartel, combine, concern, consortium, convention, conference, trust, syndicate, ring, association, industrial agreement, and so forth. But the list is not really so formidable as it looks, because several of the terms are, for all practical purposes, synonymous. We shall shortly go into details, but, for the sake of convenience and to avoid confusion, all forms of international combination, whether loosely or closely knit, and whatever their special features or peculiarities, will be referred to here and throughout the succeeding chapters as international combines.

Owing to economic nationalism, differences in industrial standards of different countries, and the difficulties of exercising effective control over great distances, the international combine movement has lagged behind the rise and development of national combines. Although a few roots reach back into the nineteenth century, the various forms of international combinations to be seen in the world to-day may fairly be described as very largely twentieth-century products. In 1897, Dr. Robert Liefmann found some forty different international combines of various kinds in

¹ Liefmann, *Cartels, Concerns and Trusts* (1932), page 6.

which German interests participated,¹ the other parties being, as a rule, either British, French, Belgian, or Austrian. At the end of the first fourteen years of the present century, 114 international combines were known to be in existence, and doubtless there were also many secret organizations, "gentlemen's agreements," and so forth, not included in this total. The known combines were distributed among different industries as follows²—

Coal, ores, and metals	26
Chemical and allied	19
Transportation	18
Textiles	15
Stoneware and porcelain	8
Paper	7
Stones and earths	6
Electrical	5
Miscellaneous	10

These combines aimed at a variety of objects, all characteristic of international combines before and since, viz. preservation of an undisputed internal or "home" market for each national group; division and delimitation of export markets or "sales territories"; suppression of price-cutting; "regulation" of prices; exchange of patents and technical knowledge; standardization and reduction of redundant varieties; concentration of production; elimination of inefficient plants; concerted regulation and restriction of output; and joint purchase of materials.

The earliest near approach to an international cartel yet discovered is the Neckar Salt Union, formed in 1828 between salt works in the States of Wurtemberg, Baden, and Hesse, which, after 1867, had agreements with the Eastern French Salt Works syndicate.³ In 1886, Nobel Dynamite Trust Co., Ltd., was formed. According to Dr. Liefmann, "It comprised at first two (later three) English companies,

¹ R. Liefmann, *Die Unternehmerverbände, Konventionen, Kartelle* (1897), Chapter I.

² W. Notz in *Journal of Political Economy*, October, 1920, page 659; quoting B. Harms, *Probleme der Weltwirtschaft* (1912).

³ Liefmann, *Cartels, Concerns and Trusts*, pages 21-2, 148.

4 INTERNATIONAL COMBINES IN MODERN INDUSTRY

four (later six) German companies, and one company each in Switzerland, Mexico, and Brazil. The Nobel Trust entered into agreements with the Société Centrale de la Dynamite in Paris." The Société Centrale was itself a holding company, organized in 1887 to unite French, Italian, Spanish, and Swiss manufacturers. Later, the Nobel Trust made an agreement with the German cartel of gunpowder factories, "thus attaining a monopolistic position which spread beyond the borders of Europe."¹

As examples of "solidly organized international syndicates" in the chemical industry, Dr. Liefmann cites the Bismuth Syndicate (formed in the eighteen-seventies), the Borax Syndicate, the Acetic Acid Syndicate, the Carbide Syndicate, and the cartels in the explosives industry; and he adds that there were also international cartels of producers of porcelain, table glass, watch glass, and enamelled ware.² Borax Consolidated, Ltd., was formed in 1899, and rapidly acquired six undertakings which owned deposits in the United States, South America, and Asia Minor, and factories in the United States, France, and the United Kingdom. It extended its ramifications further within those countries by acquiring controlling interests in other companies, and so eventually gained virtual control of the world market. The combine's position was particularly strong in relation to countries having a large consumption but no deposits. "Recent reports indicate: (1) that a new process of recovering borax from kernite will revolutionize the industry, this method being much cheaper than recovery from brine or from mineral deposits around Death Valley; (2) that the United States remains the chief source of world supply; (3) that the predominant producing interests are still British, the American Potash and Chemical Corporation (producing from brine) being a subsidiary of the New Consolidated Gold Fields of South Africa (a London concern); and the Pacific Coast Borax Company (producing

¹ *Encyclopaedia of the Social Sciences*, vii, page 410.

² Liefmann, *Cartels, Concerns and Trusts*, pages 150-1, 158.

from kernite) being a subsidiary of the Borax Consolidated Ltd. of London."¹

In the cement industry, Belgian, German, English, Swedish, Danish, and Norwegian syndicates combined in order to divide foreign markets and regulate prices. The International Powder Agreement between British, German, and American interests, for the purpose of limiting competition and dividing markets, dated from 1897.² The Belgian Société Financière de Transports et d'Entreprises Industrielles ("Sofina") was originally founded in 1898 by the Gesfürel-Loewe concern (Gesellschaft für elektrische Unternehmungen-Ludw. Loewe & Co. A.-G.). After the acquisition of the Gesfürel undertakings by the A.E.G. in 1903, Sofina became part of that company's extensive international network of holding companies; but the war of 1914-18 severed the links between the German and Belgian concerns. Before the War, the economic interdependence of the iron and steel industries of France, Belgium, Luxemburg, and Germany gave rise to sundry international financial links between undertakings in those countries, and the formation of a number of international cartels, generally between German, French, Belgian, and Austrian producers, covering steel rails, tubes, screws,³ galvanized steel, rods, and wire nails.⁴ In the wire-netting industry an agreement between British and German manufacturers was concluded in 1906 and lasted until the outbreak of war in 1914. The Committee on Industry and Trade stated that "discussions regarding a renewed international agreement" have since been revived, "but, it is understood, without results."⁵ Dr. Fitzgerald, however (writing in 1927), asserts that "in the (British) wire-netting trade, in which there are about twenty firms, there is a

¹ Donaldson, *International Economic Relations* (1929), page 324.

² Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency* (1927), page 113.

³ Balfour Committee on Industry and Trade, *Survey of Metal Industries* (1928), page 79.

⁴ *Factors in Industrial and Commercial Efficiency*, page 111.

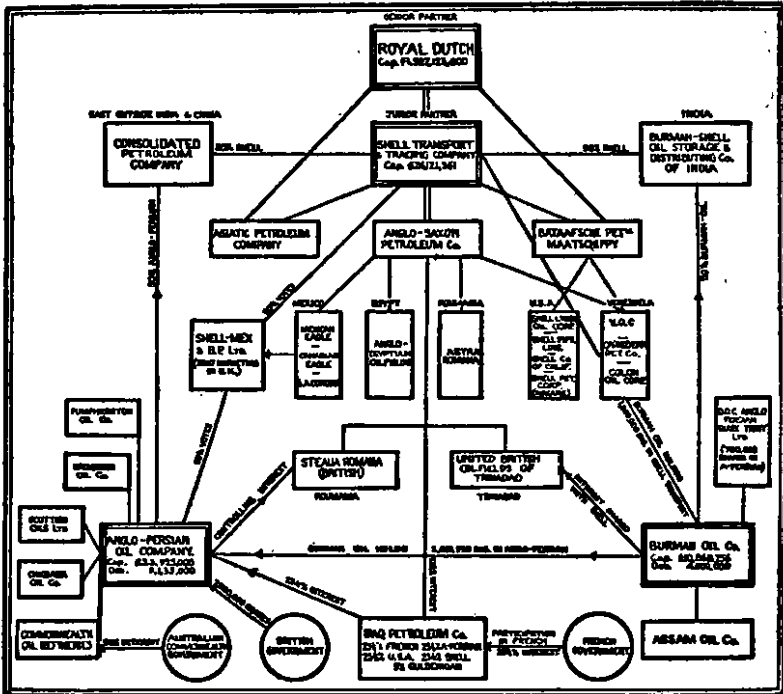
⁵ *Survey of Metal Industries*, page 36.

6 INTERNATIONAL COMBINES IN MODERN INDUSTRY

fairly stable association, which not only controls the bulk of the home trade, but is (since June, 1926) closely allied with the German, Belgian, and French associations under

INTERNATIONAL OIL GROUPING

BASIS OF PARTNERSHIP IN ROYAL DUTCH-SHELL GROUP IS 60 PER CENT TO ROYAL DUTCH AND 40 PER CENT TO SHELL TRANSPORT



[From *The Economist*, 26th December, 1932, by courtesy of the Editor]

an agreement which provides that the latter shall not export to England below certain minimum prices."¹

✓ If we turn to the oil industry we find that international

¹ Fitzgerald, *Industrial Combination in England*, page 52; quoting *The Ironmonger*, 26th June, 1926, and 14th July, 1926. The Iron and Steel Manufacturers' Association have refused to give any information regarding the present position.

organization has been a feature from the beginning. The Royal Dutch Petroleum Company, for example, and the Shell Transport and Trading Company, Ltd., have been in close combination since 1907 in the production and marketing of petrol and oil. Besides the British and Dutch shareholders in this combine, French and American investors acquired holdings of its stock. The original centre of its operations was the Dutch East Indies, but its activities soon spread. It acquired oilfields and refineries in other countries and steadily built up a wide-flung distributing organization,¹ so that to-day it has important interests in oil undertakings throughout the world, and controls approximately 10 per cent of world production. In conjunction with the Anglo-Persian Oil Company and the Deutsche Bank, the Royal Dutch Shell combine acquired the Turkish Petroleum Company,² now called the Irak Petroleum Company.³ Its American subsidiary, the Shell Union Oil Corporation, has recently made considerable headway in the United States market, while as regards oil distribution in India, China, and other eastern countries, the Royal Dutch-Shell and the Anglo-Persian-Burma groups are as one. In Great Britain these companies market their products through a common organization known as Shell Mex and B.P., Ltd.

The International Incandescent Lamp Cartel was originally a sales syndicate comprising all the producers of Germany, Austria-Hungary, Holland, and Switzerland. Dissolved in 1913, it was revived after the War in a somewhat looser form, but with the addition of the producers of England, France, Italy, Scandinavia, Japan, and the United States. Another large and typical pre-war international combine was the International Glass Bottle Association, formed in 1907. Its chief object was the joint purchase of the rights to use the patents covering the Owens

¹ *Factors in Industrial and Commercial Efficiency*, pages 113-4.

² Knight, Barnes, and Flugel, *Economic History of Europe* (1927), pages 666-7.

³ *Economist*, December, 1932, pages 1229-30.

automatic bottle-making apparatus, whereby machine methods were substituted for the old glass-blowing processes.¹

An arrangement was made in 1907 between the British manufacturers who were shareholders in the Europaischer Verband der Flaschenfabriken (the purchaser of the European patent rights) and the Continental shareholders, whereby the Continental companies undertook not to sell in this country at prices under those fixed by the British price-fixing association—the Association of Glass Bottle Manufacturers of Great Britain and Ireland. British manufacturers similarly agreed not to undersell Continental companies in their own countries.

A further arrangement was arrived at, before the War, with the Europaischer Verband der Flaschenfabriken, under which, in view of the depressed state of the industry, the output of the Owens machines was to be strictly limited at first, and afterwards gradually increased.²

Another outstanding example was the International Rail Makers' Association.

A Steel Rail Makers' Association of Great Britain was formed in 1884 and as a result of negotiations with the rail-makers of Germany and Belgium, the only two important exporting countries at the time, an International Association was formed with the object of dividing all export orders for steel rails, each national group undertaking not to quote for work for use in the countries of the other groups. This agreement continued until about the middle of 1886, and then lapsed with the termination of the British combination. In January, 1896, the present British Rail Makers' Association was formed, and in 1904 it entered into negotiations with the German and Belgian Steel Rail Makers who had just established central selling organizations, and an agreement was reached, to which the French makers were also parties, in the latter part of that year. Under this agreement each group retained the exclusive right to its own home markets, and the export trade was allocated in certain definite

¹ It was alleged that this combine tried to force non-combine firms to join by underselling them or threatening to do so.

² *Factors in Industrial and Commercial Efficiency*, page 112.

proportions between the four national groups, the French being guaranteed a minimum tonnage.¹

Besides these typical international combines there were a few special or peculiar arrangements, such as the international syndicate of banks, formed at the beginning of the twentieth century, and backed by their respective governments, for the purpose of making loans to China. Originally this combine included a group of American banks, but these were forced to withdraw.²

The outbreak of war in 1914 practically put an end to the international combine movement for the time being, because it severed economic relations between the countries in which the component parts of all the most important international combines were domiciled. From the shade of this great international eclipse the business world as a whole did not begin to emerge for several years after 1918. But when it did, international combines soon became important again and resumed their places in the general movement, which is as yet still in its early stages. Many international combines which existed before the War have been revived, and many new ones have been formed under impulses and in circumstances which will be discussed later. Thus, in 1927 the Committee on Industry and Trade remarked that the "enamel ware cartel has been re-formed; a cartel in the form of a price convention of the principal European countries producing wood screws has been set up; and an arrangement has been concluded between Belgian and German producers of rolled wire to refrain from competing in each other's home market."³ It must be remembered, however, that some of the new international combines really existed previously as national combines, and have been made international by the drawing of new frontiers since 1918. Dr. Liefmann remarks upon the crop of international cartels,

¹ *Report of the Committee on Trusts* (Cmd. 9236, 1919), pages 40-1. The subsequent history of the I.R.M.A. is outlined in Chapter V.

² Jenks and Clark, *The Trust Problem* (Fourth edition, 1922), page 55.

³ *Factors in Industrial and Commercial Efficiency*, page 111.

✓ which have come into existence since the end of the War, between Austrian producers and those of the various succession states in Europe, e.g. Czechoslovakia, Hungary, and Poland, notably in the iron and steel, pottery, and cement industries. Moreover, "to some extent former ✓ financial connections have been kept up by means of holding companies domiciled in Switzerland."¹

✓ The post-war progress of international combines has been largely stimulated by the remarkable and abnormal increase in productive capacity in so many industries and countries, due to the tremendous stimulus given by the War, coupled with a striking acceleration of the rate of scientific and technical progress. ✓ The result has been the intensification of international competition, or the danger and fear of it, which has driven producers into international combines.

With relatively few exceptions (e.g. electrical products) international combines deal, or have dealt, so far, chiefly with raw materials and basic manufactures, such as nitrate, potash, raw steel, steel tubes, and rails; that is to say, with those branches of industry whose products are supplied in bulk or in a few recognized grades. But there are signs that the movement is now on the point of becoming more comprehensive, and, given experience and the accumulation of knowledge regarding this branch of modern economic organization, the difficulties in its way do not appear to be insuperable. This opinion may alarm many who are in the habit of assuming that international combines are necessarily monopolists, or very nearly so. ✓ While a great many are monopolistic in tendency, in fact they do not all achieve monopolistic or even quasi-monopolistic positions. ✓ A combine may well be international, yet not exercise control over a substantial proportion of the output of a certain region, or of the world. The British Sulphate of Ammonia Federation, for instance, is an association of firms controlling over 90 per cent of the British output. "It is a private company 'limited by guarantee and having no share capital'.

¹ *Cartels, Concerns and Trusts*, page 153.

Membership is open to all manufacturers within the United Kingdom and the Empire who produce a specified quantity of sulphate of ammonia. General management and control is vested in a 'Council' and an 'Executive Committee', the former being given absolute power to decide the membership of the company."¹ The membership now embraces producers in South Africa, Canada, and Australia, and a great many of the makers in India. Nor does its activity stop at the confines of the British Empire, for industrial agreements have been made with similar associations in Germany, France, Belgium, Holland, Italy, and Japan. Nevertheless, these associations do not include all the producers either in their respective countries or in the world. Moreover, another even greater obstacle to the creation of a monopoly exists in the competition of rival fertilizers, such as natural nitrate of soda.² The production of lead is in the hands of three chief groups, namely, the United States group, which produces approximately 28 per cent of world output; the British Empire group, producing approximately 25 per cent,³ and the Mexicans, who produce 16 per cent. The agreements binding the International Association of Lead Producers were concluded in 1928 for four years. In June, 1932, they were provisionally renewed pending the outcome of fresh negotiations. The cartel included producers in the British Empire, the Dutch East Indies, and Mexico; but there remained outside it the United States group of producers as well as those of continental Europe. There was thus no approach to a monopolistic position with control of world output and prices. But in trying to form the new international cartel, efforts were made to secure the participation of the German, Spanish, and Italian producers,⁴ and these approaches may bear fruit at some future time.

There may, of course, be competition between two or more international combines in the same industrial field;

¹ Fitzgerald, *op. cit.*, pages 85-7.

² We shall return to this point in Chapter III.

³ The British Empire is now a net exporter of lead.

⁴ *Manchester Guardian Commercial*, 6th August, 1932, page 122.

but the larger and fewer these international groupings become, the greater grows the probability that one day they will conclude an agreement which will terminate all competition between them. At present it may be said that the majority of international combines are limited in scope, and many of them are very loosely knit together. Important and powerful industrialists, although they may be willing to associate with others, do not readily surrender their autonomy in its entirety. Moreover, their undertakings do not grow at a uniform rate: some advance rapidly, others slowly, others not at all; so that no alliance or similar arrangement can be final. Constant readjustments are necessary if the combine is to continue. Also, scientific and technical progress, so rapid and widespread in the modern world, is always a disturbing factor, making for impermanence. There are, in fact, very few international combines which really comprise all the more important producers, possess a monopoly in the world market, and are, at the same time, closely associated in a tolerably permanent manner. Some, however, have succeeded in establishing and maintaining "virtual" monopolies, although they have been less successful in achieving closeness of organization. There is, for instance, an International Cyanamide Syndicate in which German interests predominate, but which includes factories in France, Italy, Belgium, Yugoslavia, Czechoslovakia, Sweden, Norway, Switzerland, and Poland. This syndicate controls 92 per cent of total world output, of which the German share is more than two-fifths. Before the War the International Quinine Agreement divided up "territories" amongst the American, British, Dutch, French, and German companies who were members of the combine, and specified (*inter alia*) that American and French producers should not sell in Great Britain, and the British company should not sell in France or the United States. But since the War the British interests have considerably extended their sphere of trading. Since approximately 95 per cent of the world output of cinchona bark comes from

Java, the agreement between the European manufacturers and the Java growers amounts to a virtual world monopoly. The magnesia industry furnishes another example. Only 1 per cent of the magnesia-producing firms of Austria, Germany, Czechoslovakia, England, and Italy are outside the international magnesia combine, led by Veits Magnesia Works Company of Vienna. The International Mirror-glass Syndicate comprises nearly all the European makers of mirror-glass. Aided by the existence of financial concentration in the industry, the Syndicate is now "probably the most firmly organized international cartel to be found in any industry."¹

¹ Liefmann, *Cartels, Concerns and Trusts*, pages 105, 149.

CHAPTER II

TYPES OF INTERNATIONAL COMBINES

It is exceedingly difficult to classify satisfactorily the various types of international combines, and some, indeed, defy classification: but at least we can begin by defining the line which divides (1) International Cartels (including International Output Agreements) from (2) International Concerns, Trusts, and Holding Companies (including National Combines with international ramifications).

Dr. Robert Jaccard says that "industrial syndicates, also called cartels, are understandings (ententes) concluded between producers, who conserve their autonomy, to restrict or suppress competition," and in another definition he states that the industrial cartel "is an understanding between producers of two or several countries who, while conserving their independence, agree to take measures in common with a view to restricting or suppressing competition in the international markets."¹ The definition given by the authors of the League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (No. E. 736, Geneva, 1931) is worded differently.

Cartels are associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale. They are called "syndicates" or "*comptoirs*" where they have set up a common sales organization.²

Here there is nothing about the restriction or suppression of competition; but it is admitted (page 9) that the efforts of cartels to improve the positions of their members result in "a certain curtailment of unnecessary or excessive competition."

¹ Jaccard, *Les Syndicats industriels en Suisse* (Lausanne, 1925), page 11.

² Page 8.

For the attainment of such objects, the members of the cartel agree in the common interest of their undertakings to take a number of joint steps in connection with both the production and sale of their products with a view to influencing or regulating the conditions of the market as extensively as possible. It is essential for the attainment of this object, and therefore conclusive as regards the character of the cartel as such, that it should comprise the majority, or, at any rate, the preponderant part, of the producers or sellors of the particular goods concerned, to such an extent as to compel the majority of the consumers to apply to the cartel for the satisfaction of their requirements.

Besides the preservation of the autonomy of the members, and the modification, restriction, or suppression of competitive conditions, cartels are characterized by the fact that the profits realized by each member are the net result of (a) its sales as regulated by the cartel agreement, and (b) its costs as determined by its own particular methods of production, internal economies, and so forth. Cartels are also characterized by their impermanence; but duration or degree of permanence cannot be included as a *distinguishing* characteristic. It is obvious that the proposed or intended duration of a cartel may differ widely from the actual duration of it. The latter seems largely to depend upon the business success met with by the cartel; the quality of its internal regulations; and the extent to which it proves necessary and possible to enforce disciplinary measures. The element of permanence is, of course, a factor of considerable importance, for if the agreement is stated to be of short duration, or seems likely, for other reasons, to be extremely temporary, each member will feel that he must be prepared for the situation which will arise if the agreement is not renewed. He will strive, for instance, to retain as many of his old trade connections as possible, and he will be reluctant to reduce very drastically the range and variety of goods which he has been in the habit of producing. Loyalty to the cartel is thus undermined.

An international cartel, unlike a trust, does not constitute

a great unified legal entity, holding property of its own. Cartels commonly own little property. They are, in essence, merely industrial alliances between a number of separate units in two or more countries, or between two or more cartels, or between some independent producers and one or more cartels. None of these member bodies surrenders the right to be master in its own house and to make and benefit by such technical and organizational improvements as it can, except so far as limits are set by the acceptance of an output quota or some similar necessary incident of the cartelization scheme. "In some cases, however, a cartel for reasons of practical convenience, takes on the outward form of a company proper, with a separate legal personality, but this company is really no more than an executive instrument. In point of fact, it operates on account and for the profit of the members of the cartel. Thus joint selling or purchasing agencies frequently assume the form of commercial companies. At the same time their capital is generally very small."¹

The loosest form of international cartel is the friendly "understanding" or "gentlemen's agreement," and next in order comes the cartel composed of a mixture of national cartels and independent producers. International combines of this type are likely to be more unwieldy, less flexible in changing circumstances, and less permanent than international cartels composed of a relatively small number of thoroughly consolidated national units. In the International Incandescent Lamp Cartel,² and again in the Aluminium Cartel, there are some uncombined units and some combined groups. The French electric lamp manufacturers, for example, are combined in the Compagnie des Lampes.

Special sales agreements between cartelized and non-cartelized producers relating to particular products may be used to supplement the main operations of an international cartel. Thus, the American and English steel producers,

¹ League of Nations *Review of the Legal Aspects of Industrial Agreements* (1930), page 5.

² Formed in 1902.

although not members of the International Steel Cartel, were able to conclude with that organization special sales agreements covering pipes and metal plates. The International Tube Cartel, which sprang originally from the combination of German producers with certain others in Polish Upper Silesia and Czechoslovakia, has developed in a similar way. In 1926, French and Belgian works were included on terms which made the cartel partly a territorial cartel and partly a price agreement; but subsequently it was possible to secure agreement to aggregate output quotas, the German Tube Combine being predominant with a quota of 60 per cent. During the years 1927-29, other Polish producers joined, and agreements, as to export quotas only, were concluded with producers in England and Canada. Also two leading American undertakings—the Alleghany Steel Corporation and the Delaware Seamless Tube Corporation—entered into an agreement with the German Mannesmann Tube Companies, members of the international cartel, to share the international market.¹ Again, the Dyestuffs Cartel is, at bottom, an agreement between the German Farbenindustrie and the Kuhlmann Company of France, and it is mainly directed from Germany. But efforts are now being made to extend the cartel, and already special arrangements have been made with Czechoslovakian, British, and Belgian producers.

✓ So far and so fast is it possible for modern production to outstrip the purchasing power of the world's population, that we have seen, in recent years, quite a number of large-scale attempts to regulate or restrict the output of this or that staple commodity in order to keep up its price. Such attempts can succeed only when demand for the controlled commodity is inelastic (e.g. when consumers cannot resort to substitutes) and when the combined producers have under

¹ In April, 1933, it was reported that the International Tubes Cartel, composed of the Continental group—Belgium, France, Germany, Hungary, Poland and Czechoslovakia—and the group made up of the British, Canadian, and United States producers, had decided to continue the existing agreement until 31st March, 1935.

2 their complete control a very substantial proportion of all the producing units. The absence of either of these essential conditions spells failure for the combine. Thus, the Brazilian coffee producers found that control of Brazilian supplies alone was not sufficient to support the price of coffee, in spite of the fact that in the decade 1923-32, taking one year with another, they produced 70 per cent of the world's exportable coffee. Restriction of rubber output in the British Empire cannot be successful unless the native producers can be controlled, and the co-operation of the rubber producers in the Dutch East Indies can be secured.¹ Moreover, the use of reclaimed rubber in place of new rubber raises another obstacle. Again, as soon as the manufacture of cheap synthetic nitrate in large quantities became possible, the Chilean producers of natural nitrate lost the measure of monopolistic control over prices which they previously enjoyed. It is clear, therefore, that without a comprehensive international agreement no plan to regulate or restrict output is likely to succeed if the commodity in question, or good substitutes for it, can be produced in various countries. Two agreements or cartels of this comprehensive type are the "Chadbourne Plan" in the sugar industry, and the international restriction agreement in the tin industry.

Deepening depression in the sugar industry has resulted, since the War, in various attempts to raise prices by restriction of output. "Cuba, the largest sugar exporter in the world, made the first definite attempt in this direction. Undoubtedly, the primary object of Cuban producers was to obtain better prices in the United States market. The position of Cuba is peculiar. About 25 per cent of the Cuban output is produced in factories allied to United States refineries and approximately a further 50 per cent is attracted

¹ See Mr. Ormsby-Gore's Report on his Visit to Malaya, Ceylon and Java, in 1928 (Cmd. 3235), and Survey of International Affairs, 1930, page 473, *et seq.* It has been authoritatively asserted that there are a great many rubber producers in the world who could not possibly be brought within any output restriction scheme (*Manchester Guardian Commercial*, 16th July, 1932, Article by Mr. H. J. Welch); yet each revival of talk of restriction disturbs the rubber market.

to America by the preferential tariff. The remainder of each year's crop has to compete in the open world market. Although Cuba enjoys a 20 per cent preference on the American tariff in accordance with the Treaty of Reciprocity, the pressure of Cuban sugar on the American market has become so great that American refiners have been able to exact prices which are no higher than Cuba has been able to obtain in world markets."¹ In 1926, the Cuban Government adopted restrictive measures designed to limit the sugar output each year, and to prevent any extension of the area under cane. Also "a Sugar Export Commission and a National Sugar Commission were created to fix (1) quotas for sale (a) for home consumption, (b) to the United States, and (c) to other countries, and (2) a reserve." . . . "A small rise in the world price of sugar took place in 1927, possibly as a result of Cuba's action, but it soon became evident that without a corresponding restriction of output on the part of other exporting countries, the effort would fail, as increased production in other countries would fill the gap left by Cuban restriction. In 1927, therefore, delegates from Cuba met representatives of the sugar industry in Czechoslovakia, Germany, and Poland and an agreement was made to adapt production to consumption. As it was too late for the European countries to alter production for 1927-8, they agreed to endeavour to stimulate consumption in their own countries by advertising, etc., so as to reduce their exportable surpluses to a minimum. For the 1928-9 season, it was decided, provided Cuba restricted her production to 4,000,000 tons, to limit the total export of the three European countries mentioned to 1,150,000 tons, allotted in the proportion of 16½ per cent to Germany, 66 per cent to Czechoslovakia, and 17½ per cent to Poland. The effects of this agreement were, however, to a large extent negatived by the fact that Java persistently refused to co-operate. She had an expanding market in the East, and

¹ Ministry of Agriculture Report on the Sugar Beet Industry at Home and Abroad (1931), page 230.

with her intensive methods of production and strong sales organization was better able to meet the existing market conditions. For this reason, chiefly, the arrangements broke down; Cuba renounced her restrictive measures for the 1928-9 crop, while the three European countries considerably extended their sowings."¹

It had thus become clear that no success could be expected unless a very comprehensive international agreement could be concluded, preferably with the support of the governments of the major sugar-producing states in the world. The aid of the League of Nations was invoked, but without any of the results hoped for by those who desired an international agreement. Meanwhile, the representatives of the various national sugar industries had opened negotiations among themselves; but so long as the low-cost Java producers refused to agree to any scheme acceptable to the others nothing could be accomplished. Down to the beginning of 1929, Cuban producers also remained lukewarm, but the size of the 1929 crop, coupled with unfavourable market reports, alarmed them and brought about a rapid alteration in their attitude. Moreover, as time passed and the situation grew more serious, even the Java producers became nervous, and in December, 1930, it was possible to bring together in Brussels a conference of delegates from the sugar industries of Cuba, Java, Germany, Czechoslovakia, Poland, Hungary, and Belgium to "explore" an international restriction scheme. "Prior to this conference the Javan and Cuban representatives met in Amsterdam and arrived at a provisional agreement whereby the Cuban annual production during the next five years was to be restricted to 3,500,000 tons and Javan annual exports for the same period to 2,000,000 plus 100,000 tons annually from a segregated pool of 500,000 tons, with an additional 100,000 tons each year after the first year should the expansion of world consumption warrant such an increase. As a

¹ Ministry of Agriculture, *Report on the Sugar Beet Industry at Home and Abroad* (1931), page 231.

result of subsequent meetings, a scheme, known as the 'Chadbourne Plan,' was finally adopted" by all the countries mentioned above.¹ The programme of production for the first five years, 1931-35, allowed the following export quotas—

	1st Year	2nd Year	3rd Year	4th Year	5th Year
	Thousands of tons				
<i>Cane Sugar—</i>					
Cuba (Jan.—Dec.)	3,232	3,605	3,655	3,655	3,655
Java (Apr.—Mar.)	2,300	2,400	2,500	2,600	2,700
Total: Cane Sugar	5,532	6,005	6,155	6,255	6,355
<i>Beet Sugar—</i>					
Czechoslovakia	570·8	570·8	570·8	570·8	570·8
Germany . . .	500	350	300	300	300
Poland . . .	308·8	308·8	308·8	308·8	308·8
Hungary . . .	84·1	84·1	84·1	84·1	84·1
Belgium . . .	30·3	30·3	30·3	30·3	30·3
Total: Beet Sugar	1,494	1,344	1,294	1,294	1,294
Grand total	7,026	7,349	7,449	7,549	7,649

The aggregates, it was agreed, were to be allocated as follows: Cuban exports to the United States—1931, 2,577,000 tons; 1932-35, 2,800,000 tons per annum. All remaining sugars to "free" markets: 1931, 4,449,000 tons, increasing by 100,000 tons each year to 4,849,000 tons in the fifth year. It was further arranged that when the world price rose to 2 cents per lb. a 5 per cent increase in all export quotas should take effect; with further increases to follow if and when the price rose to 2½ cents and 2½ cents per lb. The administration of the scheme was placed in the hands of an International Sugar Council, composed of three members for each of the seven participating countries. Voting power was allocated roughly according to the magnitude of the interests of the three main groups involved (Cuba 35, Java 30, Europe 25).

¹ In Hungary the plan was enforced by legislation.

The fundamental weakness of this agreement lies in the low proportion (approximately 40 per cent) of total sugar output controlled by the combine. Unless this proportion can be substantially increased, any attempts by the combined producers to reach and maintain higher prices are bound to be defeated by the expansion of output and sales of the non-participating producers. Moreover, not only does the output of sugar show a tendency to increase (in certain cases as the result of State subsidies) but the elasticity of demand for it seems to be low and reduced prices bring little response from consumers—a factor which the framers of the Chadbourne Agreement failed to assess correctly.

Another weak spot was the lack of provision for downward revision of quotas; and it so happened that the scheme had been in operation less than a year when the quotas had to be revised in a downward direction, owing to the deepening of the world depression, and the enormous fall in sugar consumption. The United States did not absorb the Cuban quota and Java could not dispose of the whole of her quota in the Far East. Lengthy negotiations ensued, with the result that the Cubans agreed to reduce their 1932 crop to 2,700,000 tons, on condition that the European and Peruvian producers would reduce their exports by any amount by which Java's exports exceeded 1,500,000 tons during the year April, 1932, to April, 1933.¹ By this revision, announced at the end of March, 1932, the International Sugar Agreement was saved, at least on paper. But it appears that within two months the Cuban growers sent in a demand for the addition of 277,000 tons to their export quota to countries other than the United States. In July, 1932, the other members of the cartel made a counter offer of 150,000 tons increase in the Cuban quota.² This offer involved not an increase of the world export total, but a transfer to Cuba of part of the export quotas of other producers.

Mr. J. L. Fairrie has roundly criticized the Plan in the following terms—

¹ *Economist*, 2nd April, 1932. ² *News-Chronicle*, 14th July, 1932.

The Chadbourne Plan has entirely failed to live up to the promises and prophecies of its creators. Confidence was destroyed by its obvious shortcomings and prices went down instead of up. The foundation of the Plan was a hypothetical agreement between Cuba and the United States domestic producers. Cuba was persuaded to limit her sales to countries outside the United States and in turn was promised a definite quota in the United States by virtue of agreement with Porto Rico, the Philippines, the Hawaiian Islands, and the United States beet producers.

The curtailing of her foreign markets prevented Cuba from competing with Java in the East. In return for this Cuba was given precisely nothing. There was not the vestige of an agreement with the United States domestic producers, whose crops tend to become greater rather than less. Mr. Chadbourne's influence at Washington proved to have been overestimated. His statements regarding American co-operation were not substantiated.

At the time of writing (4th October, 1932) there is no definite news from Brussels beyond the report that the quantity by which Cuba wishes to increase her export quota to countries other than the United States is regarded as unreasonable, and that the European countries would prefer to be free of the scheme rather than give way entirely. It is quite possible that the Conference will again make no decision, and will once more adjourn with the release for publication of cordial messages to and from all.¹

The Chadbourne agreement is now (1933) virtually a dead letter, owing to the expansion of production in countries not parties to it; but it is the most comprehensive attempt at international combination yet seen in the sugar industry. It is, however, not the only form of international organization in that industry. In the heavily subsidized English beet sugar industry, for example, factories at Cantley, Kelham, Ely, Ipswich, and King's Lynn are run by an Anglo-Dutch group of companies²—a fact which makes one suspect that some of the British taxpayer's money may be flowing into foreign pockets, *via* the beet sugar subsidy.

¹ *Manchester Guardian Commercial*, 8th October, 1932, pages 297-8.

² *Economist*, 13th February, 1932, pages 367-8.

Between 80 and 90 per cent of the world's output of raw tin is now strictly controlled under an international output restriction scheme organized with the aid of the government of the five principal tin-producing countries—Malaya, the Netherlands East Indies, Nigeria, Bolivia, and Siam—and operated through an international body called the International Tin Committee. The agreement is to run from 1st March, 1931 to August, 1934. It is based upon the figures of world production for 1929, viz. 186,518 tons, and output quotas are based upon the output for each country in that year. The restrictive provisions of the scheme were supplemented in August, 1931, by the formation of an International Tin Pool with the object of withdrawing from the market redundant stocks which were exerting a distinctly depressing influence upon prices. These stocks were to be held until the combined tin producers and their governments decided that trade was "in a position to absorb them"; presumably at higher prices than those ruling when the Pool was formed. Drastic restriction of output imposed upon all the combined producers by legislation in their several States, resulted in a 50 per cent increase in the price of tin between March, 1931, and August, 1932. Details of the events and economic pressure leading up to the formation of this combine will be found in Chapter III.

In 1929 an international syndicate of Finnish, Norwegian, and Swedish mechanical pulp producers took steps to reduce their output, and in the following year "the producers of sulphite pulp in Northern and Central Europe agreed to adopt a similar course."²

We will now pass from the cartel to the "concern." The word "concern" is very commonly used in English

¹ It has been stated that when the average price of tin has been not less than £165 per ton for one month, the Pool is at liberty to sell 5 per cent of its stocks; and the price must rise still more before further portions of its stocks can be sold. Cf. *Economist*, 10th Sept., 1932, page 478; *Manchester Guardian Commercial*, 22nd October, 1932.

² League of Nations Report, *The Course and Phases of the World Economic Depression* (1931), page 138.

✓ to mean any kind of business organization: as when we speak of "a going concern." But in the technical sense in which it has come to be used in discussions relating to capitalistic combines, "concern" means combined businesses under unified financial control, but falling short of complete fusion. An international concern may, therefore, be defined as a union, on an international scale, of undertakings which remain juridically independent of one another, into a single unit for the purposes of productive technique, trading, administration, and finance. It is a "very various organized conglomeration of several undertakings, which are partially co-ordinated, but mostly brought under one control as subsidiaries of large companies."¹ Unified control of all aspects of the concern's activities is not essential; but unified financial control is commonly found, coupled, it may be, with some centralized control of technical matters or commercial policy. A concern, however, may be purely financial; but whether it is or not, the control-power vests in, and proceeds from, the centre to all the subsidiary undertakings which form the circumference,² and in this it is in complete contrast with a cartel, which is really controlled from the circumference, i.e. by its member firms and corporations. The international concern is not so much an alliance between producers in different countries, as a close federation.

When to centralized and unified control of financial, industrial, and commercial policy there is added the complete merger and ownership of the constituent undertakings, in two or more countries, we have an international trust. These organizations do not leave any substantial measure of independence to the constituent parts, and they seek to make profits *for themselves*; not working for the benefit of a number of distinct undertakings. The international trust may be linked up with other corporations, but these will be

¹ Liefmann, *Cartels, Concerns and Trusts*, page 6.

² Dr. Liefmann calls attention to the rapid penetration of German industry by foreign financial and industrial undertakings in recent years. *Ibid.*, 267.

usually subsidiary to it and controlled by it. A cartel, on the contrary, is really controlled by its member firms or corporations. As between cartels and trusts this is an essential distinction. A cartel is a democratic form of industrial government; a trust is essentially aristocratic. "An exhaustive study of the organization of these trusts," says a League of Nations document, "would show that the directors succeed within a few years in getting together an enormous capital by the issue of shares bearing a fixed rate of interest or carrying with them a share in the profits or, again, by offering the public shares which carry a single vote, while retaining the actual control of the trust by means of shares which carry a plural vote but represent only a very small proportion of the capital involved. The political, economic, and social repercussions produced by the extraordinary development of big world trusts thus call for very special attention.¹ The tasks of leadership, organization, coordination, and control which thus rest upon the shoulders of small groups of men are tremendous. "It is more than a captaincy of industry that is required; for the problem of extending the market, which is the fighting part of its work, is combined with the problem of . . . keeping many separate managements under the inspection of one central board."² International concerns and trusts developed first from the desire to have branches—factories, warehouses, offices—in two or more countries; a line of advance which is no doubt attributable partly to the pressure of heavy import duties, and partly to the desire to have a closely controlled unit "on the spot," making a special study of the local market requirements and peculiarities. To-day, international concerns and trusts are very frequently built up by what may be called the "holding-company-method." The term "holding company," as understood in England, means a company whose chief function is to hold the shares or stock of other companies, with the intention of controlling

¹ *Review of the Legal Aspects of Industrial Agreements* (1930), page 8.

² Macgregor, *The Evolution of Industry* (1911), page 220.

their operations or policy. It is this intention to exercise control which distinguishes the holding company from the investment or trust company.¹ Usually control over a group of subsidiary companies is exercised by one holding company only; but dual control (e.g. by two companies holding equal rights in the controlled company or companies) is not unknown. For example, the Fox Film Corporation, through the United American Investing Corporation, has an equal interest, with the Metropolis and Bradford Trust, in the Gaumont-British Picture Corporation.

✓ The holding-company method has the advantage that it can be used to form combines, while at the same time little or no interference with the undertakings brought within the combine need take place. It is not necessary to alter or disturb the name or goodwill of subsidiary companies. The holding company seeks to control all, or at least the majority of, the businesses in which it acquires "interests"; but it does not seek to merge them into itself. ✓ It is a most flexible form of international economic organization. It may be classed as "a pure holding company if its assets are composed almost entirely of the securities of other companies, and as a parent holding company (or parent company) if in addition to the ownership of such securities it conducts an operating enterprise as a directly owned property."² By means of various purchases of shares sufficient to give to the holder a controlling interest in each company to which it turns its attention, one of these holding companies may gradually gain control of a certain branch, or allied branches, of industry in a number of different countries. Such an international organization can be built up piecemeal, by degrees; and the quiet purchase of controlling interests affords an inconspicuous but very effective way

¹ "A holding company may . . . be defined in terms of its distinguishing characteristic as any company with share capital which is in a position to control or materially to influence the management of one or more other companies by virtue, in part at least, of its ownership of securities of the latter."—*Encyclopaedia of the Social Sciences*, vii, page 403. ² *Ibid.*, pages 403-4.

round, when public opinion would rise, or actually has risen against, a proposed international combine. All this is part of what Professor Macgregor calls "the silent occurrence of events" in the world of modern capitalism, activities slightly below the surface of public affairs, potent yet not prominent. No collective votes of the shareholders of the companies which are being brought under the control of the combine are necessary. Furthermore, the method facilitates the decentralization of the detailed management of international combines, and it has the added advantage that by selling certain shares the controllers of the combine can withdraw from any branch of industry in any country in which they may no longer wish to carry on operations.

The holding-company method is also the cheapest way of building up an international concern or trust, because less capital is needed to purchase a succession of controlling interests in various companies, than to acquire their property and goodwill by direct purchase of each undertaking; "and yet the promoters have the use of the investment of all the minority holders in all the corporations brought under their control." By "pyramiding," a holding company may gain control of sub-subsidiaries through its holdings of slightly more than 50 per cent of the shares of its subsidiaries. Where the holding company does not acquire all the shares in a subsidiary, the question of minority rights arises. Transactions which may benefit the owners of the holding company may not be beneficial to—indeed they may even injure—those investors in the subsidiary who are not shareholders in the holding company.

In the comparatively new artificial silk (or rayon) industry we have a remarkable example of a world-wide international combination of national units and combines. It is a good deal more than a gigantic international cartel. It is a vast and intricate network of interlacing interests, both financial and industrial, constructed mainly by means

¹ Marquand, *The Dynamics of Industrial Combination* (1931), page 127, quoting the Attorney-General of Ohio.

of various exchanges of shares, and agreements for interchange and pooling of technical knowledge, and it is moving, in all probability, towards a still closer and more comprehensive form of international combination. From the outset, the rayon industry has been definitely a large-scale industry, carried on by a small number of very large and rapidly expanding units. "The necessity of finding markets for increased production and the imposition of customs duties in many countries have (also) been among the factors which have favoured a movement towards the international syndication of the industry and the extension of the manufacturing activities of large enterprises into other countries. The outstanding tendency, in fact, of the post-war period has been the rapid growth of international arrangements which are extremely intricate and far-reaching, and in this movement British interests have taken a leading part. In Great Britain, Germany, Italy, and the United States (to name only the principal producers) a large part of the domestic production of artificial silk is now in the hands of very large firms, who also control or are associated with producing firms in other countries. In Great Britain the first place is taken by Messrs. Courtaulds, Ltd., who, with their controlled interests abroad, are also the largest producers in the world. . . . The activities of the company include the production not only of artificial silk but also of manufactured goods (tissues, etc.) made from the material."¹

Courtaulds' pre-eminent position in the industry has been built up by making industrial agreements with established producers in other countries, and by acquiring shares in, or exchanging shares with, foreign undertakings, and by setting up factories in regions where none previously existed. Between 1913 and 1924 the capital of Courtaulds was raised from £2,000,000 to £32,000,000 largely by a succession of capitalized share bonuses. The company's principal interests outside Britain lie in Canada and the United States,

¹ Committee on Industry and Trade, *Survey of Textile Industries* (1928), page 296.

where, among other interests, it holds 85 per cent of the share capital of the American Viscose Corporation, an undertaking which produces over one-third of the rayon output of the United States, or approximately 11 per cent of total world output.¹ Courtaulds, Ltd., has a working agreement with the rayon producers of France (where it practically owns La Soie Artificielle de Calais), and an interest in the Asahi Company in Japan. Nor does the international interlacing by any means end here.

"In Germany the leading company is the Vereinigte Glanzstoff Fabriken A.-G. which is responsible for over half the total output of Germany. In Italy the principal place is held by the Societa Nazionale Industria Applicazione Viscosa ('Snia Viscosa') of Turin, with a capital of 1,000 million lire, or over half the estimated capital of all Italian artificial silk companies." In 1925, Courtaulds and the Glanzstoff group made "an arrangement for co-operation," and early in 1927 these two giant undertakings entered into an agreement with the Italian company which included an interchange of shares, and was stated to aim at elimination of wasteful competition and the promotion of co-operation, mainly along the line of the pooling of technical improvements and inventions. "Having regard to the previously existing connection between the three participants in this arrangement with large producers outside their own countries, it is clear that the linking of the companies represents a very important step towards the world-wide inter-connection of the artificial silk industry. . . . The Glanzstoff concern has international interests extending to the

¹ *Economist*, 15th July, 1933, page 136. On 12th August, 1933, the *Manchester Guardian Commercial* reported that: "American viscose prices have shown another rise. The American Viscose Company (Courtaulds) advanced their prices by five cents to ten cents a pound, according to count, 150 denier rising five cents and the bigger advance applying to the finer counts. Following this advance the American Du Pont Rayon Company, the Tubize-Chatillon Corporation, and the American Glanzstoff Corporation all raised their prices to bring them up to the American Viscose Company's level. The advance was fully expected. It was, in fact, believed in many quarters that the increases would be even larger."

United States, Czechoslovakia, Austria, and Holland; and it is also stated to have agreements with firms in Japan and Switzerland. Moreover, it is associated with the other German viscose producers in a combine which was formed in 1926 to standardize and classify viscose silk and to fix uniform prices and terms of delivery. Snia Viscosa has interests in producing concerns in the United States, Poland, Roumania, and possibly other countries."¹

In France, the undertakings combined in the Comptoir des Textiles Artificielles produce approximately 60 per cent of the French output, and have considerable interests outside France (e.g. in Japan). The Dutch Enka group, which has factories in Holland, Britain, and America,² has concluded with the German Glanzstoff group "an agreement for close co-operation resembling a merger," generally called the "Aku" or A.K.U. (Algemeene Kunstzijde Unie N.V.), in which Courtaulds hold an interest, believed to amount to about 10 per cent. The A.K.U. group is the second largest rayon-producing combine in the world. The smaller Dutch combine—the Breda group—has interests in enterprises in Britain, France, and Spain. The Breda-Visada Co., Ltd., took over British Visada, Ltd., as a going concern at the end of 1928,³ and in November, 1933, A.K.U. and Dutch Breda made a joint arrangement relating to technical research and the acquisition and sale of patents and licences, by forming a new and separate company with a capital of 50,000 florins, of which A.K.U. holds 52 per cent and Breda 48 per cent. In Japan, where the industry is making remarkable headway, there are, besides purely national undertakings, factories established by the European combines—the Glanzstoff combine, Courtaulds, and the Comptoir des Textiles Artificielles.⁴

¹ *Survey of Textile Industries*, page 297.

² British Enka, Ltd., owns one of the largest rayon plants in Great Britain.

³ *Manchester Guardian Commercial Supplement*, 2nd July, 1931, page 30.

⁴ *League of Nations Review of Several International Industrial Agreements*, page 53.

✓ The international combination movement in the rayon industry has not yet reached its zenith, and it is likely that the keen competition of the Japanese may lead to further consolidation among European and American producers.

An example of a vast network of interlacing interests, mainly financial, is to be seen in the electricity supply industry. The two Belgian companies—the Société Financière de Transports et d'Entreprises Industrielles ("Sofina," mentioned in Chapter I) and its associated Compagnie Générale d'Entreprises Electriques et Industrielles ("Electrobel")—hold interests in electricity supply undertakings not only in various European countries, but in America also. It has been stated that no fewer than forty-two banks and banking houses are "behind" the Sofina company. Besides important holdings in Belgian undertakings, Sofina controls the French Société Centrale pour l'Industrie Electrique; has interests in the Loucheur group through the Société Générale d'Entreprises; in the Société Financière Electrique, which is the financing company behind the French Thomson-Houston combine; in the Compagnie d'Energie Electrique du Nord de la France, which supplies the Roubaix-Turcoing-Lille industrial region; the Union pour l'Industrie et l'Electricité (U.N.I.E.), and the Compagnie Centrale d'Energie Electrique, of Paris, which, together with Sofina, has important interests in Algerian electricity undertakings. In 1924, Sofina took the lead in an international consortium to take over shares to the extent of five million marks in the German Gesellschaft für Elektrische Unternehmungen-Ludw. Loewe & Co. A.G. ("Gesfürel"), and acquired interests in two of its subsidiaries. Later, the Sofina-Gesfürel group founded the Berliner Kraft und Licht A.-G. In Italy, Sofina has interests in the Societa Bolognese di Elettricità, which belongs to the Adriatica group; and Sofina and Electrobel both have interests in the Societa Generale dell'Adamello. Count Volpi, chairman of the Italian Adriatica group, has been elected to the board of Sofina. The two great Belgian companies have also

important holdings in Spain, Hungary, and Central and South America.¹

"The 'Concern' dominated by the American firm E.I. Du Pont de Nemours & Co., Inc., may be taken as another example. In spite of the dissolution in 1912, by court injunction, of some of its properties, it still controls companies which produce nitrate and nitro-glycerin; manufacture explosives, artificial silk, cellophane wrapping material, paints, varnishes, dyes, motion picture film, and alcohol; and operate machine shops and foundries, real estate, hotels, and a theatre. In addition it held in 1926 about 26 per cent of the common stock of the General Motors Corporation, through which it comes into contact with Nobel Industries, Ltd., and hence with Imperial Chemical Industries. It has agreements for interchange of patents and processes with the German chemical and explosives industry, and has some holdings of securities in that industry. Especially through General Motors, it is closely in touch with the Morgan interests, and J. P. Morgan & Co. act as its financial agents."² General Motors Corporation is primarily an operating company, owning or controlling motor-car manufacturing and assembling plants, export organizations, and many allied companies,³ including the Ethyl Gasoline Corporation which it controls jointly with the Standard Oil Company. General Motors Corporation produces such well-known makes of cars as Buick, Cadillac, Chevrolet, Vauxhall, La Salle, Oakland, Oldsmobile, McLaughlin, and Pontiac; as well as parts and accessories of every description. It now has, also, a large interest in Adam Opel, the largest German automobile manufacturing company.

¹ *Manchester Guardian Commercial*, 17th September, 1931, page 241; article by Mr. H. D. Court.

² H. A. Marquand, *The Dynamics of Industrial Combination* (1931), pages 134-5. The Du Pont Rayon Co. is the second largest rayon producer in the United States.

³ These include: General Motors of Canada, Yellow Truck & Coach Manufacturing Co., United Motors Service Inc., General Motors Export Co., Delco-Remy and Hyatt, Ltd., Vauxhall Motors Ltd., General Motors Acceptance Corporation.

Of the great Standard Oil trust, Dr. Liefmann writes—

The Oil Trust . . . has extended its influence over the whole world. In China it has made large advances of money to the Government in return for valuable concessions. In Mexico, where it has been engaged in a struggle with British capitalists for the control of the oil-bearing lands, it has been at times one of the principal instigators of the civil disturbances there. In Germany it attempted to defeat by force the plan of an oil monopoly aimed against it. Wherever oil is discovered it tries to create a sphere of influence; it has branches and subsidiary companies in more than fifty countries, and, in addition, its principal shareholders have invested their vast profits in the most various branches of American industry, notably in mines and railroads.”¹

The number of companies controlled is over 500, and the total capital involved is estimated at approximately £1,000,000,000. In association with the Anglo-Persian Oil Company (in which the British government is a very large shareholder) and the Royal Dutch Shell combine the Standard Oil trust has now entered into relations with the various German companies and groups, including the I.G. Farbenindustrie, which are trying to develop certain German patents for the extraction of oil from coal.

It is not difficult to find further examples of international concerns and trusts, past and present. Marshall refers to the great metal combine which “had its origin in the London firm of Merton, in association with some other members of the Cohen family,” and which, with “its world-wide associations . . . before the War, constituted a most powerful community of interests.”² The *Report of the Committee on Trusts* says—

The world's trading and industry in a number of . . . base metals were largely controlled before the War by a powerful group of German interests, operating in conjunction with, but dominating, local financial interests in a

¹ *Cartels, Concerns and Trusts*, page 5. The English subsidiaries of the Standard Oil Company of New Jersey are the Anglo-American Oil Co., Red Line Motor Spirit Co., and Glico Petroleum Co.

² Marshall, *Industry and Trade*, page 570.

number of countries. The centre of this combination was the Metall-Gesellschaft of Germany, with which were affiliated through stock holdings the Merton Metallurgical Co. and the American Metal Co.; and all three concerns were interested in the Metallbank und Metallurgische Gesellschaft of Germany. The group of companies thus inter-related were affiliated by actual ownership, by stock holding, by interlocking directorates or in other ways with, and in fact controlled, companies engaged in metal dealing, refining or mining in Germany, the United Kingdom, France, Belgium, Switzerland, the Netherlands, Spain, Australia, the United States and Mexico.

Two other important German metal concerns—Beer Sondheim and Co. and Aaron Hirsch und Sohn—had also control over a number of subsidiary companies, the former in Austria, Germany, Belgium, Italy, Australia and France, and the latter in Germany, the United States, Mexico and Australia; and were closely associated with the Metallgesellschaft and each other in various syndicates and combinations. Dominated by these German interests were (1) the Lead Convention, including all the principal producers of soft pig lead, which was formed in 1909—the selling of soft pig lead was handled by the Metallgesellschaft on the Continent, and the Merton interests in the United Kingdom; and (2) the Spelter Convention, formed also in 1909.

It has also been asserted that the interests of this combine spread out into the chemical, dyestuffs, electrical, and munitions industries in Germany, Britain, and the U.S.A.¹

As an example of a great international trust recently in the public eye we may cite Unilever Limited, which was registered in November, 1927, as Margarine Union, Ltd., and having acquired all the ordinary share capital (£6,500,000) of Lever Brothers, Ltd., it changed its name to Unilever Ltd., in September, 1929. In association with the Dutch sister concern, Unilever N.V., it controls not only the Jurgens and Van den Bergh groups of companies, but also the Schlicht and Hartog concerns, both of which manufacture soap and margarine, the former mainly in Central and Eastern Europe, and the latter in Holland.

¹ Donaldson, *International Economic Relations* (1929), page 319, *et seq.*

In 1931, two additional companies were formed under the names of Unilever (Raw Materials), Ltd., and Unilever Grondstoffen Maatschapij N.V., in order to facilitate the buying, holding, and administration of stocks for the English and Dutch groups of companies respectively.¹ This colossal international combine now includes over 600 companies. The supreme twin holding companies (Unilever Ltd. and Unilever N.V.) are kept separate not only for organizational reasons but also in order to avoid the costs and complications of double taxation. But the real nerve centres are to be found in the interlocking directorates of two private companies, each of which controls 50 per cent of the voting power in Unilever Ltd. and Unilever N.V.; so that the British and Dutch interests jointly control both. The whole vast organization is divided into a number of groups of companies. There are separate directors and managers for each group, and a small number of directors whose special function is to keep constantly in touch with the group executives so as to maintain uniformity of policy.² *The Economist* has ventured to declare that—

The Unilever combine and Communism have not a few points of similarity—in a strictly business sense. The combine is governed by committees innumerable. It controls the working life of the vegetable oil industries almost as completely as the Soviet monopolizes the working life of the Russian people. It embraces every activity from the production of the raw materials to the retail selling of finished goods. And, curiously enough, both Soviet and Unilever catch whales in the Antarctic. For the investor and economist, however, the significant feature is that the more enlightened and efficient Unilever and the Soviet become, the more difficult it is to investigate their operations and to analyse their accounts.³

The truth of the last sentence becomes patent when we try to trace the combine's ramifications through to the subsidiaries. In England, for instance, Unilever Ltd.,

¹ *Economist*, 16th April, 1932, page 864.

² Unilever Ltd., Chairman's speech, 29th April, 1932.

³ *Economist*, 11th June, 1932, page 1300.

controls English Margarine Works, Ltd., and the British section of the Van den Bergh undertaking, through which it controls Meadow Dairy Co., Ltd., which in turn controls Pearks Dairies, Sherry's Dairies, Brough's Tea, Ltd., and Neale's Tea Stores. Unilever Ltd. also holds a substantial interest in Home and Colonial Stores, Ltd., through which it is linked with Allied Stores, Ltd., Lipton's, Ltd., and Maypole Dairy Co., Ltd., and, through the latter, with Maypole Margarine Works, Palmine, Ltd., and British Oil Works. This is but a sketch of the combine's English interests, and it is no more than a corner of the whole vast area of its ramifications; for it controls the major part of the margarine industry of Europe, and has interests in oil crushing and refining factories and allied industries, with their distributing organizations in Britain, Holland, France, Belgium, Germany, Norway, Sweden, Denmark, Italy, and the Dutch Indies. The combine's West African interests are in the care of the United Africa Company, Ltd., in which the combine holds 80 per cent of the share capital¹ and a dominant proportion of the voting power. Moreover, the United Africa Co. holds, directly or indirectly, controlling interests in no fewer than sixty-six companies carrying on operations in different parts of the world.

Brief mention may be made of certain other international concerns. The American Singer Company, with its overseas subsidiaries, controls about 80 per cent of world production of sewing machines. The Nestlé and Anglo-Swiss Condensed Milk Company, formed in 1866 under Swiss law as the Anglo-Swiss Condensed Milk Company, acquired the Société Anonyme Henri Nestlé in 1905, and absorbed, in 1929, the firms of Peter, Cailler, Kohler, and Chocolats Suisses S.A. The combine also controls numerous subsidiaries operating in all the principal countries of the world. Its issued and paid-up capital is Swiss Fcs. 142,500,000.² A French concern known as L'Air Liquide (Procédés Georges

¹ *Economist*, 11th June, 1932, page 1301; 12th November, 1932, page 894.

² *Stock Exchange Year Book*.

A.—Bromboro Port Estate.
Mac Fisheries.
Ocean Harvest, Ltd.
Southern Whaling & Sealing Co.
Aberdeen Steam Trawling Co.

B.—British Oil and Cake.
British Soap.
John Barrington.
Erasmic Co.
Barton's Seed Crushing Mills.
Lever Brothers, Ireland.
J. Kitchen & Sons.
Pears, Ltd.
Price Soap.
Savonneries Sunlightzwitz.
Wm. Taylor & Co.

C.—Candles, Ltd.
Chivers & Co.
Cleavers & Sons.
Cook Bros., Ltd.
E. Cook & Co.
Delecta, Ltd.
D. W. Gibbs, Ltd.

D.—Hodgson & Simpson.
R. S. Hudson, Ltd.
Int. Iclima Trading.
J. Knight & Co.
T. Newby & Sons.
Stanley Pibel, Ltd.

E.—J. L. Thomas & Co.
Vinolia Co.
J. Walkden & Co.
Wilkie & Soames.

F.—Benj. Brooks & Co.
Bloomfield, Ltd.
J. Crosfield & Co.

F.—Charles Dean, Ltd.
Gossage & Sons.
R. B. Green & Co.
McIver & Co.

G.—Muirhead & Wilcock, Ltd.
Planters Food Co.
Planters Margarine Co.
Thomas & Bros.
Trufood, Ltd.
T. Wall & Sons.
S. P. D., Ltd.

H.—Lever Bros. Co. (Boston).
De Levers Zeep Mij.

I.—Huilleries du Congo Belge.
Trading Assoc. of Nigeria.
United Exporters.

J.—Berg Härk Margarine Werke
Isserstedt.
Oldenburgische Margarine Werke
Margarine Grundstuck A.-G.
Schmitz & Loh Margarine
Fabriken.
Fritz Homann A.G.

K.—Allgemeine Deutsche Marg.
Werke.
Marg. Werke Dr. A. Schroeder.
Allgemeine Deutsche Matg. A.-G.
C. & A. Muller Speiseleitt.
Teutonia.

L.—Calvé.
Cohen and V. D. Laan.
Fabriken de Marg. Hollando-
Hongroise.

M.—Div. Winkels en Melkijn.
Verschure & Co.
Zeep & Oliefabriken Zwundrecht.

N.—Dr. Boemer & Cie.
Cron & Scheffel.
Hamburger Oliefabrieken.
Max Boemer.
Wahnschaffe Müller & Co.

O.—Clivia.
Clever Olmuhlen.
Frank. Margarine A.-G.
Pratana.
Reeser.
V. D. Bergh's Marg. Fabrieken.

P.—Estol.
Berolina.
Milka.
Oelmenhörter Marg. Fabr.
Palma.
Sana.
Thoerl Oelfabrieken.
Uhlenbrock Marg. Werke.

Q.—Albers Creameries.
Med. Ind. Oliefabrieken.
Scheeps Mij. Palmijn.
Vera Hu Falina.
Zeepfabrieken Utrecht.

R.—Eerste Makass. Oliefabr.
Olief Jacatra Batavia.
Junges Soerabaja.

S.—Deduij.
Nimeggsche Stoons Fabrieken.
"Rosa" B. op Z.
Tieleman & Drosleiden.
Viruly Gouda.
Zuthphensche. Stoons Fabrieken.

T.—Ardol.
Olympia Oil and Cake Co., Ltd.
Selby Warehousing & Transport.

U.—Brake & Cie.
Kunardwerke.
Mohr & Cis.
A. L. Mohr.
Krog & Evans.
Rositzki & Witt.
Schynok & Cie.
Rossum & Cie.
"Rheineland" Marg. Fabrieken.

V.—Neusser Marg. Fabrieken.
Salb & Wahl.
Bremenbergsneim Oelmuhlen.
Verein Deutscher Oelmuhlen.
Jurgens & Printzen.
Gross-Gerau.
Kaisalin-Werke.
Fett Raffiner, Bremen.
Aacherner Spiesolfabrieken.
Marg. Fabr. Westmarga.

W.—Aubervilliers, Paris.
"Union" Antwerp.
Forenade Marg. Fabrieken.
Stenson Marg. Fabrieken.
Bona Marg. Fabrieken.
Jysk Marg. Fabrieken.

X.—Danziger Oel Raffinerie.
Agra Marg. Fabrieken.
Hya Marg. Fabr. A. B. Svea.
Upsala Marg. Fabrieken.

Y.—Eld Marg. Fabrieken.
Kohn Marg. Fabrieken.
Korscars Marg. Fabrieken.
Walvischvaart McVictor.

Z.—Hollandia Melkprod.

Claude), which produces nitrogen from the air, owns many foreign subsidiaries, notably in Germany. Much of the capital of the important Norwegian nitrogen concern is French, and some of it German. The well-known company called Willys Overland Crossley, Ltd., is a merger which owns A. J. Stevens and Co. of Wolverhampton,¹ and is closely linked with sister companies in the United States and Canada. The Chairman of the English company stated, in November, 1932, that "the great resources for research, designing, and experimental work of those companies are at this company's disposal," and that the export part of the English company's business was "a concession granted by their American associates."² The (Italian) Montecatini concern owns international interests, mainly in iron and chemicals; and there is also the International Cork Trust, in which Belgian interests predominate. Stepping a little over the theoretical line which divides finance from industry, we may include in our list many of the British Overseas Banks, such as the Anglo-South American Bank, Ltd., which was first registered, in 1888, as the Bank of Tarapaca and London, Ltd. It absorbed the Anglo-Argentine Bank at the beginning of the present century, and it now holds all the share capital of the British Bank of South America, which operates in Brazil, and 99 per cent of the capital of the Commercial Bank of Spanish America. The Anglo-South American Bank has its head office in London, branch offices in Bradford and Manchester, and numerous branches throughout Argentina, Chile, Central America, and Spain, and at Lima (Peru), and Mexico City. It also has an auxiliary company—Anglo-South American Trust Co.—incorporated under the laws of the State of New York.³

In the gramophone industry the merger of the Gramophone Company, Ltd. (the "H.M.V." company) and the Columbia Graphophone Co., Ltd., brought under the

¹ *Stock Exchange Year Book*.

² *News-Chronicle*, 24th November, 1932.

³ *Stock Exchange Year Book* and *Stock Exchange Official Intelligence*.

control of the new concern—Electric and Musical Industries, Ltd.—the fifty assembly units owned by the two companies and their subsidiaries, situated in nineteen countries spread over four continents: thirty-eight in Europe, seven in Asia, three in South Africa, and two in Australia.¹ The new concern has an issued capital of nearly £6,266,000, and it holds 99 per cent of the ordinary and preference shares of both of the combined companies.² Another gramophone concern, which is not so well known, is the Crystalate Gramophone Manufacturing Co., Ltd. This concern has subsidiaries operating in America, France, and Germany, and owns factories in London, Tonbridge, and Berlin. It does a large, specialized business in the cheaper gramophone records. In 1928, it acquired the entire share capital of Regal Record Company Inc. of New York, and this company has since been merged in the American Record Corporation, in which the Crystalate Company now holds an interest. In 1932, the Crystalate Company acquired the Vocalion Gramophone Company.³

At first glance and as a *fait accompli* any two international trusts may seem very much alike, but in their development they may have been entirely dissimilar. While one international trust may bring together under unified control a number of *existing* undertakings, another may begin as a single national undertaking and spread *itself* and its activities out into other countries. This type of international business does not have to achieve unified control, for control is unified from the beginning; but it has to create its foreign undertakings before it can control them. The other type of international trust, on the contrary, has to create unified control but not the various undertakings over which that control is to be exercised. Actually, the line of distinction between these two forms of international organization often becomes blurred, because almost all international

¹ *Economist*, 12th and 19th November, 1932.

² *Stock Exchange Year Book*.

³ *Stock Exchange Year Book*. *Economist*, 12th November, 1932, pages 887-8.

businesses, sooner or later, find it desirable to acquire (wholly or partly) and control existing undertakings outside the country of their origin, as the requirements of the business dictate or as good opportunities offer. An international business may begin by establishing branch companies in foreign countries, and, later, when the force of its competition has been felt, or its potentialities realized, it may be able to arrange to combine with native undertakings. Thus, the firm of Lever Brothers, after gradually bringing the bulk of the British soap industry under its sway, also acquired control of numerous undertakings in France, Germany, Switzerland, the United States, Japan, Canada, Australia, and Africa; and, with an eye upon the sources of its raw materials, purchased concessions in West Africa the Belgian Congo, and the Pacific Islands. Later (1919-20) it acquired the Niger West African produce combine, and to-day the Lever combine (which, as we have seen, is itself part of the colossal Unilever combine) holds in its hands the bulk of the British soap, glycerine, and candle industry, and "occupies a position scarcely less prominent in several countries abroad."¹

The remarkable, if somewhat crooked, financial genius of Ivar Kreuger built up the Swedish Match Company and the Kreuger and Toll organization—a trust with world-wide ramifications which secured the grant of match monopolies by making or guaranteeing loans to governments. Kreuger wedded "the acquisition of markets to the provision of capital," and as time went on he drew his financial resources increasingly from foreign countries. He tapped the American money market in the post-war years "in favour of countries faced with a serious shortage of funds," and, it must be added, in favour of the Kreuger organizations. In certain years (says a writer in the *Fortnightly Review*):²

¹ Fitzgerald, *op. cit.*, pages 60, 81.

² T. G. Barman in *Fortnightly Review*, December, 1931, page 724. For Mr. H. G. Wells's comment on Mr. Barman's over-optimistic views see *Work, Wealth and Happiness of Mankind*, pages 324-5.

His redistribution of capital has been so prodigious as to make a profound impression on the international balance of payments. Thus, in 1929, Sweden, and not Germany, was the European country which borrowed the largest amount of funds in New York. This capital was subsequently re-lent to countries which could not raise funds themselves in New York.

A list of loans made by Kreuger and Toll to various European governments includes—

\$6,000,000 to Poland to rehabilitate farmers after the Upper Silesian floods, and to consolidate short-term debts.

\$22,000,000 to Yugoslavia for the Government Monopolies Institute, whose profits are to be used for the further economic development of the country.

\$36,000,000 to Hungary to finance land reform.

\$30,000,000 to Roumania for monetary stabilization and economic development.

\$6,000,000 to Latvia for farm relief, road and railway building.

\$2,000,000 to Esthonia for railway building.

\$125,000,000 to Germany to consolidate short-term indebtedness in a time of financial stress.¹

The usual arrangement attaching to loans of this kind is that the subsidiary match manufacturing companies pay the match-manufacture royalties to Kreuger and Toll instead of to the government of the country in which they operate. £15,000,000 were paid into the French exchequer by the Kreuger trust in exchange for the French match monopoly. Interests were acquired in the British match industry, but here no monopoly could be purchased. The Japanese market was captured, and a chain of factories was established in India. The Committee on Industry and Trade reported that, in addition to a sulphite pulp and paper mill, three match-making machinery works, three chemical

¹ T. G. Barman in *Fortnightly Review*, December, 1931, page 725. cf. *Economist*, 19th March, 1932, page 615; and 24th December, 1932, page 1205.

manufacturing plants, three lithographic printing works, sawmills, timber lands, and transport undertakings in Sweden, the Swedish Match Company held "sole or controlling interests in match factories in various parts of the world. It controls the International Match Corporation, an American company (formed in 1923), owning 75 match manufacturing plants in various countries. Together with the parent company, the International Match Corporation controls over 150 match factories in 28 countries,"¹ and employs some 60,000 workers, five-sixths of whom are in countries other than Sweden.² In 1928, Kreuger claimed that he controlled the match trade in France, America, Norway, Sweden, Poland, Peru, Greece, New Zealand, Australia, South Africa, and Japan. He also asserted that he had secured match monopolies in Italy and Spain, but this was found to be quite untrue.³ The foreign securities received against loans were generally held by Kreuger and Toll, a financial organization which has not stopped at match monopolies, but has also taken a hand in the telephone industry.⁴

¹ *Factors in Industrial and Commercial Efficiency*, page 114.

² *Economist*, 28th May, 1932, page 1196.

³ *Economist*, May, 1932, page 1090. Nobody seems to have suspected Kreuger. For nearly a decade before his death he deceived everybody, and at the news of his suicide the world was disposed to be sympathetic. Kreuger had made a gallant fight of it; "a bold bid to become a great force for good in the world," but circumstances had overborne him. Then came the examination of his papers and the discovery of a number of rubber stamps giving facsimile signatures of prominent business people in Sweden. Swiftly the whitewash peeled off, and Kreuger stood discovered—a veritable prince of swindlers. "It is not as a business man," said the administrators of his bankruptcy, "but as a criminal that Kreuger was distinguished from his fellow men."

⁴ The following is an extract from *The Observer* of 1st May, 1932—
"The *Nya Dagligt Allehanda*, of Stockholm, learned that a preliminary agreement has been reached between the L. N. Ericsson Telephone Co., of Sweden, and the International Telephone and Telegraph Corporation of America, in connection with the loan of eleven million dollars (approximately £2,200,000), which the late Ivar Kreuger raised with the International Corporation on the security of the majority of the "A" shares in the L. N. Ericsson Telephone Company.

"The newspaper understands that the fundamental lines of the preliminary agreement are that the three Swedish banks, the

The Ford Motor Company is another outstanding example. Working from its centre in the United States, it set up one or more branches in nearly every country in the world, both the capital and the car parts being supplied from America. Then, when the time seemed ripe, the foreign branch companies were gradually reorganized and some stock in each (40 per cent of the total capital in the case of the English Ford company) was sold to investors in the country in which the particular branch company was situated. Supreme control, however, still vests in Mr. Ford and his colleagues at Detroit. Fords, it must be remembered, do not hesitate to go into any industry outside their own (e.g. woollen weaving, or rubber planting) if they cannot obtain exactly what they require at reasonable prices from existing producers. The reorganized English company is ceasing merely to assemble parts. Henceforth it will actually manufacture some of the parts it requires. In Germany, 40 per cent of the stock of the reorganized Ford company was sold to the I.G. Farbenindustrie, which is an extensive and powerful combine, so that at this point Fords made an international link outside their own chain of companies. "The Company and its associated companies employ on almost identical work Englishmen, Irishmen, Dutchmen, Frenchmen, Danes, Germans, Italians, Spaniards, Swedes, Finns, and Turks."¹

Another good example of an international business is

Svenska Handelsbanken, the Stockholms Enskilda Bank, and the Skandinaviska Kredit Bank jointly take over 80 per cent of the shares, while the International Telephone and Telegraph Corporation will take 20 per cent.

"The Mexican Telephone Co. will remain as a daughter company of the L. N. Ericsson Telephone Co., but the latter's concessions in France and the Argentine are to be transferred to the International Telephone and Telegraph Co.

"The reason for this transference is that these two concessions will demand a large investment of capital during the next few years, probably about 35 million kronor (approximately £2,000,000)."

The International Telephone and Telegraph Corporation also has successfully followed the loan-making method to obtain the monopoly of automatic telephone installation in Greece.

¹ Speech of Chairman of Ford Motor Co. Ltd. (Great Britain), March, 1930. cf. *Economist*, December 16, 1933, page 1186.

the Dunlop Rubber Company, Ltd. This company was formed in 1896 to take over a business engaged in the manufacture of pneumatic tyres, and it has since steadily broadened its basis and the scope of its activities, and it now occupies a unique position among rubber manufacturing undertakings. Down to 1925 its activities were confined to the manufacture of tyres, golf and tennis balls, and steel wheels; but thereafter it acquired a number of undertakings manufacturing other kinds of rubber goods, such as rubber footwear and clothing, surgical appliances, hot-water bottles, hoses, cables, and rubber flooring. Besides its chief works at Birmingham, the Dunlop company owns, either directly or through subsidiary companies, works at Coventry and Dudley, rubber estates in the Malay States and Ceylon, cotton mills at Rochdale, and large factories in France, Germany, Japan, and Australia. In addition it has established branches and selling agencies for the distribution of its products all over the world. It owns or controls the Dunlop Tyre and Rubber Corporation of America, the Dunlop Rubber Company (China), Ltd., the Dunlop Rubber Company (India), Ltd., Dunlop Cotton Mills, Ltd., Dunlop Plantations, Ltd., Tyre Investment Trust, Ltd., the India Tyre Co., Ltd., and a number of other companies. The issued capital is now (1933) over £12,250,000, and outstanding debenture stocks total approximately £5,850,000.

The practice of developing subsidiary manufacturing undertakings in foreign countries has been followed by the larger electrical manufacturers. In the case of Austria, for example, the principal firms in this industry are either of foreign origin or closely connected with foreign undertakings. Again, subsidiaries of the Brown Boveri Company of Switzerland are to be found in various countries; and the General Electric Company of the United States controls the Canadian General Electric Company, the British Thomson-Houston Company (one of the largest firms in the British industry), and is closely associated with the Dutch firm of Philips, which in its turn is linked with the Osram

Company.¹ Sometimes, as in the case of France, high tariffs or the depreciation of the exchange has led to the settlement of foreign electrical undertakings in a certain country.² The two sister companies, Siemens and Halske and Siemens-Schukert, besides establishing many plants in various parts of Germany, have constructed an intricate network of financial and sales organizations which covers practically the whole world. The Siemens-Schukert undertaking, for example, has a branch in Vienna which maintains a chain of sales and technical offices throughout the Balkan States.³ The British General Electric Company, Ltd., owns or is interested in nearly a dozen British companies; it is associated financially with the Italian firm of Pirelli through the Pirelli-General Cable Works, Ltd.; it controls various companies in the British Empire, South America, China, and the Continent of Europe; it has invested some £850,000 in a number of electricity supply companies, and it has a working agreement with the Oerlikon Company of Zurich, Switzerland, under which this company's experience in connection with electric traction is placed at the service of the General Electric Company. The English Electric Company, Ltd., controls in Great Britain a group of companies engaged in the manufacture of heavy electrical and allied products; it has working arrangements regarding very large contracts (e.g. for public works) with many of the most important contractors in this country, and it is "associated" with companies in Canada, Australia, France, Belgium, and Japan.⁴

The International Telephone and Telegraph Corporation, registered in the United States in 1920, controls international telegraph services throughout the U.S.A., cable services to the West Indies, Central and South America, and some of the principal countries of Europe and the Far East; and

¹ *Factors in Industrial and Commercial Efficiency*, page 113.

² *Survey of Metal Industries*, page 335.

³ Knight, Barnes and Flugel, *Economic History of Europe*, page 655.

⁴ *Survey of Metal Industries*, page 359.

national and long-distance telephone systems in eleven countries. It has manufacturing plants in fourteen countries, and it directly controls various companies in Britain, France, Spain, Cuba, Mexico, and South America. Also it is "associated" with, but does not control, the Constantinople Telephone Co., Ltd., the Cuban American Telephone and Telegraph Co., the Commercial Pacific Cable Co., and the L. N. Ericsson Telephone Co.¹

In April, 1929, all the principal British cable companies and Marconi's Wireless Telegraph Co., Ltd., were combined to form Cables and Wireless, Ltd.—a giant combine which controls through the subsidiaries of its constituent companies and its holding of shares in Imperial and International Communications, Ltd., more than one-half of the world's cable mileage, and a large portion of the world's radio systems.²

Before the War the largest undertaking in the explosives industry in Great Britain was the Nobel Dynamite Trust, which had close working agreements with German and other foreign groups. After working during the War as a single giant unit, under Government control, the chief British explosives manufacturers decided to amalgamate. Thus the new company—Nobel Industries, Ltd.—came to occupy a monopolistic position in Britain. There were, it is true, foreign makers "with all the necessary resources, but the opening of branches by them in this country would probably be subject to rigid Government control if it were permitted at all." International agreements also stood (*inter alia*) in the way of large foreign imports into Great Britain. Nobel Industries, Ltd., was "very closely associated with the Du Pont combine in Canada, U.S.A., and South America; it had direct financial interests in Belgium, France, Germany, and Spain, and . . . trade alliances with leading continental manufacturers; while, in conjunction with the De Beers Consolidated Mines, it dominated the

¹ Controlled by Kreuger and Toll (*Stock Exchange Year Book*, 1932). ² *Stock Exchange Year Book*, 1933, page 1409.

explosives industry in South Africa.¹ But the end of the chain is not yet in sight, for this combine (which also had certain other holdings not, apparently, directly connected with explosives) is now absorbed by a more gigantic combine with still greater international interests and ramifications. In October, 1919, Brunner Mond and Co. made an agreement with Lever Brothers whereby they acquired the exclusive right to supply soda ash to Lever Brothers and the majority of its associated companies, and "Brunner Mond, in return, undertook not to be concerned or interested in any way in the manufacture or sale of soap in any part of the world (except to the extent of its existing interests in certain European and American concerns which undertakings it was, moreover, to try and induce to withdraw from the soap trade). The importance of this agreement becomes clear when it is realized (1) that the Lever combine controls the vast bulk of the soap industry in England and has still greater soap interests abroad; (2) that in 1919 (when the Lever combine was much smaller than at present) not much less than half Brunner Mond's home deliveries of soda ash were made to soap manufacturers; and (3) that Brunner Mond's chief product is soda ash (the primary alkali)."² Brunner Mond and Co. stated, in 1921, that they were in "close alliance" with the Solway group of Belgium and the United States. Then, in 1926, came the new combine—Imperial Chemical Industries, formed to acquire Brunner Mond and Co., United Alkali Co., British Dyestuffs Corporation, and Nobel Industries, Ltd.; four undertakings which dominated respectively the British soda, dyestuffs, and explosives industries. The purchase price was the allotment of shares of a par value of £56,803,000.

The new company—the largest merger ever seen in British industry down to that time—took control of policy and finance, but left undisturbed the detailed management of

¹ Fitzgerald, *op. cit.*, pages 93-4.

² *Ibid.*, page 81.

the constituent undertakings and their subsidiaries. Among the advantages claimed for this amalgamation of non-competing companies, the late Lord Melchett expressly included power to deal with similar large combines in other countries on terms of equality. This points in the direction of international agreements.

In addition to numerous subsidiaries, Imperial Chemical Industries, Ltd., has large holdings in a considerable number of "associated" undertakings, including Imperial Chemical Industries of Australia and New Zealand, the Allied Chemical Company of the United States, Canadian Industries, Ltd. (in which the Du Pont de Nemours Company is also a large shareholder), the General Motors Corporation, I.G. Farbenindustrie, the International Nickel Company, and African Explosives and Industries, Ltd., which I.C.I. controls in partnership with De Beers Consolidated Mines, Ltd.¹ The main products of the combine are heavy chemicals, fertilizers, and explosives, but it also engages in other branches of production, e.g. the manufacture of insecticides, dyestuffs, non-ferrous metals, motor-cycles and radiators, lightning fasteners, paints, varnishes, insulators, and leather cloth. The issued and paid-up capital of Imperial Chemical Industries is over £77,000,000, in cumulative preference, ordinary, and deferred shares. Its investments are classified into three groups (a) investments in subsidiary companies in which I.C.I. holds over 50 per cent of the shares; (b) investments in associated companies in which the I.C.I. holding is 50 per cent or less; and (c) other investments. The investments in subsidiary and associated companies appear in the published accounts at or under cost, or as revalued on the basis of earning capacity on the liquidation of Nobel Industries, Ltd., in 1928. Thus over three-fourths of the investments are in class (a); over one-twelfth in class (b); and over one-eighth in class (c). At the fifth ordinary general meeting of Imperial Chemical

¹ Report of Sixth Annual General Meeting of Imperial Chemical Industries, Ltd., 11th April, 1933.

Industries in April, 1932, Sir Harry McGowan, the chairman and managing director, stated that—

The shares and debentures in, and advances to, subsidiary companies shown in the balance sheet at £69,264,978, represent in the main the company's holdings in the eight manufacturing groups referred to in the report, namely, Alkali, General Chemical, Explosives, Fertilizer and Synthetic Products, Dyestuffs, Leathercloth, Lime and Metals, in Imperial Chemical Industries, Ltd. of Australia and New Zealand, and in our foreign merchanting companies. The shares and debentures in associated companies standing in the balance sheet at £6,522,062 represent in the main our investments in African Explosives and Industries Ltd., Canadian Industries Ltd., and a number of smaller Dominion and foreign companies engaged in industrial activities cognate to our own. The marketable and other investments standing at £9,540,677 mainly represent investments in large industrial companies with which we have, directly or indirectly, trade connections. The chief items are investments in the General Motors Corporation, Du Pont & Co., and the Allied Chemical Company in the United States, the International Nickel Company in Canada, the I.G. Farbenindustrie in Germany, and Joseph Lucas & Sons in this country. . . .

Because we believe that only through more closely-knit industrial entities, welding into one body existing competitive units, can British goods enlarge their world markets, and because Imperial Chemical Industries is to-day regarded as the British prototype of large scale business, I propose to outline to you the principles we follow and the results which, we claim, are their justification. Grounds for my intention are to be found in recent doubts of the soundness and permanence of very large concerns, especially when their ramifications have a world-wide scope. As is not unusual, these doubts spring from a few striking cases of failure. . . . Specific failures do not affect the validity of a principle. Organization to-day is not only a power but a necessity . . . the I.C.I. organization has been built upon firm foundations and is as free as it can be made from the defects which in other cases have led to trouble.

Under our scheme of administration, those members of your Board who devote all of their time to the business have been freed from the burdens of defined executive duties.

Concentrated study can accordingly be given to new problems as they arise. Fully cognisant of our general policy, each of these directors is freely at the disposal of any member of the organization who needs general or particular guidance upon some aspect or point of the work with which he may be concerned. Moreover they are in daily contact with one another, and with the president and myself, not only through our normal Board days, but more freely in our fixed and frequent meetings on our General Purposes Committee and Finance Committee, and still more frequently and intimately in the daily task of guiding the business.

In the sewing-cotton section of the English cotton trade control has been concentrated, since 1897, in the hands of "a powerful trust, international in its ramifications, and headed by the closely related undertakings of J. & P. Coats, Ltd., and the English Sewing Cotton Company."¹ About the year 1890 the well-established firm of J. & P. Coats became a limited company, and by 1896 it had absorbed five competitors, gained control of sixteen factories, including mills in Canada, Russia, and the U.S.A., and reached a predominant position in that section of the trade.² The immediate result was another combine—the English Sewing Cotton Company, Ltd., formed in 1897 to take over fourteen businesses. In the following year the new combine acquired nearly the whole of the common stock of the American Thread Company;³ but this connection was dissolved in 1914 by decree of the United States District Court of New Jersey.⁴ It now has a capital of £3,000,000 and controls sixteen other companies, including Ermen and Roby (Armentières), Ltd. Both J. & P. Coats and the English Sewing Cotton Company are said to control many foreign companies, and although, apparently, they are not

¹ Committee on Industry and Trade, *Survey of Textile Industries* (1928), page 39.

² Donaldson, *op. cit.*, pages 319–20. In the early nineties, Coats's chief rivals—Jonas Brook & Co., J. Chadwick & Co., Clarke & Co., and Kerr & Co.,—combined to form the Central Thread Agency. After J. & P. Coats had bought up the whole of this organization, their capital stood in the neighbourhood of £12,000,000.

³ *Stock Exchange Year Book*, 1932.

⁴ *Journal of Political Economy*, October 1920, page 672.

financially interlocked, they agree not "to interfere with each other's business," and in some markets the two combines sell their products through a single distributing organization.¹

Three other examples of international ramifications may be mentioned briefly. Vickers, Ltd., has many foreign subsidiaries manufacturing steel products and machinery, and it has also interests in Japanese, Spanish, Italian, French, Roumanian, and Swiss companies. Armstrong-Whitworth and Co., Ltd., has developed along somewhat similar lines. Not only does it control, directly or indirectly, such British companies as the Pearson and Knowles Coal and Iron Co., Ryland Brothers, Ltd., the Wigan Junction Colliery Co., Partington Steel and Iron Co., Ltd., and the Moss Hall Coal Co., Ltd., but it is associated with the Newfoundland Power and Paper Co., Ltd., and with other companies in Japan, Spain, Italy, Yugoslavia, Belgium, and Australia. Moreover, Vickers and Armstrong-Whitworths combined in 1927 to form a company called Vickers-Armstrong, Ltd., to take over their armament and naval shipbuilding business. As a third example we may take Rolls-Royce, Ltd., the makers of the well-known motor-cars and aero engines. This company owns the entire capital of Bentley Motors (1931), Ltd., controls Automobiles Rolls-Royce (France), Ltd., and has a substantial holding in Rolls-Royce America Inc.

In concluding this section it may be remarked that the international business which has acquired interests in, and control of, foreign undertakings, differs considerably from the pure holding company, for the former continues to carry on its industrial activities, but the latter merely holds the shares of its subsidiaries and draws its income, not from direct production and trading, but from income received from its various "interests" in subsidiary undertakings, and from investments (if any) outside the group.

¹ Fitzgerald, *op. cit.*, pages 14-16.

CHAPTER III

FORMATION (I): AIDS AND INCENTIVES

ALL forms of industrial combination arise from much the same necessities, desires, difficulties, or circumstances. In very general terms these are—

(a) The economic necessity of keeping productive plants fully and regularly employed.

(b) The desire to escape from severe competition, price-cutting, and so forth.

(c) The desire to substitute certainty for the uncertainties of business as previously conducted.

Among the foremost "causes" or initial impulses or stimuli to the formation of international combines we find

- (1) severe competition arising from rapid technical progress in several countries, unbalanced by increasing effective demand; (2) the fear of "over-production" and fierce competition; (3) marked and continual fluctuations of prices; (4) increasing difficulty of producing successfully unless further expensive research is undertaken and/or patent rights and the results of research are "pooled" or exchanged; (5) the arbitrary formation of political units without regard to economic factors. (Many international agreements would not be international if political frontiers had not been drawn through natural economic units.) (6) The attraction of the prospect of widening profit margins by substantial reductions of costs. The total volume of sales of an international combine over a long period are generally subject to a smaller amount of variation than the sales of individual independent producers. Therefore, the margin of productive capacity necessary to meet such moderate normal fluctuations of demand will be less for an international combine than the aggregate of margins of many independent producers. This means that the combine

can operate more economically as regards finance, stocks of goods, and capital equipment than its members could if they operated separately. More accurate advance-planning of production and greater regularity of employment of both capital and labour are possible. Moreover, market information can be centralized and circulated to all members, and if circumstances require it a simultaneous modification of policy can be made to meet the situation.

Given one or more of these initial impulses or stimuli, the conditions most favourable to the formation of international combines may be set forth as follows—

1. The existence of a small number of producing organizations.
2. The natural scarcity of a commodity, or the concentration of supplies in a limited number of regions.
3. The existence of national combines having authority to negotiate on behalf of their member firms or shareholders.
4. Where various governments regard the formation of an international combine as likely to further the interests of their respective states.
5. The existence of international financial interlacing.
6. Where the commodity produced is a raw material or in the early stages of manufacture.

If two or more of these conditions co-exist the chances of successful formation are, of course, enhanced. Study of various international combines shows that there are, in fact, very few cases where the formation and rise of a combine can be said to have been assisted by the existence of one condition only. More frequently the original impulse or impulses and several favourable conditions are seen to be closely intertwined. Let us examine some leading examples.

In the shipping industry the "conferences" or "rings" are the result of over-production of shipping tonnage, and severe competition—or the fear of it—between the ship-owners of the various sea-going nations. "In the years immediately prior to and succeeding the opening of the Suez Canal in 1869, the output of steam tonnage was very

great. The steam tonnage of the United Kingdom alone rose from 454,327 in 1860 to 1,112,934 in 1870, and 2,723,468 in 1880. The requirements of trade were outstripped, and a period of severe competition among shipowners ensued, with the result that (freight) rates fell heavily. In the Eastern trade . . . the struggle was so keen that several of the lines had to withdraw, and the remainder with a view to self-preservation began to draw together so as to stave off disaster by coming to arrangements between themselves and with their customers." The shipping companies were confronted with a double problem; for they had to find a means of obtaining and maintaining remunerative freight rates, and "they had to conform to the new requirements of trade by giving regular sailings of high class vessels dispatched at dates advertised beforehand, whether full or not full. At the same time the general increase in the cargo space of vessels enhanced the risk entailed in conforming to these requirements."¹ The shipping conference or ring, and the deferred rebate system, were the outcome of the shipowners' attempts to find a solution.

The Royal Commission of 1909 defined a shipping conference as "a combination more or less close of Shipping Companies formed for the purpose of regulating or restricting competition in the carrying trade on a given trade route or routes. The vessels employed by these companies are usually of the class known as Liners, i.e. vessels of high class and speed, sailing and arriving at fixed dates advertised beforehand. In addition to mail steamers and passenger steamers they include vessels which carry cargo only and are known as cargo-liners. In some cases vessels which operate elsewhere and at other times as tramps are also employed by the Conference Lines. The operations of a Conference are confined to a particular trade route, that is to say, the engagements which the various lines enter into with one another only apply to the trade within certain

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909), pages 11, 76.

definite areas or between specific ports. A Steamship Company may be a member of several Conferences, but its engagements in one are independent of those in any other. . . . The alliance then is not one of Steamship Companies for all purposes, but only as to their operations within a specified area."¹ The members of a conference agree that they will all charge the same freight rates, and, in certain cases, the agreement also provides that traffic shall be shared either by restriction of the number of sailings of each member, or by dividing the ports of sailings between them, or by pooling some part of the freight upon all or certain portions of the cargoes. In order to meet the actual or potential competition of non-conference shipowners the allied companies offer shippers a deferred reduction of freight rates if, at the end of a certain period (e.g. four or six months), they have not shipped any goods by non-conference vessels; and this reduction or rebate (usually 10 per cent) will be paid to them if at the end of a further similar period they have continued their "loyalty" to the conference by confining their shipments to conference vessels only. Thus a "tie" is formed which is automatically applicable to all shippers who care to avail themselves of it within the region served by the Conference Lines. The intention is, of course, to deter shippers from making any shipments whatever within the particular region by any non-conference vessel, and those who do so lose their right to the rebate not only in respect of goods shipped during the period in which they are "disloyal," but also in respect of all goods shipped during the previous period. "This penalty, by reason of the large sums at stake, may act as a powerful deterrent."² Not infrequently the rebate thus forfeited by a single shipper would amount to several thousands of pounds.

The first shipping conference was the Calcutta Conference, formed in August, 1875; but the deferred rebate system,

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909, page 9.

² *Ibid.*, page 33.

as described above, was not introduced until 1877, and at first it applied solely to shipments of Manchester piece goods. The formation of other conferences quickly followed, and in these the membership was almost entirely British. But as the Continental shipping lines developed, the danger of severe competition and "rate wars" loomed up. The idea of amalgamation between the various companies (e.g. between British and foreign lines) was acceptable neither to the companies nor to their respective governments. Therefore the choice lay between competition on the one hand, and international agreements on the other. "The East and South Coast ports of the United Kingdom are peculiarly open to attack by Continental Lines. A German Line, taking its main cargo at, say, Hamburg and Antwerp, could, without going far out of its course, come into Middlesbrough or Hull or London to fill its empty spaces, and, in order to do so, would be willing to accept cargo at lower rates than the British Lines to which the traffic from these ports was the sole or chief source of revenue. The Continental Lines, on the other hand, feared reprisals from the British Lines. In cases where Conferences already existed this international competition or the fear of it has led to the extension of the Conference system to cover Continental trade. In other cases it is to foreign competition rather than to competition between British Lines that the original establishment of the Conference has been due. . . . The agreement which the parties have made with one another has taken various forms. . . . But . . . it has generally been based upon—

1. A division of areas.
2. A consolidation of rebate systems, under which the same rebate conditions apply to the trade not only from the United Kingdom but also from the Continent.
3. An agreement or understanding that the same rates are to be charged on similar goods from the United Kingdom and the Continent."¹

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909), page 20.

On the Far-Eastern trade routes Japanese companies are allied with British and other European lines. The Atlantic Conference (otherwise referred to as the "North Atlantic Shipping Pool") was an agreement between British, American, Belgian, Canadian, German, Dutch, and Russian lines to "regulate" steerage traffic between the United States and Canada and European ports. The International Mercantile Marine Company concluded agreements with two German steamship companies in 1902, and with the Atlantic Conference in 1908. The Mediterranean Conference, dating from the same year, was very comprehensive: in all it comprised fifteen lines—German, British, American, French, Italian, and Spanish.¹

Detailed study of these international shipping combines reveals salient features similar to those of international combines in other industries, e.g. the reservation of certain areas or ports to certain members of the combine, the apportionment of other areas, and the use of quota and pooling arrangements. Two examples may be taken from the *Report* of the Royal Commission on Shipping Rings (page 24).

Calcutta Trade, Homewards. In this trade a proportion of the freight on tea is pooled and divided among all the members of the Conference in an agreed proportion. As practically all the tea is carried to London, the Lines trading exclusively to the West Coast ports carry little or none. They share, however, in the pool, as also do some of the Conference steamers which occasionally load from Calcutta to Continental ports and Dundee. It is understood, too, that steamers bringing tea from Chittagong to London are also in the pool.

Far East Trade, Outwards. Lancashire and Yorkshire goods, i.e. yarn and all fabrics of wool, cotton and silk are regarded as cargo in common and the six Lines which carry them have agreed that the carriage of this traffic shall be apportioned among them in certain percentages. Lines which carry more than their percentage have to return the surplus to the pool, and payments are made therefrom to

¹ Liefmann, *Cartels, Concerns and Trusts* (1932), page 150.

recoup those Lines which have carried less than their percentage.

Pooling arrangements of this character regulate competition by apportionment of traffic by results, as distinct from apportionment by anticipation, such as is effected by restrictions of areas or of sailings. From the economic point of view they have this advantage, that whereas under a system of restricted or proportional sailings the supply of tonnage may conceivably lag behind the demand, under the pooling system . . . a greater latitude is given to each Line to meet the demand. All the Lines are interested in the aggregate freight being as high as possible, although each Line only receives a fixed proportion of that aggregate.

International combines such as the shipping conferences, fortified as they are by the deferred rebate system, represent a "certain kind of monopoly"; but it is a monopoly subject to several important limitations. There is, firstly, the potential competition of non-conference vessels of all nationalities. Ships are exceedingly mobile, and since the War the total supply of available tonnage has been constantly and, at times, chronically, in excess of world demand. Secondly, the continued abuse of monopoly power might result in combination among shippers, or (rather more probable) State action to prevent the abuses. In certain countries the deferred rebate system is already illegal,¹ and if public opinion be sufficiently hostile, State-owned shipping lines to run in competition with conference lines are not out of the question. Thirdly, conference ties are loose, while the connection between certain conference lines and their respective governments is very close, so that at any time certain lines may withdraw from the combine either voluntarily or under pressure from their governments. Lastly, it must be noted that competition in facilities still exists even between members of the same conference. The Royal Commission came to the conclusion that "a Shipping Conference making use of the system of deferred rebates did possess, so far as the shipper of general

¹ *Report on Deferred Rebate System* (Cmd. 1802, 1923).

merchandise is concerned, a limited monopoly." The strength of each Conference's limited monopoly depends upon the "continuous hold" secured over shippers by the deferred rebate system, the mutual agreements or "understandings" among the members of different conferences not to encroach upon each other's preserves no matter how depressed trade in their own region may be, and the continued adhesion to the conferences of a very substantial proportion of the lines giving regular sailings.

The international linoleum combine, which has strongly monopolistic tendencies, is the outcome of nearly twenty years' experience of national and international combinations in the European linoleum industry. It has at its centre a Swiss holding company called the Continental Linoleum Union. This company holds the majority of the shares of three linoleum manufacturing companies—German, Swiss, and Swedish—and they in turn hold some of its shares, so that the four companies are closely interlocked. Profits are pooled and allocated in proportion to their holdings of share capital in circulation. The Continental Linoleum Union also acquired (1928) substantial interests in the Lithuanian and Norwegian linoleum industries, and in 1929 a Dutch and a French company decided to "adhere" to the Union, which thus has under its control eight factories in Germany and eight more in six other European countries. In addition, the Union has an agreement with the associated British manufacturers of linoleum, by which selling prices in the foreign markets are regulated. These facts are mentioned here because the germ of this international combine is to be found in national combines formed before the War (notably in Germany) under pressure of economic depression and low prices due to severe competition. It is, moreover, an industry which lends itself to large-scale organization. Great economies result from the standardization of the product; the limitation of the number of types and patterns; and the continuous manufacture of large quantities of each type and pattern. For this great masses of capital

are required, under the charge of technical experts of long experience and proved ability.

For twelve years the spectre of over-production haunted the producers of calcium carbide, and eventually resulted in an international cartel, formed in 1910, comprising forty European companies owning sixty-one factories.¹ More recently (1930-31) rapid expansion of production of petrol in America and the competition of Roumanian and Russian supplies brought down the price of motor fuel to an unprecedentedly low level, which was unprofitable to producers. Out of this situation arose determined efforts on the part of the producers to arrange an international agreement for the regulation of output and prices. The general lowness of prices, and the existence of combinations and groupings among the producing companies smoothed the way, and an international conference was held in Paris in July, 1932. It was attended by representatives of the Standard Oil exporting companies and various other important American exporters, by the Anglo-Persian Company, the Roumanian exporting companies, and the Royal Dutch Shell groups. The lukewarm attitude of the Roumanians was regarded as the major difficulty confronting the conference; and the Roumanians, realizing the strength of their key position, drove a keen bargain, and eventually succeeded in obtaining ✓ the right to export 65 per cent more oil than was originally proposed by the international group.² The agreement which eventually emerged provided for limitation of exports, including Roumanian exports, each group taking a quota ✓ based upon the percentage of their trade in export markets during 1931.³

¹ R. Jaccard, *op. cit.*, page 183.

² *Economist*, 3rd September, 1932, page 425.

³ But the Roumanian producers did not immediately give effect to their part of the agreement. In December, 1932, *The Economist* reported that: "A conference has been held in Paris between the international oil groups and the Roumanian producers regarding the carrying into effect of the Paris Agreement which limited the exports of the contracting parties to the requirements of their respective markets on an approved quota basis. Since this agreement was reached the Roumanian producers have not been restricted in their

The ratification of this international agreement by producers representing approximately 80 per cent of the world output of petroleum was the signal for a rise of threepence per gallon in the retail prices of petrol, benzole, and benzole mixtures throughout Great Britain (September, 1932). The position of the Russians was not clear, but the simultaneous rise of the price of "R.O.P." petrol by threepence per gallon points to some sort of understanding between Russian Oil Products, Ltd., and the associated oil groups.

Intense competition between the principal producers of a certain commodity or range of goods for limited basic supplies may end in the formation of an international combination mainly for the purpose of purchasing supplies jointly. Also, where stability of raw material prices is highly important to manufacturers, one of the courses open to them will be to enter a buyer's combine. An alternative course is to form or join an international combine of the "vertical" type. The International Association of Bone-glue Manufacturers is a good example of international combination in face of a shortage of raw materials. Bones are a waste product, necessarily limited in supply by the volume of consumption of the main products from which they are derived. In the post-war years the demand for bones exceeded the supply. Exports of bones were restricted by many countries, and the supplies from South America, which usually went to Europe, were being diverted to the

output in accordance either with the spirit or letter of the agreement. The second conference has resulted in an agreement allowing a small increase in the proposed Roumanian quota, and it is hoped that the Roumanian producers will make this new agreement effective. The report was current in the oil share market that petrol prices would be raised by 2d. per gallon in the event of agreement being reached, but there was never any justification for this report seeing that a rise in petrol prices to-day would be contrary to the trend in oil prices in America at the present time."

Cf. also Manchester Guardian Commercial, 26th November, 1932, and 24th June, 1933, in which it appears that the Roumanians have removed the restrictions on their production on the ground that the United States producers have not carried out their part of the Paris Agreement and "have thus jeopardized the possibility of a rise in oil prices."

rising bone-glue industry of the United States. The European bone-glue manufacturers eventually decided that in the circumstances it was desirable that they should discontinue not only their competition in the sale of the finished product, but their intense rivalry in the purchase of the scarce supplies of bones, for by competing they raised the prices of their raw material while they depressed the prices of their finished goods. Therefore, in September, 1926, the majority of the bone-glue manufacturers of Germany, Britain, France, Italy, Belgium, Switzerland, Austria, Hungary, Yugoslavia, Czechoslovakia, Roumania, Poland, Denmark, and Sweden formed an international association to organize and develop the collection of bones, and to ensure a reasonably equitable distribution of this raw material; to collect and circulate to members accurate and up-to-date information regarding sales, consumption, and stocks of bones and glue throughout the world; to assist members temporarily holding large stocks of glue; and to extend the uses of bone-glue and its by-products. The association fixes a general minimum price below which its members are forbidden to sell, but it does not regulate sale; or fix the actual prices charged. The Dutch and Lithuanian industries have subsequently joined the combine, and its members now produce 85 to 90 per cent of the total output of these countries and those mentioned above.

Other examples of international combinations primarily for joint purchase of raw materials or semi-manufactured articles could be cited. For example, the members of the International Borax Cartel are under contract to buy all their supplies of raw materials through the cartel's central purchasing organization, Borax Consolidated, Ltd.¹ "Other international buyers' cartels operated at one time or another in the leather and rubber industries."²

Before the War the International Federation of Master

¹ For details of this company see Chapter I, *supra*, and *Stock Exchange Year Book*.

² *Journal of Political Economy*, October, 1920, page 661.

Cotton Spinners' and Manufacturers' Associations, formed in 1904, included the owners of nearly all the spindles in Europe.¹ The suggestion that this International Federation might take the line of vertical integration and acquire cotton plantations was rejected because of the distance between mills and plantations, the unwillingness of planters to sell the plantations, and of spinners to raise or advance capital to purchase agricultural enterprises of which they possessed no technical knowledge. Instead, a consumers' international cartel was proposed for the purpose of (a) preventing fluctuations in cotton quotations outside specified limits, (b) increasing the production of cotton² by guaranteeing to the growers remunerative prices, and (c) facilitating, if necessary, the reduction of the consumption of cotton by short-time working, organized internationally. The Federation was to set up a central buying organization, charged with the duty of buying cotton on behalf of the whole Federation and building up a raw cotton reserve, to be used when cotton prices had risen to a certain level, in order to prevent a rise beyond that point. Spinners purchasing cotton from the reserve were to pay a certain contribution per bale, the proceeds of which were to be used to compensate members who had suffered losses by working short time as a result of the Federation's decision. All this was never more than a project, put forward by Sir Charles Macara in 1907, and reiterated many times in ensuing years: but it demonstrates the possibility of powerful international combines of buyers, if the latter have a sufficiently keen appreciation of their common interests. Also, alongside of the International Federation of Master Cotton Spinners' and Manufacturers' Associations, there was the International Cotton Federation founded in 1905 for the purpose of taking such action as should help to increase the quantity and improve the quality of raw cotton; to regulate the supply

¹ W. Oualid, *The Social Effects of International Industrial Agreements* (I.L.O., C.E.C.P. 94, 1926), page 12.

² At that time consumers feared a shortage of raw cotton.

of raw cotton, and to deal with "temporary over-production of manufacturers." Under the auspices of this body International Cotton Conferences were held in 1907, 1919, and 1921, and among those attending were American cotton planters, manufacturers, and brokers. Sir Charles Macara, the first president of this Federation, seems to have hoped for a comprehensive international combination between all the interests in the cotton trade—growers, brokers, spinners, and manufacturers—but although the Americans gave the Federation "informal support," their leading trade associations, such as the National Association of Cotton Manufacturers and the American Cotton Manufacturers' Association, did not become members.¹

The existence of a very limited number of units, whether they are large or small, has always been a condition favourable to the formation of international combines. The Bismuth Syndicate, which was in existence before 1880, and is, probably, the earliest international cartel, may be cited as one example. Again, the manufacture of mirror-glass in France and Belgium thirty years ago was concentrated in the hands of a very small number of manufacturers. These producers came together, agreed to limit output, and concluded the Convention Internationale des Glaceries (1904). Later, the combine extended its activities into Germany, until it gained control of some 75 per cent of the German output, and ultimately it embraced all the mirror-glass works in Belgium, Germany, Austria, Holland, and Italy, and all but one in France.²

The conditions which favoured and facilitated the international cartelization of the aluminium industry were the small number of producers in each country and in the world as a whole, and the very large quantity of capital required. In order to produce cheap aluminium it is necessary to acquire bauxite mines, and to put down expensive plants capable of producing enormous quantities of electric power.

¹ Macara, *Getting the World to Work* (1922), pages 13-14, 17, 89-97, 354-9.

² Donaldson, *op. cit.*, page 323.

Therefore, low unit-costs are possible only if production is steady, continuous, and on a very large scale. Another factor is the importance of uniformity of quality in the finished article. Moreover, costs of transport are low relatively to the value of aluminium, and therefore the producers of aluminium can expect little natural regional protection from competition. The principal sources of supplies of bauxite¹ are—

	<i>Approximate Proportion of World Output per cent</i>
France	36
United States	20
Dutch Guiana	11
British Guiana	10
Italy	10

The manufacture of aluminium is comparatively a new industry. It has no individualistic traditions, and horizontal combination and vertical integration are among its most marked features. Its expansion is closely in step with other "young" industries, such as the electrical industry, which have been born, so to speak, into an age and atmosphere of large-scale production and have never been organized in any other way. Since the number of producers of aluminium was small the preliminary work of bringing them together was comparatively easy, especially as they were already "grouped." "The five French participants were firmly organized into a shareholding company, L'Aluminium Française. The other leading European manufacturers, the Aluminium Industry (Shareholding Company), of

¹ Great progress has been made in recent years in the refining of bauxite by the hydro-electric process. The approximate output ratios for the seven chief producing countries are—

	<i>Ratio</i>
United States	100
Canada	40
Germany	33
France	30
Norway	25
Switzerland	20
United Kingdom	15

Neuhausen, did business through four factories in Switzerland, Germany, and Austria." The monopolistic Aluminium Company of America controlled a Canadian undertaking—the Northern Canadian Aluminium Company—and had a regional agreement with the Aluminium Industry of Neuhausen until 1912, when the arrangement was dissolved as the result of a prosecution in U.S.A. under the Sherman Act.¹ There were also three undertakings in England and Norway, "all closely connected," and another in Italy. "Owing to this high degree of concentration it was found possible to form an international convention as early as 1901, the bond between the various producers being the exclusive use of the electrolytic patents. The expiry of these in 1905 gave rise, however, to new competition, and the syndicate collapsed in 1908."² During its existence the price of aluminium had risen by about 100 per cent. Another international cartel was formed in 1912. It included all the chief European producers (French, Swiss, and British), and "it is understood to have entered into arrangements with the Canadian company producing aluminium, which is believed to be controlled by the Aluminium Company of America."³ According to the Committee on Trusts the aim of the aluminium cartel was mainly the regulation of prices.

At that time the leading aluminium producers of the world could still be numbered on one hand. According to Kossmann they were—Aluminium Industrie A.-G.; Société Electrometallurgique Française, of Froges; Compagnie des Produits Chimiques d'Alais et de la Carmargue; the British Aluminium Company, Ltd.; the Aluminium Company of America. Out of a total of twelve producers, these five undertakings turned out 90 per cent of the world output, distributed between them respectively approximately in the following ratios—60, 60, 25, 45, 120.⁴ During the War

¹ *Journal of Political Economy*, October, 1920, pages 662-3.

² Fitzgerald, *op. cit.*, quoting *Ironmonger Year Book*, 1917, page 131. ³ *Report of the Committee on Trusts* (1919), page 41.

⁴ W. Kossmann, *Ueber die wirtschaftliche Entwicklung der Aluminiumindustrie*.

the demand for aluminium increased by leaps and bounds, and belligerent governments became greatly concerned about output. The German government owned one aluminium plant, directly controlled another, and subsidized those over which its control was somewhat less complete. The French increased their aluminium plants, and the Italians set up an entirely new aluminium industry within their own frontiers. After the War it was found that "those responsible for army work had accumulated big stocks of the metal, and some time elapsed before they could regain their equilibrium. Hardly had they done so, when they were faced with the economic crisis of 1921. It is at such times that producers realize most clearly the expediency of coming to an understanding and offering a united front in the face of common difficulties. These various reasons led European producers to get into touch with one another, to exchange views on the future of their undertakings, and to realize the advantages of organization. The first agreement, confined to prices, was negotiated in 1923, being followed, in 1926, by a more comprehensive agreement, . . . this was concluded for an initial period of two years, i.e. until December 31st, 1928, when it was renewed for a further period of three years. The Aluminium Company of America, for legal reasons peculiar to the United States of America, has hitherto felt obliged to remain outside the agreement," and "Aluminium Ltd., a company of independent legal status and which controls all the factories of the same group operating outside the United States . . . felt called upon to adopt the same attitude."¹ The Canadian producers, however, have recently joined. This international aluminium cartel thus combines all the important producers of Germany, Switzerland, France, Britain, Italy, Austria, and Canada, as well as certain Norwegian producers. The objects of the cartel, as set out in the agreement, are—

(a) The regulation and control of the aluminium sales of

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), page 26.

each member, more particularly by the exchange of commercial information in their possession.

(b) The promotion, by all means and in conjunction with consumers, of a more widespread use of aluminium.

(c) The reduction of general costs and transport costs to a minimum.

(d) The control of the sales of members on the basis of a quota allocated to each.

(e) The fixing of a standard price, determined by the quality of the metal delivered, according to a scale established by the cartel.¹ The cartel commenced by reducing prices by 12 per cent, and the price of aluminium has since been reduced on a number of occasions.² Probably the chief reason for this is the fact that in their constant attempts to extend the use of aluminium, producers encounter the competition of cheap substitutes, such as iron and tin. There is, also, the general fall in the wholesale prices of all such commodities. However, the cartel appears to maintain a close and so far successful control over production and marketing.³

Sometimes the existence of one great undertaking carrying on business on an international scale is primarily responsible for the formation of an international combine. If such an undertaking takes the initiative, whether in a peaceful or a hostile manner, smaller producers may think it advantageous to join the combine, or at least dangerous to refuse. Moreover, the existence of a powerful national or international combine may stimulate the formation of other combinations among producers in countries where none already exist, in order that they may be in a position to compete, and, if necessary, to negotiate with the foreign or international combine.

At the close of the nineteenth century the tobacco industry

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), page 26.

² *Ibid.*, page 28; League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 22.

³ *Economist*, 3rd September, 1932, page 420.

in England was little troubled by foreign competition. But as the twentieth century opened, a giant American undertaking—the Consolidated Tobacco Company—commenced a determined campaign to capture the English market. "For this purpose it bought control of Ogden's, Ltd., a leading English manufacturer, paying therefor over \$5,000,000. The Ogden Company at once offered most liberal inducements to the trade. This entrance of the American Tobacco Company interests into Great Britain alarmed the other tobacco manufacturers there . . ."¹ and all the leading English manufacturers immediately combined to meet the attack by forming a great national combine—the Imperial Tobacco Company. Competition at once became so intense that it was obvious it could not last long. In fact the battle of the giants ended in September, 1902, when the two rival combines agreed that each should be left in possession of its home market, and that their combined export trades should be handled by a special company, to be called the British-American Tobacco Company. Owing to the predominance of the American combine in the export trade, the right to nominate twelve of the eighteen directors of the British-American Tobacco Company was given to the Americans. The American section of this international combine sought to consolidate its grip upon the trade by acquiring all the best patented machinery, by checking the growth of rivals by underselling them with its "fighting brands," and by constantly buying up competitive undertakings. The British part of the combine seems to have relied most upon increasing its productive efficiency and stimulating the consumption of its various brands, mainly by lavish advertising. For nine years the combine operated vigorously, but ultimately it was broken, not by economic forces, but by the power of the Federal Trade Commission of the United States Government, which

¹ *Report of the United States Commissioner of Corporations on the Tobacco Industry*, Part I. Cf. also Jenks and Clark, *The Trust Problem* (4th Edn., 1922), page 354.

decided that the American section of the combine had abused its powers. The agreement of 1902 was annulled, and the Commission decreed that the American combine must break up into fourteen separate undertakings, and that these units must remain separate. This bombshell destroyed American control of the British-American Tobacco Company, but not the company itself (for it is registered in England), nor the interests of Americans in it. Since 1911 the British-American Tobacco Company has continued to flourish and to work in friendly alliance with the Imperial Tobacco Company.¹

In the case of the tobacco trade the international organization seems to have come out little the worse ~~for the break-up of the American section~~; but this might not always be so. A blow struck at a great national combine by anti-trust legislation may affect an international combine of which the national combine is a member in such a way as to cause reorganization and readjustments within the international combine, and the raising of controversial questions (e.g. relative quotas) which threaten to split the international combine whenever they arise.

In the incandescent lamp industry throughout the world the number of producers has never been very large, and this has undoubtedly influenced the evolution of the industry's organization; but in this industry more, perhaps, than in any other, "economic combinations have been determined, as regards their terms and their effects, by the progress made in the technical and scientific fields."² Another factor has been the rapid growth of productive capacity, giving rise to fears of over-production, intense competition and price-cutting.

In 1903 the various European incandescent lamp

¹ The Imperial Tobacco Co. holds interests in subsidiary and associated companies valued at some £11,200,000, the major portion being its holding in British-American Tobacco Co. and its subsidiary, Tobacco Securities Trust Co.

² League of Nations *Review of the Economic Aspects of Several International Industrial Agreements*, page 65.

manufacturers, led by the Germans, formed an international prices cartel for carbon filament lamps. Eleven lamp manufacturing undertakings in five different countries (Germany, Austria-Hungary, Italy, Holland, and Switzerland) were parties to this agreement, which remained in force until the end of March, 1914. The substitution of the metal filament lamp for the carbon filament lamp, however, created the need for a new settlement. The best results with the metal filament (wire-drawn wolfram) were obtained by the Americans. But this did not leave the Germans stranded, for as a result of the financial relations which had already been established between American and German companies, technical co-operation became possible when the need arose. In 1904 the American Union Electric Company had combined with the German General Electric Company (the *Allgemeine Elektrizitäts Gesellschaft*), sales areas had been delimited, and it was soon decided to exchange patent rights. In the German industry during the next few years the leading lamp manufacturers found themselves much hampered by the monopolies conferred upon particular patentees, and eventually, in 1911, three large makers—Siemens and Halske, the A.E.G., and the German Incandescent Gas-burner Company—formed the *Drahtkonzern*, or Filament Trust, whereby they pooled their patent rights. There was, however, no price agreement, and in all other respects the parties retained their autonomy, even when they exchanged details of manufacturing processes with the American General Electric Company.

The British branches of the members of the *Drahtkonzern* came to an agreement in 1912 with the British lamp manufacturers for the mutual use of patent licences in Britain. Somewhat similar agreements were made in 1912-13 between the German companies and important companies in France, Holland, and Austria-Hungary. Then the War came and shattered in a few hours international industrial agreements representing many years of patient effort.

The Committee on Industry and Trade stated that the

world demand for electric lamps immediately after the post-war boom could have been supplied, in all probability, by half the existing plants.¹ In other words, productive capacity had far outstripped effective demand; a fact which caused a number of leading manufacturers, chiefly in Europe, to take steps to "obviate the possibility of unco-ordinated production and unrestricted competition," which, they thought, would be "disastrous to the industry and the quality of its products." In 1921, a group of German and Central European lamp manufacturers, together with a Dutch company and a Swedish company, formed the International Union for Regulating Prices of Incandescent Lamps (Internationale Glühlampen Preisvereinigung), which delimited territories, fixed common prices and common conditions of delivery and payment. In the following year "the friendly agreement concluded . . . between the American General Electric Company and the Osram Company was of particular importance. Besides an arrangement regarding the exchange of patents and of the results of experimental work, this agreement marked out exclusive sales areas for the two contracting parties, and thus set territorial limits to the competition between these undertakings by applying for the first time the principle of the protection of the home market."² This phase of the international combination movement in the electric lamp industry culminated at the close of 1924 in a general Convention for the Development and Progress of the International Electric Lamp Industry. This agreement was made between manufacturers in every country of the world except Canada and the United States. As originally constructed, the convention covered twenty-seven principal companies, including eight lesser combines consisting of thirty-six affiliated companies.

Under the terms of the Convention, each party obtains, during the period of validity of the Convention, the right to

¹ *Survey of Metal Industries*, page 322.

² *League of Nations Review of Several International Industrial Agreements*, page 70.

utilize the inventions and experiences of the other parties on payment of the usual licence fees. An arbitral tribunal is appointed to decide claims regarding the taking out or infringement of patents. The parties are also bound to allow co-contracting parties to visit their laboratories and workshops at any time. The rationalization of production, stocks and sales is assisted by agreements regarding the standardization of electric lamps and the reduction of the number of varieties. Technical supervision of the firms parties to the Convention is also provided, for the quality of their products is checked. This last-mentioned work is carried on in a special laboratory, to which the parties to the Convention must send samples of their products. Propaganda in favour of the use of electric lamps is carried on on behalf of all the parties through the intermediary of the *Lichtwirtschaft*.

REGULATION OF PRICES

The Convention does not provide for the joint sale of products, nor is price-fixing a condition or an integral part of the Convention. The regulation of prices is left entirely to the members interested in the trade of the various countries. It is facilitated, however, by dividing up the world trade according to countries of origin and common territory.

REGULATION OF SALES

There is no limitation of output, each party being free to produce as it thinks fit. Production is indirectly regulated, however, by the limitation of sales and the allocation of sales areas—i.e. by sharing the world trade. The sales quotas of the various members are determined by the actual sales during a specified basic year, the various types of lamps being brought to a single basis (unit lamp). Members must also share, in the proportion thus fixed, in any increase in world trade. The aggregate quota is divided into national quotas for the various countries of origin (mainly countries having large electric-light industries) and in national quotas for the rest of the world (common territory). The allocation of quotas to the various members is determined by the actual sales during the basic year. Any firm having no sales at all in a country in the course of that year may sell its products there afterwards. As regards countries in the common territory, a firm may, if it does not reach its full quota in any one country, make up the difference from its sales in another

country forming part of the common territory. On the other hand, if a firm does not reach its full quota in its country of origin, it cannot seek compensation in the common territory. If a firm exceeds its quota, it must pay, according to a fixed scale, fees for the benefit of the firms whose quota has not been fully realized. The payment of these fees is secured by the sums deposited with the Phoebus Company by each of the firms parties to the Convention.¹

"Parts of the world from which British lamp makers were excluded by existing patent or trade-mark rights were opened up to them, and, in return, certain continental makers were granted under royalty the right to sell lamps in Great Britain. Arrangements were also made, and are in full operation, for the interchange of patents, research, and factory experience."² The same agreement also set up international committees to promote the use of electric lighting throughout the world; to control the variety of lamps manufactured and to eliminate wasteful overlapping and unnecessary multiplication of varieties; to study manufacturing methods with a view to the improvement of the quality of the product; and to control the combine's testing station at Geneva so as to ensure the maintenance of the highest possible standards. Every member of the Convention is a member of the Phoebus Company, which is the central administrative organization or hub of the whole combine. It is located at Geneva "in order to ensure as far as possible independence of the divergent laws of the various countries."

The fact that the American companies in the electric lamp industry are not directly parties to the international convention does not mean that they have no international links and interests. On the contrary, their influence extends far beyond the frontiers of the United States. For example, the international interests of the American General Electric Company (which has the largest output of electric lamps in

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), page 73-4.

² Committee on Industry and Trade, *Survey of Metal Industries* (1928), page 322.

the world) are in the hands of the International General Electric Company, which has holdings in, and agreements with, many foreign companies, in Germany, Austria, Holland, Hungary, France, Britain, and Japan. Also it has foreign branches, and part control of certain foreign organizations, which it runs jointly with other companies.

The position of the British Thomson-Houston Company in the British electrical industry is too well known to need elaboration here. It is associated with the American General Electric Company, and it pursues a policy of co-operation with other important electrical companies at home and abroad, "particularly in the fields of research and engineering."¹ "In France the Thomson-Houston Company is closely connected with numerous other concerns, and it is probably the greatest single concern of its kind in France. It possesses nine factories more or less specialized as to products; it has a special arrangement with Schneider of Le Creusot, and the Jeumont Company for working together for the requirements of railway electrification schemes; in 1921 it founded, with the International General Electric Company (New York) and the Compagnie Générale d'Électricité, another concern named the Compagnie Générale des Lampes, which dominates the lamp trade, embraces several of the chief lamp concerns in France and Spain, and possesses the manufacturing rights of its three founders in several other countries."²

The desire to pool the results of research, to perfect production, and to extend consumption, has also led to international combination in the aniline dyestuffs industry. Before 1914 Germany supplied 88 per cent of world demand, but during the War France, Great Britain, the United States, Italy, and Japan developed their dyestuffs industries, which they protected by import prohibitions or high import duties. This was the situation until 1927, when a Franco-German

¹ Chairman's Speech at 37th Annual General Meeting of the British Thomson-Houston Co., Ltd., 13th April, 1932.

² *Survey of Metal Industries*, pages 332-3, 359.

aniline dyes cartel was formed. Its expressed objects were the mutual exchange of ranges of goods; joint exploitation of technical discoveries; improvement of quality; and extension of the market. Many powerful undertakings, however, remained outside the cartel, and prices were still competitive. A group of three Swiss companies joined the cartel in 1929.¹

The existence of national combines or organized groups of producers having common interests greatly facilitates the formation of international combines, especially where the number of *individual* units is large. Moreover, a combination of international combines is not entirely unknown. The Cement Cartel, for example, rests upon three main agreements, viz. a reciprocal quotas agreement between the French and Belgian cement manufacturers; and agreement between the Franco-Belgian combine and German, Swiss, and Czech producers; and a Belgian-Dutch agreement. Again, the launching of the Chadbourne Plan (already described) was greatly facilitated by the pre-existence of organizations of producers in the European beet sugar industry, and in the cane sugar industries of Java and Cuba. Dr. Liefmann points to the increase of large international *concerns*, and thinks that international cartels between them "are particularly likely to occur" in the near future.²

Any act or event—such as infant industry protection or a great war—which stimulates the expansion of national industries which were previously insignificant or even non-existent, may result eventually in excessive aggregate productive capacity. Then there will ensue either intense international competition, *unremunerative prices* and *elimination of marginal producers* (unless the latter are saved by State assistance), or the formation of an international combine to regulate output and allocate orders.

¹ The British Dyestuffs Industry and the International Cartel formed in 1932 are discussed in Chapter V.

² *Cartels, Concerns and Trusts* (1932), page 149.

But before this comes about, international competition may have forced many of the producers in the different countries into national combines. Indeed, in certain circumstances the State may compel producers to combine. The Roumanian State has formed a petroleum cartel with the object of securing the sale of Roumanian petrol exclusively in the home market, and keeping the home price from rising above export prices. The State's control is exercised through a sales office, and the participation of all producers, refineries, and consumers is permitted. Where national producers are slow to combine in spite of the pressure of foreign competition, States may take steps to set the combination process going, and by so doing they may pave the way to the formation of an international combine. Government co-operation or initiative is always a highly valuable factor, and sometimes an indispensable one, both in connection with the negotiations between the various national producers, and in carrying international agreements into effect after they are formed. In recent times the German, Spanish, Chilean, and British governments have taken a hand in formulating and implementing international agreements regarding potash, mercury, nitrate, and tin respectively.

(The potash industry affords an excellent example of a small number of producers, controlling some 95 per cent of the world's output of a primary raw product, unified by state action and forming an international combine in order to avert the danger of over-production, severe competition, and exceedingly low prices.) Before the War the Germans supplied about three-fourths of the potash used in the world, and the French about one-fifth. In 1910 the German government assumed the function of fixing the domestic and export price of potash. Quotas were allocated by a commission of seven (three of whom were selected by the Chancellor), and all profits were pooled. Parts of quotas, up to 50 per cent, were transferable between members without restriction; but more than 50 per cent of any quota could be transferred only with the government's

consent.¹ The transfer of the Alsatian potash mines to France after the War, and the increasing productive efficiency in both the French and German industries, presaged a period of intense competition and low prices unless an international agreement could be arranged. But this did not come until 1926. Meanwhile, the French, with State assistance, were consolidating their much enlarged industry, and the Germans were laying down fresh regulations for what remained of their potash industry after the Treaty of Versailles.

The German law for the consolidation of the potash industry provides, *inter alia*, for careful regulation of the number of new mines opened up, and "for the regulation of the price in the domestic market, and leaves the price in the foreign market to be set as the monopoly deems expedient; but the monopoly must obtain special permission from the Minister of Economy if it desires to grant, in respect of potash to be exported, a price lower than that fixed for sales for consumption in Germany. It thus continues the previous policy of regulating the domestic price while leaving the monopoly free to exact whatever price it can from foreigners."² This regulation of the domestic price arises from the government's desire to assist German agriculture. The difference between the domestic and export prices is now much less than it was at one time.

The international potash convention was set up after Germany had lost some of her pride of position as the result of the War. According to M. Herriot, "She found herself threatened by American, Polish, and Spanish competition, and above all by the return to France of the pits and factories of Alsace-Lorraine, the exports from which grew from 6,000 tons in 1913 to 70,000 in 1923, whereas between these two dates the increase in exports from the Reich was only

¹ On the cartel movement in the German potash industry before 1914, see article by H. R. Tosdal in *Quarterly Journal of Economics*, November, 1913, page 140.

² Wallace and Edminster, *International Control of Raw Materials* (1930), page 86. Cf. G. W. Stocking, *The Potash Industry* (1931).

from 70,000 to 120,000 tons. The Kali Syndicate had the advantage of richer sulphate deposits, but was handicapped by high transport costs. There were national cartels on both sides.¹ A provisional agreement relating to sales in America was made between the German and French interests in 1924. It was agreed that the price of potash should be maintained at \$27 per ton of 80 per cent chlorine of potash, with prices of other compounds in proportion: the German industry to supply 67½ per cent and the Alsatian industry 32½ per cent of sales to the United States. The German export quota of sulphates of potash was fixed at 35,000 tons, and the French quota at 5,000 tons per annum. In 1926 a Franco-German cartel agreement was made for a period of ten years, much to the annoyance of the United States. The main provisions of this agreement may be summarized as follows—

✓ Home markets, together with colonies, protectorates, and mandated territories, strictly reserved.

2. French producers to make every effort to induce new producers within French jurisdiction to join the cartel.²

3. Annual sales allowed to non-reserved regions up to a maximum of 840,000 tons; 70 per cent to be supplied by the Germans, and 30 per cent by the French. Any excess over 840,000 tons to be divided equally.

4. Orders in hand and shipments made to be mutually notified every ten days.

5. Transfer of orders allowed in order to adjust sales to quotas.

6. If exact adjustment not possible, compensation to be paid.

7. Joint Selling Agencies to be formed in foreign markets, e.g. in Holland, England, Belgium, Switzerland, Italy, Spain, and the United States.

¹ E. Herriot, *United States of Europe* (1930), page 139. The French *Société Commerciale des Potasses d'Alsace* includes the French State mines and the *Mines de Kali Ste. Thérèse*.

² By German law every potash works *must* be in the German Potash Syndicate.

8. Prices to be fixed for each market on the recommendations of local managers, having regard to (a) cost of production, and (b) encouragement of future use of potash; for the cartel recognized that potash will be used only if the ratio between the cost of the fertilizer and the value of extra produce obtained thereby is satisfactory to farmers as a whole.

✓9. A supervisory committee, consisting of equal numbers of French and German representatives, was set up to verify returns, arrange arbitrations, and generally to promote the fair and smooth running of the cartel.¹

✓The chief claims made on behalf of the cartel are that it will stabilize prices at a level reasonable to users and remunerative to the producers; and that more progress in research is likely to be made.

The European Mercury Consortium arose out of the co-existence of four favourable conditions, viz. (a) State interest and assistance, (b) the smallness of the number of producing units, (c) the previous wide and frequent fluctuations of mercury prices, and (d) the uniform quality of the product.) The production of mercury has become concentrated more and more in the hands of the Spanish and Italian producers, who now produce over 80 per cent of the world's output² as against approximately 55½ per cent in 1913. In this concentration the transfer of the Idria mines from Austria to Italy, as a result of the War, has been an important factor. The Idria mines are state-owned, and so are the Spanish Almaden mines; therefore both the Italian and Spanish governments, as well as the proprietors of the small number of privately-owned mines, were keenly interested in guarding against any possible outburst of fierce competition and price cutting between the Spanish and Italian mercury industries. On 1st October, 1928, an international cartel, called the European Mercury Consortium,

¹ See also the Appendix for a translation of the text of this Agreement.

² The approximate output ratios are: Spain 27, Italy 22, U.S.A. 7, others 3.

was arranged, with the objects of ruling out the danger of over-production and competition between the Italians and the Spaniards, and fixing and stabilizing prices. The duration of the cartel is to be ten years, unless it is dissolved under the terms of the agreement at the end of six years. The working of the arrangement is placed under the control of a board of directors, Spanish and Italian interests being represented by equal numbers of directors. The cartel has now reached an "understanding" with the Mexican producers, and this has created almost a world monopoly in mercury, since the Italians, Spaniards, and Mexicans between them control about 83 per cent of the world output.

The distinctive features of the Chilean nitrate industry are (1) Chile's almost complete world monopoly of natural sodium nitrate; (2) it is by far the largest industry of that country; and (3) in the past the Chilean government has fostered the close internal organization of the industry and the pursuit of a price-fixing policy, because of its desire to accelerate the economic development of Chile, and to obtain a very substantial revenue by means of taxes (e.g. export duties) levied upon the industry.

After the War the competition of manufactured nitrogen greatly increased, and the Chilean government not only gave full approval to the Chilean Nitrate Producers' Association, but it pressed all important producers into the association, and has subsidized the nitrate industry, indirectly through the reduction of railway charges on nitrate, petrol, and coal, and the removal of the import duty on bags intended to be used for the export of nitrate; and directly by giving a bonus equal to such price-reductions as the German nitrogen manufacturers' syndicate might make. Four of the eighteen directors of the Association were appointed by the President of Chile. The Chilean government also took the initiative in connection with the establishment of a nitrate bank and a joint selling agency. But against all this we must set the heavy export duty. As this was a specific tax, the real burden of it increased if and when

nitrate prices fell, and decreased when they rose. Therefore, it was in the interests of the Chilean producers to keep prices as high as possible; but the State exercised a moderating influence upon any upward tendency because it had always an eye upon the revenue derived from exports.

The former strength of the Chilean position has now been completely undermined by the growth of the output of manufactured nitrogen products, either "fixed" from the air, or obtained from the waste or by-products of other industrial processes.¹ In the last twenty years the proportion of natural nitrate to manufactured nitrate consumed in the world has fallen heavily. In the post-war period, between the years 1924-25 and 1931-32, world consumption of manufactured nitrogen rose from 786,800 metric tons to 1,421,600 metric tons, an increase of 81 per cent: but world consumption of Chile nitrate declined from 363,000 metric tons to 138,200 metric tons, a fall of 62 per cent. The relative proportions in 1930-31 and 1931-32 were—

World Consumption of Nitrogen

	1930-31		1931-32	
	Metric tons	Per cent	Metric tons	Per cent
Manufactured Nitrogen	1,377,000	85	1,421,600	91
Chile Nitrate	244,300	15	138,200	9
Total	1,621,300	100	1,559,800	100

Severe competition from the producers of manufactured nitrogen, coupled with general over-production and accumulation of stocks, led to the suspension of the Chilean price

¹ By-product nitrogen is obtained mainly from the coke ovens associated with steel plants. The world output of by-product nitrogen follows the fluctuations of the steel industry fairly closely. In the U.S.A. and Germany nearly all the by-product ammonium sulphate is supplied in this way, but in Great Britain about two-fifths is obtained from coke-ovens, about two-fifths from gas works, and about one-fifth from shale distillation, producer-gas plants, iron works, etc.

agreement on 16th June, 1927. A little less than three years later the Nitrate Company of Chile ("Cosach"), a new Chilean nitrate combine, sponsored and controlled by the American Guggenheim interests, was formed to rationalize the Chilean industry and enable it to meet the changed world situation.¹ Cosach was capitalized at £75,000,000, and the Chilean government, which assisted in the formation of the combine and held half of the original capital, was to receive a half share in its profits in return for abolition of the export duties on nitrate.² But it was already abundantly clear that, since the Chilean producers' proportion of world output was shrinking so rapidly, no purely national combine could hope to achieve satisfactory results. Both the Chilean and the European producers were energetically improving their production technique, and further over-production and price reductions seemed imminent. Discussion of the possibility of an agreement with the German and British manufacturers of nitrogenous products was revived, and in June, 1929, the Chilean interests came to "an agreement on close co-operation" with Imperial Chemical Industries, the I.G. Farbenindustrie A.-G., and the Norwegian producers. ✓

This agreement covered between 70 and 80 per cent of the world output of nitrogen, and provided for orderly marketing, cessation of competitive propaganda, joint advertising, and joint action as to prices. ✓ In view of "the strained condition of agriculture" a reduction of prices was made. Thus the spring prices charged to British farmers were— ✓

¹ The proposal for the formation of "Cosana," as the combine was originally to be called, was announced in April, 1930. The word "Cosana" was an abbreviation of the proposed name "Compañía Salitrera Nacional," but was later abandoned in favour of the name "Compañía de Salitra de Chile" (i.e. Nitrate Company of Chile). It is said that the abandonment of the name "Cosana" was partly due to the joke circulated by the wits of Santiago that "Cosana" really meant "Compañía Salitrera Nord-Americana"—a sly "dig" at the predominant Guggenheim interests in the new combine.

² Cf. *Financial Times*, 30th March, 1931, and *Manchester Guardian Commercial*, 17th September, 1931, page 242.

	1928-29	1929-30
	per ton	per ton
Sulphate of Ammonia (20.6% N. Min.) . . .	£ s. d. 10 13 -	£ s. d. 10 2 -
Nitrate of Soda (15½% Nitrogen) . . .	10 12 -	10 2 -

But the bulk of the remaining European synthetic and by-product nitrogen producers, especially those in Belgium, Holland, Czechoslovakia, and Poland, were not in the combine, and their unrestrained competition appears to have obstructed the working of the international agreement described above. Therefore a more comprehensive agreement was felt to be necessary; and in June, 1930, an international conference was held at Ostend. The outcome was the formation of a European Nitrogen Cartel (Convention de l'Industrie de l'Azote, or "C.I.A."), including the principal French, German, British, Norwegian, Belgian, Dutch, Italian, Polish, and Czech producers. The chief features of this cartel were (a) the creation of a Common Fund of about £3,000,000, of which the sum of £2,250,000 was contributed by the European Synthetic and By-Product Producers, and £750,000 by the Chileans; (b) the use of this Common Fund to pay compensation to any synthetic producer who restricted his output to less than 70 per cent of productive capacity, in proportion to the total restriction of all members below 70 per cent; (c) the maintenance of prices on agreed levels with the Chileans. The cartel held together only one year (1930-31), for its results did not give general satisfaction. The Chileans in particular were disgruntled, mainly because they found that, despite their adhesion to the cartel (at a cost of £750,000 in hard cash), their sales at the agreed prices were very disappointing indeed, and they continued to obtain a diminishing share of world trade.¹

¹ The last straw was the imposition of an import duty on Chilean nitrate entering Germany, a market in which the Chileans had hoped to increase their somewhat small sales with the help of an import quota.

In short, the Chileans thought that the cartel had by no means given them value for their money. The Annual Report of the British Sulphate of Ammonia Federation for 1930-31 states that during that year the economic position of agriculture continued to deteriorate, and the decreased purchasing power of farmers was reflected in the decline in fertilizer consumption, while the general trade depression affected almost every form of nitrogen, whether for fertilizer or industrial use, in every continent.

But whereas the world consumption of Chile nitrate has declined by 33 per cent, the demand for by-product and synthetic nitrogen has fallen off by only 13½ per cent. . . . the Convention de l'Industrie de l'Azote (C.I.A.), the European nitrogen cartel . . . had a beneficial effect in bringing world production in 1930-31 more nearly into line with consumption, instead of being enormously in excess as in the two previous fertilizer years. A further large increase in stocks was thus avoided; but even further action was necessary if the surplus stocks which had been built up were to be reduced. Strenuous efforts were made throughout the year under review to find a permanent basis for co-operation among the nitrogen producers of the world. But during the final negotiations which continued throughout June and July, 1931 . . . it unfortunately proved impossible to reconcile the claims to shares in the trade put forward by various groups, notwithstanding the heavy sacrifices which the British and German synthetic groups have declared their readiness to make.

Since July (1931), therefore, the nitrogen market has been the playground of unrestricted competition. Most European countries which are both producers and consumers have adopted protection in one form or another and maintained a level of prices slightly lower than that of last season.

In the free markets a fall in price of the order of 50 per cent has taken place.

In normal circumstances, such a fall would have greatly stimulated sales, but in the present world-wide crisis no very marked effect can be hoped for.

From the Federation's Annual Report for 1931-2 we learn that during the early summer of 1932 negotiations for

a new cartel between the most important nitrogen producers in Europe were successfully completed, and co-operation with the Chile Nitrate industry has also been arranged.

As a result, the general price level for the coming year (1932-3) has been slightly raised; but until arrangements of a more permanent nature have been arrived at with a view to automatic regulation of production to consumption on a world basis, the nitrogen market will remain liable to the risk of violent price fluctuations.

The difficulties confronting the industry may be gauged by the fact that despite total nitrogen producing capacity in the world to-day being about 140 per cent greater than present demand and 100 per cent in excess of the record consumption of 1929-30, synthetic nitrogen plants are still being planned and constructed in a number of countries.

In such a situation the parlous position of the Chilean Nitrate combine can easily be imagined. Critics point out that the Chilean industry was inefficient before the formation of Cosach, for its vitality had been continually sapped by the heavy impositions of successive Chilean governments, who all persisted in regarding the industry as a convenient and inexhaustible "milch cow." Crushed between a load of Chilean government and private debt and the fall of nitrate consumption and prices, Cosach failed miserably, leaving many foreign investors and some foreign banks¹ to mourn their losses. In the latter part of 1932 desperate efforts were made—mainly at the instigation of the Chilean government, which found itself faced with a huge deficit in the public accounts—to reconstruct the organization by writing off capital and making drastic economies.² The legal liquidation of Cosach was ordered by the Chilean Government on 2nd January, 1933.³

In the middle of 1933, conferences were held in Ostend and Paris with the object of keeping the international

¹ *Economist*, Vol. CXIV, 1932, pages 86, 516, 794, 1202-3.

² *Manchester Guardian Commercial*, 19th November, 1932; *Economist*, 17th December, 1932, page 1133.

³ *Economist*, 7th January, 1933, pages 36-7.

nitrogen cartel together for at least another year, but the Chileans and the Europeans could not come to terms. The essential weakness of the Chileans' bargaining position lies not only in the successful competition of the synthetic product, but in the fact that some 70 per cent of the Chilean output must be sold in the home markets of the producers of synthetic nitrate, and this means that in the event of an open and ruthless trade "war," the latter might easily prevail upon their governments to exclude Chilean nitrate, while the Chileans would be powerless to retaliate. Following the failure of the Ostend and Paris negotiations, the Chileans made an agreement with the Belgian producers of synthetic nitrate, for reductions of prices in the Belgian market and the maintenance of the price difference between Chilean and Belgian nitrates, so that the latter would still be Frs. 12.50 per 100 kgms. cheaper than the former.¹

The international regulation of the production of steel in Germany, France, Belgium, Luxemburg, Austria, Hungary, and Czechoslovakia, after the War, was brought about by means of a convention between the governments of Germany, France, and Luxemburg, coupled with an agreement between steel producers in Germany, France, Belgium, and Luxemburg, joined later by those of Austria, Hungary, and Czechoslovakia. These agreements, and the difficulties due to the new frontiers and swollen productive capacities out of which they arose, are well described in the *Survey of Metal Industries* produced by the (Balfour) Committee on Industry and Trade.

The changes resulting from the war, . . . briefly stated, . . . consisted in the transfer of parts of the German iron and steel industry to France and to Poland respectively, and in the movement of Luxemburg from the German to the Belgian Customs Union. At the same time French productive capacity was further increased as the result of the erection of new establishments during the war and the reconstruction of the devastated industrial districts in the north and east of the country. Belgian productive capacity

¹ *Manchester Guardian Commercial*, 26th August, 1933.

was also considerably increased as the result of rebuilding and reorganization; and some increase also took place in Luxemburg. In Germany steps were taken to make good the losses resulting from the territorial transfers, and these went far towards bringing Germany's productive capacity within sight of pre-war levels. . . .

The removal of important sections of the industry from one national area to another, and from one customs area to another, separated the sections in some degree not only from their pre-war sources of supply of raw materials, but also from the pre-war outlets for the disposal of their products. Political separation may or may not imply economic separation, and the political changes consequently led to bargaining and manoeuvring between some of the parties concerned to settle the conditions under which trade was in future to be carried on. . . .

A convention was signed on 30th September, 1926, between the Governments of Germany, France and Luxemburg regarding the importation into Germany of iron and steel from Lorraine, the Saar district (which was included in the French Customs area as from 10th July, 1925) and Luxemburg. Germany undertook to allow iron and steel products to be imported from Lorraine and Luxemburg equivalent to $6\frac{1}{2}$ per cent of the German home consumption, and of this $3\frac{1}{2}$ per cent was to come from Lorraine and $2\frac{1}{2}$ per cent from Luxemburg. The goods were to be imported at the price current in Germany, and the sellers were to pay the full duty. The goods were to be imported by the German Iron and Steel Association, and to be distributed through the various selling syndicates. Regarding the production of the Saar, Germany undertook to admit output in excess of 500,000 metric tons ¹ per annum, to an amount of 1,300,000 metric tons per annum, free of duty. She was the more ready to agree to this since the iron and steel industry of the Saar was German controlled and was included within the scope of the German Iron and Steel Association.

The common interests of the European iron and steel industry were also recognized in the European Steel Agreement, which, after long negotiations, was signed on the same day as the convention between Germany, France and Luxemburg. . . . The two together formed a comprehensive arrangement, of which each was an integral part.

The principle underlying the Steel Agreement was the

¹ A metric ton = 2,204 lb. An English ton = 2,240 lb.

adjustment of supply to demand by means of a system of quotas for the national groups. . . .

Since the formation of this cartel, Austria, Hungary and Czechoslovakia have been admitted. . . . The question of British participation in the European Steel Agreement has attracted considerable attention, but no arrangements for participation have been made.¹

More or less connected with this major international cartel, certain other agreements relating to iron and steel products have been concluded. "In November, 1926," says Dr. Liefmann, "the international pig-iron agreement between Germany, France, and Luxemburg was supplemented by a quota agreement for rolled products, providing for their importation into Germany. About 6½ per cent of the German home supply is bought from those countries by the German iron associations at German internal prices and passed on to the German consumer, 3.75 per cent being allotted to France, and 2.75 per cent to Luxemburg. The quotas are then further subdivided for the different rolled products, semi-manufactures, bar-iron, wire, tinplates, and so on. If Germany delivers rolled products to France, these are then deducted from the French quota. Special arrangements are made for the Saar territory." Among other agreements is one relating to rolled wire, in which the "participation quotas include the home markets also (Germany 57 per cent, France 23 per cent, Belgium 14 per cent, Luxemburg 6 per cent), but the home markets and certain other markets are expressly reserved to the various countries. Minimum prices and fines for exceeding the quotas are also provided. The accounting bureau is at Liège."²

Early in May, 1933, a new international steel cartel was formed for a term of five years from 1st June, 1933, between the producers of Belgium, France, Germany, Luxemburg, and the Saar. Production is controlled only so far as exports

¹ *Survey of Metal Industries* (1928), pages 79-82: cf. *Manchester Guardian Commercial*, 20th February, 1930.

² Liefmann, *Cartels, Concerns and Trusts* (1932), page 158.

are concerned; and if the annual exports of steel increase, a sliding scale comes into operation so as to vary each group's quota. Thus, in any increase of steel exports, the Germans, whose output was only 36 per cent of full capacity, will be entitled to a larger share than the Belgians, who were working at 70 per cent of their capacity. Six international sales offices were set up to deal with various branches of the trade, e.g. a sales office for steel bars in Luxemburg; for girders in Paris; for half-finished products in Liège, and so forth.¹

In the tin industry attempts were made, during 1930, to establish an efficient scheme of restriction of output, and to arrest the fall of the price of the metal, but without success. Under the auspices of the Tin Producers' Association, Dutch, British, and Bolivian producers tried to bring about, by various methods of restriction, a reduction in world stocks of tin and in the volume of production. But, notwithstanding their efforts, visible supplies continued to rise, and the price fell in the British market from £185 per ton at the beginning of 1930 to £106 per ton at the end of that year. A leading authority in the tin mining world (Mr. C. V. Stephens) admitted that the results achieved had been disappointing, but argued that, in face of the steady decline of consumption, the price of tin would have fallen farther and faster had no attempts at restriction of output been made.

Although (he said) the various restriction schemes have been widely supported they have not actually received from producers in general that measure of true curtailment which is essential for the successful operation of a scheme of a voluntary nature. Some producers have not practised restriction, they have only played at it. Others again have restricted in varying and modest degrees only. . . . One can only give a very approximate figure, but I do not consider that more than 60 per cent of the world's production has subjected itself to what might be called genuine restriction of output. The past twelve months (1930) can be summed

¹ *Manchester Guardian Commercial*, 6th and 13th May, 1933.

up as a period of trial and experiment in the control of production by voluntary action. It has to be admitted that the success hoped for has not been realized. The experience gained has brought home the apparent hopelessness of any successful regulation of the tin industry, which operates under so many racial and diversified factors, by co-operation of a voluntary nature. Discussions have been recently taking place in official circles in the chief tin-producing countries on the advisability of introducing legislation for the regulation of output, and we await further news thereon.¹

During 1931, with the aid of the governments of Malaya, the Dutch East Indies, Nigeria, and Bolivia, partial voluntary restriction was superseded by a more comprehensive compulsory restriction scheme. "It may be accepted as an axiom in these days of debased and adjusted currencies," said Mr. C. V. Stephens in December, 1931, "that no country is going to let go without supreme and persistent efforts any industry which is vital for revenue purposes." He then proceeded to state his opinion that—

If Government regulation were abandoned and the tin industry left to its fate we should unquestionably find ourselves faced with almost endless and ruthless competition. . . . in present circumstances if control were withdrawn the price of tin would within a short period be down to £70 per ton. Even at that figure, on the basis of current trade requirements, there would still be over-production, and I believe that tin would in due course be selling well below £70 per ton, and that we should before long find ourselves in the same predicament as the rubber industry, the victims of senseless competition with suffering for all and benefit for none. We have been saved from this fate by the operation of the international regulation plan, and we must hope that the efforts being made by the participating governments, through the International Tin Committee, to restore the industry to a stable condition will be crowned with success.²

This restriction scheme saves high-cost producers, but not the highest-cost producers. Reduction of output raises

¹ *The Mining World*, 20th December, 1930.

² *Ibid.*, 19th December, 1931.

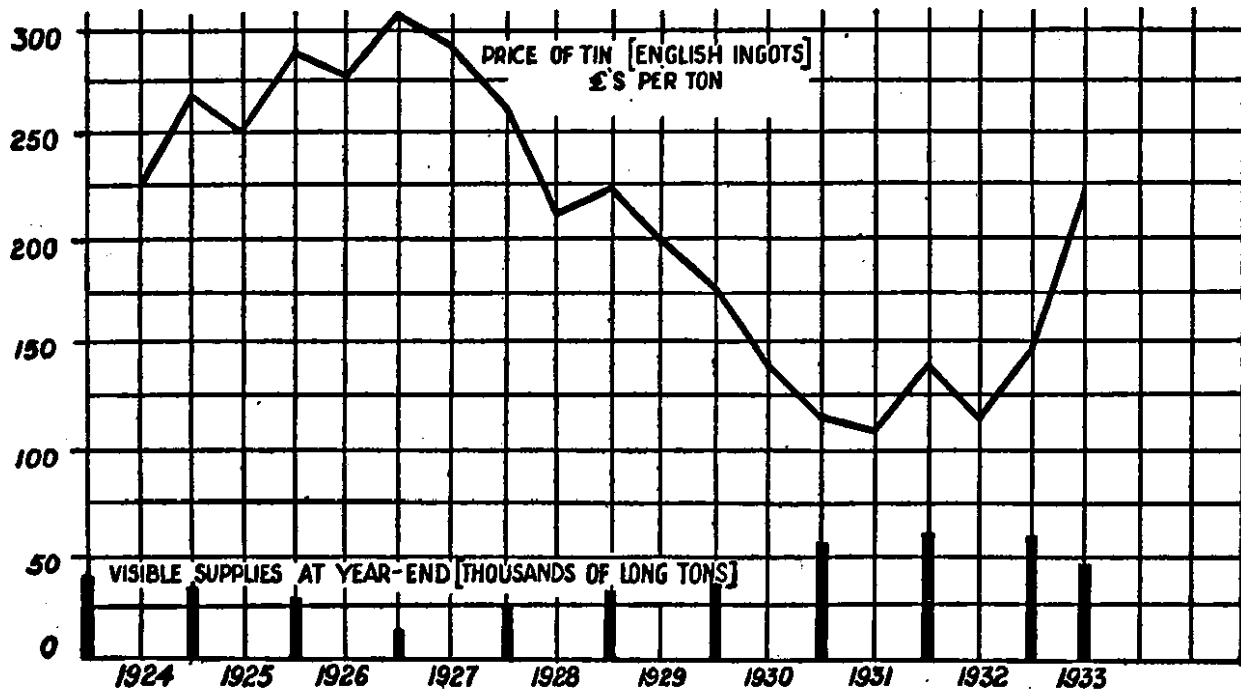
costs of production per unit of output, and although the market price of the metal is kept up by the combine, it cannot be kept high enough to enable *all* producers to remain in operation. It is true that since the scheme came fully into operation the price has been raised from under £100 per ton to well over £200; and by drastic limitation of output total visible supplies have been reduced by about 20 per cent. On the other hand, the very serious decline of the volume of production in the automobile and canning industries of the United States—always a great market for tin—has been a chief aggravating circumstance. The other side of the picture reveals the British canning industry pursuing a policy of vigorous expansion, as indicated below—

British Canning Production (Fruit and Vegetables).

<i>Year</i>	<i>No. of tins Millions</i>
1929	16
1930	33 ✓
1931	83
1932 (estimated)	120 ¹

While this expansion of a new industry is very gratifying, it still leaves a large surplus in the tin industry, both in the form of stocks and (more important still) in productive capacity. Nevertheless, from the tin producers' point of view it can very well be maintained that the scheme has so far enabled them to avert ruthless competition and the senseless increase of unwanted supplies. Moreover, if the governments have helped the tin producers, the tin restriction scheme has helped the governments; for "it has saved their revenue from the drastic fall which would otherwise have resulted from the low royalties they would have received on a price of probably not better than £60 per ton. In addition, the prodigal exploitation of a valuable asset at absurd prices has been avoided."² Under an agreement

¹ Mr. D. J. Garden, in *Manchester Guardian Commercial*, 22nd October, 1932. ² *The Mining World*, 24th December, 1932.



made in the autumn of 1933, control of production and exports is to continue until the end of 1936.

After restriction of output and the successful raising of prices comes the problem of stabilization. Whether to stabilize; and, if so, when and at what price-level? These are the major questions which the combined tin producers must answer in such a way as not to check the activities of tin users. A short-sighted, grasping, penny-wise policy will certainly discourage the consumption of tin and stimulate the search for substitutes. The moderate increase of all export quotas (except Siam's) after 1st January, 1934, is a step in the right direction, but tin users may well argue that with the London price of tin in the region of £225 per long ton the degree of relaxation permitted by the International Tin Committee is inadequate.

From tin let us turn to tea. The following paragraph appeared in the *Economist* for 10th December, 1932—

Tea Restriction. Once more an attempt is to be made to raise the price of tea by the restriction of supplies in India, Ceylon and in the Dutch East Indies. A few months ago negotiations were initiated by representatives of growers in the Dutch East Indies as a result of the drastic fall in their receipts. The average price of tea sold at Mincing Lane in July last was 7·27 pence per lb. against an average of 12·24 pence per lb. for the whole of 1931. In addition, Dutch growers have been adversely affected by the depreciation in the gold value of sterling and by the reimposition of the duty on April 20th last, at the rate of 4d. per lb. on foreign tea, as against 2d. per lb. on tea grown in the Empire. As about one-half of the world's tea exports are consumed in this country, Dutch growers found it impossible to evade the effect of the differential duty. After prolonged negotiations between British and Dutch interests, it was announced on December 7th that an agreed scheme had been worked out by representatives of the Indian Tea Association, the Ceylon Association in London, the South Indian Association in London, the British Chamber of Commerce for the Netherlands East Indies, and the Amsterdam and Java Tea Associations. As the failure of the scheme of 1930 was largely due to the unwillingness of the Dutch authorities

to assume control over native production and exports, it is proposed that the new scheme, which is to be operative for five years, should be controlled by the respective Governments. Supplies are to be restricted by means of export quotas. In order to avoid controversy, each country will be allowed to have its export quota based on the year of maximum exports between 1929 and 1931. The initial quota is to be fixed at 85 per cent for the first year, and subsequent quotas are to be determined at the end of each year. As agreement has already been reached by the various associations on the method of restriction, the measures will now be submitted to the proprietors of tea estates in the form of a referendum. Finally, provided that the result of the referendum is favourable, the sanction of the Governments concerned will be sought. As the completion of these two stages must take time, it is doubtful whether the scheme will come into operation before next spring. In view of past experience with restriction schemes it would be interesting to know whether provision is made in the present proposals to cease regulation before the rather extended period of five years in case it is found to affect adversely the position of the tea-growing industry in any of the participating countries.

Before the end of April, 1933, a provisional 15 per cent restriction of exports from tea-producing countries, and an agreement to cease new plantings, had been arranged, and prices at the tea auctions rose substantially. Within two months the governments of India, Ceylon, and the Netherlands East Indies had passed the necessary legislation to set up control of the industry in each of those regions. The scheme, which is very comprehensive, is to run for five years from 1st April, 1933. Its principal feature is the prohibition of tea-seed exports and the cessation of fresh plantings or extensions to immature areas so long as the agreement ✓ remains in force. Since the tea plant takes seven years to mature, the effects of these restrictions, if loyally carried out, will be felt for some years after April, 1938, even if the agreement is not renewed after that date. The quotas allotted to each estate or group of estates are based upon the years 1929-31, with a generous allowance for areas planted before April, 1933, and newly coming into production.

The agricultural crisis which developed throughout the world with such remarkable rapidity in 1930-31, caused many of those engaged in the production and marketing of cereals to contemplate the possibility of concluding, between various national organizations, agreements designed to avert sudden and violent fluctuations of prices. The League of Nations Economic Committee asked "whether it would really be chimerical for the two parties concerned—namely, the oversea countries on the one hand and the Eastern European countries on the other, to endeavour to arrive at an understanding, permitting the former to continue to supply Europe, while at the same time enabling the latter to market the comparatively small surpluses of their production. It would seem that the two groups of producing countries must get together, consult each other and, if possible, seek an agreement."¹ Preliminary conferences on wheat production and marketing were held in Rome and London in the spring of 1931. To a certain extent conditions seemed favourable. Production was evidently outstripping demand; prices had fallen heavily, and were still falling, and national central organizations of wheat exporters already existed in Canada, U.S.A., Australia, U.S.S.R., and Yugoslavia. The London Conference was attended by representatives of Argentina, Bulgaria, Canada, Hungary, India, Poland, Roumania, Yugoslavia, the U.S.A., and Russia. The representatives of Canada and Argentina proposed the formation of a world ring of grain exporting countries with the object of regulating wheat exports so as to raise, and then stabilize, prices. All were in favour of this proposal except the United States representatives, who stated that it would be impossible for them to take part in the scheme because it would be contrary to American law.² Other more general obstacles to the success of the conference were—

1. The large number of wheat-exporting countries and

¹ *The Agricultural Crisis* (Geneva, 1931), pages 1, 66, 73.

² Cf. M. Paul de Hevesy's letter to *The Times*, 18th May, 1932.

the consequent difficulty of securing agreement upon all the details of the plan.

2. The lack of national organization in certain of the countries.

3. The difficulty of gauging the importance of Russia as a wheat exporter in the near future, and, therefore, of fixing a quota.

4. The rival possibility of a British Empire scheme.

Wheat stocks remained heavy, and the position of wheat growers in the "big four" exporting countries—Argentina, Canada, Australia, and the United States—grew so serious that the question of an international wheat agreement was among the items submitted to the World Monetary and Economic Conference in the middle of 1933. The Conference had time to give its blessing to certain principles before its dissolution, and left the interested parties to go further and secure a definite international agreement if they could. This they managed to do in August, 1933. Under the Wheat Agreement the four exporting countries named above agreed to restrict their exports by 15 per cent in 1933-4 and 1934-5. Canada and the Argentine also undertook to restrict their wheat acreage, and so did the United States, whose change of attitude was due no doubt to the influence of President Roosevelt and his new industrial recovery propaganda. The importing countries agreed that when the "international duty-free price" of wheat has reached and remained at or above twelve gold francs per quintal for four months, they will consider adjusting their protective tariffs on wheat so as to allow of wheat imports; but the downward adjustments will not be so great as to make wheat growing "unremunerative" to domestic growers, nor so small as not to operate as a check upon further expansion of domestic wheat growing. The agreement contained no provisions either for the direct limitation of production or for the reduction of wheat stocks, and it left Russia's contribution to the scheme to be determined by "further negotiations." The Russians' reluctance to bind themselves was doubtless due to their

desire to be free to export wheat without hindrance in exchange for imports essential to the development of their national economy in the near future.

State action may affect international combines in two principal ways: (a) by legislation designed directly to help or hinder them, and (b) by legislation which influences them indirectly. Thus, as we have seen, a state may make laws compelling all producers of a certain commodity within its jurisdiction to join an international cartel; or it may exert pressure by granting special privileges or concessions only to those who consent to join the combine. State action of this type is very useful to the parties to an international combine, such as an output restriction scheme, as the most effective method—and, indeed, it may be, the only effective method—of making the scheme sufficiently complete. But if this essential degree of completeness proves impossible to achieve, no individual government should go forward alone, for by so doing it will, at first, raise the hopes of its nationals, and in the end it will most certainly bring down upon itself severe criticism for causing restriction of production within its own borders, while the producers of certain other states have been free to forge ahead and capture a larger proportion of trade.

Tariff laws are the chief form of legislation which influences international combines indirectly. Before the War, Professor Jenks argued that the removal of tariffs, by strengthening foreign competition, would tend to bring about the formation of international combines where they did not already exist.¹ On the other hand, the League of Nations industrial experts have recently asserted that "it is . . . tariff protection which, though not the sole factor in the case, often facilitates the establishment of national industrial agreements."² The truth seems to be that protective tariffs indirectly influence the formation of

¹ Jenks, *The Trust Problem* (1907 edn.), pages 47-8, 221-2.

² *General Report on Economic Aspects of International Industrial Agreements*, page 31.

international combines because, in the first place, an increase of protectionism diminishes the free markets of the world, and thereby helps to intensify competition in those that are left; and in the second place, tariffs play an indirect part in facilitating the formation of national combines from which international combines may be formed. Tariff legislation arises very largely from the same set of conditions as international combines, namely, depression of trade and intense competition, which make producers desire both tariffs and combines. Usually, they try first the national "remedy," and attempt to shelter behind the skirts of the mother country. Later, when the various national groups of producers find that this method does not answer (for it frequently stimulates the production of large export surpluses and so intensifies competition in export markets) they resort to international combination.

The actual detailed negotiation of an international agreement is, of course, made more difficult by the existence of widely different tariff laws and scales of duty in a number of different countries. As regards "home" markets, to give but one example, those producers who enjoy most tariff protection will be, *ceteris paribus*, in the strongest bargaining position, and they may, on that account, be tempted to demand more than others will be prepared to concede.

The sudden closing of one or more important markets (e.g. the closing of the United States market by prohibitive tariffs on certain goods) intensifies international competition in the markets remaining open, and the situation is aggravated if the producers in the closed territory begin to export, or to increase their exports, into the open territories. Out of such a situation an international combine may emerge; and conditions are particularly favourable when none of the competing producers can reasonably expect to achieve any great technical or other advantages over the others, and when prices have been reduced to a point which threatens to eliminate profits. In the European zinc industry before the War, marked fluctuations in the

price of crude zinc on the metal markets of Britain and Germany eventually gave rise to the formation of an international combine by producers in Austria, Germany, France, Britain, Belgium, and Holland. Between 1910 and 1914 this combine controlled about five-eighths of the world output of zinc. Its chief object was to prevent over-production and to secure better prices for the metal by restricting output when monthly stocks amounted to 50,000 tons and the average (London) price had for two months been below £22 per ton. Since the War a great change has come over the situation, for new producing areas have been opened up, notably in Canada and the United States, and their surplus output has been exported to Europe. Thus the tables are now completely turned. Not only is the American market practically closed to European producers, but the European market, already overstocked by the reduction of exports, is flooded still further by the surpluses exported from America. Much the same thing has happened in the lead industry; and in both industries the European producers have had resort to international cartels, but so far these have been very impermanent and not entirely successful in other respects. The Zinc Cartel, formed in September, 1928, was revised in January, 1929, and dissolved at the end of that year.¹ It was revived in the middle of 1931. The original agreement, known as Contract A, provided that if and when the price of zinc fell to or below £24 per ton, European producers would restrict their outputs to the amount produced by them during the two months preceding the fall in price. This Contract never actually took effect, for prices remained above £24 per ton, and stocks of zinc increased in such a marked manner that the cartel decided to replace Contract A by Contract B, which provided for closer co-operation between European producers, restriction of Canadian and Australian exports, and restriction of output if the price fell below

¹ League of Nations Report, *The Course and Phases of the World Economic Depression* (1931), page 138.

£27 per ton. This agreement had to be renewed every three months, "which was obviously too short a period to inspire producers with any confidence."¹

In passing it may be mentioned that if the economic pressures are sufficient, international conferences and international trade associations,² although cumbersome and slow in their movements, may be instrumental in opening the way for the formation of international combines at some future time. Moreover, international agreements for limited and specific objects are not without importance, since they may subsequently develop into agreements of a more comprehensive character.³

Combination in the form of pooling agreements took place in the meat-packing industry in the United States as early as 1885. After a period of competition, Swift & Co., Armour & Co., and Morris & Co., combined in an attempt to control prices by regulating the quantity of meat shipped. Later on, shares were exchanged, subsidiary companies were formed to run various branches of the meat industry in North America, Argentina, Australia, and Great Britain; and a number of relatively small American companies were bought up or closely linked by agreement with the combine. The American firm of Hammond & Co., and the Cuhady Packing Company were not regular members, but were included from time to time. The important firm of Schwarzschild and Sulzberger, however, remained definitely outside the combine until 1898. During the following six years the

¹ League of Nations *Review of Several International Industrial Agreements*, page 19.

² As examples one may cite the pre-war International Cotton Federation, the International Federation of Master Cotton Spinners' and Manufacturers' Associations, and the more recent World Conference of the Leather Industry.

³ In 1926, representatives of the wool textile industries of Britain, France, Belgium, Italy and Germany signed an international arbitration agreement, under which each group agreed to recommend its members to include in their contracts a uniform arbitration clause. The wool textile organizations of Czechoslovakia adopted the agreement in 1927; and subsequent conferences have provided opportunities for the discussion of numerous questions of common interest to the six national industries, other than arbitration agreements.

combine controlled about 60 per cent of the total trade in fresh meat in the United States.

Those who tried to remain outside the combine soon found themselves in a very awkward position. Since the combine owned "all the refrigerated cars in the country, the produce the Trust did not actually control had to be transported in the Trust's cars. By charging for 'icing' at exorbitant rates the profits of a competitor's trade could be regulated. For many years also a secret rebate of $\frac{3}{4}$ cents per mile per truck was paid to the Trust by the railroad company for the privilege of sharing in the Trust's business."¹ In relation to the farmers the Trust was a buyers' combine, and it is alleged that it engaged without scruple in monopolistic price-fixing. Members of the combine agreed not to bid against one another at the cattle sales "except perfunctorily and without good faith." When a shortage of cattle occurred at the stockyards, prices were raised just long enough to induce farmers to dispatch cattle to the sales, but by the time of their arrival the combined buyers would reduce the price considerably and higher bids could not be obtained. On the other side the combine kept up the prices at which it sold its products to dealers.

These double-edged activities caused anxiety among farmers and consumers far beyond the frontiers of the United States. In Great Britain consumers did not relish the thought that about 50 per cent of the frozen meat supplies were controlled by a powerful foreign combine; and in Australia the farming community, bearing in mind the experiences of the American stock-rearers, watched the activities of Swift and Company's branch with a jealous eye, and more than once hinted that legal means might have to be taken to protect one of the chief industries of Australia by preventing the meat combine from getting a monopolistic grip upon the beef export trade. The producers and consumers of meat in the United States—both very large

¹ H. L. Wilkinson, *The Trust Movement in Australia* (1916), pages 127-8.

groups of people—became first alarmed and then markedly hostile to the combine, and an attempt to dissolve it was begun by the United States Government in 1902; but the defence was vigorous and clever, and after a long series of legal actions covering a period of ten years remarkably little real damage had been inflicted upon the combine. In 1920 a more successful attack was made and the Court issued a comprehensive injunction. This time the combine “bent to the storm”; but it is still doubtful whether anything like complete competition exists even now.¹

The largest meat company in Great Britain to-day is the Union Cold Storage Co., Ltd., which has a capital of £12,000,000, and owns not only refrigerating plants and cold storage premises in Britain and abroad, but a line of steamships (the Blue Star Line) and a chain of retail butcher shops. It owns the share capital of eighteen British companies and a controlling interest in London Central Markets Cold Storage Co., Ltd., and Metropolitan Markets Cold Storage Co., Ltd. The Union Cold Storage group of companies handles approximately 40 per cent of the imported meat supplies of this country.

¹ E. Jones, *The Trust Problem in the United States* (1922), pages 403-5, 485-90, 497.

CHAPTER IV

FORMATION (II): OBSTACLES

ALL the obstacles to the formation of national combines hinder, often still more obstinately, the formation of international combines. There may be leaders of important companies who hold that the structure of their industry does not lend itself to the operations of giant units; or there may be powerful independent producers who prefer to remain autonomous. Perhaps they cannot bring themselves to co-operate with persons and companies they have long regarded as rivals, especially if the rivals are foreigners. Or it may be that in negotiating about quotas and profits, this or that producer insists upon a larger share than the other parties regard as reasonable, and therefore no agreement can be reached. Where the home market is already virtually reserved by means of prohibitions or high protective duties, reservation of the home market under the terms of an international agreement is not usually a great bait in the eyes of large producers already entrenched in that country. If they are to be brought into an international combine and kept there, other attractions must be offered. Nor is the battle always won by the biggest units. The balance of advantage may easily swing in favour of any national group which can achieve greater unity than others; or which happens to realize that it is in a strong bargaining position. "No international cartel in the heavy industries," said an industrialist to Mr. Charles Hallinan, "is stronger than its Belgian link. That goes for cartels in coal, iron, and steel, in heavy rails, in tubes. Your Belgian industrialist, caught between France and Germany, has learned to drive the hardest international bargains you ever saw. Did you notice that the negotiations for the international raw steel syndicate dragged on for months . . .

because Belgium was not satisfied with its quota? The Belgian motto is: 'We are not satisfied.' It is a great motto and it has carried them far."

Those who favour international agreements between coal producers as a means of relieving the troubles of the coal industry urge that the number of countries producing coal in significant quantities is not great. The North American coal trade stands by itself; and if the producers of Great Britain, Germany, France, Poland, Belgium, and Holland could be brought together, the combine would cover approximately 90 per cent of total European output. But they have to face the serious obstacles presented by the very large lack of close national combination in the coal industries of several of the European countries mentioned. The British industry still stands out, even after the Royal Commission of 1926 and the Coal Mines Act, 1930, as an extreme example of this lack of close organization. The German industry is at the other extreme; and the coal industries of the other countries stand in between. Many competent authorities agree (a) that there are strong arguments in favour of the realization of the idea of an international coal agreement, and (b) that the various national industries must first organize themselves, or be organized by the governments "so as to be able to speak and act as a single authority for the industry as a whole."¹ Each industry must, as an essential first step, set up an official and effective body to conduct international negotiations and conclude international agreements. But the absence of such bodies in a sufficient number of countries is by no means the only obstacle to international agreement in the European coal industry. There is, for example, the re-direction of the trade in coal since the War, which "would be regarded as permanent by those who have benefited and as temporary by those who

¹ International agreements were recommended by the Economic Committee of the League of Nations in their interim report (1929) on "The Problem of the Coal Industry." Cf. also *Statistical Journal*, Part I, 1930, pages 1-27; and *Manchester Guardian Commercial*, 30th July, 1932, page 89.

have suffered, and this conflict of view would lead to difficulties in determining the precise scope of an agreement."¹ "The extent of dispute over international quotas, division of trade, and other matters is very large," and it is not likely to be easy "amicably to compose the claims of seven European countries; but the gravity of the situation demands that it should be faced and, if possible, accomplished."²

Also, among the possible obstacles likely to thwart, or at least hinder, attempts to "valorize" certain commodities by international combination we must include disparities in conditions and costs of production of the same commodity in different regions, or even in the same region; and the large range of qualities of certain products.

All producers may not be equally interested in the formation or revival of a given international combine. Such a situation existed in the European zinc industry some five or six years ago. The Belgian and Polish producers, who need to export large quantities, were much more interested in the formation and satisfactory working of an international zinc cartel than the British, French, and German producers, who look chiefly to their home markets which are able to absorb very large amounts of zinc. We have seen that an attempt to form an effective international zinc cartel in 1928-9 failed. The chief cause of its dissolution was lack of sufficient support, and it was not until the output and price

¹ Prof. J. H. Jones in *Statistical Journal*, Part I, 1930, page 27.

² Mr. A. W. Archer in *Manchester Guardian Commercial*, 30th July, 1932. The first small step towards compulsory combination was taken in Great Britain in November, 1932, when the Coal Mines Re-organization Commission set up under the Coal Mines Act, 1930, served a "notice to amalgamate" upon the colliery owners of Fifeshire and Cannock Chase. The statutory procedure is as follows: If the colliery owners fail to submit an amalgamation scheme to the Board of Trade, the Commission must formulate one. All schemes must be submitted to the Railway and Canal Commissioners, who can sanction them only if they seem (a) likely to be in the national interest, (b) likely to result in a reduction of the cost of production or disposal of coal, (c) not financially injurious to any of the undertakings concerned, and (d) fair and equitable to all persons affected. Cf. also *The Economist*, 26th November, 1932, page 993.

situation had become "desperate" in 1931 that a greater measure of success was achieved. The International Zinc Cartel represents approximately 90 per cent of world capacity, exclusive of the U.S.A., and is to last for five years, unless denounced on 30th September, 1932.¹ The Cartel attempted to arrest the fall of zinc prices by restricting output to 55 per cent of capacity from 1st August, 1931. But prices continued to fall, and output was eventually restricted to 40 per cent of capacity after 1st August, 1932.² In June, 1933, it was announced that—

Negotiations for the renewal of the international zinc cartel for a period of two years from the end of July have been postponed, by mutual agreement, until the end of October. Until then production will continue to be limited to 45 per cent of the normal capacity of the works concerned and the system of indemnities to be paid whenever the fixed production percentage is exceeded will remain in force.³

The difficulties of enlisting sufficient support for a projected international agreement, perhaps throughout a whole continent, or even the world, may be overcome with the aid of various interested governments, as was done recently in the tin industry. But, on the other hand, the attitude and laws of one or more states may effectually obstruct the formation, or success, of an international combine. Thus we pass to the question of the attitude of states towards international combines.

Although the jurisdiction of governments remains national, the ramifications of many business interests and organizations are becoming more and more international. Therefore, every international combine finds itself subject to two or more separate and more or less different bodies of law; while some or all of the producers in certain countries may be precluded from joining international combines by

¹ *Economist*, 16th July, 1932, pages 110-11.

² *Economist*, 23rd July, 1932, page 170.

³ *Manchester Guardian Commercial*, 10th June, 1933. By November, 1933, many producers were urging that the quota should again be reduced below 45 per cent.

some national law which prohibits certain business methods or types of business organization, or any action likely to lead to monopolistic powers over certain commodities. Thus producers in a country where all quota arrangements are forbidden by law cannot join any international combine if this would involve accepting and working under a quota agreement. *A priori* it would seem that all international combines would be much harassed and hampered by the task of avoiding collisions with the laws of particular states, and that this would seriously check their formation. But the actual interpretation and enforcement of such laws are generally much less stringent than their actual letter; and so long as international combines do not flaunt flagrant abuses before the national authorities, they find, on the whole, few insuperable obstacles to the majority of their activities and aims. In order to minimize interference by states hostile to them, international combines usually locate their central offices in countries where no such hostility exists.

The hostility of United States law towards monopolies and restraints upon freedom in trade and industry is very well known. The Sherman anti-trust act "condemns not only attempts to put trade rivals out of business but also unreasonable voluntary restraints of trade, that is, it prohibits competitors themselves from getting together by means of trust agreements, holding companies, or any combination for the purpose of unreasonably and voluntarily suppressing all competition with each other. . . There has been . . . a general belief that the Sherman anti-trust law affords a protection to the public against large combinations of wealth which, because of the power thus obtained, may act injuriously against the public."¹

It is clear that the activities of any international combine which included American undertakings might easily come within the scope of this interpretation of American law.

¹ W. S. Culbertson, *International Economic Policies* (1925), page 420.

Certainly no hampering of the foreign trade of the United States will be tolerated. In the case of the *American Tobacco Company v. the United States* the court condemned a covenant entered into by the Imperial Tobacco Company, the American Tobacco Company, and the American Cigar Company, under the terms of which the two American Companies agreed to refrain from business in Great Britain and Ireland, while all three abstained from business of a specified character in countries *other than* Great Britain, Ireland, and the United States of America. The Clayton Act of 1914 prohibits the holding by one company of shares in another if the result is a diminution of competition or a tendency to establish a monopoly. Price discrimination between different customers is also illegal unless good reasons can be shown. The task of the Federal Trade Commission is to examine and report on all practices which infringe the anti-trust laws; to prevent "unfair competition," and to advise the Government with a view to bringing business organizations into line with the law. Under this body of law many decrees purporting to restrain and dissolve monopolistic combines have been promulgated. A good many have been effective: some have not. An outstanding example of partial failure is the attempt to break up the great Standard Oil concern. It seems to be generally admitted that effective competition between the constituent companies of the Standard Oil Company of America has never been restored, in spite of the legal dissolution of that company in 1911. "The group retained its essential unity, and has in recent years greatly expanded by the absorption of other oil undertakings both in the United States and elsewhere. It controls approximately 28 to 30 per cent of the world output."¹

It is important to remember, however, that American firms and companies may enter into such agreements and associations as they please in order to exploit foreign

¹ Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency*, page 113.

markets. The Webb-Pomerene Act of 1919 permits American companies or associations formed for export purposes to combine with organizations in other countries, and as long as the members of these combines keep within the anti-trust laws in their operations within the United States, the United States government will not concern itself with their actions elsewhere.¹ Moreover, recent reports from the United States seem to indicate that the American government is inclined to be rather less strict, at least for the time being (i.e. during this great depression), in its interpretation and administration of the anti-trust laws.²

The following is a brief outline of the legal position with regard to combines in various other countries.

Austria. Austrian law relating to combines does not distinguish between absolutely necessary articles and all other commodities. The number of parties in a combine, and the scope and duration of its operations, are immaterial. It is sufficient if the combine's *intention* to raise prices is proved; or if the consumer has been "placed in a less favourable position"—a phrase which is, of course, capable of a variety of interpretations. "Unfair" competition is frowned upon by the State, and combines to combat unfair competition will not be interfered with. Agreements with former competitors to close down factories are regarded/

¹ The following paragraph is from *The Economist* of 17th December, 1932 (page 1137)—

"The world copper conferences began this week, but a difficulty was encountered early in the proceedings with the insistence of the Roan Antelope interests upon an increase in their quota. The company, it is reported, instead of keeping to the 20 per cent of capacity production as agreed upon a year ago, increased to 50 per cent of capacity, and now insists on an 80 per cent increase over the previous quota. This the other companies seem unwilling to allow, on the ground that it would imperil the whole restriction scheme. Only such American companies as have foreign mines are meeting, as this conference is under the aegis of the Copper Institute, and not Copper Exporters, as was the last. Domestic concerns wish to avoid any implication in price-fixing schemes that might involve them in anti-trust prosecutions, but that does not apply to the foreign field."

² See e.g. *Manchester Guardian Commercial*, 17th September, 1931, page 243; 27th August, 1932, page 169. Cf. also the Appalachian Coals Case (1933).

as an unwarrantable restriction of free competition, and rationing of production is deemed contrary to public interests if it is a means of raising prices artificially.

France. All sorts of industrial and commercial agreements and combines are lawful in France; but such as bring about, or attempt to bring about, fraudulent manipulation of prices in order to gain "excessive profits" are liable to punishment. Unfair competition also is an offence. Fraudulent manipulation of prices is punishable under the Criminal Code; but unfair competition comes under the Civil Code and the penalty is usually damages. The French, like the Belgians and Italians, try to draw a line between the "bad" actions of combines, which are punishable, and their "good" actions, which are not. The present French attitude towards the combine movement is favourable, because it is felt that other nations, by means of such organizations, have forged ahead of France in industrial and commercial progress. The French feel that if they are not to be left out, if French industries are not to "succumb beneath the weight of . . . gigantic international combines," they must follow a similar course, and organize not only to withstand the competition of foreign combines but to enter into agreements with them in suitable cases. Several recent international industrial agreements, in connection with potash, steel, aluminium, cement, and dyestuffs, were definitely encouraged by the French government.

Belgium. Under Belgian law it would be unlawful for persons within Belgian jurisdiction to conclude an agreement in Belgium to raise prices either in the home market or abroad. There is a *criminal* penalty for forcing up prices in the home market but not for raising or designing to raise prices in foreign markets. But industrial agreements, combines, cartels, and trusts are not prohibited or molested in Belgium if they do not aim at producing *abnormal* effects upon prices. For example, an agreement or combination to regulate output in order to avoid over-production and consequent gluts would not be deemed unlawful.

114 INTERNATIONAL COMBINES IN MODERN INDUSTRY

Germany. The German State has looked favourably upon combines, and has been prepared to aid in their formation by using its coercive powers if such a course seemed likely to bring economic benefit to Germany; e.g. by placing a German industry in a position to present a united front in negotiations for the formation of an international combine. Thus, in 1910, a law was passed establishing a compulsory syndicate for the sale of potash salts, and this was supplemented by the law of 1919. Also, since 1919, the German government has power, in the absence of voluntary combinations, to compel firms and companies to form syndicates on prescribed lines, for the sale of coal and coke of all kinds. It is interesting to notice, on the other hand, that a law of 1927 relating to the manufacture of matches, was passed mainly with the object of preventing the absorption of the German Match Sales Company by Ivar Kreuger's International Match Trust.

There is no reason to anticipate a reversal of German policy relating to combines in the near future. Indeed, the Nazi regime may result in even more State coercion and control of productive industry.

Italy. The Italian Government looks upon international industrial agreements with definite disfavour, chiefly because it thinks that these combinations tend to make permanent the present shares of various national units in total world production, whereas the Italian Government desires to see Italy's share of world industrial production and trade increase in as many departments as possible. The possibility of having to pay more for imports of necessary goods produced almost exclusively by foreign combines is also repugnant to the Italian authorities.

Great Britain. In Great Britain the Common Law doctrine relating to contracts in restraint of trade—although its interpretation by the Courts changes gradually as time passes—makes it impossible for combines to secure enforcement of agreements against members who break away or are disloyal to the combine in other ways.

Apart from this, the State adopts an entirely neutral attitude.

Canada. In Canada the law provides for the investigation of the affairs of combines and monopolies, and penalties may be imposed where combines have been formed contrary to the public welfare. The withdrawal of patent rights and tariff protection are additional sanctions.

Norway. Norwegian law compels combines which aim to control prices, conditions of production, or marketing in Norwegian markets to register and give certain confidential details (e.g. of prices and turnover) which the authorities have power to verify, with or without the consent of the combine, by referring to the relevant books, vouchers, reports, etc. Upon the information so obtained the Government decides what action, if any, to take in the general public interest. The policies of combines are thus brought under a form of state control, directed mainly to the prevention of exorbitant prices. Specific mention is made of owners or managers of businesses which are under the influence of foreign undertakings or combines "whose influences upon the prices of the goods in question are of vital importance in one or more countries."¹

¹ League of Nations *Review of the Legal Aspects of Industrial Agreements* (1930), page 73.

CHAPTER V

MARKETS, TARIFFS, AND QUOTAS ✓

A BELIEVER in free trade might judge international combines by the extent to which they succeed in setting at nought the political frontiers which obstruct economic activities. The application of this test would probably cause him to condemn them on the ground that most international combines, and more especially international cartels, are strongly tainted with protectionism. (International cartels, for instance, "are often mainly means of protecting the producers of each country by securing the home market from foreign competition. They thus represent a nationalist conception . . ."¹) Where any nation is pursuing a free trade or low tariff policy, the "reservation" of its domestic market in certain products to home producers under a comprehensive and effective international agreement is, as Professor Macgregor points out, a reversal of national public policy by international private arrangements.

The British dyestuffs industry furnishes an extremely interesting example of the complications which may ensue when international private arrangements are, as it were, superimposed upon public arrangements. In 1920 the Dyestuffs (Import Regulation) Act was passed for a period of ten years (and subsequently extended), with the object of encouraging and assisting British dyestuffs manufacturers to build up a substantial dye-making industry in this country. The Act prohibited all imports of foreign dyes, but allowed the issue of import licences in respect of any dyestuffs not obtainable from British makers at prices at least as low as those quoted by foreign competitors, "dumping prices" always excepted. Prior to the passing of the

¹ Richardson, *Economic Disarmament* (1931), page 105. Cf. H. R. Tisdal in *Quarterly Journal of Economics*, February, 1917, page 266.

Import Duties Act, 1932, these licensed imports came in free, but now they are subject to an *ad valorem* duty of 10 per cent; so that the British dye-makers are doubly protected.

(During the past ten or twelve years a tendency towards consolidation has shown itself in the British dyestuffs industry; a gradual movement at first, but quite marked since 1927-8. Imperial Chemical Industries, of course, played the leading part by acquiring such undertakings as the British Dyestuffs Corporation, Ltd., Scottish Dyes, Ltd., British Alizarine Co., Ltd., and Emco Dyestuffs, Ltd.) There remains still a quite important "fringe" of non-combine dye-makers, but "the greater part of the dye-making industry in this country is now under one control."¹ Nor has this combination and consolidation movement stopped at national boundaries. Early in 1932 an international agreement was reached between Imperial Chemical Industries, the I.G. Farbenindustrie A.-G. of Germany, the Nationale de Matières Colorantes of France, and three Swiss companies. A recent "white paper" states—

Discussions towards this end have been proceeding at various times, and in view of the great expansion of dyestuffs manufacture since 1914, due to the efforts of several countries to establish domestic dye industries and the resultant surplus producing capacity, some agreement between the principal world producers was probably inevitable. The terms of the agreement have not been disclosed, but the Committee have been informed by a representative of Imperial Chemical Industries, Limited, that it does not contain any provision which would impede or restrict the technical or scientific development of any of the companies concerned, nor does it comprise any selling price arrangements. Moreover . . . it does not impose any limitation of the British Colour Users to obtain new products of foreign manufacture. The main object of the agreement was an endeavour on the part of the firms concerned to stabilize their share of the world trade in dyestuffs.

¹ *Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191, 1932), page 8.

118 INTERNATIONAL COMBINES IN MODERN INDUSTRY

(It might be contended that the existence of an international arrangement between a large section of British and Continental dye-makers renders protection of this industry unnecessary, but this contention is unwarranted inasmuch as attack remains possible on the part of other makers both in the old world and new.) For this reason the constructive work carried out under the Dyestuffs (Import Regulation) Act, 1920, might be thrown away with results that would be disastrous to the industry and also from a national point of view. Moreover, a continuation of the present Act is the best means of protecting the industry from this grave danger of attack. The number and variety of dyestuffs used by this country is so great that it is essential to have detailed information made available by the licensing system in order that the manufacturers in this country may by appropriate discovery and practical invention keep themselves abreast of the dye-users' requirements.¹

Against this the representatives of the Colour Users' Association contended that—

The agreement reached between Imperial Chemical Industries, Limited, and the Continental Group of dyemakers, constituting as it undoubtedly does a virtual monopoly, removes the necessity for the protection afforded by the Act.

The Dyestuffs (Import Regulation) Act, supplemented by the recently formed international cartel, prejudicially affects the industries represented by the colour consumers (including the textile trade, which is the largest exporting industry of "wholly or partly manufactured goods") . . .

In view of the statement that the international agreement . . . does not comprise any selling price arrangement, it is conclusive that the British makers cannot substantiate their statement that British users are now being charged world prices, neither for domestically produced colours nor for imported specialities. Further, as the result of this agreement, British users are precluded from competitive buying in approximately 90 per cent of their requirements.

The conclusion of the international agreement was followed almost immediately by substantial increases in the selling prices of domestically made dyestuffs with complete disregard for the precarious condition of many of the

¹ *Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191, 1932), pages 8-9.

consuming industries during a period of national crisis. The experience of users since the formation of the Cartel is definite evidence that the nature of the agreement is such that freedom to obtain foreign quotations is denied to the users except in the case of *new colours*. Full support was given by previous Governments to the claim of the users that territorial restriction would constitute a serious menace to the future of their industries.

. . . although it has been stated that the Cartel Agreement does not comprise any selling price arrangements, it is found in practice that effective quotations for competitive materials cannot be obtained. It may be stated that in comparison with the Board of Trade Wholesale Commodity Index Figure of 102 (*Board of Trade Journal*, Sept., 1932), the index figure for dyestuffs is 200, an increase of 100 per cent over pre-war.¹

Whilst the dyeware makers, under the shelter of a Prohibition Act and an international cartel, have no difficulty in increasing their prices, the exporter of textile goods finds it impossible in competition with the world to obtain any better prices; in fact he has to cut prices. Considerable export trade has already been lost owing to prices being too high.

It is a strange anomaly that, whilst the Government have been successful in negotiating terms whereby Lancashire operatives have accepted less wages in order that British textile goods shall be competitive in the world's markets, at the same time the dyemakers by increasing their prices for a major raw material of the textile trade are off-setting the objects of the recent wage cuts.²

(To the industrialist, indeed, one of the chief attractions of international combines is the promise they hold out of relief from foreign competition in his home market (and the same alluring prospect, of course, lies behind his demand for tariff protection). They also appeal to him as a means of eliminating ruinous competition in foreign markets. And the wider the interpretation given to the words "home market," the greater the attraction, as a rule. Thus, under the terms of the International Calcium Carbide Agreement,

¹ Forty-nine specific examples were given in an appendix. See Cmd. 4191, pages 15-16. ² *Ibid.*, pages 13-14.

covering the majority of European producers, the French were able to obtain reservation of markets in France *and her colonies*, a special quota for Morocco, and a limited but ample general export quota. Also, in the Franco-German Potash Agreement it was stipulated that the "home market" of the French producers should include the French colonies, protectorates, and mandated territories.

(How far, then, do international combines make protective tariffs unnecessary or ineffectual? Where the home market is entirely reserved to the local members of an extensive and powerful international combine, the effect is to transform a more or less partial obstacle—the import duties—into a complete barrier which all members of the international combine agree not to try to climb. The more comprehensive and closely-knit the international combine, the more complete and effective is the protection of the home industry.) Moreover, if special circumstances arise which make it desirable, from the combine's point of view, that goods shall be imported into a certain "home" market, those goods will be imported, tariff or no tariff. Such temporary suspension of an agreement to "reserve" a certain home market might take place in order to break a strike of the combine's employees in that market. Thus, in the circumstances here outlined protective tariffs appear to be neither necessary nor effectual. Furthermore, a price-raising policy on the part of a national combine, even where a high protective tariff exists, will attract foreign competitors in increasing force the higher the combine raises its prices; so that the consumer can count upon this check, at least, to the worst excesses of the combine. But he cannot do so where the combine is international and comprehensive, for in such cases there are no foreign competitors worth mentioning. Another point is that a national combine, even when it is sheltered by a prohibitive tariff, is still liable to competition if foreign producers think it worth while to set up factories *inside* the tariff wall. But where an *international* combine exists, this form of industrial invasion is much less

likely, especially if all the most widely-known and financially-powerful foreign producers are members of the same international combine.

The reservation of home markets, therefore, smacks strongly of high protectionism. But there are differences; for not only does reservation of the home market under an international agreement usually give to the home producers more complete freedom from actual and threatened foreign competition than protective tariffs, but, unlike a protective duty, it is not an isolated arrangement springing from the dictates of economic nationalism. It is, on the contrary, part of a larger scheme of economic internationalism. But, on the other hand, although international combines (and especially cartels) give more complete protection while they last, they are commonly less permanent than tariffs.

✓ In the absence of much more information than is at present available it is impossible to reach definite conclusions regarding the effects of international combinations upon tariffs and tariff policies. The World Economic Conference of 1927 took a rather optimistic view of the part international combines might play in providing an antidote to the poison of excessive protectionism; but the Economic Consultative Committee of 1929 received representations to the effect that international combines "do not, as a rule, make for tariff reduction unless the parties they bring together are of approximately equivalent strength and are anxious to develop their strength by means of technical improvements rather than by customs protection. Experience has shown, it was argued, that the regulation of competition which results from industrial agreements does not invariably lead the parties to consent to tariff reductions, since combines are often concluded on the basis of the commercial possibilities resulting from the protection afforded by the existing tariffs, and a change of tariffs modifying these possibilities would be regarded as jeopardizing the combine itself." Moreover, if the combine brings together

parties of unequal competitive powers, but is not comprehensive enough to exclude all serious competition, the various members of the combine will be interested in maintaining such protective duties as will preserve their home markets. Therefore, such stability as may be achieved rests upon (a) the maintenance of international combination, and (b) the maintenance of certain protective tariff levels in the different countries concerned: two shaky piers, either of which is liable to be severely strained by the passing gales of political and economic controversy, especially in any period in which tariff policies, rates, and classifications are very much in the melting pot. Since many international agreements are made for limited periods only, the existing extent of customs protection becomes a highly important factor every time negotiations for renewal of agreements are entered into. "In some cases, indeed, the efforts of producers to obtain increased protection in their own country are redoubled as soon as the creation or renewal of an international cartel arises."¹ Moreover, where the element of impermanency is present in a high degree in the arrangements of any international combine, all the members, and especially the weaker ones, will wish to retain tariff protection in case, at any time, the combine should break up. And it must be remembered that producers may be interested in the customs duties upon not merely one article, but upon a whole range of articles. It is probably easier to retain protective duties than to regain them once they have been relinquished. Therefore, the disappearance of tariffs before the advance of international combines is hardly to be expected, at least in the near future.² The most that

¹ League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 31.

² In one direction, indeed, a contrary effect may be produced. The disparity between prices of manufactured goods and prices of agricultural produce, in favour of the former, is not infrequently attributed by farmers in various countries to the existence of national and international combines in industry, and their absence in agriculture: and this opinion prompts the farmers to demand tariff protection by way of compensation.

can be looked for is the stabilization of customs duties as the result of the evolution of more permanent international combines. (In a predominantly free-trade world, international combines having agreements for the reservation of home markets and the division of the rest of the world into export sales territories would be open to the criticism that they were the only great obstacles to world division of labour and the complete realization of its undoubted benefits. But in the highly protectionist world of to-day the situation is not so simple. It may be urged, for example, that international combines prevent dumping and check those continual demands for more and more protection which always become clamorous when States pander to the demand of particular "interests.") There is, certainly, a fundamental general antipathy between international cartels and alterations in tariffs; for the introduction of more orderly production and marketing, and more stable prices, which are among their chief objects, are jeopardized, together with the very existence of the cartels themselves, by the chop and change of tariff policies.

Even if the home market is not "reserved," an international combine does not "blanket" the tariff, but must work within it. The existing import duties form, as it were, the framework into which its arrangements (e.g. as to prices and quotas) must be made to fit.¹ Increase, reduction, or abolition of the duties will set the combine the task of revising its arrangements, with, possibly, all

¹ The standard prices established by the European Aluminium Cartel are applicable to all consumers in every country, irrespective of transport costs. In countries where aluminium is dutiable, the duty is added to the standard price and is thus shifted to the consumers if no aluminium is produced there. But in aluminium-producing countries any imported aluminium is sold at the standard price, even though import duty has been paid on it. "Thus in France the price is the same as the standard price, and not the standard price plus all or part of the customs duty. The customs duty does not involve any charge on the consumer, but is none the less of importance from the standpoint of the producer, in that it protects his home market."—League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), pages 26-7.

the internal perils attendant upon the rearrangement of quotas.

(Thus it becomes clear that whether home markets are reserved or not, national actions, such as changes in protective policy and tariff rates, may throw the arrangements of international combines into disorder. This will always be inconvenient; it may or may not prove very serious.)
 If a combine is but loosely knit, or if there is a good deal of friction between its constituent groups or units, the disorder may be sufficient to precipitate its dissolution. The International Steel Agreement of 1926 actually provided that if Germany increased the import duties on steel, any signatory could denounce the cartel by giving three months' notice; and it might be terminated in a similar way if any government concerned raised the objection that any other government was discriminating against its general imports, unless the question was covered by a commercial treaty.¹ Turning from steel to copper, we find that in the spring of 1932, "in order to counteract the gradual shift of production from the high-cost producers in the United States to the low-cost concerns elsewhere, the United States Government imposed an import duty on the metal (copper) of 4 cents per lb. The effect was to throw the world's copper industry completely out of gear. On the one hand, producers outside the United States, deprived of a large potential demand, were faced with the necessity of reducing production further; and on the other hand, as was to be expected, the imposition of the duty led to the disruption of Copper Exporters, Inc. Four of the largest members, the International Nickel Co. of Canada, the Chile Copper Co., the Cerro di Pasco Corporation, and Katanga, have already announced their decision to withdraw from the cartel."² Not many months later we find the copper mining interests attempting to reconstruct an international

¹ Knight, Barnes and Flugel, *Economic History of Europe* (1927), page 669.

² *Economist*, 9th July, 1932, pages 60-61.

cartel, only to be met by such difficulties as are outlined below.

The Copper Conference. The failure of the conference of copper producers in New York was not unexpected. A statement has been issued by the Roan Antelope Copper Mines rebutting the allegations that the sole responsibility for the breakdown of the Conference rested with the company. Roan Antelope began producing in the summer of 1931. In November, 1931, and in March, 1932, a group of leading copper producers of the world met to consider the question of over-production and accumulation of stocks. The proportions between the operating quotas of the participants of these conferences are now obsolete, and Roan Antelope directors claimed that for 1933 their company should be accorded treatment no less favourable than that accorded to other producers and to its neighbour in the same Rhodesian field. It claimed that the imposition of the American copper tariff in June, 1932, had brought about conditions that have subjected international co-operation to a severe strain. During the past few months American mines have exported large quantities of copper to Europe in competition with the producers who are barred from the American market. Further, American companies owning mines both within and without the United States have demanded the right to transfer to their foreign subsidiaries part of the operating quotas allotted to their United States mines. Such practices, the Roan Antelope directors claim, preclude the possibility of effective international co-operation.¹

In a somewhat similar way Great Britain's imposition of a tariff on lead in March, 1932, resulted in the disruption of the lead cartel.²

(In the near future it may be found that instead of international cartels, industrialists will come more and more to prefer international concerns, largely because they are less likely to be thrown into confusion, and even destroyed, by tariff changes.)

(Having agreed as to their respective home markets, the

¹ *Economist*, 17th December, 1932, page 1153.

² *Economist*, 23rd July, 1932, page 164; *Manchester Guardian Commercial*, 29th July, 1933, page 87.

members of international combines usually seek to come to an agreement regarding export markets or "non-reserved sales territories.") As far back as the eighteen-eighties the great international combines in the explosives industry made agreements touching the allocation of export markets; and again, in 1897, "the American manufacturers of explosives and the German and British powder syndicates organized the so-called International Powder Trust. The different world markets were divided up and an understanding was reached regarding basic selling prices." This combine had also a common fund for the purpose of "protecting the interests" of its members against "outsiders." Italian and American sulphur producers formed a similar combine in 1906.¹ In 1905, the German Steel Tube Cartel entered into an arrangement with the American combine producing steel tubing, under which the Germans agreed not to supply the markets of the United States, Canada, and Mexico. Not many years ago (1926) the British gas mantle manufacturers made an agreement with the Germans and certain associated manufacturers in other countries, whereby the German manufacturers and their associated undertakings promised not to sell gas mantles in the United Kingdom for a period of five years, while the British producers agreed not to export to the European Continent and the United States during the same period. Other stipulations applied to certain other markets.²

(The method of allocating output or export quotas, or both, to each of the members of an international combine is very generally adopted, and it is as important as it is troublesome. The arrangement of quotas is a difficult and contentious business in the initial or formation stages, and the most common general cause of friction and dissention within international combines afterwards.) Professor Jenks reminds us that in 1899, "Chairman" Gates of the American

¹ *Journal of Political Economy*, October, 1920, page 662.

² Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency* (1927), page 113.

Steel and Wire Company testified before the United States Industrial Commission that he had had several meetings with the Americans' strongest competitors—the German wire manufacturers—who were already combined on a national scale, to discuss the possibility of forming an international combine. "The plan suggested was for the two countries to divide the world's markets in accordance with a fixed percentage, and to agree upon an increase in price. The difference of opinion as to the percentage of the market which should be allowed to the Americans—Mr. Gates demanding 50, while the Germans were willing to grant at the outside not more than 45—and further differences of opinion regarding the increase in price—he being content with an increase of \$10 per ton, the Germans wishing to secure one of \$30—finally made him distrustful and resulted in the breaking off of the negotiations."¹

The quota assigned to each national producer or group of producers may comprise the whole or part of the supplies taken by the home market, or the combine may fix export quotas only. But in either case the quota arrangements must be elastic, otherwise those who feel that they are losing rather than gaining by reason of their membership of the international combine, will soon break away. Hence "fines" and bonuses and periodical revisions of quotas are generally provided for in modern quota agreements. But not only is it usually necessary to adopt such devices, it is also necessary to adapt them carefully to the probable exigencies of the situation in the near future, so far as these can be estimated. The fines or penalties for exceeding the quota must not be so light as to be, for all practical purposes, inoperative; nor so heavy as to amount to a virtual prohibition on excess production or export under any circumstances, for then the agreement would actually have very much less elasticity than it appeared to have on the face of it. Where, however, an international agreement gives the parties a right to exceed their respective quotas on payment

¹ *The Trust Problem* (1907 Edn.), page 48.

of a moderate fine or penalty, without breaking the agreement, each member-plant will decide for itself whether the net extra economies likely to result from increasing output so as to exceed the quota will be greater than the penalties payable. Where the quota falls far short of the *optimum output capacity*¹ of any plant, it will probably pay to produce in excess of the quota; but usually there will be, at the same time, a strong feeling that the quota ought to be larger, so that the advantages of lower unit costs could be had without the necessity of paying a fee or penalty in order to gain access to them.

* If an international agreement provides for the revision of quotas according to the trends of demand in national markets, each national group or party to the agreement has a strong incentive to encourage and stimulate the consumption of its goods within its particular region, so long as its actual quota remains below its optimum output-capacity. And, similarly, if the allotment of quotas is based mainly upon the productive capacity of each member, each is prompted to enlarge its factories, or increase their number, in the hope that when the agreement comes up for revision its extra capacity will enable it to obtain a larger quota. An active policy of this kind would, sooner or later, wreck the combine. But, says a League of Nations report, "experience has shown that, when the majority of important cartels have come up for renewal, the firms which speculated on an increase in their means of production with a view to obtaining a higher quota have failed to achieve their end, and this salutary example has, to a large extent, prevented the repetition of such speculation."² Moreover, the longer the term of the international agreement, the less likelihood there is of such unwise inflation of productive capacity.

Another problem is presented by the probability that new

¹ i.e. that scale of production at which unit-costs will be reduced to a minimum.

² *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 20.

producers may arise (a) in countries where the market is "reserved" to certain members or member-groups within an international combine; (b) in countries not so "reserved." The combine must consider what can be done to bring the newcomers into its ranks, and what revision of quotas will be thereby rendered necessary. Here, again, is another possible bone of contention; for one group's application for an increased quota because certain new producers had recently appeared upon the scene within its particular area, might be opposed by a different group on the grounds that these new producers should not have been allowed to arise at all.

Nearly all international combines encounter the problem of disciplinary arrangements. Several major questions are involved. For example, how can the combine best retain the loyalty of its members? Are any sanctions (penalties) desirable? If so, what form shall they take? How far (if at all) can the combine rely upon state assistance—or must it seek to provide the whole of the disciplinary machinery it requires? (One method of holding the parties together and applying a kind of sanction is to require all the members of the combine to deposit securities as earnest of their good faith and loyalty, with a provision that failure on the part of any member to fulfil his obligations shall cause forfeiture of the securities.) The securities are lodged in the hands of certain trustees in a country where the laws will allow such a contract to be enforced. An international combine may have its own arbitration court to settle disputes between members, and to deal with interpretation difficulties which are almost certain to arise in connection with the agreement. Also provision may be made for independent supervision and audit of production and sales records and accounts. The output and deliveries of the European Steel Cartel are audited by an independent Swiss company; and the Incandescent Lamp Cartel has made similar arrangements.)

A few examples of actual quota arrangements may now be given.

The well-known International Rail Makers' Association arose out of the over-production which followed the close of the first fifty years of railway construction in Europe. First formed (as we have seen in Chapter I) in 1883, between the rail makers of Great Britain, Germany, and Belgium, it is among the oldest of international cartels. The original quotas were Great Britain, 66 per cent, Germany, 27 per cent, Belgium, 7 per cent of total export trade; but these ratios did not give satisfaction all round, and they were soon afterwards revised to 63½, 29, and 7½ per cent respectively. Nevertheless, the new quotas were no more satisfactory than the old. Further negotiations showed that the British were determined not to give any more ground, and the cartel broke up in 1886. It was revived in 1904 for three years, and this time the French joined.¹ "Meanwhile the American Steel Rail Makers had combined and in the same year, 1904, they entered the International Rail Makers' Association, one of the conditions being that the British makers gave up the exclusive right which they had obtained under the original agreement to supply the requirements of Canada and Newfoundland. The British makers agreed that the Americans should participate in the orders from those two Dominions, and it is stated that as a result they took practically all the orders therefrom. Subsequently arrangements were made between the International Association and groups of makers in Spain (who were given the exclusive right to the Spanish market) and in Italy (the Association agreeing not to sell steel rails for the Italian home market and the Italian rail makers agreeing not to export)² . . . The German group, acting on behalf of the International Association, also entered into arrangements at various times with Austro-Hungarian makers for the mutual protection of the

¹ *Report of the Committee on Trusts* (Cmd. 9236, 1919), page 40; Balfour Committee on Industry and Trade, *Survey of Metal Industries*, page 35. Cf. *Quarterly Journal of Economics*, February, 1917, page 267.

² This arrangement, which was subsequently modified, terminated in 1909.

home market of each group and the division of orders for the Balkan States. Subsequently arrangements were made between the International Association and certain Russian makers whereby the latter were allotted a fixed quantity of steel rail export business on certain conditions. The International Association was renewed for five years in 1907, and in 1912 for three years to the end of June, 1915."¹ By that time the quotas had become—

Great Britain . . .	33·63
U.S.A.	23·13
Germany	23·13
Belgium	11·11
France	9·0

The expansion of the steel rail industries of other countries was gradually forcing the British makers to accept a diminishing proportion of world export trade, and also a diminished quantity. The British makers' average annual orders for all markets are given by the Committee on Trusts as 917,000 tons in 1901-5, and 646,000 in 1911-14; and their average annual orders for countries other than the United Kingdom and British possessions fell from 257,000 tons in 1901-5, to 56,000 tons in 1911-14. Thus, British rail makers found themselves "restricted more and more to the British Dominion and Colonial markets . . . and a few others, of which the Argentine was the most important."²

In view of this continuous change in the relative productive capacities of the older and newer national groups, and of their wide and divergent interests, it is remarkable that the International Steel Rail Cartel held together as well as it did, and that it did not give rise to more friction; especially as there was no machinery for the enforcement of its regulations. There were, indeed, from time to time, certain instances in which the spirit of the agreement was not observed.³

¹ *Report of Committee on Trusts*, page 41.

² *Survey of Metal Industries*, page 70.

³ *Report of Committee on Trusts*, page 41.

132 INTERNATIONAL COMBINES IN MODERN INDUSTRY

After the War, although competition in the steel rail trade was much intensified, the cartel was not resurrected until 1926. The Americans did not rejoin, and the quotas became—

	<i>Ratio to 104</i>	<i>Quota: Tons</i>
Great Britain	43.0	430,000
France	19.5	195,000
Germany	19.5	195,000
Belgium	11.0	110,000
Luxemburg	7.0	70,000
Czechoslovakia	4.0	40,000
	<hr style="width: 50%; margin: 0 auto;"/> 104.0	

Special agreements also exist between the cartel and Austrian, Hungarian, Polish, Italian, and Yugoslav producers. On 1st April, 1929, a new six-years agreement was made, which brought in the chief rail makers of the U.S.A. grouped together in the Steel Export Association, and involved the splitting of the British quota with the Americans—

Great Britain	24.5 per cent
United States	18.5 " "

The League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930) describes it as a "gentlemen's agreement" to regulate the export sales of rails weighing 36 lb. or more per yard,¹ fish plates, chairs, and "continuous joints." The British and French members reserve their home and colonial markets, but not their mandated territories. A committee in London centralizes all orders and allocates them among the national groups. The subdivision of the contracts allotted to the groups is carried out in Germany and France by the respective national cartels; in Belgium and Luxemburg by the largest producers.² After this allocation the customer and the undertaking to which the order has gone have direct dealings, and the former is nominally free to withdraw his order and place it elsewhere if he does not approve of the firm to

¹ Excepting grooved rails for tramways and cranes.

² Liefmann, *Cartels, Concerns and Trusts* (1932), page 155.

which it has been allotted; but other members of the cartel will not take the order except at a higher price, so that financial sacrifice is the condition of the exercise of a customer's preference. A committee of directors, consisting of delegates from the various national groups, meets quarterly to fix minimum prices and to transact business not dealt with by the London committee.

The International Aniline Convention, to which German and British makers were parties, furnishes us with a record of an interesting experiment. Each member of the cartel received a quota based upon average total deliveries of aniline oil over a given three-year period. The prices to be charged by producers selling to consumers were fixed for each country, and sales to dealers were prohibited by the convention. If any of the members delivered more than their quotas no money fine was imposed, but they had to take from those who had delivered less than their quotas, at the latter's works, "the quantity of aniline oil which they had over-delivered, at a price equivalent to that which they had received." Moreover, "no member could enter into a sale contract for a period for more than twelve months; there was a committee to watch the progress of new companies and to take steps to prevent them coming into competition; and instances occurred where the members of the Convention had to share in the loss incurred in delivering aniline oil to meet the competition of such companies."¹

✓ The International Tube Cartel agreement allows an excess of 5 per cent above the quota without penalty. For excess production exceeding 5 per cent, but not exceeding 10 per cent, the fine is £1 per ton: and exceeding 10 per cent it is £5 per ton. Also, by a levy of 1s. per ton on output a "reserve fund" is being accumulated, "evidently to be used to fight outsiders."²

The year 1916 saw the negotiation of an agreement between leading quebracho (tanning) extract producers in

¹ *Report of Committee on Trusts*, page 41.

² *Liefmann, Cartels, Concerns and Trusts*, page 156.

Argentina and Paraguay for output limitation and centralized selling. In 1922 the selling combination dissolved; but four years later a new selling organization was set up. Production and prices are controlled by a committee of five representatives of the member companies. The maximum production quota for each member is fixed on the basis of its largest monthly production in 1923, 1924, and 1925, averaged and multiplied by 12. More than twenty firms are in this combine, which controls about 90 per cent of total world output. The largest member company, Forestal Land, Timber, and Railways Co.¹ acts as selling agent for the whole combine.

The European Mercury Consortium gives a sales quota of approximately 60 per cent to the Spanish producers and approximately 40 per cent to the Italians, excluding the respective home markets, which are reserved. Spain and Italy are represented equally upon the controlling committee, the chair being taken in alternate years by a Spaniard and an Italian. The central sales distribution office is at Lausanne.

The International Steel Agreement is said by M. Herriot

¹ The Forestal Land, Timber and Railways Co., Ltd., was formed in 1906 with a share capital of £1,000,000 to acquire the business of Compañia Forestal del Chaco. In 1913 it acquired certain properties and other assets from the Santa Fé Land Co., Ltd. and in 1914 it purchased certain properties of the New York Tanning Extract Company and of the Argentine Quebracho Company. As from the 1st January, 1931, the company sold its assets and business in Argentina to La Forestal Argentina, S.A., the consideration being £1,000,000 6 per cent ten-year Debentures, £2,400,000 4 per cent fifteen-year Debentures, and £4,188,787 Fully Paid Ordinary Shares at par of that company. The main objects of this sale were to minimize the effects of double taxation and to facilitate the rationalization of the quebracho industry. The scheme provided that the company should act as distributors of the Argentine Company's products. The Forestal Company was formerly engaged in the manufacture of quebracho and mimosa tanning extract, but its business is now that of a trading and holding company, whose income is chiefly derived from dividends received from subsidiary companies. It now holds all the issued capital of Calder and Mersey Extract Co., Ltd., and Natal Tanning Extract Co., Ltd., which in turn controls Alfredia Wattle Co., Ltd. Other subsidiaries are St. Helens Holdings, Ltd., H. Renner & Co., A.-G. (Hamburg), and Forestal Provident Investment Trust Co., Ltd.

to be "a cartel of production, not of price," its primary object being the restriction and regulation of the output of ingot steel. "Each syndicate or group belonging to it may retain any common bureaux it may have set up. There has simply been established a common fund, to which each of the undertakings in the cartel is obliged to contribute. Each undertaking which has not exhausted its share receives compensation in cash; a payment is due from those who exceed their ration. . . . The supreme authority of the cartel is the general assembly, which fixes every three months the total ration by a majority of three-quarters of the votes."¹ The quotas were worked out by coefficients based upon production and estimated demand, and voting strength in the directing committee of four representatives of Germany, France, Belgium, and Luxemburg, was in proportion to these quotas. Permission to exchange quotas could not be given except to an undertaking in one country owning at least 40 per cent of the stock of an undertaking in another country.² "The original basis of participation was the production of each country in the first quarter of 1926, but special consideration was given to Belgium, whose output had been affected by a strike during that period. On the basis of an annual production of 25,287,000 metric tons, the participations were as follows—

	<i>Metric tons</i>	<i>Per cent</i>
Germany	10,227,000	40.45
Belgium	3,180,000	12.57
France	8,066,000	31.89
Luxemburg	2,160,000	8.55
Saar	1,654,000	6.54
Total	<u>25,287,000</u>	<u>100.00</u>

It was provided that, as the aggregate production agreed upon increased, and until the basic figure was 4,000,000

¹ E. Herriot, *The United States of Europe*, page 142.

² Knight, Barnes and Flugel, *Economic History of Europe*, page 668.

tons above the original basis shown, Germany's share was to increase in greater proportion. When the basis figure reached 29,287,000 tons the percentages of the different countries were to be: Germany, 43·176; Belgium, 11·560; France, 31·181; Luxemburg, 8·301; and Saar, 5·782. When once this output had been reached the percentages were not again to be varied except by later agreement, even if the basis production were diminished."¹ The expedient of quarterly quotas was designed to impart elasticity and so to avoid the dangers which always lurk in a system of rigid quotas. Each member of the combine agreed to pay into a common fund, as earnest of its loyalty, one dollar per ton of steel produced. The fine for exceeding the quota allotted was four dollars per ton of the excess; and producers whose output fell short of the quota received a "compensation" of two dollars per ton of their deficit. "The maximum deficiency upon which compensation is payable is 10 per cent of the quota, but if a deficiency continues in successive quarters, the percentage upon which compensation is paid diminishes" by 2 per cent for each successive quarter. "At the close of each half-year the common fund is liquidated. After deducting general expenses, the one dollar per ton flat rate contribution is divided in proportion to actual production, while any balance accruing from the payment of fines is divided in proportion to quotas."² Other features of this international agreement are (a) general supervision by a body of trustees, and (b) a provision that all disputes are to be referred to arbitration.

In the first three months the German industry passed its quota and had to pay a heavy fine; while the French failed to reach theirs and received, in consequence, a cash compensation of £674,000. In the quarter April-June, 1927, all quotas were exceeded except the French. The figures were—

¹ *Survey of Metal Industries*, page 81.

² *Ibid.*, page 82. Cf. M. S. Birkett in *Statistical Journal*, 1930, pages 362-5.

	<i>Quota</i>	<i>Actual production</i>	<i>Difference between Quota and Actual Production</i>	
	(thousands of tons)		+	-
Germany	3,161	3,995	834	—
France	2,283	2,065	—	218
Belgium	846	896	50	—
Luxemburg	608	616	8	—
Saar	423	476	53	—
Totals	7,321	8,048	945	218

The Germans felt strongly that these results justified some revision of the French and German quotas, and, failing this, the end of the cartel seemed imminent. But the dangers of dissolution and subsequent competition weighed even more heavily in the scale than discontent with the quotas, and so the cartel was preserved. Again, in 1930, the difficulties of working the agreement nearly caused a break-up, but this was arrested by the prompt introduction of certain modifications. Even so, the cartel certainly cannot be regarded as an unqualified success. It seems clear that the Germans, in their eagerness to reap the full fruits of national combination by coming to an agreement with their principal European competitors, got the worst of the deal, and accepted a quota quite inadequate relatively to their productive capacity. Certain German critics asserted that in effect the French producers and exporters received a very helpful subsidy from the German producers, in spite of the fact that under the agreement the French were able to work very much nearer to full capacity than the Germans. Subsequent reductions of the penalties payable by the Germans upon their excess production (from four dollars to one dollar per ton) have not really gone to the root of the trouble. On the other hand, the cartel has checked the dumping of steel into Germany by France, Belgium, and Luxemburg, and a special supplementary agreement,

limiting the import into Germany of "semis" and finished rolled products from France and Luxemburg, has further reduced foreign competition in the German market. Moreover, the "general position of the cartel has been immensely strengthened by the formation of international organizations to deal with semis, sections, bars, heavy plates, and hoops."¹

It is an interesting fact that during the negotiations which resulted in the formation of these subsidiary organizations, the French negotiators argued that the *de jure* stabilization of French currency in 1928 adversely affected French exports, and therefore the period January, 1928, to October, 1929, chosen as the basic period for quota purposes, was unfavourable to French producers. Consequently, they demanded and obtained preferential treatment with regard to the fixing of the French quotas.²

It will have been noticed that this cartel includes representatives of all the principal steel-producing countries of Europe except Great Britain. The main stumbling block to British participation appears to be the size of the quota which the Continental producers are prepared to allot to British producers. Whether the quota required by the British is reasonable, or whether it is based too much upon the rosy records of the past, and not sufficiently upon the hard facts of the present, it is difficult to say.

In the spring of 1933 a revised allocation of export quotas was arrived at by the International Steel Cartel, the respective shares being—Belgium, 29 per cent, Germany, 28 per cent, Luxemburg, 22 per cent, and France, 21 per cent.

The European aluminium agreement provides for the allocation of quotas to the members of the cartel. Each quota covers sales in the home market and export sales (except to North America). The quota applies to aluminium and aluminium alloys, but only the aluminium content of the alloys is reckoned. Each producer reserves the right to give priority to his home market.

¹ M. S. Birkett, *op. cit.*, page 365.

² *Ibid.*, page 352.

The wagon manufacturers of eight European countries made an agreement in April, 1930, with the object of avoiding competition in export markets. Export quotas were arranged as follows—

	<i>Per cent</i>		<i>Per cent</i>
Belgium . . .	34.6	Czechoslovakia . . .	6.9
Germany . . .	28.8	Hungary . . .	2.4
France . . .	13.9	Austria . . .	2.2
Italy . . .	10.5	Switzerland7

The output quotas under the International Tin Agreement are based upon the figures of world production in 1929, which were agreed at 186,518 tons. During 1929, Malaya produced 69,366 tons; therefore this amount is its *basic* quota. But, since 1929 (according to Mr. C. V. Stephens, Chairman of Malayan Tin Dredging, Ltd.), owing to new plant and to more efficient methods of working, the internal assessment figure of production in Malaya has expanded by some 20,000 tons to approximately 90,000 tons.

Under the conditions of the scheme each country has to carry all expansion of production since 1929 within its basic quota. It has not proved a difficult matter outside of Malaya for signatory countries, with control of the industry in a few hands, to suspend all new production work and to confine their operations within the limits of their regulated tonnage under the quota plan. It has, however, been difficult in Malaya, where with well over 1,000 producers working under varying conditions, production has increased to a considerable extent. It therefore follows that the percentage of restriction imposed on the individual producer in Malaya has been heavier than in the other countries. This heavier restriction figure is simply the logical result of the expansion of internal production since 1929. It has been said in certain quarters that the acceptance of the 1929 figures of world production as a basis for the quota plan did not do justice to the position of Malaya as a progressive producer, also that a more favourable basis for Malaya would have resulted had the scheme been founded upon the 1930 figures of world production, with due allowance for the voluntary restriction practised by Malayan producers during that year. In this

140 INTERNATIONAL COMBINES IN MODERN INDUSTRY

opinion I concur, but it must be borne in mind that other important countries might have increased their production during 1930 had they deemed it policy to do so, and that the 1930 basis might not have proved acceptable to all the countries party to the plan. In such a comprehensive arrangement of regulation, covering as it does the five most important tin-producing countries of the world, many different and difficult factors have to be dealt with, and some little time must elapse before the full and beneficial working of the plan can make itself manifest.¹

In April-May, 1932, the International Tin Committee recommended further restriction, to be brought about by closing down all production in the participating countries from 1st June to 31st July, 1932; and, thereafter, restriction of output to 40 per cent of normal. This was done. The International Tin Committee's power to watch the world situation and recommend revisions of quotas, from time to time, provides the scheme with a certain amount of essential elasticity.

¹ *The Mining World*, 19th December, 1931.

CHAPTER VI

EFFECTS AND TENDENCIES

ALTHOUGH well-organized, comprehensive, and powerful international combines have much to offer to producers, they are almost universally regarded with suspicion by the members of the working classes, who look at them from two points of view—as wage-earners, and as ultimate consumers. Moreover, this attitude of suspicion, this fear of being exploited, this sense of helplessness before the sinister machinations of some industrial and commercial Colossus, is largely shared by the independent intermediate consumers, such as the smaller manufacturers. It is hoped, in this chapter, to place before the reader such facts and arguments as will enable him (a) to grapple more successfully with this admittedly knotty problem of the effects and tendencies of international combines; and (b) to form a provisional judgment upon the questions involved.

(Although international combines are counted among the relatively recent developments in economic organization, they are nevertheless still essentially capitalistic, and profit-making is still their *raison d'être*.) It follows, therefore, that they will pursue such policies as seem likely to pay them best, whether or not these happen to coincide with the best interests of consumers and wage-earners. (On behalf of international combines it can be urged that they reduce the numbers of middlemen and the burden of their charges; that cross-freights and unnecessary payments of import taxes are eliminated; that they abolish dumping; that they make possible many "internal economies" such as follow from the reduction of the numbers of redundant patterns and varieties, and the exchange of technical and commercial information; that sales propaganda costs less and is more effective, since all overlapping and purely

competitive advertising is eliminated; that limited supplies of raw materials can be fairly divided so that high costs of raw materials are avoided. International agreements for interchange of patents and research results, if duly honoured in the observance, make for greater productive efficiency, and the rapid improvement of the quality of goods available to consumers. Also it is true that simultaneous, unco-ordinated commencement of new agricultural and mining enterprises, the building of factories and furnaces by many independent producers in different countries, and the consequent glut due to over-rapid expansion of world productive capacity can be avoided where producers act in concert under international agreements. This plea is especially strong in view of the modern tendency for productive capacity to expand very rapidly in almost every major industry. Yet there may be no guarantee that the consumers and wage-earners will not be worse off after these economies and advantages have been realized by an international combine.

Foremost among the objects of international combines stands the displacement of competitive conditions by collective organization, and the exercise of greater influence or control over prices than can be exerted by any single firm or company, or any combine organized only upon a national scale. The method may be the regulation of output, with the object of raising prices or stabilizing them, or of raising or reducing them first and then stabilizing them at or about an agreed level; or it may take the form of an agreement to quote certain prices only for certain commodities or grades of commodities.¹ The price and output policy of an international combine may affect more than one commodity and more than one industry in various parts of the

¹ Where high-cost and low-cost producers are brought within the same combine, and the demand for the cartel's product is not highly inelastic, a conflict of interests occurs when price policy comes under discussion. High-cost producers, as a rule, advocate high prices even if reduced sales are the result, for expansion of output offers them no cost-economies, and, for them, greater profit margins must be sought through high prices. The low-cost producers, on the other

world, because the volume of output and sales of a main product will inevitably react upon the volume of output and the prices of by-products. The consumer naturally argues that combined and co-ordinated organization will yield economies, and, therefore, the combines' prices ought to be lower. But he has often been disappointed. For instance, the temptation to widen their profit-margins by exploiting a favourable market situation is off-times too great for producers, whether they are combined nationally or internationally. And if they are combined internationally their temptations are likely to be greater.

(The consumer's chief possible defences against the danger of exploitation by the combines are (a) the elasticity of his demand, and (b) the existence of a "fringe" of non-combined producers.) But the strength of these defences varies enormously from one industry and set of circumstances to another. Consumers of certain commodities may have the benefit of both—a highly elastic demand, and an extensive body of producers ready to offer goods in competition with the combine; others may have the protection of neither. Where demand is elastic and unit costs do not increase as output is enlarged, a combine, whether national or international, will doubtless pursue a low-price policy in order to gain the advantages of producing on a very large scale for an expanding market. But where an international combine which is also virtually a monopolist pursues a policy of "reservation" of the home markets of its members, coupled with co-operative exploitation of all other markets, the outlook is indeed black for consumers, for no consumer is able to buy at world (competitive) prices, and nobody can refer to such world prices as a test of the combine's prices, since the only world prices in existence are hand, will usually lean towards lower prices and larger output, since the latter means, for them, substantial reductions in unit-costs. In such a conflict the position of the high-cost producers is weak, since dissolution of the cartel and the resumption of competition may be the prelude to their annihilation. It may, in the last resort, be better for them to remain in the cartel and try to sell their quotas to low-cost producers.

those charged by the combine itself.¹ Where demand is inelastic, the temptation to snatch large monopoly gains is very great, particularly if the monopolists regard their position as impregnable, e.g. if they own all the essential patent rights.) Moreover, even where demand is elastic, after a time the monopolists' efficiency, unstimulated by competition, may decline,² and although they may not try to raise prices, they may not strive to reduce them. They may slacken their efforts to introduce their products, through price reductions, to further strata of potential purchasers; and they may even fail to keep their productive equipment strictly up to date.

(Again, in times of trade depression and mounting stocks of commodities, proposals or plans deliberately to balance production and consumption by international agreements are peculiarly plausible and attractive to producers and investors, and (as we have seen in Chapter III) not without a strong power of appeal to governments.) But caution prompts us to inquire what are the details and probable consequences of such proposals? Stripped down to essentials, an international agreement of this type is really an attempt to prevent or arrest the process of elimination of high-cost producers which would certainly take its course in the absence of agreement. If the scheme succeeds, will these high-cost producers have been saved at the expense of the low-cost producers or at the consumers' expense?

¹ "When a trust or cartel goes beyond national frontiers" (writes M. Oualid) "and takes the form of an international agreement whose schedule of prices and rates make allowance for the customs duties of each country as a means of concentrating national production; . . . when foreign producers undertake not to import in the areas reserved to each member of the cartel; . . . when a voluntary and contractual prohibition is thus added to the statutory barriers already in existence, then it may well be asked how the consumers as such are to be protected." (*Social Effects of International Industrial Agreements* [I.L.O., 1926; C.E.C.P. 94], page 16.)

² This, in the opinion of Messrs. Wallace and Edminster, seems to have been the case in the Chilean Nitrate and the German Potash industries. It is true, they say, that consumers had the advantage of price stability, but it was dearly bought. See Wallace and Edminster, *The International Control of Raw Materials* (1930), pages 44-51, 89-105.

- While it is true that the ruthless closing down of plants which will probably be required again within a very short time is uneconomical, it is also true that the ruthless closing down of obsolescent and redundant plants in the ordinary cut and thrust of competition is far more defensible economically than the purchase of such concerns by a combine, whether it be for the purpose of preserving them, or for the purpose of closing them down *after purchase* and concentrating productive capacity in the more efficient plants. To purchase an undertaking because you know it is on its last legs and will probably have to be scrapped, is the height of economic folly (except from the viewpoint of the shareholders in the doomed concern!), and leads at once to over-capitalization.

There is, of course, the possibility that, where natural conditions do not make it impossible, industrialists in countries not possessing industries of the kind controlled by the international combines, may take steps, with or without State encouragement and assistance, to set up such industries if they consider that the prices charged by the international combine are exorbitant, or if they consider it undesirable to be dependent upon supplies wholly or mainly controlled by an international combine. But the obstacles to the successful rise of these new industries may prove insuperable, even if State assistance is forthcoming. It is, indeed, a profound mistake to think that potential competitors are always on the *qui vive*, ready to spring upon the flanks of a combine immediately it begins to exploit the consumers. An international combine may, quite conceivably, control the principal supplies of essential raw materials; or by the acquisition of patents and by subsequent research work it may have gained a considerable technical lead against which would-be competitors will generally find it extremely difficult, if not impossible, to contend. Again, the economic and technical conditions of the industry may so imperatively demand production on a large scale that none but large undertakings, equipped and organized at

least as efficiently as the combine, can hope to make headway against it. (Thus it becomes clear that powerful monopolistic combines will be seriously threatened by competition only (a) if the chances of successful competition and high profits are good, and not likely to be merely temporary; and (b) if sufficient capital (plant, equipment, cash, etc.) can be brought together by the potential competitors in sufficiently large, well-managed units; and (c) if the combine is not already in exclusive possession of some essential or essentials of the industry.)

(The "competition of substitutes" has also to be reckoned with; and especially as it is, on the whole, less likely to be hampered or suppressed by a combine than the more direct type of competition discussed above.) In effect, of course, the offer of reasonably efficient substitutes at reasonable prices increases the elasticity of consumers' demand for the combine's product. The lower the price of the substitute, the greater is the likelihood that the combine will be forced to reduce its prices until the difference in price between its product and the substitute will be no more than the value of the difference between their relative efficiencies. International monopolistic combines of raw material producers are always dangerous to manufacturers, who are the intermediate consumers, and to the ultimate or final consumers of the finished products. But when a raw material can be produced in two or more distinct ways there is much less likelihood that all the processes will be successfully brought under the control of an international combine. Thus, as we have seen (Chapter III), nitrogeneous fertilizers can be obtained on a commercial scale from three distinct sources; from deposits of natural nitrate, from manufactured synthetic nitrates, and from the by-products of the steel industry. A somewhat similar situation, it seems, will shortly exist in the rubber industry. Rubber supplies at present comprise, on the one hand, natural rubber (plantation grown and wild) and, on the other, supplies of "re-claimed" rubber. A third source—synthetic rubber—is now emerging. Recent

news from Russia reports that "The main departments of the Vorenezh Synthetic Rubber Factory No. 2 started operation at the end of September, and the first consignment of rubber consisting of more than one ton has already been produced there. This is the *second* synthetic rubber factory put in operation this year. The first, which was opened at the end of July in Yaroslavl, is now working successfully. According to reports the rubber soles produced there have proved entirely satisfactory. Both factories, which are the only ones of their kind in the world, are equipped with up-to-date machinery. The Yaroslavl factory forms part of a rubber-asbestos combine, as in addition to synthetic rubber, asbestos products are also manufactured. A third synthetic rubber factory will shortly be opened in Yefremovsk, and the construction of the Kazan synthetic rubber works, which is to be completed and start operations in March of next year, is also proceeding. Work is to be started shortly on two other factories in Kremenchug and Krasnodar. It is anticipated that when these factories are completed the requirements of the Soviet automobile industry will be fully satisfied. These achievements are particularly noteworthy seeing that Professor Lebedev succeeded in obtaining a few grams of synthetic rubber for the first time in 1930, and the first experimental synthetic rubber factory was only established in Leningrad in 1931."¹

In view of the fact that by no means all international combines are in monopolistic positions, and because it is no easy task to gain control over a proportion of the *world* output of any commodity sufficiently large to carry with it monopolistic powers, it seems that, on the whole, consumers are, in fact, protected from exploitation more by the refusal of competition to disappear entirely, than by the recrudescence of competition if and when an international monopolistic combine begins to abuse its position and the consumers of its products. St. George is more likely to hold the Dragon in check if he can manage to remain in his saddle.

¹ *Moscow Narodny Bank Monthly Review*, October, 1932, page 5.

If he once allows the Dragon to unhorse him, he may never be able to remount. Where a very large producer or group of producers remains outside an international combine (as have many American groups in recent years) the combine cannot raise prices much above the competitive level without inviting competition from the independent producers. (A State which by legislation keeps its nationals out of international combines may thus, indirectly, protect the interests of consumers, not only within its own borders, but in other countries as well. Obviously, the larger the productive capacity of the non-combine producers taken as a whole, the more powerful will be the check upon the international combine.) But even if the fringe of independent producers is relatively small, their existence may exert a restraining influence upon the combine, if, "at a pinch," they are able to increase their output considerably. Old "marginal" mines, for instance, can often be made to yield much more than their normal output, *at a price.* The same restraining influence may be exerted if the independent producers can and will accumulate and hold stocks until they regard the price situation as favourable for their release. But this involves financial resources of no mean order; and some risk (perhaps not very great, unless a severe trade depression sets in suddenly) of losses in case prices turn down contrary to expectations.

The International Zinc Cartel, which was dissolved in 1929, but re-established in 1931, controls over 85 per cent of *European* production; but it has always to bear in mind the United States producers, and their capacity to compete from behind their high tariff wall. Again, the strongly monopolistic European Mercury Consortium managed to maintain prices at a high level until June, 1931; i.e. for nearly two years in face of a deepening trade depression of extraordinary scope and severity. But as a result of this policy the proportion of the cartel's output to total world output fell from 88 per cent in 1927 to 59 per cent in 1931, while, at the same time, the cartel's stocks increased.

Independent mines had increased their output, while consumers who were able to do so turned to substitutes. In the end, prices collapsed, from £22 7s. 6d. per "flask" (or "pot" = $34\frac{1}{2}$ kgm.) in May, 1931, to £9 10s. in August, 1932.¹

Yet another and even more striking illustration of many of the factors and principles set forth above is to be found in the copper industry. Ever since the rise of the electrical industry, copper has attracted the attentions of would-be monopolists, and in the nineteenth century various attempts were made to corner supplies. In the 1890's, for example, a great Paris copper syndicate "seemed for the time to control substantially the entire output of the world," but ended in a "most humiliating failure."² After the War, the formation of an international combine was proposed, chiefly by powerful American interests who thought that copper prices should be under American control seeing that the United States had become by far the largest producer and consumer of copper. They seem to have believed that the demand for copper was inelastic, so that higher prices could easily be obtained by a strong combine. Moreover, in the event of the decline of European output by reason of exhaustion of ore deposits, a combine which controlled the bulk of American supplies would undoubtedly be king of the copper castle, unless by that time African supplies were very large and not controlled by the combine. In October, 1926, thirty-two leading copper-producing undertakings—eighteen of which were American—became members of an international copper combine. The constituent companies belonged to four groups (a) the Anaconda Copper Mining Co., which controls the Rockefeller-Ryan group of companies, (b) the Kennecott Copper Corporation and the American Smelting and Refining Co.; i.e. the Morgan-Guggenheim group, which is closely allied to (c) the Phelps-Dodge-Nicholls group. There were also (d) the Chile Copper

¹ *Economist*, 3rd September, 1932, page 421.

² Jenks, *Trust Problem* (1907 Edn.), page 49.

Co. and the Green Cananea Copper Co., which are controlled by Americans, although strictly they are not American companies. Among the completely non-American undertakings in the combine were the Rio Tinto Company and the Union Minière de Haut Katanga. The combine's chief objects were stated to be the regulation of trade in refined copper (chiefly electrolytic copper); the elimination of middlemen and their speculative activities, and the stabilization of copper prices. It aimed at the regulation of trade, but not directly at restriction of the output of its members. Through its headquarters in New York or its European central office in Brussels, it centralized sales, allocating orders to each member-undertaking in proportion to the quota assigned to it under the international agreement. But when consumption declined it was open to each member to decide whether to decrease production or accumulate stocks. This is important, for it was just "this freedom" which, a little later, gave rise to the combine's major troubles.

During 1927 and 1928 its conduct could not be seriously arraigned from the consumer's point of view. During 1928 consumption expanded in a most gratifying manner, and despite some increase from Katanga and South America, the United States production could be expanded by 100,000 tons, while stocks were worked down to a very low level . . . and by 1st January, 1929, price had been raised to over 16 cents (per lb.). This price level must be considered as highly remunerative to any reasonably well-conditioned concern, but it was not so high as to check buying, or to excite serious accusations of monopolistic extortion. Consumption, in fact, continued to expand rapidly and price to rise slowly, while mine output was freely increased, though naturally it took time to increase refined supplies.¹

In the middle of March, 1929, consumers of copper, knowing that supplies were very largely controlled by an international combine, and that stocks had fallen very low indeed were seized with grave misgivings about future supplies

¹ Royal Economic Society *Memorandum No. 24* (1930), page 10.

and began to buy in a rather panic-stricken manner. This movement put the combine to the test, for if stability of prices is honestly the object of any combine, it must not stabilize only when the price-trend is downwards. But the temptation to take full advantage of a rising market is always tremendously strong. In this instance it was too strong, and "Copper Exporters Incorporated¹ substantially increased its quotation."² (The considered opinion of three English economists (Messrs. Keynes, Rowe, and Schwartz) was that "the combine certainly mismanaged the affair, if stabilization, and not monopoly profits, was their true objective.") Even after the New York stock market crash in September, 1929, "there was still no reduction in the combine's price, though it was now clear that the prospects for consumption had completely changed . . . It was, in fact, clear that the combine had become a mere grasping monopoly, and that if stabilization in the accepted sense of the term had ever been its true objective, it was so no longer."³)

From May, 1929 to April, 1930, the combine price was fixed at 18 cents per lb., a level which stimulated the use of substitutes for copper and at the same time encouraged non-combine producers (e.g. in Northern Rhodesia, the Congo, and Canada) to make strenuous efforts to increase their outputs. "Many mines which had been idle for years and were not parties to the cartel recommenced operations, with the consequence that production was increased out of all reason.⁴ Meantime the boom had dissolved rapidly into depression; output was expanding but demand was shrinking. Consumers began to buy "from hand to mouth in the belief that increasing stocks and reduced consumption

¹ Copper Exporters Incorporated was formed under the provisions of the United States Webb-Pomerene Act of 1919, which permits American companies or associations formed for export purposes to combine with producers in other countries.

² Royal Economic Society *Memorandum No. 17* (1929), page 8.

³ Royal Economic Society, *Memorandum No. 24*, page 10.

⁴ League of Nations, *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 24.

especially in Europe, (would) compel producers to bring down their price." Consumers argued that since production costs are usually below 10 cents per pound, producers were not justified in maintaining an 18 cent price level.¹ After April, 1930, the combine abandoned its attempt to "peg" copper prices,² and Copper Exporters Inc. allowed members to dispose of copper to foreign buyers below the "official" price. Prices fell to 10 cents per pound in December, 1930; to 7½ cents a year later, and by the end of 1932 the price had reached the neighbourhood of 5 cents per pound. And this fall took place in spite of the fact that for the calendar year 1932 an international copper agreement was in existence under which the producers of approximately 90 per cent of the world output agreed to the restriction of output to 26 per cent of capacity, and to the allotment of quotas.³

A further measure of restriction of output was put into force in March, 1932; and in the following November it was announced in the Press that "The Copper Agreements under which the producers are now restricting their outputs to about 20 per cent of capacity come to an end at 31st December next. Sir Auckland Geddes, the chairman of Rio Tinto Company and Rhokana Corporation, has left for the United States to attend a new conference of copper producers to be held shortly in New York. The position of copper is still unsatisfactory in that stocks remain unduly large, and until trade revives the prospect of any marked improvement in consumption is not promising. Meanwhile the sterling price at £42 16s. 3d. per ton allows a margin of profit to the low-cost sterling producers, but the United

¹ *Manchester Guardian Commercial*, 16th January, 1930.

² League of Nations Report, *The Course and Phases of the World Economic Depression* (1931), page 138.

³ It was provided that the agreement could be terminated (a) if at any time stocks failed to equal the total deliveries of the four preceding months, (b) if, for two weeks, the United States domestic price stood at 12 cents per lb., (c) if stocks at the end of one year had not been reduced to a figure no greater than the previous four months' deliveries. (*Economist*, 2nd January, 1932, page 38.)

States export price of 5.17½ cents a pound is unpleasantly close to the lowest price ever."¹

(In face of these illustrations, what can be said of the familiar plea that international combines impart stability to prices?)

(In the first place it is clear enough that even a monopolistic international combine cannot stabilize prices if it pursues an unwise, unscientific policy, out of touch with the realities of the economic situation as a whole. To confuse fixity or rigidity with stability is a fundamental error.)

It is also a mistake to think that stabilization of prices means nothing more than preventing a fall. A true stabilization policy must aim at "ironing out" the peaks, as well as raising the valleys, of price fluctuations. These remarks apply *a fortiori* to international combines which do not control a high proportion of world output. Moreover, price control not buttressed by output control tends to encourage increases in the volume and velocity of production among the members of the combine and among non-combine producers (if any) if the price is fixed at anything like a generous level from the producers' viewpoint.) For a time the combine may be able to hold prices to that level; but stocks will accumulate and, if new outlets cannot speedily be found, or if current world production cannot be curtailed, a glut accompanied by a collapse becomes highly probable, if not inevitable, sooner or later. Even an international combine cannot finance the holding of large and increasing stocks for an indefinite period.

(Given a wise price and output policy, however, an international combine may well succeed in imparting greater stability to prices than would otherwise exist, so long as the combine itself is stable and likely to last.) But, on the other hand, when a combine is seen or believed to be in danger of dissolution; or when negotiations for the formation of a combine, or its renewal, are afoot, increased instability of

¹ *News-Chronicle*, 7th November, 1932; cf. *Economist*, 26th November, 1932.

prices is generally the result. For example, it was announced in the Press during 1932 that the prospect of a settlement, which would prevent the break-up of the Chadbourne plan for the sugar industry, coupled with the probability of only a moderate European crop, had caused a sharp rise of sugar prices. Again, with regard to copper, *The Economist* of 17th December, 1932 (page 1173) announced that "the failure of the conference in New York resulted in a sharp downward movement in quotations on Monday. As even at the lower quotations buyers failed to respond, prices failed to improve on Tuesday and Wednesday." On 4th February 1933, the *Manchester Guardian Commercial* remarked upon the collapse of spelter prices in the following terms—

It is nearly six months since the price of spelter was as low as at the end of last week, when news that the Zinc Cartel had broken up brought a rush of selling orders and a general decline in confidence. At the time of writing efforts are being made to patch up some agreement so as to avoid any further collapse in values, but whether these will be successful is a little doubtful.¹

The question of dumping is part of, or at least closely allied to, this question of price stability in relation to international combines. (As the sphere of operations of an international combine widens geographically, dumping disappears, and the wide differences frequently seen between prices charged in the home market and the prices of goods dumped abroad, no longer exist to annoy buyers in the home market. Moreover, the disappearance of intermittent dumping removes one of the causes of sudden and quite unpredictable price fluctuations.) On the other hand, buyers of the dumped goods lose the advantage of being able to secure these at very low prices, or other goods much reduced in price in competition with the dumped commodities. But if the dumping ceases suddenly, as it often does, buyers who have relied upon it may well find themselves faced with

¹ More recently, talk of the possibility of regulating exports of rubber from producing countries has repeatedly disturbed the market.

the prospect of much higher prices, if not, indeed, with a shortage of supplies.

Let us now turn from the general problem of international combines and the consumers, to the more particular problem of the combines and the wage-earners, which to some extent overlaps into the general problem. Leaving aside the question of working conditions in the productive units (mines, factories, workshops, warehouses, etc.), owned by international combines, it appears that the wage-earners' gains or losses due to the rise and growth of the combines will mainly depend upon (a) the effects produced upon earnings via the volume and regularity of employment and the rates of wages; and (b) how far combine prices are above or below competitive level, and the extent to which wage-earners buy goods produced by international combines.¹

(The workers employed by a very powerful and closely knit international combine might suffer (1) a progressive depression of their wages and standards of living; (2) unemployment due to rationalization energetically carried out throughout the various establishments owned by the international combine; (3) the destruction or crippling of their trade unions.) Experience does not lead us to think that the first danger is *practically* very great. Frequently the brunt of a price-war falls upon the workpeople, because independent, competing employers, forced to reduce prices, generally seek to reduce their costs by reducing wages. They may or may not begin by cutting costs in other directions, but almost invariably wage-reductions will occupy a prominent place in the list of "economies" to be made. International combines tend to eliminate such competitive price cutting.

Again, the more completely foreign competition has been

¹ In connection with combines, both national and international, operating in Germany, "according to inquiries conducted by the German Federal Statistical Office for the years 1927 and 1928, a working-class family with an annual budget of about 3,250 marks spends a proportion of approximately 7 per cent of it on goods subject to price-fixing agreements." (I.L.O. Study, *The Social Aspects of Rationalization* (1931), page 185.)

removed by international combination, the less effectively can the wages demands of the workpeople be met by the familiar argument that foreign competition, actual or potential, makes it impossible to pay more, or imperative to pay less, for fear of undercutting. On the whole, it seems that great combines usually pursue a somewhat more enlightened and generous policy in dealing with the remuneration of labour than the majority of smaller businesses. It may be that the workpeople pay for this to the extent to which they are consumers of the combines' products; but this disadvantage is hardly likely to cancel out the whole of the advantage, unless a very substantial part of *all* industrial production is controlled by international combines in one form or another. Such a situation may exist twenty or thirty years hence; it does not exist to-day.

√ But what of the volume and regularity of employment? (Unemployment will certainly result from restriction of output by an international combine; and it *may* follow upon improvements in organization and technique. The closing down of certain plants, the adoption of labour-saving appliances in others, the reduction of competitive selling and overlapping and so forth—all of which may be true industrial economy—will displace many workers and leave them high and dry.¹) Improvements in organization and technique may, of course, have this effect where international

¹ Cf. I.L.O. Study; *The Social Aspects of Rationalization*, pages 255-7, 263-5. The fundamental cause of the increasing acuteness and stubbornness of unemployment is to be found in the fact that world productive capacity has expanded enormously, especially during the present century, while no *corresponding improvement* has been made in the system of wealth-distribution (or division of income). The whole economic system functions imperfectly, lop-sidedly, because the out-of-date distributive side continues to make the incomes of working-class men and women depend, not upon the great abundance and variety of products now made available by modern methods of production, but upon the success with which those people manage to supply a total demand for labour which we know to be shrinking daily. Under any really rational economic system the triumphs of science, technology, and organization would be made the foundations of plenty, ease and leisure; but with us they spell unemployment, loss of income and purchasing power, want and misery for many millions of people.

combines do not exist; but where they do, the changes are likely to be more rapid and extensive. On the other hand, if an international combine succeeds in replacing anarchical conditions by ordered production, and the reduction or elimination of economic gluts and crises, *the workers who remain in its employ* will suffer much less from under-employment and over-employment due to irregularities of production and marketing, than they did before the combine came upon the scene.

We now come to the third danger—the destruction or crippling of the trade unions. The solid, united front of the international combine, coupled with its more enlightened treatment of its employees, may undermine, rather than smash, the trade unions. Many workers may feel that it would be futile for their unions to try conclusions with such an all-powerful organization; and if, in addition, they think that the likelihood of serious conflict is growing less, they may begin to wonder whether, after all, they need pay trade union contributions? This line of argument is plausible but treacherous. It may be argued with as much, if not greater, force, that the more the owners of capital become linked internationally, the more firmly the workpeople of different nations should join hands and organize internationally. Can anybody feel certain that the labour policy of an international combine would be the same *after* the trade unions had declined to the point of dissolution, as it was when they were solid and strong?

In fact, during the past forty years, the trade unions have gradually built up an international organization. Like the international combines, its progress has been facilitated by the existence of national organizations; that is, by central federations uniting the majority of the trade unions in each country. So long as the trade unions of the various countries were not united in one central federation, international association could only take the form of organizations linking up unions of workers in the same trade, and in fact these were the first international trade union bodies

to come into existence."¹ (These organizations, known as international trade secretariats, are still a strong and important part of the two-sided structure of international trade unionism. Primarily, their aim is to link together all workers in a given trade, irrespective of nationality. Thus there is the International Federation of Bookbinders and Kindred Trades; the International Clothing Workers' Federation; the International Association of Textile Workers; the International Transport-workers' Federation; the Miners' International Federation, and others,² having an aggregate membership of about 13 millions.) The other side of the structure is the International Federation of Trade Unions, to which 29 national central federations are affiliated. The most recent adherent to the I.F.T.U. is the trade union movement of Argentina, which, having at last succeeded in uniting its unions nationally, has now affiliated to the international body. The American Federation of Labour, on the other hand, still declines to join the I.F.T.U.; while the trade unionists of certain other countries (e.g. Brazil, Australia, and Japan) are absent from the list because it has not yet been possible to secure *national* federation. Europe is the birthplace and principal domicile of international trade unionism, and trade unionists in countries on the other side of the world do not always see that there can be for them any advantage in affiliating to the I.F.T.U. But distance has not been the only obstacle to the rise and progress of international trade unionism. Differences of language, outlook, trade union organization, machinery, and method have all presented formidable but not insuperable obstacles. On the other hand, the main motive force pressing the movement onwards has been the realization of the magnitude of the tasks facing organized labour in the international sphere. These include the attempt to obtain a shorter working day and uniform pay and conditions for all workers doing similar work, irrespective of

¹ Sassenbach, *Twenty-five Years of International Trade Unionism* (1926), page 3. ² See Appendix VI for a complete list.

nationality¹; to render international assistance in industrial disputes between workpeople and employers, "not merely by collecting money, but also by preventing strike-breaking,² refusing to manufacture goods intended for the country affected, and preventing the transport of such goods"³; and to offer opposition to militarism. As to international combines, the attitude and policy of the I.F.T.U., set forth in a recent pamphlet, is based upon the view that the tendency towards the elimination of free competition within the capitalist system, the substitution of cartels, trusts, and similar organizations, and the creation of complete or partial industrial monopolies, all reinforce the economic power of capitalist groups and, if allowed to go unchecked, constitute a grave menace to workers and consumers generally.) At the same time, "Labour cannot join in general condemnation of economic developments which tend to eliminate competition, but must rather aim at the public supervision and regulation of monopolistic organizations," including international supervision of international combines.⁴

As long ago as 1907 an international conference of trade unionists passed the following resolution—

The fifth international conference is of opinion that for general reasons of solidarity as well as for reasons of prudence in view of the rapid growth of the employers' combinations, the separate trade unions should affiliate to their respective federations in their own country and that, for the same reasons, those federations should affiliate with their respective national trade union centre.

When this duty is accomplished and only then, this Conference advises the separate federations of every country to federate with their separate federations of all other countries, thereby securing much greater support of important struggles than could be given by their national centre alone. At the same time this will also help to further international brotherhood and solidarity among the workers.

¹ The growth of international combines might help, rather than hinder, the achievement of this particular object.

² By importing workers from other countries.

³ Sassenbach, *op. cit.*, page 121.

⁴ I.F.T.U. pamphlet, *Fighting World Economic Crisis and Unemployment* (1931), pages 18-19.

160 INTERNATIONAL COMBINES IN MODERN INDUSTRY

Perhaps it is neither untrue nor unfair to say that the international trade union movement has actually come less close to the achievement of its principal objects than have the international combines, taken as a whole, to the attainment of theirs. In particular, it has always been difficult, though not impossible, to secure international assistance of the kind outlined above when any national group of trade unionists has been engaged in an industrial conflict. Nevertheless, the seeds of the international idea are planted in both movements. Capital has long since laughed at national frontiers; and just as the capitalists and financiers of one nation are coming to feel a greater affinity with those of another nation than with the workpeople of their own, so the workpeople of one country may come to possess a greater sense of harmony and community of interest with the workpeople of other countries than with the employing classes of their own.

CHAPTER VII

FUTURE PROSPECTS

THE problem of the future of international combines is largely the problem of retaining the advantages, while we reduce or eliminate the disadvantages. International combines cannot be condemned out of hand: neither can they be hailed and lauded in a general way as an entirely desirable development worthy of every encouragement. In 1927 the Trade Barriers Committee of the International Chamber of Commerce stated that the development of "international industrial ententes" was strongly to be recommended, and added the opinion that such ententes should respect (a) the right of all nations to have the free use of raw materials and (b) the interests of labour. But they did not seem to know, nor did they inquire, whether this respect was, or was likely to be, paid to the interests mentioned.¹ Therefore, the Committee's strong recommendation seems somewhat precipitate. At best international combines may secure a more methodical organization of production, a rapid improvement of technique, and a reduction of costs; they may check wasteful competition, and the wastes which result from wide and frequent fluctuations in industrial activity. At best they may assure steadier and larger profits to producers; steadier and higher wages to workpeople, and steadier and lower prices to consumers. These are their potentialities for good. At worst they may seize and abuse a monopolistic position, arrest technical progress, and exploit consumers. They may drive extremely hard bargains with workpeople and customers, and grow fat upon profits inflated by a large element of monopoly "rent" or surplus. (The World Economic Conference (1927) having

¹ Report to the International Economic Conference, Geneva, 1927 (C.E.I. 5), page 30.

reached the conclusion that "international industrial agreements must be considered as good or bad according to the spirit which rules the constitution and operation of the agreements, and in particular according to the measures in which those directing them are actuated by a sense of the general interest," recommended that the League of Nations, acting in collaboration with various Governments, should closely follow these developments and their effects, and by publishing information from time to time, help to secure the support of public opinion against the growth of abuses and in favour of international industrial agreements conducive to general welfare. But it may well be doubted whether the sense of the general interest to which the Conference referred can be kept alive and keen except by the active presence, within the machinery of every international combine, of representatives of governments, consumers, and workpeople.

If any serious attempt is to be made to control international combines, such control may be exercised (a) from within the combines; or (b) from outside; or (c) through some blend of internal and external control. In the immediate and near future there seems to be little possibility of introducing (a) or (c) on an international scale; while as to (b), in such attempts as they have made so far to exercise control over international combines, the various States of the world—with one or two exceptions—have relied upon legal provisions which have come down from periods before international combines had made their appearance.) But even if more modern laws and special administrative courts be introduced, there still remains the possibility that the offending combine may not "reside" within the jurisdiction of the State offended. Action taken against its local sales organization and its goods (e.g. on the ground that the prices charged are exorbitant) may be countered by the combine cutting off all supplies of that type of goods. And even where the international combine, or a certain portion of it, is within the jurisdiction of an offended State, such

jurisdiction can extend only to acts committed within its territories. Private international law is as yet insufficiently developed to offer any way out of these difficulties, and there is no international authority to deal with the problem.

A sufficient measure of agreement between a sufficient number of States would be difficult to achieve, and might not materialize for many years. But even when the initial obstacle had been overcome, it would still be necessary, as M. Oualid points out, to lay down definitely the criteria by which an international industrial agreement is to be distinguished from a national industrial agreement; to enforce complete publicity concerning all international agreements or combines and their ramifications; to determine what measures and machinery of surveillance and supervision should be adopted; and to determine what sanctions should be applied. The national machinery on this plan in each State might with great advantage be linked to a central institution under the League of Nations, to which complaints and appeals might be addressed, and from which information and inquiries might be sent to the appropriate national public authorities. A first, and very important, step might very well be the development of a "careful, adequate, and courageous" system of publicity by a central international body, such as the League of Nations.¹ This body could begin to act even in the absence of agreement to co-operate among a substantial number of States, but in that case it would find it difficult to obtain sufficient information "by request"; and impossible to force combines to give it, since the international body would have no jurisdiction or powers within the borders of national states. Its sole sanction would be the publication of the names of such international combines as had refused to give specified information.² Some States might pass laws enabling them to extract information which could then be supplied to the international body; but the method would be defective

¹ Inquiries into wages, hours, and working conditions might be carried out by the I.L.O. ² Salter, *Recovery* (1932), page 205.

unless a good many states agreed to pass and enforce similar legislation.

(Control or no control, international combines are likely to increase and spread. It is, indeed, an obvious feature of the existing economic system that science and organization and power-machinery in the service of production, instead of being instrumental in bringing about a rapid rise in standards of life throughout the civilized world, are causing such a widespread fear of over-production and ruinous competition as to drive producers into international combines with the object of restricting production in other words, of holding back the full benefit which the phenomenal productive progress of recent times ought to be conferring upon mankind.) Elsewhere I have defined *consuming power* as all actual and potential human powers to consume goods and services; and *purchasing power* as the effective demand which people are in fact able to exercise as buyers in the market.¹ In the last analysis the solution of the world's difficulties must depend upon a widespread distribution of ample purchasing power among the masses of ordinary people, whose continuous demand is vital to the steady, smooth working of the economic machine.

The nearer the purchasing power of the populations of the world can be brought towards their consuming power, the more trade and prosperity there will be for all. Since approximately 67 per cent of all the people in the world are either independent agriculturists or wage-earners in agriculture, in one or other of its many branches, the pursuit of such a policy involves the international regulation of the production of certain crops and commodities of world-wide importance, the demand for which is known to be inelastic, in such a way as to prevent gluts and the consequent contraction of the purchasing powers of agricultural populations. For it is just this which is one of the primary causes of unemployment and reduced spending

¹ Plummer, *The World in Agony: An Economic Diagnosis* (1932), pages 38, 71-2.

and consumption among the industrial populations of the world. International combines would have much to gain from this solution; but, more than this, by pursuing enlightened, public-spirited policies, they would have a great deal to contribute to it. In these circumstances it is not inconceivable that eventually the League of Nations might even assist in the formation of international combines where the evidence pointed to this course as the one most likely to benefit all parties—as might very well be the case in the coal industry to-day.

Modern industrial and commercial organization, so far as it has struggled free from national limits, and become international in outlook and scope, has already gone slightly ahead of political organization, and is more in tune with the spirit of to-morrow. Whether the international combination movement will ultimately be found worthy of praise or condemnation will depend upon whether the majority of the combines boldly embrace the advanced concepts of this fresh phase of our civilization, this New Age; or whether, blind to their own best interests and the just claims of consumers and wage-earners, they hark back to the ideas and methods of a more primitive stage in economic evolution. (In his study of the dynamics of industrial combination, Professor Marquand raises the question whether "concerns," having authority and responsibility so widely spread, may not act as the agents of a higher integration, not of industry in one particular line from raw material to finished product, but of industry as a whole. May they not devise administrative schemes for the world-wide fitting into one another of the operations of whole businesses . . . ?"¹) It may prove possible to associate government representatives, and consumers' and workers' representatives, with the control and administration of international combines; to reduce greatly the fluctuations in the volume of employment, and to prevent wage

¹ H. A. Marquand, *Dynamics of Industrial Combination* (1931) page 135.

166 INTERNATIONAL COMBINES IN MODERN INDUSTRY

reductions, which, by reducing the purchasing power of the many, help to cause or aggravate trade depressions.

(Further, a marked increase in the numbers of closely-knit international *concerns* may help to reinforce the influences making for world peace.) For although cartels and other loosely-knit international organizations can, if the devil drives, readily dissolve into their component parts on the outbreak of a great war, the majority of the more closely-knit international organizations find that war causes a disastrous disorganization entirely inimical to their interests. This brief reference to the probable influence of the growth of international combines upon international peace is made last, not because it is least, but because it brings us to the borders of our subject.

APPENDIX I

INTERNATIONAL STEEL AGREEMENT

30th September, 1926

ARTICLE I

EACH country shall pay 1 dollar monthly into a common fund for each tone of crude steel actually produced.

By the term "crude steel" is meant all the crude steel manufactured in the several countries by the Thomas, Bessemer, Siemens or Martin processes, by the electric crucible, or any other process. This sum shall be credited to the account of the country in question. The first time, it shall be paid two months after the present Agreement comes into effect in the form of drafts at three months; for subsequent months it shall be paid on the 25th of the month following in the form of a draft at three months.

Should the Government of one of the countries participating in the Agreement object to the transfer of all or any of the sums payable under the present Article, the actual payment might be replaced—

1. By the guarantee of a bank approved by the Managing Committee; or

2. By a cash payment into a blocked account at a bank situated in the country in question and approved by the Managing Committee.

ARTICLE 2

The administration of the common fund shall be provided for by a Managing Committee of four members appointed respectively by each of the countries Parties to the Agreement, i.e. Germany, Belgium, France, and Luxemburg. Each of these four countries shall also appoint two deputy members to replace the permanent member in the event of his being absent or unable to attend.

The chairmanship of the Managing Committee shall be held for one year by each of the countries concerned in rotation.

In a general way, and in addition to the special provisions laid down in the Articles following, the Managing Committee shall make the necessary arrangements for carrying out the

168 INTERNATIONAL COMBINES IN MODERN INDUSTRY

execution of the clauses of the present contract and for exercising the supervision which it entails. It shall also have full powers for the administration, handling, and custody of the moneys paid into the common fund or held by it. The number of votes of the Managing Committee shall be allotted in accordance with the quotas.

ARTICLE 3

The Managing Committee shall fix the quota of each country for each quarter in accordance with the provisions of Article 4 not later than a fortnight before the beginning of that quarter, by applying coefficients—fixed once for all for each country—to the total tonnage representing the probable demand of the market.

ARTICLE 4

The coefficients allotted to the different countries can only be modified by unanimous consent.

The total quarterly tonnage, and accordingly the quotas of each country, shall be fixed by a two-thirds majority of the votes, each country commanding the number of votes proportional to its participation, with the proviso that unanimity of all the countries but one shall constitute a sufficient majority even if this latter country represents more than a quarter of the votes.

The Saar shall never vote individually; its votes shall be divided between France and Germany in their ratios of one-third and two-thirds.

ARTICLE 5

Every month each country's actual net production of crude steel during that month shall be ascertained, in relation to the figures indicated by the quotas.

ARTICLE 6

If the quarterly production of a country exceeds the quota which was fixed for it, that country shall pay in respect of each ton in excess a fine of 4 dollars, which shall accrue to the common fund, in addition to the payment provided for in Article 1.

ARTICLE 7

If the production of any country has been below the quota allotted to it, that country shall receive in compensation from the common fund the sum of 2 dollars per ton short.

The tonnage entitling to compensation may not, however,

exceed 10 per cent of the quota fixed for the quarter in question. If a shortage of 10 per cent or more below the quota fixed continues during several successive quarters, the tonnage entitling to compensation shall be reduced by two per cent for each successive quarter, so that in the second quarter of such shortage of 10 per cent or more the compensation paid shall not exceed 8 per cent, and in the third quarter it shall not exceed 6 per cent, and so on.

In the event of *force majeure*, the General Meeting of the several groups shall decide by a majority vote the amount of the compensation payable.

ARTICLE 8

The accounts shall be balanced quarterly, the excess contributions and sums due in compensation mentioned in Articles 6 and 7 being payable immediately after the balance of accounts.

At the close of each half-year, the common fund shall be liquidated, after deduction of the general expenses; the remaining balance shall be distributed between the several countries—

1. In proportion to the actual production during the accounting period, up to the limit of the payments made under Article 1;

2. And, if any balance remains over from fines, in proportion to the participation figures of the accounting period concerned.

The first liquidation of the common fund shall take place on 1st April, 1927.

ARTICLE 9

The present Agreement shall terminate on 1st April, 1931. Up to 1st May, 1929, however, any country shall be entitled to give notice of withdrawal from the Agreement on 31st October, 1929, in which case the other countries shall be released from all obligations on the same date.

ARTICLE 10

The present Agreement was concluded on the assumption that throughout its duration the tariff rates applicable to iron and steel products imported into Germany would not be increased. If Germany should proceed to increase the said rates, the present Agreement may be denounced at any time by each

170 INTERNATIONAL COMBINES IN MODERN INDUSTRY

of the Contracting Parties at three months' notice, and each of the Parties shall then recover full liberty of action in relation to its Government as regards tariffs.

The present Agreement, however, may be denounced at any time on and after 1st April, 1927, at three months' notice, if the Government of one of the Contracting Parties objects to it on the ground that, in the absence of a commercial treaty, one of the other countries is applying unfavourable treatment to the products as a whole.

If Germany or France denounces the present Treaty for one of the two reasons mentioned above, they shall also have the right to denounce it as against the other Contracting Parties, who, in turn, shall be entitled to denounce it *inter se*.

ARTICLE 11

Exchange in respect of the quotas of the countries is not allowed in the case of any company or *Konzern* unless that company or *Konzern* possesses and operates undertakings in another country. Ownership of at least 40 per cent of the share capital of these undertakings shall constitute possession.

Previous notice of such transfers must be given to the Managing Committee. The transfer cannot take effect until the beginning of the next accounting period, and must apply at least for that period.

ARTICLE 12

If on 1st April, 1927, the total consumption has not increased to such an extent that the Luxemburg group shall have obtained a quota of tonnage representing a minimum annual production of 2,360,000 tons, and on 1st April, 1929, tonnage representing a minimum annual production of 2,480,000 tons, that group shall be entitled to withdraw from the present Agreement at three months' notice. It shall then be open to the other countries also to withdraw from the present Agreement.

ARTICLE 13

Any disputes arising between the Parties as to the interpretation and carrying out of the present Agreement shall be compulsorily settled by arbitration.

ARTICLE 14

It shall be open to steel manufacturers in the other European countries to join in the present Agreement.

Admission shall be sanctioned by the General Meeting—

1. By a majority vote if participation is determined on the basis of the production of the first quarter of 1926;
2. Unanimously, if admission is granted on some other basis.

If the participation of the participating countries in the total production of the European countries for any one half-year is 5 per cent less than the same participation during the first quarter of 1926, the rescission of the present Agreement may be demanded by any one of the groups Parties to the Agreement, to take effect after three months' notice, which must be given not later than three months after the expiration of the half-year under consideration.

The Agreement may also be rescinded by any one of the countries Parties to the Agreement at three months' notice in the event of the total figure fixed for any one half-year being less than 13,139,000 tons. In this event, the notice of rescission must be given within a month.

SHARE QUOTAS IN THE INTERNATIONAL STEEL AGREEMENT (1926)

NOTE BY DR. G. LAMMERS

In fixing the share quotas of the individual countries in the International Steel Agreement, the basis taken was that of an aggregate annual production of raw steel of 25,278,000 tons and the annual quotas were fixed on this basis as follows—

	<i>Per cent</i>
Germany	40·45
France	31·89
Belgium	12·57
Luxemburg	8·55
Saar Territory	6·54

These participation figures are changed if the total output rises by 1, 2, 3 or 4 million tons up to 29,278,000 tons. Above this figure the final quotas are as follows—

	<i>Per cent</i>
Germany	43·18
France	31·18
Belgium	11·56
Luxemburg	8·30
Saar Territory	5·78

In the event of any further increase in output, these percentage quotas will remain unchanged. Belgium, however, on joining the International Steel Cartel, was granted a fixed quota

of 295,000 tons per month irrespective of any restrictions which might be imposed on output. As a consequence, the quotas of the other countries were somewhat reduced.

In November, 1926, the total output of the International Steel Cartel for the fourth quarter of 1926 was fixed at 29,278,000 tons. In December, 1926, by a resolution of the International Steel Cartel, it was decided to reduce the output for the first quarter of 1927 by 1.5 million tons. In March, 1927, this reduced output was once more raised by 1.5 million tons for the second quarter of 1927.

At the beginning of 1927, Czechoslovakia, Austria and Hungary joined in the International Steel Agreement. These three countries together received a share of 7.272 per cent, or 2.14 million tons, annually on the basis of a total output by the International Steel Cartel of 27,278,000 tons. These three Central European countries having joined the Cartel as a single unit, the distribution of their quota between them is a matter to be settled by themselves.

APPENDIX II

TEXT OF THE WHEAT AGREEMENT

August, 1933

THE Governments of Germany, Austria, Belgium, Bulgaria, France, the United Kingdom of Great Britain and Northern Ireland, Greece, Hungary, Irish Free State, Italy, Poland, Roumania, Spain, Sweden, Czechoslovakia, Switzerland, the Union of Socialist Soviet Republics, and Yugoslavia, having accepted the invitation extended to them by the Secretary-General of the Monetary and Economic Conference on behalf of the Governments of Argentina, Australia, Canada, and the United States of America, to take part in a Conference to consider the measures which might be taken in concert to adjust the supply of wheat to effective world demand and eliminate the abnormal surpluses which have been depressing the wheat market and to bring about a rise and stabilization of prices at a level remunerative to the farmers and fair to the consumers of breadstuffs have agreed as follows—

ARTICLE I

The Governments of Argentina, Australia, Canada, and the United States of America agree that the exports of wheat from their several countries during the crop year, 1st August, 1933, to 31st July, 1934, shall be adjusted, taking into consideration the exports of other countries by the acceptance of export maxima fixed on the assumption that world import demand for wheat will amount during this period to 560,000,000 bushels.

ARTICLE 2

They further agree to limit their exports of wheat during the crop year, 1st August, 1934, to 31st July, 1935, to maximum figures 15 per cent less in the case of each country than the average out-turn on the average acreage sown during this period, 1931-33 inclusive, after deducting normal domestic requirements. The difference between the effective world demand for wheat in the crop year 1934-35 and the quantity

of 295,000 tons per month irrespective of any restrictions which might be imposed on output. As a consequence, the quotas of the other countries were somewhat reduced.

In November, 1926, the total output of the International Steel Cartel for the fourth quarter of 1926 was fixed at 29,278,000 tons. In December, 1926, by a resolution of the International Steel Cartel, it was decided to reduce the output for the first quarter of 1927 by 1.5 million tons. In March, 1927, this reduced output was once more raised by 1.5 million tons for the second quarter of 1927.

At the beginning of 1927, Czechoslovakia, Austria and Hungary joined in the International Steel Agreement. These three countries together received a share of 7.272 per cent, or 2.14 million tons, annually on the basis of a total output by the International Steel Cartel of 27,278,000 tons. These three Central European countries having joined the Cartel as a single unit, the distribution of their quota between them is a matter to be settled by themselves.

APPENDIX II

TEXT OF THE WHEAT AGREEMENT

August, 1933

THE Governments of Germany, Austria, Belgium, Bulgaria, France, the United Kingdom of Great Britain and Northern Ireland, Greece, Hungary, Irish Free State, Italy, Poland, Roumania, Spain, Sweden, Czechoslovakia, Switzerland, the Union of Socialist Soviet Republics, and Yugoslavia, having accepted the invitation extended to them by the Secretary-General of the Monetary and Economic Conference on behalf of the Governments of Argentina, Australia, Canada, and the United States of America, to take part in a Conference to consider the measures which might be taken in concert to adjust the supply of wheat to effective world demand and eliminate the abnormal surpluses which have been depressing the wheat market and to bring about a rise and stabilization of prices at a level remunerative to the farmers and fair to the consumers of breadstuffs have agreed as follows—

ARTICLE I

The Governments of Argentina, Australia, Canada, and the United States of America agree that the exports of wheat from their several countries during the crop year, 1st August, 1933, to 31st July, 1934, shall be adjusted, taking into consideration the exports of other countries by the acceptance of export maxima fixed on the assumption that world import demand for wheat will amount during this period to 560,000,000 bushels.

ARTICLE 2

They further agree to limit their exports of wheat during the crop year, 1st August, 1934, to 31st July, 1935, to maximum figures 15 per cent less in the case of each country than the average out-turn on the average acreage sown during this period, 1931-33 inclusive, after deducting normal domestic requirements. The difference between the effective world demand for wheat in the crop year 1934-35 and the quantity

174 INTERNATIONAL COMBINES IN MODERN INDUSTRY

of new wheat from the 1934 crop available for export will be shared between Canada and the United States of America as a supplementary export allocation with a view to the proportionate reduction of their respective carry-overs.

ARTICLE 3

The Governments of Bulgaria, Hungary, Roumania, and Yugoslavia agree that their combined exports of wheat during the crop year, 1st August, 1933, to 31st July, 1934, will not exceed 50,000,000 bushels. This undertaking is made on the understanding that the aggregate may be increased to a maximum of 54,000,000 bushels if the Danubian countries find that such a supplementary quota is required for the movement of the exportable surplus of the 1933 crop.

ARTICLE 4

They further agree that their combined exports of wheat during the crop year 1934-35 will not exceed a total of 50,000,000 bushels, and recognize that the acceptance of this export allocation will not allow of an extension of the acreage sown to wheat.

ARTICLE 5

The Government of the Union of Socialist Soviet Republics, while unable to give any undertaking in regard to production of wheat, agree to limit their exports for the crop year 1933-34 to a figure which will be arrived at upon the completion of negotiations with the Government of the overseas wheat exporting countries. They also agree that the question of their export of wheat during the crop year 1934-35 shall be the subject of further negotiations with the wheat exporting countries represented upon the Advisory Committee.

ARTICLE 6 (ABRIDGED)

The Governments of the wheat importing countries in signing this instrument—

I. Agree henceforth not to encourage any extension of the area sown to wheat, and not to take any governmental measures which would result in increased domestic wheat production.

II. Agree to adopt every possible measure to increase wheat consumption and raise the quality of bread.

III. "Agree that a substantial improvement in the price of wheat should have as its consequence a lowering of

Customs tariffs, and are prepared to begin such adjustment of Customs tariffs when" the conditions cited in Appendix A are realized. "It is understood that the rate of duty necessary to assure remunerative prices may vary for different countries, but will not be sufficiently high to encourage their farmers to expand wheat acreage."

IV. "Agree that in order to restore more normal conditions in world trade in wheat the reduction of Customs tariffs would have to be accompanied by modification of the general regime of quantitative restriction of wheat imports and accept in principle the desirability of such a modification. The importing countries are prepared to make effective alterations in 1934-35 if world prices have taken a definitely upward turn from the average price of the first six months of the calendar year 1933. . . . It is understood that this undertaking is consistent with maintaining the home market for domestic wheat grown on an area no greater than at present. . . .

"The obligation of the importing countries under this agreement are to be interpreted in the light of the following declaration—

"It is recognized that measures affecting the area of wheat grown and the degree of protection adopted are primarily dependent upon domestic conditions within each country, and that any change in these measures must often require the sanction of the legislature. The intention of this agreement is nevertheless that the importing countries will not take advantage of a voluntary reduction of exports on the part of the exporting countries, by developing their domestic policies in such a way as to frustrate the efforts which the exporting countries are making in the common interest, to restore the price of wheat to a remunerative level."

ARTICLE 7

A Wheat Advisory Committee is to be set up. (See Appendix B.)

APPENDICES (ABRIDGED)

A

1. "International wheat price" as mentioned in Article 6, paragraph III, of the draft agreement, shall be understood to mean a duty-free gold price c.i.f. on a world market. . . .

It is the average price of all parcels of imported wheat of all grades sold during each week in all the ports of Great Britain.

176 INTERNATIONAL COMBINES IN MODERN INDUSTRY

2. The minimum average gold price calculated as indicated above shall be 12 gold francs per quintal (63.02 gold cents per bushel).

3. The period referred to in Article 6, paragraph III, of the Agreement shall be 16 weeks.

4. Each country will decide upon its tariff adjustment in accordance with the principles enunciated in Article 6, paragraph III, of the draft agreement, and every considerable and lasting change in wheat prices shall be followed by an adjustment of tariffs proportionate to such change.

B

The Wheat Advisory Committee is to watch over the implementing of this Agreement only. "No question arises of establishing any permanent committee entrusted with the task of supervizing the production of and trade in wheat." It will only take decisions in cases defined in the agreements; and will be "primarily advisory in character."

MINUTE

A minute of the final meeting records that the Act of Agreement shall be deposited at the League Secretariat, and shall remain open for signature on behalf of other countries.

APPENDIX III

FRANCO-GERMAN POTASH AGREEMENT SIGNED AT PARIS, 29th DECEMBER, 1926

(Translation)

BETWEEN the Deutsches Kalisyndikat Gesellschaft mit beschränkter Haftung, of Berlin, hereinafter called "the Syndicate," of the first part, and the Société Commerciale des Potasses d'Alsace, Les Mines Domaniales de Potasse d'Alsace, and the Société Anonyme des Mines de Kali Sainte-Thérèse, hereinafter called "the Société," of the second part, the following agreement has been concluded following the Lugano Agreement of 10th April, 1926.

Article I. To the Syndicate is reserved exclusive rights to sell in Germany, as well as in possible German colonies, protectorates and mandated territories. To the Société is reserved exclusive rights to sell in France, and in French colonies, protectorates and mandated territories. The two parties agree to take all necessary measures to prevent any exportations or re-exportations from these territories by a third party without special authorization. In the case where the reserved territories are used as countries of transit, the final destination of the goods will be placed under a rigorous supervision. The measures taken for this control will be communicated to the other party. The exclusive sales rights apply to the following potash salts—

1. Ores containing potash which are produced in the mines, crude salts in solid or dissolved form.

2. Chloride of potash, sulphate of potash, sulphate of potash-magnesia, the different potash salts used as fertilizers, and all potash salts, which as a general rule are produced from crude potash salts, as well as the residues of these products containing potash.

3. Mixtures of crude and refined salts, i.e. mixed salts.

Beginning 1st May, 1927, all exports of potash from the mines, in whatever form they may be, will be subject to the conditions of the present contract . . . and reckoned in terms of K_2O

The two parties shall come to an agreement, as soon as possible, with regard to the prices and conditions to be established for potash used in the manufacture of different preparations

for export, outside of territories reserved to both parties, as well as the form and method of control to be adopted. The exclusive sales rights conceded to France and Germany in the territories under their control carry with them for each party the prohibition to make deliveries of potash salts for export, in no matter what form, into the territory of the other. . . .

Article II. . . . In Germany, all of the potash mines or plants are obliged to adhere to the Syndicate from the beginning of their production. In France the owners of the mines adhering to the Société agree to bring about the adhesion to the Société of all new exploiters of potash mines or plants. . . . In case of the creation, in the countries reserved to the two parties, of new potash mines or new plants for the transformation of potash originating from the mines, their exports shall be included in the respective foreign sales quotas of the Syndicate and the Société. The signatories undertake to take all necessary measures to effect the reporting and control of the quantities of such potash salts and manufactured products which may be exported by new producers not parties to the present contract.

Article III. The two parties will jointly take the necessary measures for maintaining the regularity of the market.

Article IV. As from 1st May, 1926, the annual sale, outside of France, Germany, their colonies, mandated territories and protectorates, will be divided until an annual sale of 840,000 metric tons of K_2O is reached, in such manner that the Syndicate will receive 70 per cent and the Société 30 per cent. For any tonnage over an annual sale of 840,000 tons, the Syndicate will receive 50 per cent and the Société 50 per cent. It is, however, agreed that when the sale of 825,000 metric tons K_2O shall have been attained, the Société shall receive 3,000 tons of K_2O by right of priority above its fixed quota. If in the fourth year of the contract an annual sale of 840,000 of K_2O has not been reached, the Société shall receive for the fifth year of the contract a priority for the delivery of 8,000 tons of K_2O Should the sale of 840,000 tons of K_2O not be attained during the course of the fifth year, it is agreed that, in any case, from the beginning of the sixth year, the quantities over the highest annual tonnage reached during the first five years shall be divided in the proportion of 50 : 50.

Article V. The two parties have agreed to set up as rapidly as possible, for each country, joint organizations for the development of sales.

Article VI. The two parties shall mutually communicate within the three days following each of the ten-day periods of

each month the amount of the orders received and of deliveries made, either by rail or water, within each ten-day period. In case one of the parties exceeds its quota of orders in a country, at the end of one of these ten-day periods a readjustment shall be made, except by agreement to the contrary, immediately if possible, or at most not later than two months, by the transfer of a corresponding number of orders to the other party. In every case an exact readjustment of the quotas must be reached before the end of the season and contract year (30th April of each year. Only in the case where an exact compensation cannot be effected, due to forces beyond control, a readjustment of the quotas shall be made either by a complementary delivery to be made within a maximum delay-period of four months, or by payment by the party in excess to the party in deficit of a bonus of 15 per cent of the gross sale price obtained in the country under discussion.

Article VII. The selling price for each country shall be fixed by a common agreement between the directing boards of the two parties on the basis of the proposals presented by the managing boards of the sales organizations, which should take into account the actual conditions prevailing in each country at the time. These prices shall be established by taking into consideration cost prices on the one hand, and, on the other hand, in such a manner as to allow the development of the use of potash for agriculture and industry in each country.

Article VIII. The collaboration of the Syndicate and the Société has as its aim the development of the sale of potash according to the needs of the various countries, the realization of economies in general expenses, and the avoidance of unnecessary increases of prices for the consumer. The division provided for in Article IV does not in any way prevent the two parties from coming to a special agreement to effect changes from one country to another if such measures appear to them desirable from a practical point of view.

Article IX. A Commission of Control shall be constituted, composed of members one-half of whom shall be chosen by each of the two parties. The members of this commission, who may act either in co-operation or separately, shall examine the accuracy of the declarations made by the two parties throughout the duration of the present contract, either at the head offices of the Companies or at the mines or in any other place. If certain findings of the commission are not recognized by one of the parties, the latter has the right to demand a new investigation by two persons chosen outside of the commission, and who, in case they disagree, shall have the right to designate

a board of arbitration. The members of the Commission of Control and the persons designated to proceed with a new investigation shall have the right to demand the assistance of representatives of the contracting parties. . . .

Article XII. In case of differences which may arise either directly or indirectly from the execution of the present contract, no recourse may be made to the jurisdiction of any ordinary tribunals. These differences shall be settled by arbitration. Arbitration shall be entrusted to an Arbitration Committee which shall be composed of two representatives of each party. The four arbitrators shall name a supreme arbitrator, and, if they cannot come to an agreement on the choice of this arbitrator, the President of the Arbitration Court at the Hague shall be asked to designate him. In case of an infraction duly established, the guilty party shall be called upon to pay a fine to the other party, the amount of which shall not exceed five times the value of the litigation, and, in the case of a second offence within the same year, ten times the value of the litigation for which the arbitration has been demanded.

Article XIII. The contract is made for a period of ten years from 1st May, 1926, with the provision that it may be cancelled at the end of the seventh year, provided one year's notice of cancellation has been given in advance. If this contract . . . is not denounced one year before the tenth year, it shall be prolonged by tacit renewal by five-year periods, if a notice of cancellation has not been given one year before the expiration of these periods. . . .

APPENDIX IV

NOTE ON THE ADMINISTRATION OF THE CONVENTION FOR THE DEVELOPMENT AND PROGRESS OF THE INTERNATIONAL INCANDESCENT ELECTRIC LAMP INDUSTRY.

PHOEBUS COMPANY

IN order to apply the terms of the Convention the Phoebus Company was formed with its seat at Geneva. Switzerland was chosen as the seat of the administering company in order to ensure as far as possible independence of the divergent laws of the various countries. The Phoebus Company acts as an administrative organ for the parties of the Convention, its capital being 500,000 Swiss francs. It acts as an intermediary for the exchange of methods of manufacture and for the acquisition of patents. All members of the Convention are partners in it. The partners undertake to transact their business in accordance with the terms of the Convention, and to obey the instructions of the controlling bodies. All obligations are subject to high penalties, the payment of which is guaranteed by the deposit of considerable sums by way of security, the actual amount depending on the business turnover of the individual partners.

ARBITRAL TRIBUNAL

For the settlement of disputes, a special arbitral tribunal has been formed, at the head of which is a Swiss professor of international reputation, having as his assessors a Swiss federal judge and a technical expert on international cartels. This arbitral tribunal gives a final award in all disputes and differences of opinion. The execution of arbitral awards is guaranteed by the fixing of high security.

CONTROLLING BODIES

The General Assembly meets as a rule once or twice a year. The members' right to vote depends on the amount of their share quota during the basic year, a vote being given for each million unit lamps. The small producers selling less than a million lamps may form groups among themselves.

The Administrative Board watches and directs the application of the Convention, and the committees mentioned below and the national assemblies of manufacturers may appeal to it in the first instance. In the measures it takes the Administrative Board must pay due heed to the decisions of the General Assembly and to the provisions of the Convention. It may,

182 INTERNATIONAL COMBINES IN MODERN INDUSTRY

however, take any administrative or executive measures which it deems necessary or expedient for the application of the Convention.

Besides the Administrative Board there is the *Executive Committee*, which at present consists of six members chosen from the Administrative Board. The Executive Committee takes decisions on current business, particularly financial affairs.

The Business Development Committee is composed of at least five members; at present there are seven. It takes decisions regarding the general policy of commercial development and informs the national assemblies of the general lines on which such questions should be solved. The term "business development" in this connection means the development of the use of electric light.

The Sales Committee, composed of at least five members—at present of seven—decides the general sales policy and gives the national assemblies general directions for the fixing of prices and conditions of sale in the various territories.

The Standardization Committee, consisting of five technical experts and five traders, takes decisions regarding standardization, including the simplification of manufacture and the reduction of cost prices. The final object of standardization is to bring about a complete uniformity as regards external form, internal structure, dimensions and lighting power of all products of the firms parties to the Convention. This aim, however, has hitherto been attained only as regards the lamps most commonly used for general lighting purposes.

Besides the Standardization Committee, there are also *purely* technical committees, which discuss special technical questions and recommend decisions for adoption by the competent Committees, the Administrative Board or the General Assembly.

In addition to the above-mentioned Committees, there are also special Advisory Committees, which assist the Director-General in legal questions and in any questions raised regarding the calculation of quotas.

NATIONAL ASSEMBLIES

In each country of origin and each country of the common territory there are national assemblies which have to settle local sales questions. Their duties consist primarily in fixing prices and conditions of sale. Their decisions are taken by a three-quarter majority.

APPENDIX V

EXTRACT FROM A PAMPHLET EMBODYING THE FINDINGS OF THE JOINT UNEMPLOYMENT COMMITTEE OF THE INTERNATIONAL FEDERATION OF TRADE UNIONS AND THE LABOUR AND SOCIALIST INTERNATIONAL (1930-31).

CARTELS AND MONOPOLIES

DURING recent years the elimination of free competition within the capitalist system, and the substitution of industrial concentration through cartels, trusts and similar organizations, has proceeded at an accelerated pace. As a result such organizations now dominate important markets and are a vital factor in determining the quantity and distribution of goods produced and in fixing prices. Although this development has gone farther in some countries than in others, and has taken many different forms, it represents a tendency common to all industrial nations. Indeed, it now transcends national boundaries, for international cartels and consolidations are becoming more and more important.

The creation of complete or partial monopolies throughout the whole range of industry reinforces the economic power of the capitalist groups concerned, and, if allowed to operate unchecked, constitutes a grave menace to workers and consumers generally. At the same time it must be recognized that the growth of industrial consolidation means an advance towards an economically higher form of capitalism, and may provide a starting-point for the development of conscious planning of the economic system, such as the workers strive to secure in socialism. Thus, Labour cannot join in a general condemnation of economic developments which tend to eliminate competition, but must rather aim at the public supervision and regulation of monopolistic organizations. This is especially necessary since the price policy of monopolistic concerns often accentuates economic crises, and thus leads to increased unemployment. It is therefore recommended that—

1. Monopolistic concerns of all kinds should be placed under public supervision and regulation, through public institutions on which the trade union movement and the co-operative movement should be represented.

2. The supervision of prices should be one of the functions of such public institutions.

3. There should be, similarly, *international supervision* of international trusts and cartels, and while this presents practical difficulties it is considered that the task should be undertaken by an organization under the League of Nations, the

184 INTERNATIONAL COMBINES IN MODERN INDUSTRY

collaboration of the International Federation of Trade Unions and the international co-operative movement being, however, an essential feature in whatever method is adopted.

4. As a necessary preparatory measure, nationally and internationally, there should be the fullest publicity regarding the financial and other operations of monopolistic concerns, and both national legislation and an international convention for this purpose should be promoted.

APPENDIX VI

TRADE UNIONS INTERNATIONAL SECRETARIATS

	<i>Founded in</i>	<i>No. of Affiliated Organisations</i>	<i>Members</i>
International Federation of Bookbinders and Kindred Trades	1907	16	83,550
The Building Workers' International	1903	24	897,403
International Clothing-Workers' Federation	1893	29	227,813
International Federation of Commercial, Technical and Clerical Employees	1920	50	880,741
Universal Alliance of Diamond Workers	1905	9	20,440
International Federation of General Factory Workers	1920	22	581,000
International Union of Federations of Workers in the Food and Drink Trades	1920	34	366,060
International Federation of Glassworkers	1908	13	51,000
International Union of Hairdressers	1907	10	11,743
International Federation of Hatters	1900	12	32,256
International Union of Hotel, Restaurant and Bar Workers	1908	19	71,883
International Land Workers' Federation	1920	15	424,211
International Federation of Boot and Shoe Operatives and Leather Workers	1907	26	283,452
International Federation of Lithographers and Kindred Trades	1896	20	64,477
International Metal Workers' Federation	1893	30	1,742,663
Miners' International Federation of Secretariat of Painters and Kindred Trades	1890	17	1,362,485
International Secretariat of Painters and Kindred Trades	1911	15	218,392
The Postal International	1911	37	430,769
International Federation of Pottery Workers	1905	8	122,476

186 INTERNATIONAL COMBINES IN MODERN INDUSTRY

TRADE UNIONS—(contd.)
INTERNATIONAL SECRETARIATS—(contd.)

	<i>Founded in</i>	<i>No. of Affiliated Organisations</i>	<i>Members</i>
International Federation of Employees in Public Services . . .	1907	14	560,768
International Secretariat of Stone Workers . . .	1903	14	110,783
International Association of Textile Workers . . .	1894	17	861,835
International Secretariat of Tobacco Workers . . .	1899	13	106,765
International Transport-workers' Federation . . .	1897	98	2,350,943
International Typographical Secretariat . . .	1893	24	223,044
International Union of Wood Workers . . .	1904	51	895,643
Teachers' International Trade Secretariat . . .	*	12	107,885
Civil Service International . . .	1931	10	320,000
Enginemen and Firemen . . .	*	*	82,000

* Information not available.

BIBLIOGRAPHY

LEAGUE OF NATIONS AND I.L.O. PUBLICATIONS

- Oualid, W.: *Social Effects of International Industrial Agreements* (C.E.C.P. 94: 1926).
- Macgregor, D. H.: *International Cartels* (C.E.C.P. 93: 1927).
- Wiedenfeld, K.: *Cartels and Combines* (C.E.C.P. 57 (1): 1927).
- Lammers, C.: *Review of Legislation on Cartels and Trusts* (C.E.I. 35: 1927).
- Benni, Lammers, Marlio and Meyer: *Review of the Economic Aspects of Several International Industrial Agreements* (E. 614: 1930).
- Benni, Lammers, Marlio and Meyer: *General Report on the Economic Aspects of International Industrial Agreements* (E. 736: 1931).
- Ohlin: *The Course and Phases of World Economic Depression* (1931).
- Hirsch, J.: *National and International Monopolies from the Point of View of Labour* (1926).
- Grossman, E.: *Methods of Economic Rapprochement* (1926).
- Décugis, Olds and Tschierschky: *Review of the Legal Aspects of Industrial Agreements* (1930).
- The Agricultural Crisis* (1931).
- The Social Aspects of Rationalization* (1931).

BRITISH GOVERNMENT PUBLICATIONS

- Report on Industrial Conditions in the Iron and Steel Industries in France, Belgium, Luxemburg and Germany* (Cmd. 3601; 1930).
- Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191; 1932).
- (Balfour) Committee on Industry and Trade: *Survey of Metal Industries* (1928).
- (Balfour) Committee on Industry and Trade: *Survey of Textile Industries* (1928).
- (Balfour) Committee on Industry and Trade: *Factors in Industrial and Commercial Efficiency* (1927).
- Report of the Committee on Trusts* (Cmd. 9236; 1919).
- Report of the Royal Commission on Shipping Rings* (Cmd. 4668; 1909).
- Mr. Ormsby-Gore's Report on his Visit to Malaya, Ceylon and Java in 1928* (Cmd. 3235).
- Ministry of Agriculture Report on the Sugar Beet Industry at Home and Abroad* (1931).
- Report on Deferred Rebate System* (Cmd. 1802; 1923).

FOREIGN GOVERNMENT PUBLICATIONS

Report of the U.S. Commissioner of Corporations on the Tobacco Industry (Part I).

U.S. Dept. of Commerce: *The International Cartel Movement* (1928).

OTHER PUBLICATIONS

(a) Books and Pamphlets

Conte, R.: *Les Ententes Industrielles* (International Chamber of Commerce Brochure, No. 46).

Culbertson, W. S.: *International Economic Policies* (1925).

Donaldson, J.: *International Economic Relations* (1929).

Fitzgerald, P.: *Industrial Combination in England* (1932).

Garnsey, G.: *Holding Companies and their Accounts* (1931).

Gautschi, A.: *The Aluminium Industry* (1925).

Herriot, E.: *The United States of Europe* (1930).

Jaccard, R.: *Les Syndicats industrielles en Suisse* (1925).

Jenks: *The Trust Problem*.

Knight, Barnes and Flugel: *Economic History of Europe* (1927).

Kossmann, W.: *Ueber die wirtschaftliche Entwicklung der Aluminiumindustrie*.

Liefmann, R. W.: *International Cartels, Combines and Trusts* (1927).

Liefmann, R. W.: *Cartels, Concerns and Trusts* (1932).

Macara, C.: *Getting the World to Work* (1922).

Marquand, H. A.: *The Dynamics of Industrial Combination* (1931).

Marshall, A.: *Industry and Trade* (1919).

Plummer, A.: *The World in Agony* (1932).

Richardson, J. H.: *Economic Disarmament* (1931).

Royal Economic Society Memoranda Nos. 17, 23, 24, 29, and 34.

Salter, A.: *Recovery* (1932).

Sassenbach, J.: *Twenty-five Years of International Trade Unionism* (1926).

Stocking, G. W.: *The Potash Industry* (1931).

Toynbee, A. J.: *Survey of International Affairs, 1930.*

Wallace and Edminster: *International Control of Raw Materials* (1930).

(b) Periodicals

The Economist.

The Manchester Guardian Commercial.

The Mining World.

The Fortnightly Review, December, 1931.

The Journal of Political Economy, October, 1920.

Quarterly Journal of Economics, November, 1913; February, 1917; November, 1932.

The Statistical Journal, Parts I and III, 1930.

Stock Exchange Year Book.

Stock Exchange Official Intelligence.

INDEX

- ACETIC Acid Syndicate, 4
Aims of international combines, 3, 54, 142-3
Allgemeine Elektrizitäts Gesellschaft (A.E.G.), 5, 73
Aluminium cartel, 16, 66-70, 123ⁿ., 138
Anglo-Persian Oil Co., 7, 34, 62
Aniline Convention, International, 133
Armstrong-Whitworth & Co., 53
Artificial silk industry, *see* Rayon
- BANKS, British overseas, 40
Bismuth Syndicate, 4, 66
Bone-glue Manufacturers, International Association of, 63-4
Borax Cartel and Borax Consolidated, 4, 64
Brunner Mond & Co., 49
Buyers, international combinations of, 63-5
- CALCIUM Carbide Syndicate, 4, 62, 119-20
Cartels, international, definition and characteristics of, 14-16, 25-6
Cement industry, 4, 78
Chadbourne Plan, *see* Sugar
Chemical industry, 3, 33, 35, 49-52
Coal industry, 107-8
Coats, J. and P., 52-3
Competition between international combines, 11-12
——, suppression of, 14-15, 119, 142-3, 147-8, 161
Concerns, international, 14, 24-5, 33, 125, 166
Consumers and international combines, 141-8, 161, 164-5
Control of international combines, 162-4
Copper industry, 124-5, 149-53, 154
Cotton Spinners, International Federation of, 64-6
Courtaulds, Ltd., 29-30
Cyanamide Syndicate, 12
- DRAHTKONZERN, 73
Du Pont de Nemours & Co., 33, 48
Dunlop Rubber Co., 46
Dyestuffs Cartel, 17, 35, 49, 77-8, 116-19, 133
- ELECTRICAL industry, 3, 32-3, 46-7, 77; *see also* Incandescent Lamp
Cartel
English Sewing Cotton Co., 52
Explosives industry, 3-5, 33, 35, 48-9, 126
- FARBENINDUSTRIE A.-G., 17, 51, 85, 117
Ford Motor Co., 45
Formation of international combines, causes of, 54, 70
—— ———, conditions favourable to, 53, 55, 78, 103
—— ———, obstacles to, 106-15

190 INTERNATIONAL COMBINES IN MODERN INDUSTRY

- GENERAL Electric Co., 46-7
"Gentlemen's Agreements," 3, 16
Gesfürel-Loewe concern, 5, 32
Glass bottle manufacturers, 7-8
Gramophone industry, 40-1
- HOLDING companies, 26-8
Home markets, reservation of, 3, 101, 119-40
- I.G. FARBENINDUSTRIE, 17, 51, 85, 117
Imperial Chemical Industries, Ltd., 33, 49-52, 85, 117
Incandescent Lamp Cartel, 7, 16, 72-7, 129, 181-2
International businesses, 41-2, 45-6, 53, 103-5
— Rail Makers' Association (I.R.M.A.), 8, 130-3
- KREUGER and Toll, 42-4
Kuhlmann Co., 17
- LEAD Cartel, 11, 35
Lever Bros., *see* Unilever Combine
Linoleum Combine, 61
- MAGNESIA Combine, 13
Mannesmann Tube Companies, 17
Markets, home and export, 3, 101, 119-40
Meat Trust, 103-5
Mercury Consortium, 79, 82-3, 134
Metal industry, 34-5
Mirror-glass Syndicate, 13, 66
Monopolistic tendencies of international combines, 10, 11, 146-7
Motor-car industry, 33, 40, 53
- NECKAR Salt Union, 3
Nestlé and Anglo-Swiss Condensed Milk Co., 37
Nitrate industry, 18, 79, 83-9
Nobel Dynamite Trust, 3-4, 48
- OBJECTS of international combines, *see* Aims
Oil industry, 6-7, 34, 62-3
Output, restriction or regulation of, 3, 17-18, 78
- PATENTS, exchange of, 3, 54
Peace and international combines, 166
Planning, economic, 1
Potash industry, 79-82, 120, 177-80
Prices, 3, 54, 78, 153-5, 161
Productive capacity, increase of, 10, 17, 78, 164-5
Pulp industry, 24
- QUEBRACHO Combine, 133-4
Quinine agreement, 12-13
Quotas, 107, 126-40

- RAYON** industry, 28-32
 Roumanian oil industry, 62, 79
 Royal Dutch-Shell combine, 6-7, 34, 62
 Rubber, 18, 146-7
 Russia, oil exports from, 63
 —, wheat exports from, 99-100
- SEWING** cotton industry, 52-3
 Shipping industry, conferences or "rings" in, 55-61
 Singer Machine Co., 37
 Société Financière de Transports et d'Entreprises Industrielles
 ("Sofina"), 5, 32
 Standard Oil Trust, 34
 Standardization, 3
 State action and international combines, 79, 100, 109-15
 Steel cartel, 17, 89-92, 106, 124, 129, 134-8, 167-72
 — rails, 5, 8, 130-3
 — tubes, *see* Tube Cartel
 Substitutes and consumers' demand, 146-7
 Sugar, 18-23, 78, 154
 Sulphate of ammonia, international agreements relating to, 10-11
 Swedish Match Co., 42-4
- TANNING** extract, *see* Quebracho
 Tariffs and international combines, 100-1, 116, 120-5
 Tea, international agreement, 96-7
 Telephone and telegraph industry, 47-8
 Tin industry, 18, 24, 79, 92-6, 139-40
 Tobacco industry, 70-2
 Trade unions, 155, 157-60, 183²-6
 Trusts, international, 15-16, 25-6, 41-4
 Tube Cartel, 17, 126, 133
- UNILEVER** combine, 35-9, 42
- VICKERS**, Ltd., 53
- WAGE-EARNERS** and international combines, 141, 155-60, 161, 164-5
 Wagon manufacturers' agreement, 139
 War and international combines, 9
 Wheat, international agreement, 98-100, 173-6
 Wire-netting industry, 5-6
- ZINC** industry, 101-3, 108-9, 148-9, 154

PUBLISHED BY PITMAN

INDUSTRIAL COMBINATION IN ENGLAND

By **PATRICK FITZGERALD, D.Sc. (Econ.)**.

Recommended to economic students as a supplementary textbook fully covering one phase of economic history in recent times.

Textile Industries—Coal Industry—Iron and Steel Industry—Soap and Glycerine Combine—Salt Associations—Chemical Industries—Explosives Combine—Chemical Super-Trust—Cement Combines—Clay-ware Trades—Non-ferrous Metals—Engineering Trades—Food Industries—Alcohol and Yeast Combine—Tobacco Combines—Match Combine—Wall-paper Combine—Oil Companies—Tyre Combine—Rubber Stabilization Plan—Shipping Combines—Railway Combines—Banking Combines—Efficiency of Trust—Conclusions—Index.

In demy 8vo, cloth gilt, 248 pp. 10s. 6d. Second Edition.

THE ECONOMICS OF PRIVATE ENTERPRISE

By **J. HARRY JONES, M.A., Professor of Economics, and Head of the Commerce Department, University of Leeds.**

Written mainly to meet the needs of first-year University students and of candidates preparing for examinations in connection with Banking, Accountancy, and other business professions. It is divided into four books: Preliminary Survey; Economic Organization; Economic Valuation; Employment and the Standard of Living.

In demy 8vo, cloth gilt, 453 pp. 7s. 6d. net.

ECONOMICS OF THE INDUSTRIAL SYSTEM

By **H. A. SILVERMAN, B.A., Director of Extramural Studies, University College, Leicester.**

This work comprises a comprehensive treatment of economic theory, specially intended for the use of advanced economics classes and of students of adult tutorial organizations.

In demy 8vo, cloth gilt, 348 pp. 7s. 6d. net.

BUSINESS FORECASTING

And Its Practical Application.

By **WILLIAM WALLACE, M.Com. (Lond.)**, with a Foreword by **W. T. LAYTON, C.H., Editor of "The Economist."**

Explains for manufacturers and traders the most practical methods of forecasting business conditions and of interpreting the cyclical movements of trade.

In demy 8vo, cloth gilt, 140 pp. 7s. 6d. net. Third Edition.

MODERN FINANCE AND INDUSTRY

A Plain Account of the British Financial System and of its Functions in Relation to Industry and Commerce.

By **A. S. WADE, City Editor of the "Evening Standard."**

In demy 8vo, cloth gilt, 136 pp. 5s. net. Second Edition.

THE THEORY AND PRACTICE OF FINANCE

By **W. COLLIN BROOKS, City Editor of the "Sunday Dispatch."**

A comprehensive textbook of monetary theory and financial practice, specially written for candidates preparing for Accountancy, Banking, Secretarial, Insurance, and other Professional Examinations.

In demy 8vo, cloth gilt, 452 pp. 10s. 6d. net. Second Edition.

Sir Isaac Pitman & Sons, Ltd., Parker St., Kingsway, London, W.C.2

PITMAN'S ECONOMICS, SERIES

GENERAL EDITOR: PROFESSOR J. H. JONES, M.A.
*Professor of Economics and Head of the Commerce Department
University of Leeds*

A SERIES of popular introductions to the study of Economics, specially written by eminent University and other authorities for the use of commercial students and business men. Each volume covers the fundamental principles of the important branch of economic science with which it is concerned, and lucidly discusses their application to modern business.

A PRIMER OF ECONOMIC GEOGRAPHY

By L. W. LYDE, M.A., F.R.G.S.,
F.R.S.G.S., *Emeritus Professor
of Geography in the University
of London.* 5s. net.

TRANSPORT AND COMMUNICATIONS

By K. G. FENELON, M.A., Ph.D.,
*Lecturer on Economics at Edin-
burgh University.* 2s. 6d. net.

BUSINESS FORECASTING

By J. H. RICHARDSON, M.A.,
Ph.D., *Montague Burton Pro-
fessor of Industrial Relations in
the University of Leeds.* 2s. 6d.
net.

FINDING CAPITAL FOR BUSINESS

By DAVID FINNIE, M.A., C.A.
2s. 6d. net.

INTERNATIONAL TRADE

By D. T. JACK, M.A., *Lecturer
in Economics, University of St.
Andrews.* 2s. 6d. net.

BRITISH ECONOMISTS

By FRANCIS C. HOOD, M.A.,
*Lecturer in Economics and His-
tory in the University of Durham.*
2s. 6d. net.

CURRENCY AND BANKING

By D. T. JACK, M.A. 5s. net.

THE ECONOMIC FUNCTIONS OF THE STATE

By ROGER H. SOLTAU, M.A.,
*sometime Assistant Lecturer in
Political Science, London School
of Economics.* 5s. net.

PRODUCTION

By HUBERT PHILLIPS, M.A.
(Oxon), *late Head of the Depart-
ment of Economics in the Uni-
versity of Bristol.* 5s. net.

VALUE AND DISTRIBUTION

By HUBERT PHILLIPS, M.A.
5s. net.

OVERHEAD COSTS: THEIR NEW ECONOMIC SIGNIFICANCE IN INDUSTRY

By SIR HENRY N. BUNBURY,
K.C.B. 2s. 6d. net.

SOCIALISM

By ROBERT RICHARDS, *Profes-
sor of Economics, Bangor Uni-
versity.* 2s. 6d. net.

METHODS OF REMUNERATION

By ROBERT WILSON, M.A., B.Sc.
2s. 6d. net.

Sir Isaac Pitman & Sons, Ltd., Parker St., Kingsway, London, W.C.2

PITMAN'S BUSINESS HANDBOOKS

*An Abridged List of Practical Guides for
Business Men and Advanced Students*

The Prices contained in this book apply only to Great Britain
Complete List of Commercial Books Post Free on Application

BOOK-KEEPING AND ACCOUNTS

- ACCOUNTANCY.** By WILLIAM PICKLES, B.Com. (Vict.), F.C.A., A.S.A. (Hons.). In demy 8vo, cloth gilt, 1352 pp. 15s.
- ADVANCED ACCOUNTS.** Edited by ROGER N. CARTER, M.Com., F.C.A. In demy 8vo, cloth, 1058 pp. 7s. 6d. Revised Edition.
- KEY.** By R. A. GOODMAN. In demy 8vo, cloth, 924 pp. 20s. Third Edition.
- THE PRINCIPLES OF AUDITING.** By F. R. M. DE PAULA, O.B.E., F.C.A. Sixth Edition. In demy 8vo, cloth gilt, 268 pp. 7s. 6d.
- PRACTICAL AUDITING.** By E. E. SPICER, F.C.A., and E. C. PEGLER, F.C.A. Fifth Edition. Size 10 in. by 6 in. Cloth gilt, 601 pp. 21s. net.
- AUDIT PROGRAMMES.** By E. E. SPICER and E. C. PEGLER. In demy 8vo, cloth gilt, 124 pp. 4s. 6d. net. Eighth Edition.
- SHARE TRANSFER AUDITS.** By R. A. DAVIES, A.C.I.S. In crown 8vo, cloth gilt, 96 pp. 3s. 6d. net.
- MULTIPLE SHOP ACCOUNTS.** By R. F. DALY, A.C.A. In demy 8vo, cloth gilt, 192 pp. 7s. 6d. net.
- HOSIERY COST ACCOUNTS.** By STEPHEN F. RUSSELL, A.C.W.A. In demy 8vo, cloth gilt, 188 pp. 10s. 6d. net.
- STORES ACCOUNTS AND STORES CONTROL.** By J. H. BURTON. In demy 8vo, cloth gilt, 154 pp. 5s. net. Second Edition.
- CLUB ACCOUNTS.** By C. A. HOLLIDAY, A.S.A.A. In demy 8vo, cloth, 80 pp. 2s. net.
- RAILWAY ACCOUNTS.** By C. H. NEWTON, F.A.A., *Chief Accountant, London and North Eastern Railway.* In demy 8vo, cloth gilt, 256 pp. 7s. 6d. net.
- COST ACCOUNTS IN PRINCIPLE AND PRACTICE.** By A. CLIFFORD RIDGWAY, F.C.A. In demy 8vo, cloth gilt, 120 pp. 5s.
- COST ACCOUNTS FOR THE METAL INDUSTRY.** By H. E. PARKES, M.Com., A.C.W.A. In demy 8vo, cloth gilt, 156 pp. 10s. 6d. net.

- FUNDAMENTALS OF PROCESS COST ACCOUNTING, THE.** By L. A. WIGHT, A.C.W.A. In demy 8vo, cloth gilt, 112 pp. 7s. 6d. net.
- DOCUMENTS OF COMMERCE.** By F. A. WILLMAN, Cert. A.I.B. In demy 8vo, cloth gilt, 288 pp. 5s. net.
- COSTS FOR MANUFACTURERS.** By C. SMITH. In demy 8vo, cloth gilt, 100 pp. 5s. net.
- STANDARD COSTS.** By H. E. KEARSEY, A.C.W.A., A.M.I.A.E. In demy 8vo, cloth gilt, 188 pp. 7s. 6d. net.
- PRIMER OF COSTING.** By R. J. H. RYALL. In demy 8vo, cloth, 115 pp. 8s. 6d. net.
- DICTIONARY OF COSTING.** By R. J. H. RYALL. In demy 8vo, cloth gilt, 390 pp. 10s. 6d. net.
- THEORY AND PRACTICE OF COSTING.** By E. W. NEWMAN, F.C.A. In demy 8vo, cloth gilt, 203 pp. 8s. 6d. net.
- COSTING AND PRICE FIXING.** By J. M. SCOTT MAXWELL, B.Sc., F.C.W.A. In demy 8vo, cloth gilt, 223 pp. 6s. net. Second Edition.
- ESTIMATING.** By T. H. HARGRAVE. Second Edition. In demy 8vo, cloth gilt, 128 pp. 5s. net.
- COSTING ORGANIZATION FOR ENGINEERS.** By E. W. WORKMAN, F.L.A.A., A.C.W.A. Second Edition. In demy 8vo, cloth, 96 pp. 8s. 6d. net.
- MANUAL OF COST ACCOUNTS.** By JULIUS LUNT, F.C.A. (Hons.), F.C.I.S., F.C.W.A. and ARTHUR H. RIPLEY, F.C.W.A. Sixth Edition. In demy 8vo, cloth gilt, 238 pp. 8s. 6d.
- MANUFACTURING BOOK-KEEPING AND COSTS.** By GEORGE JOHNSON, F.C.I.S. In demy 8vo, cloth gilt, 120 pp. 8s. 6d. net.
- COMPANY ACCOUNTS.** By ARTHUR COLES. Fourth Edition. Revised by W. CECIL WOOD, A.C.I.S. In demy 8vo, cloth gilt, 408 pp. 7s. 6d. net.
- HOLDING COMPANIES.** By A. J. SIMONS, A.C.A. (Hons.). In demy 8vo, cloth gilt, 198 pp. 10s. 6d. net.
- PITMAN'S DICTIONARY OF BOOK-KEEPING.** By R. J. PORTERS, F.C.R.A. Third Edition. In demy 8vo, 812 pp. 7s. 6d. net.
- INVESTIGATIONS: ACCOUNTANCY AND FINANCIAL.** By J. H. BURTON. In demy 8vo, cloth, 172 pp. 5s. net.
- SECRETARIAL BOOK-KEEPING AND ACCOUNTS.** By H. E. COLBESWORTHY, A.S.A.A. In demy 8vo, cloth gilt, 364 pp. 5s. net.
- HOSPITAL ACCOUNTING AND SECRETARIAL PRACTICE.** By FRANK DEAN, F.C.I.S., etc., and C. H. SPENCE, F.C.C.S., etc. In demy 8vo, cloth gilt, 160 pp. 7s. 6d. net.
- THE ACCOUNTANT'S DICTIONARY.** Edited by F. W. PEXLEY, F.C.A., *Barrister-at-Law*. Third Edition. In two vols., crown 4to, half leather, 1100 pp. 28 7s. 6d. net.
- BOOK-KEEPING AND ACCOUNTS.** By E. E. SPICER, F.C.A., and E. C. PRGLER, F.C.A. Eighth Edition. In crown 4to, cloth gilt, 507 pp. 20s. net.
- MODERN METHODS OF STOCK CONTROL.** By N. GERARD SMITH, M.I.P.E. In crown 8vo, 100 pp. 8s. 6d. net.

- THE ACCOUNTS OF EXECUTORS, ADMINISTRATORS, AND TRUSTEES.** By WILLIAM B. PHILLIPS, F.C.A., A.C.I.S. Seventh Edition. In demy 8vo, cloth gilt, 162 pp. 5s.
- APPORTIONMENT IN RELATION TO TRUST ACCOUNTS.** By ALAN F. CHICK, *Incorporated Accountant*. In demy 8vo, cloth, 160 pp. 6s. net.
- PROFITS AND BALANCE SHEET ADJUSTMENTS.** By P. TAGGART, F.S.A.A., A.I.M.T.A. In demy 8vo, cloth gilt, 130 pp. 5s. net.
- BUSINESS BALANCE SHEETS.** By F. R. STREAD. In demy 8vo, cloth gilt, 160 pp. 10s. 6d. net.
- BALANCE SHEETS: HOW TO READ AND UNDERSTAND THEM.** By PHILIP TOVEY, F.C.I.S. In demy 8vo, cloth, 110 pp. 3s. 6d. net.
- MODERN METHODS OF BOOK-KEEPING.** By R. H. EPPS, *Chartered Accountant*. In demy 8vo, cloth, 343 pp. 4s.
- A COURSE IN BOOK-KEEPING.** By R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D. In demy 8vo, cloth, 290 pp. 4s.
- DEPRECIATION AND WASTING ASSETS, and Their Treatment in Computing Annual Profit and Loss.** By P. D. LEAKE, F.C.A. Fourth Edition. In demy 8vo, cloth gilt, 257 pp. 15s. net.
- COMMERCIAL GOODWILL.** Its History, Value, and Treatment in Accounts. By P. D. LEAKE. Second Edition. In demy 8vo, cloth gilt, 284 pp. 15s. net.
- SINKING FUNDS, RESERVE FUNDS, AND DEPRECIATION.** By J. H. BURTON, *Incorporated Accountant*. Second Edition. In demy 8vo, 140 pp. 3s. 6d. net.
- CONSIGNMENTS, ACCOUNT SALES, AND ACCOUNTS CURRENT.** By E. J. HAMMOND. In demy 8vo, cloth, 160 pp. 5s. net.
- FOREIGN CURRENCIES IN ACCOUNTS.** By A. E. HALLS. In demy 8vo, cloth, 156 pp. 3s. 6d. net.
- CURRENCY ACCOUNTS IN STERLING BOOKS.** By C. RALPH CURTIS, *Fellow of the Institute of Bankers*. In demy 8vo, cloth gilt, 120 pp. 2s. 6d. net.
- BUILDERS' ACCOUNTS AND COSTS.** By ROBERT G. LEGGE. In demy 8vo, cloth gilt, 130 pp. 3s. 6d. net.
- BUSINESS ACCOUNTS AND FINANCE.** By W. CAMPBELL, *Chartered Secretary*. In foolscap 8vo, leatherette, 64 pp. 1s. net.

COMMERCE

- THE THEORY AND PRACTICE OF COMMERCE.** Edited by G. K. BUCKNALL, A.C.I.S., assisted by Specialist Contributors. Third Edition. In demy 8vo, cloth gilt, 612 pp. 7s. 6d.
- QUESTIONS AND ANSWERS ON BUSINESS PRACTICE.** By E. J. HAMMOND. In demy 8vo, cloth, 140 pp. 3s. 6d. net.
- THE PRINCIPLES AND PRACTICE OF COMMERCE.** By JAMES STEPHENSON, M.A., M.Com., D.Sc. In demy 8vo, cloth gilt, 650 pp. 8s. 6d.
- THE PRINCIPLES AND PRACTICE OF COMMERCIAL CORRESPONDENCE.** By JAMES STEPHENSON, M.A. M.Com., D.Sc. In demy 8vo, 308 pp. 7s. 6d. net.

- THE PRINCIPLES OF COMMERCIAL HISTORY.** By JAMES STEPHENSON, M.A., M.Com., D.Sc. In demy 8vo, 279 pp. 5s.
- THE PRINCIPLES AND PRACTICE OF COMMERCIAL ARITHMETIC.** By P. W. NORRIS, M.A., B.Sc. (Hons.). Second Edition. In demy 8vo, 440 pp. 7s. 6d.
- MODERN BUSINESS AND ITS METHODS.** By W. CAMPBELL, *Chartered Secretary*. In crown 8vo, cloth, 493 pp. 7s. 6d.
- WHOLESALE AND RETAIL TRADE.** By WILLIAM CAMPBELL, *Chartered Secretary*. In demy 8vo, cloth gilt, 248 pp. 2s. 6d.

INSURANCE

- INSURANCE.** By T. E. YOUNG, B.A., F.I.A., F.R.A.S. Fourth Edition, Revised and Enlarged. In demy 8vo, cloth gilt, 460 pp. 10s. 6d. net.
- INSURANCE OFFICE ORGANIZATION AND ROUTINE.** By J. B. WELSON, LL.M., F.C.I.I., F.C.I.S., of *Gray's Inn, Barrister-at-Law*, and F. H. SHERRIFF, F.I.A. Second Edition. In demy 8vo, cloth gilt, 292 pp. 7s. 6d. net.
- THE PRINCIPLES OF COMPOUND INTEREST.** By H. H. EDWARDS, F.I.A. In demy 8vo, cloth gilt, 135 pp. 5s. net.
- THE ELEMENTS OF ACTUARIAL SCIENCE.** By R. E. UNDERWOOD, M.B.E., F.I.A. Second Edition. In crown 8vo, cloth, 164 pp. 5s. net.
- BUILDING CONSTRUCTION, PLAN DRAWING, AND SURVEYING IN RELATION TO FIRE INSURANCE.** By D. W. WOOD, M.B.E. In demy 8vo, cloth gilt, 164 pp. 6s. net.
- AVERAGE CLAUSES AND FIRE-LOSS APPORTIONMENTS.** By E. H. MINNION, F.C.I.I. In demy 8vo, cloth gilt, 286 pp. 8s. 6d. net.
- THE PRINCIPLES AND PRACTICE OF FIRE INSURANCE.** By FRANK GODWIN. Fourth Edition. In demy 8vo, cloth gilt, 150 pp. 5s. net.
- THE LAW OF FIRE INSURANCE.** By JOHN ROWLATT, B.A., *Barrister-at-Law*. In demy 8vo, cloth gilt, 208 pp. 7s. 6d. net.
- THE COMMON HAZARDS OF FIRE INSURANCE.** By W. G. KUBLER RIDLEY, F.C.I.I. Second Edition. In demy 8vo, cloth gilt, 92 pp. 5s. net.
- FIRE POLICY DRAFTING AND ENDORSEMENTS.** By W. C. H. DARLEY. In demy 8vo, cloth gilt, 204 pp. 7s. 6d. net. Second Edition.
- FIRE EXTINGUISHMENT AND FIRE ALARM SYSTEMS.** By R. NORTHWOOD. In demy 8vo, cloth gilt, 224 pp. 7s. 6d. net.
- DICTIONARY OF FIRE INSURANCE.** Edited by B. C. REMINGTON, F.C.I.I. In crown 4to, half-leather gilt, 480 pp. 80s. net.
- THE LAW AND PRACTICE AS TO FIDELITY GUARANTEES.** By C. EVANS, *Barrister-at-Law*, and F. H. JONES. Second Edition. In demy 8vo, cloth gilt, 167 pp. 5s.
- INSURANCE AS A CAREER.** By F. H. SHERRIFF, F.I.A. In crown 8vo, cloth, 196 pp. 8s. 6d. net.
- INSURANCE OF PUBLIC LIABILITY RISKS.** By S. V. KIRKPATRICK, F.C.I.I. Second Edition. In demy 8vo, cloth gilt, 152 pp. 5s. net.

- BURGLARY RISKS.** By E. H. GROUT, B.Sc., A.C.I.I. In demy 8vo, cloth gilt, 326 pp. 10s. 6d. net.
- LAW OF NEGLIGENCE.** By J. B. WELSON, LL.M., F.C.I.I., F.C.I.S. In demy 8vo, cloth, 122 pp. 5s. net.
- WORKMEN'S COMPENSATION INSURANCE.** By C. E. GOLDING, LL.D., F.C.I.I., F.S.S. Second Edition. In demy 8vo, cloth, 112 pp. 5s. net.
- THE MARINE INSURANCE OF GOODS.** By F. W. S. POELR. Second Edition. In demy 8vo, cloth gilt, 440 pp. 10s. 6d. net.
- GUIDE TO MARINE INSURANCE.** By H. KRATE. Eighth Edition. In crown 8vo, cloth, 247 pp. 8s. 6d. net.
- GUIDE TO LIFE ASSURANCE.** By S. G. LEIGH, *Fellow of the Institute of Actuaries*. Third Edition. In crown 8vo, cloth, 192 pp. 5s. net.
- LIFE ASSURANCE FROM PROPOSAL TO POLICY.** By H. HOSKING TAYLER, F.I.A., A.C.I.I., and V. W. TYLER, F.I.A. In demy 8vo, cloth gilt, 198 pp. 6s. net.
- DICTIONARY OF LIFE ASSURANCE.** Edited by G. W. RICHMOND, F.I.A., and F. H. SHERRIFF, F.I.A. In crown 4to, half-leather gilt, 598 pp. 40s. net.
- THE PRINCIPLES AND PRACTICE OF PERSONAL ACCIDENT, DISEASE, AND SICKNESS INSURANCE.** By J. B. WELSON, LL.M. In demy 8vo, cloth gilt, 133 pp. 5s. net.
- DICTIONARY OF ACCIDENT INSURANCE.** Edited by J. B. WELSON, LL.M., F.C.I.I., F.C.I.S. In crown 4to, half-leather gilt, 814 pp. 60s. net.
- THE SURVEYING OF ACCIDENT RISKS.** By J. B. WELSON, F.C.I.I., and FENWICK J. WOODROOF, A.C.I.I. In demy 8vo, cloth gilt, 177 pp. 5s. net.
- LAW OF ACCIDENT AND CONTINGENCY INSURANCE.** By F. H. JONES, *Solicitor*. In demy 8vo, cloth gilt, 290 pp. 7s. 6d. net.
- PHYSIOLOGY AND ANATOMY.** By H. GARDINER, M.S. (Lond.), F.R.C.S. (Eng.). In demy 8vo, cloth gilt, 428 pp. 10s. 6d. net.
- LAW RELATING TO INSURANCE AGENTS AND BROKERS.** By J. B. WELSON, LL.M., F.C.I.I., F.C.I.S. In demy 8vo, cloth gilt, 114 pp. 5s. net.
- TALKS ON INSURANCE LAW.** By Jos. A. WATSON, LL.B., B.Sc. In crown 8vo, cloth, 140 pp. 8s. 6d. net.
- PENSION AND SUPERANNUATION FUNDS. Their Formation and Administration Explained.** By BERNARD ROBERTSON, F.I.A., and H. SAMUELS, *Barrister-at-Law*. Second Edition. In demy 8vo, cloth gilt, 158 pp. 5s. net.
- PENSION, ENDOWMENT, LIFE ASSURANCE, AND OTHER SCHEMES FOR COMMERCIAL COMPANIES.** By HAROLD DOUGHARTY, F.C.I.I. Second Edition. In demy 8vo, cloth gilt, 144 pp. 6s. net.
- COMMERCIAL CREDIT RISKS.** By A. H. SWAIN. In demy 8vo, 148 pp. 5s. net.
- INDUSTRIAL ASSURANCE ORGANIZATION AND ROUTINE.** By R. DINNAGE, F.I.A., and T. HILLS, A.C.I.I. In demy 8vo, cloth gilt, 202 pp. 7s. 6d. net.
- PRINCIPLES AND PRACTICE OF INDUSTRIAL ASSURANCE.** By R. B. WALKER, F.I.A., and D. R. WOODGATE, B.Com., F.I.A. In demy 8vo, cloth gilt, 268 pp. 7s. 6d. net.

- THE PRINCIPLES AND PRACTICE OF ACCIDENT INSURANCE.** By G. E. BANFIELD, A.C.I.I., of the Middle Temple, Barrister-at-Law. In demy 8vo, cloth gilt, 200 pp. 6s. net.
- INSURANCE OF PROFITS.** By A. G. MACKEN. Second Edition. In demy 8vo, cloth gilt, 136 pp. 6s. net.
- THE SUCCESSFUL INSURANCE AGENT.** By J. J. BISGOOD, B.A. In crown 8vo, cloth, 135 pp. 2s. 6d. net. Second Edition.
- MOTOR INSURANCE.** By G. W. GILBERT. In demy 8vo, cloth gilt, 258 pp. 6s. net.
- NATIONAL HEALTH INSURANCE.** By W. J. FOSTER, LL.B. (Lond.), of Gray's Inn, Barrister-at-Law, and F. G. TAYLOR, F.I.A. In demy 8vo, cloth gilt, 263 pp. 7s. 6d. net.

ORGANIZATION AND MANAGEMENT

- COMMERCIAL CREDITS AND ACCOUNTS COLLECTION.** By CUTHBERT GREIG. In demy 8vo, cloth gilt, 338 pp. 10s. 6d. net.
- OFFICE ORGANIZATION AND MANAGEMENT.** Including Secretarial Work. By LAWRENCE R. DICKSEE, M.Com., F.C.A., and Sir H. E. BLAIN, C.B.E. Ninth Edition, Revised. In demy 8vo, cloth gilt, 300 pp. 7s. 6d. net.
- OFFICE ADMINISTRATION FOR MANUFACTURERS.** By R. A. MILLS. A.M.I.E.E., A.M.I.Mech.E. In demy 8vo, cloth gilt, 408 pp. 10s. 6d. net.
- FILING SYSTEMS.** By EDWARD A. COPE. In crown 8vo, cloth gilt, 200 pp. 8s. 6d. net.
- HIRE-PURCHASE ORGANIZATION AND MANAGEMENT.** By V. R. FOX-Smith, M.C., A.I.S.A. In demy 8vo, cloth gilt, 272 pp. 7s. 6d. net.
- HIRE-PURCHASE TRADING.** By CUNLIFFE L. BOLLING. In demy 8vo, cloth gilt, 276 pp. 10s. 6d. net. Second Edition.
- HIRE PURCHASE.** By HAROLD W. ELEV. With a Section on Hire-Purchase Accounts, by S. HOWARD WITHEY. In foolscap 8vo, leatherette, 64 pp. 1s. net.
- MAIL ORDER AND INSTALMENT TRADING.** By ALBERT E. BULL. In demy 8vo, cloth gilt, 356 pp. 5s. net.
- MAIL ORDER ORGANIZATION.** By P. E. WILSON. In crown 8vo, cloth gilt, 127 pp. 8s. 6d. net.
- SOLICITOR'S OFFICE ORGANIZATION, MANAGEMENT, AND ACCOUNTS.** By E. A. COPE and H. W. H. ROBINS. In demy 8vo, cloth gilt, 176 pp., with numerous forms. 6s. net.
- GROCERY BUSINESS ORGANIZATION, MANAGEMENT, AND ACCOUNTS.** By C. L. T. BERCHING, O.B.E., F.G.I., *Secretary and Fellow of the Institute of Certificated Grocers.* Fourth Edition. In demy 8vo, cloth gilt, 254 pp. 7s. 6d. net.
- BUSINESS LEADERSHIP.** Edited by HENRY C. METCALF, Ph.D. In demy 8vo, cloth gilt, 368 pp. 10s. 6d. net.
- COMMERCIAL MANAGEMENT.** By CUNLIFFE L. BOLLING. Second Edition. In demy 8vo, cloth gilt, 435 pp. 10s. 6d. net.
- BUSINESS MANAGEMENT.** By PERCIVAL WHITE. In demy 8vo, cloth gilt, 740 pp. 15s. net.
- BUILDERS' BUSINESS MANAGEMENT.** By J. H. BENNETTS, A.I.O.B. In demy 8vo, cloth gilt, 240 pp. 10s. 6d. net.

- BUSINESS ORGANIZATION AND ROUTINE.** By W. CAMPBELL, *Chartered Secretary*. In foolscap 8vo, leatherette, 64 pp. 1s. net.
- HOTEL ORGANIZATION, MANAGEMENT, AND ACCOUNTANCY.** By G. DE BONI and F. F. SHARLES. Second Edition, Revised by F. F. SHARLES. In demy 8vo, cloth gilt, 215 pp. 10s. 6d. net.
- CLUBS AND THEIR MANAGEMENT.** By F. W. PIXLEY. Second Edition. In demy 8vo, cloth. 252 pp. 10s. 6d. net.
- RETAIL SHOP: ITS ORGANIZATION, MANAGEMENT, AND ROUTINE.** By C. L. T. BECHING, O.B.E., F.G.I. In foolscap 8vo, leatherette, 64 pp. 1s. net.
- THE STOCKBROKER'S OFFICE.** Organisation, Management, and Accounts. By JULIUS E. DAY. In demy 8vo, cloth gilt, 250 pp. 7s. 6d. net.
- SELF-ORGANIZATION FOR BUSINESS MEN.** By MORLEY DAINOW, B.Sc. (Hons.). Third Edition. In demy 8vo, cloth gilt, 154 pp. 5s. net.
- THE ORGANIZATION OF A SMALL BUSINESS.** By WM. A. SMITH, A.C.W.A. Second Edition. In crown 8vo, cloth, 120 pp. 2s. 6d. net.
- MULTIPLE SHOP ORGANIZATION.** By A. E. HAMMOND. In demy 8vo, cloth, 152 pp. 6s. net.
- MODERN OFFICE MANAGEMENT.** By H. W. SIMPSON, F.C.I.S. In demy 8vo, cloth gilt, 320 pp. 7s. 6d. net. Second Edition.

INDUSTRIAL ADMINISTRATION

- THE CAUSES OF ACCIDENTS.** By ERIC FARMER, M.A. In crown 8vo, 96 pp. 3s. 6d. net.
- THE PROBLEM OF INCENTIVES IN INDUSTRY.** By G. H. MILES, D.Sc. In crown 8vo, 60 pp. 2s. 6d. net.
- MUSCULAR WORK, FATIGUE, AND RECOVERY.** By G. P. CROWDEN, M.Sc., M.R.C.S., L.R.C.P. In crown 8vo, 80 pp. 3s. 6d. net.
- BUSINESS RATIONALIZATION.** By CHARLES S. MYERS, C.B.E., M.A., D.Sc., F.R.S. In crown 8vo, cloth, 84 pp. 3s. 6d. net.
- INDUSTRIAL PSYCHOLOGY APPLIED TO THE OFFICE.** By W. SPIELMAN RAPHAEL, B.Sc., C. B. FRISBY, B.Com., and L. I. HUNT, B.A. In crown 8vo, cloth, 90 pp. 3s. 6d. net.
- INDUSTRIAL PSYCHOLOGY IN PRACTICE.** By HENRY J. WELCH, and G. H. MILES, D.Sc. In demy 8vo, cloth gilt, 262 pp. 7s. 6d. net.
- THE PHILOSOPHY OF MANAGEMENT.** By OLIVER SHELDON, B.A. In demy 8vo, cloth gilt, 310 pp. 10s. 6d. net.
- PRINCIPLES OF INDUSTRIAL MANAGEMENT.** By E. A. ALLCUT, M.Sc. (Eng.), M.E. In demy 8vo, cloth gilt, 232 pp. 10s. 6d. net.
- LABOUR ORGANIZATION.** By J. CUNNISON, M.A. In demy 8vo, cloth gilt, 280 pp. 7s. 6d. net.
- NEW LEADERSHIP IN INDUSTRY.** By SAM. A. LEWISOHN. Second Edition. In demy 8vo, cloth gilt, 224 pp. 7s. 6d. net.

- PLANNING, ESTIMATING, AND BATEFIXING.** By A. C. WHITEHEAD. In demy 8vo, cloth gilt, 293 pp. 10s. 6d. net.
- PRODUCTION PLANNING.** By CLIFTON REYNOLDS. In demy 8vo, cloth gilt, 246 pp. 10s. 6d. net.
- ENGINEERING FACTORY SUPPLIES.** By W. J. HISCOX. In demy 8vo, cloth gilt, 184 pp. 5s. net.
- FACTORY LAY-OUT, PLANNING, AND PROGRESS.** By W. J. HISCOX. In demy 8vo, cloth gilt, 200 pp. 7s. 6d. net.
- FACTORY ADMINISTRATION IN PRACTICE.** By W. J. HISCOX. In demy 8vo, cloth gilt, 224 pp. 8s. 6d. net.
- FACTORY ORGANIZATION.** By C. H. NORTHCOTT, M.A., Ph.D.; O. SHELDON, B.A.; J. W. WARDROPPER, B.Sc., B.Com., A.C.W.A.; and L. URWICK, M.A. In demy 8vo, cloth gilt, 264 pp. 7s. 6d. net.
- MANAGEMENT.** By J. LEE, C.B.E., M.A., M.Com.Sc. In demy 8vo, cloth gilt, 133 pp. 5s. net.
- THE EVOLUTION OF INDUSTRIAL ORGANIZATION.** By B. F. SHIELDS, M.A., *Professor of Commerce and Dean of the Faculty of Commerce, University College, Dublin.* Second Edition. In demy 8vo, cloth gilt, 429 pp. 10s. 6d. net.
- INTRODUCTION TO THE PRINCIPLES OF INDUSTRIAL ADMINISTRATION.** By A. P. M. FLEMING and H. J. BROCKLEHURST, M.Eng., A.M.I.E.E. In demy 8vo, 140 pp. 8s. 6d. net.
- RATIONALIZATION.** By J. A. BOWIE. In demy 8vo, 36 pp. 1s. net.

TRANSPORT

- COMMERCIAL MOTOR ROAD TRANSPORT.** By L. M. MEYRICK-JONES. In demy 8vo, cloth gilt, 380 pp. 15s. net.
- PRACTICAL TRANSPORT MANAGEMENT.** By ANDREW HASTIE. In demy 8vo, cloth gilt, 190 pp. 10s. 6d. net.
- INDUSTRIAL TRAFFIC MANAGEMENT.** By GEO. B. LISSENDEN, M.Inst.T. Third Edition. In demy 8vo, cloth gilt, 422 pp. 25s. net.
- COMMERCIAL AIR TRANSPORT.** By LIBUT.-COL. IVO EDWARDS, C.M.G., and F. TYMMS, A.F.R.Ae.S. In demy 8vo, cloth, 178 pp. 7s. 6d. net.
- HOW TO MAKE THE BRITISH RAILWAYS PAY.** By M. F. FARRAR. In demy 8vo, cloth gilt, 96 pp. 8s. 6d. net.
- RAILWAY RATES, PRINCIPLES, AND PROBLEMS.** By PHILIP BURTT, M.Inst.T. In demy 8vo, cloth gilt, 174 pp. 5s. net.
- RAILWAY STATISTICS: THEIR COMPILATION AND USE.** By A. E. KIRKUS, O.B.E., M.Inst.T. In demy 8vo, cloth gilt, 146 pp. 5s. net.
- MODERN RAILWAY OPERATION.** By D. R. LAMB, M.Inst.T. In demy 8vo, cloth gilt, 183 pp. 5s. net.

- RAILWAY ELECTRIFICATION AND TRAFFIC PROBLEMS.** By PHILIP BURTT, M.Inst.T. In demy 8vo, cloth gilt, 210 pp. 5s. net.
- THE HISTORY AND DEVELOPMENT OF ROAD TRANSPORT.** By J. PATTERSON, M.C., M.Inst.T. In demy 8vo, cloth gilt, 128 pp. 5s. net.
- THE HISTORY AND ECONOMICS OF TRANSPORT.** By ADAM W. KIRKALDY, M.A., B.Litt. (Oxon), M.Com. (B'ham.), and ALFRED DUDLEY EVANS. Fifth Edition. In demy 8vo, cloth gilt, 468 pp. 16s. net.
- THE RIGHTS AND DUTIES OF TRANSPORT UNDERTAKINGS.** By H. BARRS DAVIES, M.A., *Solicitor*, and F. M. LANDAU, LL.B., *Barrister-at-Law*. Second Edition. In demy 8vo, cloth, 306 pp. 10s. 6d. net.
- ROAD MAKING AND ROAD USING.** By T. SALKFIELD, M.Inst.C.E., M.Inst.T. In demy 8vo, cloth gilt, 180 pp. 5s. net.
- PORT ECONOMICS.** By B. CUNNINGHAM, D.Sc., B.E., F.R.S.E., M.Inst.C.E. In demy 8vo, cloth gilt, 144 pp. 5s. net.
- MODERN DOCK OPERATION.** By D. ROSS-JOHNSON, C.B.E., V.D., M.Inst.T. In demy 8vo, cloth gilt, 113 pp., illustrated. 5s. net.
- ROAD TRANSPORT OPERATION—PASSENGER.** By R. STUART PILCHER, F.R.S.E., M.Inst.T. In demy 8vo, cloth gilt, 220 pp. 10s. 6d. net.
- CANALS AND INLAND WATERWAYS.** By GEORGE CADBURY, *Managing Director of Messrs. Cadbury Bros., Ltd., Chairman of the Severn and Canal Carrying Co., Ltd.*; and S. P. DOBBS, B.A. In demy 8vo, cloth gilt, 176 pp. 5s. net.

SHIPPING

- SHIPPING OFFICE ORGANIZATION, MANAGEMENT, AND ACCOUNTS**
By ALFRED CALVERT. In demy 8vo, cloth gilt, 203 pp. 6s. net.
- THE SHIPPING WORLD, Afloat and Ashore.** Compiled and Edited by J. A. TODD, M.A., B.L. In crown 8vo, cloth gilt, 306 pp. 7s. 6d. net.
- SHIPPING TERMS AND PHRASES.** Compiled by JAMES A. DUNNAGE. M.I.T.A., A.M.Inst.T. In crown 8vo, cloth, 102 pp. 2s. 6d. net.
- THE EXPORTER'S HANDBOOK AND GLOSSARY.** By F. M. DUDENEY. In demy 8vo, cloth gilt, 254 pp. 7s. 6d. net.
- THE IMPORTER'S HANDBOOK.** By J. A. DUNNAGE. M.I.T.A., A.M.Inst.T. Second Edition. In demy 8vo, cloth gilt, 382 pp. 7s. 6d. net.
- HOW TO EXPORT GOODS.** By F. M. DUDENEY. In crown 8vo, cloth, 112 pp. 2s. net.
- MANUAL OF EXPORTING.** By J. A. DUNNAGE. In demy 8vo, cloth gilt, 392 pp. 7s. 6d. net.
- HOW TO IMPORT GOODS.** By J. A. DUNNAGE. Third Edition. In crown 8vo, cloth, 128 pp. 2s. 6d. net.
- CASE AND FREIGHT COSTS.** By A. W. E. CROSFIELD. In crown 8vo, cloth, 62 pp. 2s. net.

- INTRODUCTION TO SHIPBROKING.** By C. D. MACMURRAY and M. M. CREE. Second Edition. In demy 8vo, cloth, 115 pp. 3s. 6d. net.
- SHIPPING AND SHIPBROKING.** By C. D. MACMURRAY and M. M. CREE. Second Edition. In demy 8vo, cloth gilt, 543 pp. 15s. net.
- SHIPPING BUSINESS METHODS.** By R. B. PAUL. Second Edition. In demy 8vo, cloth gilt, 104 pp. 5s. net.
- SHIPPING FINANCE AND ACCOUNTS.** By R. B. PAUL. In demy 8vo, cloth gilt, 74 pp. 2s. 6d. net.
- SHIPPING PRACTICE.** By E. F. STEVENS. In demy 8vo, cloth gilt, 180 pp. 5s. net.

BANKING AND FINANCE, ETC.

- ARBITRAGE IN BULLION, COIN, BILLS, STOCKS, SHARES, AND OPTIONS.** By HENRY DEUTSCH, Ph.D. Third Edition. Revised by OTTO WEBER. In foolscap 4to, cloth gilt, 384 pp. 42s. net.
- THE MONEY MACHINE.** By FRANCIS WHITMORE, B.Com. In demy 8vo, cloth gilt, 144 pp. 5s. net.
- MONEY, EXCHANGE, AND BANKING. In their Practical, Theoretical, and Legal Aspects.** By H. T. EASTON, *Associate of the Institute of Bankers*. Third Edition. In demy 8vo, cloth gilt, 331 pp. 6s. net.
- THE THEORY AND PRINCIPLES OF CENTRAL BANKING.** By WILLIAM A. SHAW, Litt.D. In demy 8vo, cloth gilt, 262 pp. 12s. 6d. net.
- ENGLISH BANKING METHODS.** By LEONARD LE MARCHANT MINTY, Ph.D., B.Sc. (Econ.), B.Com., LL.B. Fourth Edition. In demy 8vo, cloth gilt, 552 pp. 10s. 6d. net.
- PRINCIPLES OF BANK BOOK-KEEPING.** By HERBERT G. HODDER, *Certificated Associate of the Institute of Bankers, Fellow of the Royal Economic Society*. In demy 8vo, cloth gilt, 158 pp. 5s. net.
- BANKING FOR ADVANCED STUDENTS.** By PERCY G. H. WOODRUFF, Cert. A.I.B. In demy 8vo, cloth, 248 pp. 7s. 6d.
- THEORY AND PRACTICE OF FINANCE.** By W. COLLIN BROOKS. Third Edition. In demy 8vo, 450 pp. 10s. 6d. net.
- MODERN FINANCE AND INDUSTRY.** By A. S. WADE. Second Edition. In demy 8vo, cloth gilt, 136 pp. 5s. net.
- THE ARITHMETIC AND PRACTICE OF THE FOREIGN EXCHANGES.** By A. G. SUGG, Cert. A.I.B. In demy 8vo, cloth gilt, 144 pp. 2s. 6d. Second Edition.
- FOREIGN EXCHANGE AND FOREIGN BILLS IN THEORY AND IN PRACTICE.** By W. F. SPALDING, *Fellow and Member of the Council of the London Institute of Bankers*. Ninth Edition. In demy 8vo, 344 pp. 7s. 6d. net.

- EASTERN EXCHANGE, CURRENCY, AND FINANCE.** By W. F. SPALDING. Fourth Edition. In demy 8vo, cloth, 485 pp., illustrated. 16s. net.
- FOREIGN EXCHANGE, A PRIMER OF.** By W. F. SPALDING. Third Edition. In demy 8vo, cloth, 124 pp. 3s. 6d. net.
- THE FINANCE OF FOREIGN TRADE.** By W. F. SPALDING. In demy 8vo, cloth gilt, 190 pp. 7s. 6d. net.
- DICTIONARY OF THE WORLD'S CURRENCIES AND FOREIGN EXCHANGES.** By W. F. SPALDING. In crown 4to, half-leather gilt, 208 pp. 80s. net.
- BANKERS' CREDITS.** By W. F. SPALDING. Third Edition. In demy 8vo, cloth gilt, 170 pp. 10s. 6d. net.
- THE FUNCTIONS OF MONEY.** By W. F. SPALDING. In demy 8vo, cloth gilt, 179 pp. 7s. 6d. net.
- THE LONDON MONEY MARKET.** By W. F. SPALDING. Fifth Edition. In demy 8vo, cloth gilt, 264 pp. 10s. 6d. net.
- THE BANKER'S PLACE IN COMMERCE.** By W. F. SPALDING. In demy 8vo, cloth, 80 pp. 3s. 6d. net.
- THE DISCOUNT MARKET IN LONDON. Its Organization and Recent Development.** By H. W. GREENGRASS. Second Edition. In demy 8vo, cloth gilt, 194 pp. 6s. net.
- PRINCIPLES OF BANKING, CURRENCY, AND FOREIGN EXCHANGE.** By R. H. KING, *Certificated Associate of the Institute of Bankers.* In crown 8vo, cloth gilt, 180 pp. 5s. net.
- AN INTRODUCTION TO THE PRACTICE OF FOREIGN EXCHANGE.** By H. E. EVITT, *Fellow of the Institute of Bankers, etc.* In demy 8vo, cloth, 112 pp. 3s. 6d. net.
- PRACTICAL BANKING CURRENCY AND EXCHANGE. Part II. Currency and Exchange.** By F. E. EVITT. In demy 8vo, cloth gilt, 312 pp. 6s. net.
- THE SECURITIES CLERK IN A BRANCH BANK.** By F. J. LEWCOCK, Cert. A.I.B., A.C.I.S. In demy 8vo, cloth gilt, 228 pp. 7s. 6d. net.
- ORGANIZATION AND MANAGEMENT OF A BRANCH BANK.** By F. J. LEWCOCK, Cert. A.I.B., A.C.I.S. In demy 8vo, cloth gilt, 144 pp. 5s. net.
- BANK ORGANIZATION, MANAGEMENT, AND ACCOUNTS.** By J. F. DAVIS, D.Lit., M.A., LL.B. Second Edition. In demy 8vo, cloth gilt, 175 pp. 6s. net.
- CAPITAL UNDERWRITING.** By DAVID FINNIE, M.A., C.A. In demy 8vo, cloth gilt, 216 pp. 10s. 6d. net.
- CHEQUES: THEIR ORIGIN AND DEVELOPMENT, AND HOW THEY ARE HANDLED BY AN ENGLISH BANK.** By C. F. HANNAFORD. Edited by Sir JOHN PAGER, K.C. In demy 8vo, cloth gilt, 195 pp. 6s. net.
- SLATER'S BILLS, CHEQUES, AND NOTES.** Fifth Edition, revised by L. LE M. MINTY, Ph.D., B.Sc., B.Com., LL.B., *Barrister-at-Law.* In demy 8vo, cloth gilt, 220 pp. 5s. net.

- THE MORTGAGE BANK.** By J. L. COHEN, M.A. Assisted by ALICE RING, Ph.D. In demy 8vo, cloth gilt, 284 pp. 10s. 6d. net.
- THE BILLS OF EXCHANGE ACT, 1882.** By M. H. MEGRAH, B.Com. (Lond.), Cert. A.I.B. In demy 8vo, cloth gilt, 195 pp. 6s. net.
- A PRACTICAL EXAMINATION OF THE BILLS OF EXCHANGE ACTS.** By C. H. FENNELL. Second Edition. In medium 8vo, cloth gilt, 168 pp. 7s. 6d. net.
- EUROPEAN BILLS OF EXCHANGE.** By C. A. SIBLEY. Second Edition. In demy 8vo, cloth, 112 pp. 7s. 6d. net.
- THE BANKER AS A LENDER.** By F. E. STEELE. In demy 8vo, cloth gilt, 150 pp. 5s. net.
- HOW TO SUCCEED IN A BANK.** By F. E. STEELE. In crown 8vo, cloth, 156 pp. 8s. 6d. net.
- BANKING AS A CAREER.** By F. A. WILLMAN, *Certificated Associate of the Institute of Bankers.* In demy 8vo, cloth gilt, 144 pp. 8s. 6d. net.
- TALKS ON BANKING TO BANK CLERKS.** By HAROLD E. EVANS, *Fellow of the Institute of Bankers.* In crown 8vo, cloth, 152 pp. 2s. 6d. net.
- ANSWERS TO QUESTIONS SET AT THE EXAMINATIONS OF THE INSTITUTE OF BANKERS.** By L. L. M. MINTY, Ph.D., B.Sc. (Econ.), B.Com. Foreign Exchange, Parts I and II. Each 8s. 6d. net. Economics, Parts I and II. Each 5s. net. English Grammar and Composition, Part I. 3s. 6d. net. Part II, 5s. net.
- BANKERS AND THE PROPERTY STATUTES OF 1925 AND 1926.** By R. W. JONES, *Certificated Associate of the Institute of Bankers.* Second Edition. In demy 8vo, cloth gilt, 200 pp. 6s. net.
- BANKERS' ADVANCES.** By F. R. STEAD. Third Edition by C. R. W. CUCKSON, B.A., LL.B. In demy 8vo, cloth gilt, 150 pp. 6s. net.
- BANKERS' TESTS.** By F. R. STEAD. In demy 8vo, cloth gilt, 144 pp. 10s. 6d. net.
- BANKERS' ADVANCES AGAINST PRODUCE.** By A. WILLIAMS. In demy 8vo, cloth gilt, 147 pp. 6s. net.
- ENGLISH COMPOSITION AND BANKING CORRESPONDENCE.** By L. E. W. O. FULLBROOK-LEGGATT, M.C., B.A. Second Edition. In demy 8vo, cloth gilt, 300 pp. 8s. 6d.
- THE RISE AND GROWTH OF JOINT STOCK BANKING.** By S. EVELYN THOMAS, B.Com., Ph.D. (Lond.) Volume I (Britain: to 1860). In demy 8vo, cloth gilt, 690 pp. 20s. net.
- DICTIONARY OF BANKING.** By W. THOMSON, *formerly Bank Inspector.* Eighth Edition. In crown 4to, half-leather gilt, 754 pp. 80s. net.
- A COMPLETE DICTIONARY OF BANKING TERMS IN THREE LANGUAGES (ENGLISH-FRENCH-GERMAN).** By L. HERBNDI. Size 9½ in. by 6½ in. cloth gilt, 566 pp. 21s. net.
- THE BOOK OF THE STOCK EXCHANGE.** By F. E. ARMSTRONG. In royal 8vo, cloth gilt, 414 pp. 10s. 6d. net.

SECRETARIAL WORK, ETC.

- ENGLISH FOR SECRETARIAL STUDENTS.** By WALTER SHAWCROSS, B.A. In demy 8vo, cloth gilt, 238 pp. 5s.
- COMPANY SECRETARIAL ROUTINE.** By C. C. WALFORD A.S.A.A., A.C.I.S. In foolscap 8vo, leatherette, 64 pp. 1s. net.
- THE COMPANY SECRETARY'S VADE MECUM.** Edited by PHILIP TOVEY, F.C.I.S. Fourth Edition, Revised by C. W. ADAMS, A.C.I.S. In foolscap 8vo, cloth, 170 pp. 8s. 6d. net.
- SECRETARY'S HANDBOOK.** Edited by Sir H. E. BLAIN, C.B.E. Second Edition. In demy 8vo, cloth gilt, 168 pp. 5s. net.
- GUIDE FOR THE COMPANY SECRETARY.** By ARTHUR COLES. Third Edition, Revised by W. CECIL WOOD, A.C.I.S. In demy 8vo, cloth gilt, 512 pp. 6s.
- PRACTICAL COMPANY SECRETARY.** By P. F. KNIGHTLEY, A.C.I.S. In demy 8vo, cloth gilt, 238 pp. 5s. net.
- PRACTICAL SECRETARIAL WORK.** By HENRY I. LEE, A.I.S.A., and WILLIAM N. BARR. In demy 8vo, cloth gilt, 406 pp. 7s. 6d. net.
- GUIDE TO COMPANY SECRETARIAL WORK.** By O. OLDHAM, A.C.I.S. Sixth Edition, Revised by G. K. BUCKNALL, A.C.I.S. (HONS.). In crown 8vo, cloth gilt, 244 pp. 8s. 6d.
- DICTIONARY OF SECRETARIAL LAW AND PRACTICE.** Edited by PHILIP TOVEY, F.C.I.S., assisted by specialist contributors. Fourth Edition. In crown 4to, half-leather gilt, 1040 pp. 40s. net.
- HONORARY SECRETARYSHIP.** By W. B. THORNE. In crown 8vo, cloth, 81 pp. 2s. 6d. net.
- THE TRANSFER OF STOCKS, SHARES, AND OTHER MARKETABLE SECURITIES.** By F. D. HEAD, B.A. (Oxon), *Barrister-at-Law*. Fourth Edition. In demy 8vo, cloth gilt, 204 pp. 7s. 6d. net.
- PRACTICAL DIRECTORSHIP.** By H. E. COLESWORTHY, A.C.A., A.S.A.A. Second Edition. In demy 8vo, cloth gilt, 284 pp. 7s. 6d. net.
- FORMATION AND MANAGEMENT OF A PRIVATE COMPANY.** By F. D. HEAD, B.A. Second Edition. In demy 8vo, cloth, 226 pp. 7s. 6d. net.
- THE COMPANY REGISTRAR'S MANUAL.** By J. J. QUINLIVAN. Second Edition. In demy 8vo, cloth gilt, 360 pp. 5s. net.
- MEETINGS.** By F. D. HEAD, B.A. (Oxon), *of Lincoln's Inn, Barrister-at-Law*. Third Edition. In demy 8vo, cloth gilt, 262 pp. 5s. net.
- THE CHAIRMAN'S MANUAL.** By GURDON PALIN, *Barrister-at-Law*, and ERNEST MARTIN, F.C.I.S. Second Edition. In crown 8vo, cloth gilt, 174 pp. 5s. net.
- HOW TO TAKE MINUTES.** Edited by ERNEST MARTIN, F.C.I.S. Fourth Edition. In demy 8vo, cloth gilt, 144 pp. 2s. 6d. net.
- PROSPECTUSES: HOW TO READ AND UNDERSTAND THEM.** By PHILIP TOVEY, F.C.I.S., and H. LAMBERT SMITH, B.Sc. Second Edition. In demy 8vo, cloth gilt, 109 pp. 8s. 6d. net.

- PRACTICAL SHARE TRANSFER WORK.** By F. W. LIDINGTON. In crown 8vo, 123 pp. 3s. 6d. net.
- QUESTIONS AND ANSWERS ON SECRETARIAL PRACTICE.** By E. J. HAMMOND. Fourth Edition. Revised by G. K. BUCKNALL, A.C.I.S. (Hons.). In demy 8vo, cloth gilt, 250 pp. 5s. net.
- EXAMINATION NOTES ON SECRETARIAL PRACTICE.** By C. W. ADAMS, A.C.I.S. Second Edition. In crown 8vo, cloth, 80 pp. 2s. 6d. net.

INCOME TAX

- INCOME TAX LAW, PRACTICE, AND ADMINISTRATION.** By F. F. SHEARLES, F.S.A.A.; R. P. CROOM-JOHNSON, LL.B., K.C.; L. C. GRAHAM-DIXON, *of the Inner Temple, Barrister-at-Law*; and W. J. ECCOTT, *formerly one of H.M. Principal Inspectors of Taxes*. In crown 4to, half leather gilt, 1432 pp. £4 4s. net. Three volumes.
- DICTIONARY OF INCOME TAX AND SUR-TAX PRACTICE.** By W. E. SNELLING. Eighth Edition. In demy 8vo, half leather gilt, 732 pp. 25s. net.
- BURN'S INCOME TAX GUIDE.** By JOHN BURNS, W.S. In crown 8vo, cloth gilt, 220 pp. 5s. net.
- INTRODUCTION TO INCOME TAX.** By E. D. FRYER, A.L.A.A. Third Edition. In crown 8vo, cloth, 94 pp. 2s. 6d. net.
- SNELLING'S PRACTICAL INCOME TAX AND SUR-TAX.** In crown 8vo, cloth, 181 pp. 8s. 6d. net. Twelfth Edition, Revised.
- INCOME TAX HANDBOOK FOR COMPANY SECRETARIES.** By C. W. CHIVERS. In demy 8vo, cloth gilt, 156 pp. 5s. net.

ECONOMICS

- THE GENERAL TARIFF OF THE UNITED KINGDOM: LAW AND REGULATIONS.** Compiled by A. S. HARVEY, *H.M. Customs and Excise Department*. In demy 8vo, cloth gilt, 188 pp. 5s. net.
- AN INTRODUCTION TO INTERNATIONAL TRADE AND TARIFFS.** By R. A. HODGSON, B.Com. (Lond.). In demy 8vo, cloth gilt, 208 pp. 6s. net.
- ECONOMICS OF THE ENGLISH BANKING SYSTEM.** By W. J. WESTON, M.A., B.Sc., *of Gray's Inn, Barrister-at-Law*. In demy 8vo, cloth gilt, 136 pp. 2s. 6d. net.
- DICTIONARY OF ECONOMIC AND BANKING TERMS.** By W. J. WESTON, M.A., B.Sc.; and A. CREW, *Barrister-at-Law*. In crown 8vo, cloth, 248 pp. 5s. net. Third Edition.
- ECONOMIC GEOGRAPHY.** By J. MCFARLANE, M.A., M.Com. Fourth Edition. In demy 8vo, cloth gilt, 688 pp. 10s. 6d.
- THE PRINCIPLES OF ECONOMIC GEOGRAPHY.** By R. N. RUDMOSE BROWN, D.Sc. Second Edition. In demy 8vo, cloth gilt, 223 pp. 6s. net.
- THE HISTORY OF COMMERCE.** By T. G. WILLIAMS, M.A., F.R.Hist.S., F.R.Econ.S. In demy 8vo, cloth gilt, 343 pp. 8s. 6d.
- OUTLINES OF THE ECONOMIC HISTORY OF ENGLAND.** By H. O. MEREDITH, M.A., M.Com. Second Edition. In demy 8vo, cloth gilt, 430 pp. 7s. 6d.

- A SURVEY OF ECONOMIC DEVELOPMENT.** By J. F. REES. In demy 8vo, cloth gilt, 330 pp. 7s. 6d. net.
- MAIN CURRENTS OF SOCIAL AND INDUSTRIAL CHANGE.** By T. G. WILLIAMS, M.A., F.R.Hist.S., F.R.Econ.S. In crown 8vo, cloth gilt, 320 pp. 5s.
- THE PRINCIPLES OF BUSINESS ECONOMICS.** By JAMES STEPHENSON, M.A., M.Com., D.Sc. In demy 8vo, cloth gilt, 504 pp. 10s. 6d. net.
- ECONOMICS OF THE MANUFACTURING BUSINESS.** By W. A. STEWART JONES, F.C.W.A., F.S.S. In demy 8vo, cloth, 160 pp. 3s. 6d.
- ECONOMICS FOR BUSINESS MEN.** By W. J. WESTON, M.A., B.Sc. In crown 8vo, cloth gilt, 230 pp. 8s. 6d. net.
- PRINCIPLES OF ECONOMICS.** By L. A. RUFENER, Ph.D. In medium 8vo, cloth gilt, 862 pp. 16s. net.
- A TEXTBOOK OF ECONOMICS.** By W. J. WESTON, M.A., B.Sc. In demy 8vo, cloth gilt, 460 pp. 7s. 6d.
- ECONOMICS OF INSTALMENT TRADING AND HIRE PURCHASE.** By W. F. CRICK. In demy 8vo, cloth gilt, 126 pp. 5s. net.
- THIS AGE OF PLENTY.** By C. M. HATTERSLEY, M.A., LL.B. Fourth Edition. In crown 8vo, 427 pp., paper, 3s. 6d. net; cloth, 6s. net.
- A FAIR WAGE.** By EDWARD BATTEN, M.I.Mech.E. 100 pp. 2s. 6d. net.
- ECONOMICS OF THE INDUSTRIAL SYSTEM.** By H. A. SILVERMAN, B.A. (Econ.). In demy 8vo, 348 pp. 7s. 6d. net.
- THE SUBSTANCE OF ECONOMICS.** By H. A. SILVERMAN, B.A. (Econ.) Eighth Edition. In demy 8vo, cloth gilt, 370 pp. 6s. net.
- ECONOMICS OF PRIVATE ENTERPRISE, THE.** By J. H. JONES, M.A. Second Edition. In demy 8vo, cloth gilt, 462 pp. 7s. 6d. net.
- INDUSTRIAL COMBINATION IN ENGLAND.** By PATRICK FITZGERALD, D.Sc. (Econ.). Second Edition. In demy 8vo, cloth gilt, 248 pp. 10s. 6d. net.
- ECONOMICS OF THE WHOLESALE AND RETAIL TRADE.** By JAMES STEPHENSON, M.A., M.Com., D.Sc. In demy 8vo, cloth, 292 pp. 5s.
- ECONOMICS OF PRODUCTION AND EXCHANGE.** By JAMES STEPHENSON, M.A., M.Com., D.Sc.; and NOEL BRANTON, B.Com. In demy 8vo, cloth, 484 pp. 7s. 6d.
- ECONOMICS OF BANKING, TRADE AND FINANCE.** By JAMES STEPHENSON and NOEL BRANTON. In demy 8vo, cloth, 382 pp. 7s. 6d.
- ECONOMICS OF THE IMPORT AND EXPORT TRADE.** By HIROMU NAGAOKA. In demy 8vo, cloth, 235 pp. 5s.
- ENGINEERING ECONOMICS.** By T. H. BURNHAM, B.Sc., Hons., B.Com. (Lond.), A.M.I.Mech.E. Second Edition. In demy 8vo, cloth gilt, 392 pp. 10s. 6d.
- INTERNATIONAL COMBINES IN MODERN INDUSTRY.** By ALFRED PLUMMER, B.Litt., M.Sc. (Econ.), LL.D. In demy 8vo, cloth gilt, 190 pp. 7s. 6d. net.

PITMAN'S ECONOMICS SERIES

General Editor: PROFESSOR J. H. JONES, M.A.

Each in large crown 8vo, bound in limp keratol, gilt.

- A PRIMER OF ECONOMIC GEOGRAPHY.** By L. W. LYDE, M.A., F.R.G.S., F.R.S.G.S. 220 pp. 5s. net.
- BRITISH ECONOMISTS.** By FRANCIS C. HOOD, M.A. 106 pp. 2s. 6d. net.
- BUSINESS FORECASTING.** By J. H. RICHARDSON, M.A., Ph.D. 110 pp. 2s. 6d. net.
- CURRENCY AND BANKING.** By D. T. JACK, M.A. 204 pp. 5s. net.
- ECONOMIC FUNCTIONS OF THE STATE.** By R. H. SOLTAU, M.A. 184 pp. 5s. net.
- FINDING CAPITAL FOR BUSINESS.** By DAVID FINNIE, M.A., C.A. 126 pp. 2s. 6d. net.
- INTERNATIONAL TRADE.** By D. T. JACK, M.A. 126 pp. 2s. 6d. net.
- METHODS OF REMUNERATION.** By R. WILSON, M.A., B.Sc. 108 pp. 2s. 6d. net.
- OVERHEAD COSTS.** By SIR HENRY N. BUNBURY, K.C.B. 96 pp. 2s. 6d. net.
- PRODUCTION.** By HUBERT PHILLIPS, M.A. (Oxon). 168 pp. 5s. net.
- SOCIALISM.** By ROBERT RICHARDS. 114 pp. 2s. 6d. net.
- TRANSPORT AND COMMUNICATIONS.** By K. G. FENELON, M.A., Ph.D. 110 pp. 2s. 6d. net.
- VALUE AND DISTRIBUTION.** By HUBERT PHILLIPS, M.A. (Oxon). 174 pp. 5s. net.

MUNICIPAL WORK

- COSTING SCHEMES FOR LOCAL AUTHORITIES.** By J. H. BURTON. Second Edition. In demy 8vo, 144 pp. 5s. net.
- LOANS AND BORROWING POWERS OF LOCAL AUTHORITIES.** By J. H. BURTON. In demy 8vo, cloth gilt, 228 pp. 7s. 6d. net.
- LOCAL GOVERNMENT OF THE UNITED KINGDOM AND THE IRISH FREE STATE.** By J. J. CLARKE, M.A., F.S.S., *of Gray's Inn, Barrister-at-Law*. Eighth Edition. In crown 8vo, cloth gilt, 852 pp. 12s. 6d. net.
- RATES AND RATING.** By ALBERT CREW, *Barrister-at-Law*, and W. T. CRESWELL. Seventh Edition (England and Wales). In crown 8vo, cloth gilt, 526 pp. 12s. 6d. net.
- MUNICIPAL BOOK-KEEPING.** By J. H. MCCALL, F.S.A.A. Third Edition. In demy 8vo, cloth gilt, 130 pp. 7s. 6d.
- MUNICIPAL AUDIT PROGRAMMES.** By S. WHITEHEAD, A.S.A.A. Second Edition. In demy 8vo, cloth gilt. 116 pp. 5s. net.
- MUNICIPAL ACCOUNTING SYSTEMS.** By S. WHITEHEAD. Second Edition. In demy 8vo, cloth gilt, 168 pp. 5s.
- MUNICIPAL STUDENT'S EXAMINATION NOTEBOOK.** By S. WHITEHEAD. Second Edition. In crown 8vo, cloth, 335 pp. 7s. 6d. net.
- AMERICAN CITY GOVERNMENT.** By W. ANDERSON, Ph.D. In demy 8vo, cloth gilt, 686 pp. 21s. net.

MUNICIPAL SERIES. The Organization and Administration of the Various Departments of a Municipal Office. Edited by W. BATESON, A.C.A., F.S.A.A.—

FINANCE DEPARTMENT. By WILLIAM BATESON, A.C.A., F.S.A.A. In demy 8vo, cloth gilt, 274 pp. 7s. 6d. net.

TRAMWAYS DEPARTMENT. By S. B. NORMAN MARSH, *Accountant to the Birmingham Corporation Tramways.* In demy 8vo, cloth gilt, 170 pp. 6s. net.

GAS UNDERTAKING. By EDWIN UPTON, F.S.A.A. In demy 8vo, cloth gilt, 130 pp. 5s. net.

TOWN CLERK'S DEPARTMENT AND THE JUSTICES' CLERK'S DEPARTMENT. By A. S. WRIGHT and E. H. SINGLETON. In demy 8vo, cloth gilt, 268 pp. 7s. 6d. net.

WATERWORKS UNDERTAKING. By FREDERICK J. ALBAN, F.S.A.A., F.I.M.T.A., A.C.I.S. In demy 8vo, cloth gilt, 314 pp. 10s. 6d. net.

EDUCATION DEPARTMENT. By ALFRED E. IKIN, B.Sc., LL.D. In demy 8vo, cloth gilt, 251 pp. 7s. 6d. net.

PUBLIC HEALTH DEPARTMENT. By W. A. LEONARD, *Chief Clerk and Statistician in the Public Health Department, Birmingham.* In demy 8vo, cloth gilt, 155 pp. 6s. net.

MUNICIPAL ENGINEER AND SURVEYOR'S DEPARTMENT. By E. J. ELFORD, *Engineer, Architect and Surveyor to the Metropolitan Borough of Wandsworth.* In demy 8vo, cloth gilt, 245 pp. 10s. 6d. net.

RATING DEPARTMENT. By A. H. PEACOCK, M.A., A.S.A.A., *Incorporated Accountant.* In demy 8vo, cloth gilt, 96 pp. 5s. net.

ADVERTISING AND SALESMANSHIP

THE DICTIONARY OF ADVERTISING AND PRINTING. By G. J. FRESHWATER and ALFRED BASTIEN. In crown 4to, half leather gilt, 460 pp. 42s. net.

ART IN ADVERTISING. By DOROTHY E. M. HOLDICH and ERNEST W. TWINING. In crown 4to, cloth gilt, 206 pp. 10s. 6d. net.

ADVERTISING TO WOMEN. By CARL A. NÆTHER, M.A. Size 9 in. by 6 in., cloth gilt, 356 pp. 21s. net.

STORECRAFT. By S. A. WILLIAMS, M.A. In crown 8vo, cloth, 143 pp. 3s. 6d. net.

PRINCIPLES OF RETAIL DISTRIBUTION. By S. A. WILLIAMS, M.A. In crown 4vo, cloth gilt, 218 pp. 5s. net.

SUCCESSFUL RETAILING. By E. N. SIMONS. In demy 8vo, cloth gilt, 210 pp. 5s. net.

THE CRAFT OF SILENT SALESMANSHIP. A Guide to Advertisement Construction. By C. MAXWELL TREGURTHA and J. W. FRINGS. Size 6½ in. by 9½ in., cloth, 98 pp., with illustrations. 3s. 6d. net.

- SALES COUNTERCRAFT.** By WILLIAM G. CARTER, M.P.S. In demy 8vo, cloth gilt, 224 pp. 7s. 6d. net.
- PERSONAL SALESMANSHIP.** By R. SIMMAT, M.A. In demy 8vo, cloth gilt, 108 pp. 5s. net.
- SALESMANSHIP.** By WILLIAM MAXWELL. In crown 8vo, cloth gilt, 238 pp. 5s. net.
- SALESMANSHIP.** By W. A. CORBION and G. E. GRIMSDALE. In crown 8vo, cloth, 168 pp. 8s. 6d. net.
- TRAINING FOR MORE SALES.** By C. C. KNIGHTS. Second Edition. In demy 8vo, cloth, 264 pp. 5s. net.
- AN OUTLINE OF SALES MANAGEMENT.** By C. C. KNIGHTS. Second Edition. In demy 8vo, cloth gilt, 196 pp. 5s. net.
- TECHNIQUE OF SALESMANSHIP.** By C. C. KNIGHTS. Second Edition. In demy 8vo, cloth gilt, 249 pp. 5s. net.
- BUILDING RETAIL SALES.** By C. C. KNIGHTS. In demy 8vo, cloth gilt, 230 pp. 5s. net.
- MORE SALES THROUGH THE WINDOW.** By C. C. KNIGHTS. In demy 8vo, cloth gilt, 170 pp. 8s. 6d. net.
- PRACTICAL SALESMANSHIP.** By N. C. FOWLER, JUNR. In crown 8vo, 337 pp. 7s. 6d. net.
- RETAIL MANAGEMENT.** By CUNLIFFE L. BOLLING. In demy 8vo, cloth gilt, 484 pp. 16s. net.
- RETAIL SALESMANSHIP.** By CUNLIFFE L. BOLLING. Second Edition. In demy 8vo, cloth gilt, 284 pp. 7s. 6d. net.
- SALES MANAGEMENT.** By CUNLIFFE L. BOLLING. Second Edition. In demy 8vo, cloth gilt, 372 pp. 10s. 6d. net.
- SALESMEN'S AGREEMENTS.** Compiled from the proceedings of a special Conference of the Incorporated Association of Sales Managers of Great Britain. In demy 8vo, cloth gilt, 84 pp. 5s. net.
- THE OUTFITTER'S SALESMAN.** By E. OSTICK, M.A., L.C.P. In crown 8vo, cloth gilt, 170 pp. 5s. net.
- TEXTILES FOR SALESMEN.** By E. OSTICK, M.A., L.C.P. Second Edition. In crown 8vo, cloth gilt, 174 pp. 5s. net.
- PSYCHOLOGY AS A SALES FACTOR.** By A. J. GREENLY. Second Edition. In demy 8vo, cloth gilt, 224 pp. 7s. 6d. net.
- MODERN SALES CORRESPONDENCE.** By D. M. WILSON. In demy 8vo, cloth gilt, 80 pp. 3s. 6d. net.
- DIRECT MAIL ADVERTISING.** For the Retail Trader. By H. DENNETT. In demy 8vo, cloth gilt, 220 pp. 7s. 6d. net.
- SALES AND ROUTINE LETTERS FOR THE RETAIL TRADER.** By H. DENNETT. In demy 8vo, cloth gilt, 204 pp. 7s. 6d. net.
- COMMERCIAL TRAVELLING.** By ALBERT E. BULL. In crown 8vo, cloth gilt, 174 pp. 8s. 6d. net.
- TRAINING FOR TRAVELLING SALESMEN.** By FRANK W. SHRUBSALL. In crown 8vo, cloth gilt, 90 pp. 2s. 6d. net.

- THE BUSINESS MAN'S GUIDE TO ADVERTISING.** By A. E. BULL. In crown 8vo, cloth, 127 pp. 3s. 6d. net.
- ADVERTISING AND THE SHOPKEEPER.** By HAROLD W. ELEY. In crown 8vo, 160 pp. 3s. 6d. net.
- ROUTINE OF THE ADVERTISING DEPARTMENT.** By REGINALD H. W. COX. In demy 8vo, cloth gilt, 202 pp. 10s. 6d. net.
- LAY-OUTS FOR ADVERTISING.** By JOHN DELL. In crown 8vo, cloth gilt, 176 pp. 12s. 6d. net.
- ADVERTISEMENT LAY-OUT AND COPY-WRITING.** By A. J. WATKINS. In crown 4to, cloth, 130 pp. 15s. net.
- PRACTICAL TYPOGRAPHY AND COPY WRITING.** By COURTNEY D. FARMER. In demy 8vo, cloth gilt, 110 pp. 5s. net.
- BUSINESS LETTER PRACTICE.** By J. B. OPDYCKE. Fifth Edition. In demy 8vo, cloth gilt, 602 pp. 7s. 6d. net.
- SELLING BY POST.** By HAROLD W. ELEY. In foolscap 8vo, leatherette, 64 pp. 1s. net.
- THE OUTDOOR SALES FORCE.** By P. E. WILSON. In crown 8vo, cloth, 146 pp. 3s. 6d. net.
- SUCCESSFUL BUYING.** By E. N. SIMONS. In demy 8vo, cloth gilt, 291 pp. 10s. 6d. net.
- MARKET RESEARCH.** By R. SIMMAT, M.A. In demy 8vo, cloth gilt, 128 pp. 6s. net.
- THE PRINCIPLES AND PRACTICE OF MARKETING.** By R. SIMMAT, M.A. In demy 8vo, cloth gilt, 247 pp. 12s. 6d. net.
- PRACTICAL AIDS TO RETAIL SELLING.** By A. EDWARD HAMMOND. In demy 8vo, cloth gilt, 180 pp. 12s. 3s. 6d. net.
- PLANNED SELLING.** By JOHN W. POWELL, A.M.C.T.Eng. In demy 8vo, cloth gilt, 228 pp. 8s. 6d. net.
- ADVERTISING THROUGH THE PRESS.** By N. HUNTER. In demy 8vo, cloth, 146 pp. 5s. net.
- PRACTICAL PRESS PUBLICITY.** By A. L. CULYER. In demy 8vo, cloth, 95 pp. 3s. 6d. net.
- SHOP FITTINGS AND DISPLAY.** By A. E. HAMMOND. In demy 8vo, cloth, 142 pp. 5s. net.
- WINDOW DRESSING.** By G. L. TIMMINS. In crown 8vo, cloth, 85 pp. 2s. net.
- ART OF WINDOW DISPLAY.** Edited by H. ASHFORD DOWN. In crown 4to, cloth gilt, 220 pp. 21s. net.
- COMMERCIAL PHOTOGRAPHY.** By D. CHARLES. Second Edition. In demy 8vo, cloth gilt, 316 pp. 10s. 6d. net.
- HINTS AND TIPS FOR COMMERCIAL ARTISTS.** By BERNARD J. PALMER. Second Edition. In crown 8vo, 122 pp. 5s. net.

- TRAINING IN COMMERCIAL ART.** By V. L. DANVERS. In crown 4to. 10s. 6d. net.
- TICKET AND SHOW CARD DESIGNING.** By F. A. PEARSON. In foolscap, 180 pp. 4to, cloth. 8s. 6d. net.
- TYPES AND TYPE FACES.** (From *Modern Advertising*.) By C. M. TREGURTHA. In crown 4to, quarter cloth, 48 pp. 2s. 6d. net.
- THE ART AND PRACTICE OF PRINTING.** Edited by WM. ATKINS. In six volumes. In crown 8vo, cloth gilt. Each 7s. 6d. net.
- PRINTING.** By H. A. MADDOX. Second Edition. In demy 8vo, cloth, 178 pp. 5s. net.

JOURNALISM

- SUB-EDITING.** By F. J. MANSFIELD. In demy 8vo, cloth gilt, 264 pp. 10s. 6d. net.
- JOURNALISM.** By SOME MASTERS OF THE CRAFT. In demy 8vo, 232 pp. 5s. net.
- MODERN JOURNALISM.** By C. F. CARR and F. E. STEVENS. In demy 8vo, cloth gilt, 252 pp. 10s. 6d. net.
- JOURNALISM AS A CAREER.** Edited by W. T. CRANFIELD. In demy 8vo, cloth, 108 pp. 5s. net.
- AUTHORSHIP AND JOURNALISM.** By ALBERT E. BULL. In crown 8vo, cloth, 170 pp. 8s. 6d. net.
- PITMAN'S POPULAR GUIDE TO JOURNALISM.** By ALFRED KINGSTON. Fourth Edition. In crown 8vo, cloth, 124 pp. 2s. 6d. net.
- PITMAN'S PRACTICAL JOURNALISM.** By ALFRED BAKER. Second Edition. Revised by E. A. COPE. In crown 8vo, cloth, 180 pp. 3s. 6d. net.
- SHORT STORY WRITING AND FREE-LANCE JOURNALISM.** By SYDNEY A. MOSELEY. Second Edition. In demy 8vo, cloth gilt, 241 pp. 7s. 6d. net.

LAW

- ELEMENTARY LAW.** By E. A. COPE. In crown 8vo, cloth, 224 pp., with specimen legal forms. 4s. net. Second Edition, Revised by A. H. COSWAY.
- SLATER'S MERCANTILE LAW.** Eighth Edition, by R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D., *Barrister-at-Law*, and R. H. CODE HOLLAND, B.A. (Lond.), *Barrister-at-Law*. In demy 8vo, cloth gilt, 672 pp. 7s. 6d.
- INTRODUCTION TO COMMERCIAL LAW.** By NORMAN A. WEBB, B.Sc. In demy 8vo, cloth, 175 pp. 5s.
- COMPANIES AND COMPANY LAW.** By A. C. CONNELL, LL.B. (Lond.). Fourth Edition, Revised by W. E. WILKINSON, LL.D. In demy 8vo, cloth gilt, 422 pp. 6s.
- MANUAL OF COMPANY LAW AND PRACTICE.** By LESLIE MADDOCK, *Barrister-at-Law*. In demy 8vo, cloth gilt, 437 pp. 10s. 6d.

- COMPANY LAW.** By D. F. DE L'HOSTE RANKING, M.A., LL.D., and E. E. SPICER, F.C.A. Sixth Edition. Edited by H. A. R. J. WILSON, F.C.A., F.S.A.A. In demy 8vo, cloth gilt, 498 pp. 10s. net.
- THE LAW OF JOINT STOCK COMPANIES.** By W. J. WESTON, M.A., B.Sc., of *Gray's Inn, Barrister-at-Law*. In demy 8vo, 308 pp. 7s. 6d. net.
- LAW OF CARRIAGE BY RAILWAY.** By L. R. LIPSETT, M.A., LL.D., and T. J. D. ATKINSON, M.A. Size 6 in. by 9 in., cloth gilt, 966 pp. 50s. net.
- LAW OF ARBITRATION AND AWARDS.** By H. S. PALMER, M.A. (Oxon). In demy 8vo, 180 pp. 6s. net.
- LAW OF GAMING AND BETTING.** By C. F. SHOOLBRED, B.A., LL.B., *Barrister-at-Law*. In demy 8vo, cloth gilt, 274 pp. 10s. 6d. net.
- LAW RELATING TO RESTRAINT OF TRADE.** By R. YORKE HEDGES, LL.M., *Barrister-at-Law*. In demy 8vo, cloth gilt, 140 pp. 7s. 6d. net.
- AIR AND AVIATION LAW (CIVIL AVIATION).** By WM. MARSHALL FREEMAN, *Barrister-at-Law*. In demy 8vo, cloth gilt, 176 pp. 7s. 6d. net.
- ADMINISTRATION OF ESTATES.** By A. H. COSWAY. In crown 8vo, 172 pp. 5s. net.
- RIGHTS AND DUTIES OF LIQUIDATORS, TRUSTEES, AND RECEIVERS.** By D. F. DE L'HOSTE RANKING, M.A., LL.D., E. E. SPICER, F.C.A., and E. C. PEGLER, F.C.A. Size 9½ in. by 7 in., cloth gilt, 455 pp. 15s. net. Eighteenth Edition. Edited by H. A. R. J. WILSON, F.C.A., F.S.A.A.
- LIQUIDATOR'S INDEX AND SUMMARY OF THE COMPANIES ACT AND WINDING UP RULES, 1929.** By JOHN H. SENIOR, F.C.A., and H. M. PRATT. In foolscap folio, buckram, 96 pp. 7s. 6d. net.
- GUIDE TO BANKRUPTCY LAW AND WINDING UP OF COMPANIES.** By F. PORTER FAUSSET, M.A., *Barrister-at-Law*. Second Edition. In crown 8vo, cloth gilt, 216 pp. 5s. net.
- NOTES ON BANKRUPTCY LAW.** By V. R. ANDERSON, A.C.A. In crown 8vo, cloth, 86 pp. 2s. 6d. net.
- DUCKWORTH'S PRINCIPLES OF MARINE LAW.** Fourth Edition, Revised by WM. MARSHALL FREEMAN, *Barrister-at-Law*. In demy 8vo, 388 pp. 7s. 6d. net.
- LAW FOR JOURNALISTS.** By CHARLES PILLEY, *Barrister-at-Law*. Second Edition. In demy 8vo, cloth, 170 pp. 5s. net.
- THE LAW RELATING TO BANKING AND FOREIGN EXCHANGE.** By L. LE M. MINTY, Ph.D., B.Sc. (Econ.), B.Com., LL.B., Cert. A.I.B., *Barrister-at-Law*. In crown 4to, half leather gilt, 384 pp. 80s. net.
- PARTNERSHIP LAW.** By D. F. DE L'HOSTE RANKING, M.A., LL.D., E. E. SPICER, F.C.A., and E. C. PEGLER, F.C.A. Fifth Edition. Edited by WALTER W. BIGG, F.C.A., F.S.A.A. In royal 8vo, cloth, 167 pp. 7s. 6d. net.
- PARTNERSHIP LAW AND ACCOUNTS.** By R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D., *Barrister-at-Law*. In demy 8vo, 174 pp. 6s. net.

- THE LAW OF CONTRACT.** By R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D. Revised Edition. In demy 8vo, cloth, 123 pp. 5s. net.
- TRUSTS.** By C. KELLY and J. COLE-HAMILTON, *Chartered Accountants*. In demy 8vo, cloth gilt, 418 pp. 15s. net.
- EXECUTORSHIP LAW AND ACCOUNTS.** By D. F. DE L'HOSTE RANKING, M.A., LL.D., E. E. SPICER, F.C.A., and E. C. PEGLER, F.C.A. Size 10 in. by 7½ in., cloth gilt, 370 pp. 16s. net. Eleventh Edition. Edited by H. A. R. J. Wilson, F.C.A., F.S.A.A.
- A HANDBOOK ON WILLS.** By A. H. COSWAY. In crown 8vo, cloth, 123 pp. 2s. 6d. net.
- WILLS.** A Complete Guide for Testators, Executors, and Trustees. With a Chapter on Intestacy. By R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D., of the Middle Temple, *Barrister-at-Law*. In foolscap 8vo, cloth, 122 pp. 2s. 6d. net. Third Edition.
- SOLICITOR'S CLERK'S GUIDE.** By EDWARD A. COPE. Revised by FRED G. W. LESTER. In crown 8vo, cloth gilt, 214 pp. 4s. net.
- MUNICIPAL AND LOCAL GOVERNMENT LAW.** By H. EMERSON SMITH, LL.B. (Lond.). Third Edition. In demy 8vo, cloth gilt, 296 pp. 10s. 6d. net.
- LAW FOR THE HOUSE-OWNER.** By A. H. COSWAY. Second Edition. 128 pp. In crown 8vo, cloth. 2s. 6d. net.
- THE BUSINESS TENANT.** By E. S. COX-SINCLAIR, *Barrister-at-Law*, and T. HYNES, LL.B., *Barrister-at-Law*. In crown 8vo, cloth, 263 pp. 7s. 6d. net.
- LAW AND PRACTICE RELATING TO INCORPORATED BUILDING SOCIETIES.** By C. P. BEST, B.A., LL.B., of the Middle Temple, *Barrister-at-Law*. In crown 8vo, cloth gilt, 480 pp. 12s. 6d. net.
- THE LAW RELATING TO BUILDING AND BUILDING CONTRACTS.** By W. T. CRESWELL, Hon. A.R.I.B.A., F.R.San.Inst., of Gray's Inn, *Barrister-at-Law*. Second Edition. In demy 8vo, cloth, 372 pp. 12s. 6d. net.
- LAW OF INLAND TRANSPORT.** By W. H. GUNN, LL.B. (Lond.), of the Middle Temple and the South-Eastern Circuit, *Barrister-at-Law*. In demy 8vo, cloth gilt, 332 pp. 8s. 6d. net.
- COPYRIGHT IN INDUSTRIAL DESIGNS.** By A. D. RUSSELL-CLARKE, of the Inner Temple, *Barrister-at-Law*. In demy 8vo, cloth, 212 pp. 10s. 6d. net.
- THE LAW OF EVIDENCE.** By W. NEMBARD HIBBERT, LL.D., *Barrister-at-Law*. Sixth Edition, Revised. In crown 8vo, 132 pp. 7s. 6d. net.
- THE LAW OF PROCEDURE.** By W. NEMBARD HIBBERT. Fourth Edition. In demy 8vo, cloth gilt, 133 pp. 7s. 6d. net.
- THE LAW OF MASTER AND SERVANT.** By FRANCIS RALEIGH BATT, LL.M., of Gray's Inn, *Barrister-at-Law*. Second Edition. In demy 8vo, cloth gilt, 522 pp. 12s. 6d. net.

- TRADE MARK LAW AND PRACTICE.** By A. W. GRIFFITHS, B.Sc. (Eng.), Lond., *Barrister-at-Law*. In demy 8vo, cloth gilt, 268 pp. 10s. 6d. net.
- THE LAW RELATING TO ADVERTISING.** By E. LING-MALLISON, B.Sc. (Lille), *Barrister-at-Law*. In crown 8vo, cloth gilt, 234 pp. 7s. 6d. net.
- THE LAW RELATING TO INDUSTRY.** By H. SAMUELS, M.A., of the *Middle Temple*, *Barrister-at-Law*. In demy 8vo, cloth gilt, 258 pp. 15s. net.
- THE LAW OF THE SALE OF GOODS.** By C. G. AUSTIN, B.A. (Oxon). In demy 8vo, cloth gilt, 172 pp. 5s. net.
- LAW AND ORGANIZATION OF THE BRITISH CIVIL SERVICE.** By N. E. MUSTON, M.A., LL.B. In demy 8vo, cloth gilt, 218 pp. 7s. 6d. net.
- POLEY'S LAW AND PRACTICE OF THE STOCK EXCHANGE.** Fifth Edition. By R. H. CODE HOLLAND, B.A., of the *Middle Temple*, *Barrister-at-Law*, and JOHN N. WERRY. In demy 8vo, cloth gilt, 470 pp. 15s. net.

BUSINESS REFERENCE BOOKS

- BUSINESS TERMS, PHRASES, AND ABBREVIATIONS.** In crown 8vo, cloth, 280 pp. 8s. 6d. net. Seventh Edition. With equivalents in French, German, Spanish, and Italian; and facsimile documents.
- PITMAN'S BUSINESS MAN'S GUIDE.** In crown 8vo, cloth, 546 pp. 6s. net. Tenth Edition, Revised.
- MERCANTILE TERMS AND ABBREVIATIONS.** Size 3 in. by 4½ in., cloth, 126 pp. 1s. 6d. net. Containing over 1,000 terms and 500 abbreviations with definitions.
- BUSINESS FORECASTING AND ITS PRACTICAL APPLICATION.** By W. WALLACE, M.Com. (Lond.). Third Edition. In demy 8vo, cloth gilt, 148 pp. 7s. 6d. net.
- PRACTICAL BUSINESS FORECASTING.** By D. F. JORDAN. Size 6 in. by 9 in., cloth, 270 pp. 16s. net.
- BUSINESS CHARTS.** By T. G. ROSE, A.M.I.Mech.E. In demy 8vo, cloth gilt, 104 pp. 10s. 6d. net.
- BUSINESS BUDGETS AND BUDGETARY CONTROL.** By A. W. WILLSMORE, F.R.Econ.S. In demy 8vo, cloth gilt, 238 pp. 10s. 6d. net.
- FRAUD AND EMBEZZLEMENT.** By IRVINE HUBERT DEARNLEY. In demy 8vo, cloth gilt, 192 pp. 7s. 6d. net.
- SHAREHOLDERS' MONEY.** By HORACE B. SAMUEL, M.A. (Oxon), *Barrister-at-Law*. In demy 8vo, cloth gilt, 406 pp. 15s. net.
- ALTERATION OF SHARE CAPITAL.** By P. LEA REED, A.I.S.A., *Incorporated Secretary*, and C. WRIGHT, A.C.A. In demy 8vo, cloth gilt, 144 pp. 8s. net.
- MONEY-MAKING IN STOCKS AND SHARES.** By SYDNEY A. MOSELEY. Third Edition. In demy 8vo, cloth gilt, 252 pp. 7s. 6d. net.

- HOW THE STOCK MARKET REALLY WORKS.** By W. COLLIN BROOKS. In demy 8vo, cloth gilt, 160 pp. 5s. net.
- MARKETS OF LONDON.** By CUTBERT MAUGHAN. In demy 8vo, cloth gilt, 218 pp. 6s. net.
- SCIENTIFIC INVESTMENT.** By HARGREAVES PARKINSON, B.A., B.Com. Second Edition. In demy 8vo, 246 pp., cloth gilt. 10s. 6d. net.
- A SHORT HISTORY OF INVESTMENT.** By PERCY RIPLEY. In demy 8vo, cloth gilt, 214 pp. 7s. 6d. net.
- INVESTMENT IN STOCKS AND SHARES.** By E. D. KISSAN and L. D. WILLIAMS. In demy 8vo, cloth gilt, 224 pp. 8s. 6d. net.
- THE SMALL INVESTOR'S GUIDE.** By SYDNEY A. MOSELEY. Second Edition. In demy 8vo, cloth, 160 pp. 5s. net.
- THE ROOT PRINCIPLES OF INVESTMENT.** By H. COPE WEST. In demy 8vo, cloth, 232 pp. 15s. net.
- TYPES OF BUSINESS ENTERPRISE.** By M. C. CROSS, LL.B., Ph.D. In medium 8vo, cloth gilt, 348 pp. 21s. net.
- DUPLICATING AND COPYING PROCESSES.** By W. DESBOROUGH, O.B.E., F.C.I. In demy 8vo, cloth gilt, 146 pp. 5s. net.
- STATISTICAL METHODS.** By F. C. MILLS, *Associate Professor of Business Statistics, Columbia University.* In demy 8vo, cloth gilt, 620 pp. 15s. net.
- STATISTICS.** By WILLIAM VERNON LOVITT, Ph.D., *Professor of Mathematics, Colorado College;* and HENRY F. HOLTZCLAW, Ph.D., *Professor of Commerce, University of Kansas.* In medium 8vo, cloth gilt, 304 pp. 15s. net.
- BUSINESS STATISTICS. Their Preparation, Compilation, and Presentation.** By R. W. HOLLAND, O.B.E., M.A., M.Sc., LL.D. Third Edition. In crown 8vo, cloth, 108 pp. 3s. 6d. net.
- STATISTICS IN THEORY AND PRACTICE.** By L. R. CONNOR, M.Sc., *Barrister-at-Law.* In medium 8vo, cloth gilt, 392 pp. 12s. 6d. net.
- STATISTICS AND THEIR APPLICATION TO COMMERCE.** By A. L. BODDINGTON, *Fellow of the Royal Statistical and Economic Societies.* Fifth Edition. In medium 8vo, cloth gilt, 340 pp. 12s. 6d. net.
- A MANUAL OF CHARTING.** Size 6 in. by 9 in., cloth gilt, 116 pp. 6s. net.
- PITMAN'S BOOK OF SYNONYMS AND ANTONYMS.** In crown 8vo, cloth, 140 pp. 2s. 6d. net.
- PITMAN'S OFFICE DESK BOOK.** Third Edition. In crown 8vo. 320 pp., cloth. 2s. 6d. net.
- REPORT WRITING.** By CARL G. GAUM, M.E., and HAROLD F. GRAVES, M.A. In medium 8vo, cloth gilt, 322 pp. 12s. 6d. net.

- SPEAKING IN PUBLIC.** By ARLEIGH B. WILLIAMSON, M.A., *Associate Professor of Public Speaking, Washington Square College, New York University.* In medium 8vo, cloth gilt, 430 pp. 15s. net.
- HOW TO SPEAK IN PUBLIC.** By C. F. CARR and F. E. STEVENS. Second Edition. In crown 8vo, cloth, 128 pp. 8s. 6d. net.
- DICTIONARY OF THE WORLD'S COMMERCIAL PRODUCTS.** By J. H. VANSTONE, F.R.G.S. With French, German, and Spanish equivalents for the names of the products. In demy 8vo, cloth, 170 pp. 5s. net. Third Edition.
- RAW MATERIALS OF COMMERCE.** Edited by J. H. VANSTONE, F.R.G.S. In two volumes, demy 4to, cloth gilt, 793 pp. Complete, 20s. net.
- THE COTTON WORLD.** Compiled and Edited by J. A. TODD, M.A., B.L. In crown 8vo, cloth, 246 pp. 5s. net.
- SPICES AND CONDIMENTS.** By H. STANLEY REDGROVE, B.Sc., F.I.C. In demy 8vo, cloth gilt, 378 pp. 15s. net.
- FRUIT AND THE FRUIT TRADE.** By FORD FAIRFORD. In demy 8vo, cloth, 162 pp. 6s. net.
- TEA AND TEA DEALING.** By F. W. S. STAVEACRE. Second Edition. In demy 8vo, cloth gilt, 150 pp. 7s. 6d. net.
- THE COCOA AND CHOCOLATE INDUSTRY.** By A. W. KNAPP, M.Sc., F.I.C. In demy 8vo, cloth gilt, 200 pp. 7s. 6d. net. Second Edition.
- BUYING AND SELLING A BUSINESS.** By A. H. COSWAY. In crown 8vo, cloth, 110 pp. 8s. 6d. net.
- LETTER WRITING: A GUIDE TO BUSINESS CORRESPONDENCE.** By G. K. BUCKNALL, A.C.I.S. (Hons.). In foolscap 8vo, leatherette, 64 pp. 1s. net.
- HOW TO GRANT CREDIT.** By CUTHBERT GREIG. In crown 8vo, cloth, 102 pp. 8s. 6d. net.
- HOW TO APPEAL AGAINST YOUR RATES.** By A. STANLEY EAMER, F.S.I., *Rating Surveyor to the Metropolitan Borough of Lambeth.* In two volumes, in crown 8vo, cloth. Vol. I (without the Metropolis), 5s. net. Vol. II (within the Metropolis), 8s. 6d. net.
- GUIDE TO COUNTY COURT PROCEDURE.** Being the Second Edition of *The Traders' Guide to County Court Procedure.* By F. H. B. CHAPMAN. Revised by B. S. HILLS. In crown 8vo, cloth, 104 pp. 2s. 6d. net.
- COMMERCIAL ATLAS OF THE WORLD.** Revised by W. P. RUTTER, M.Com. In crown 4to, cloth, 226 pp. 5s.
- STATISTICAL ATLAS OF THE WORLD.** By J. STEPHENSON, M.A., M.Com., D.Sc. In foolscap folio, cloth, 146 pp. 7s. 6d. net.
- THE FUTURE OF EMPIRE TRADE.** By J. E. RAY. With a Foreword by The Rt. Hon. L. S. AMERY. In crown 8vo, paper, 128 pp. 2s. net.

FOREIGN LANGUAGE DICTIONARIES

DICTIONARY OF COMMERCIAL CORRESPONDENCE IN SEVEN LANGUAGES: ENGLISH, FRENCH, GERMAN, SPANISH, ITALIAN, PORTUGUESE: AND RUSSIAN. Third Edition. In demy 8vo, cloth, 718 pp. 12s. 6d. net.

ENGLISH-FRENCH AND FRENCH-ENGLISH DICTIONARY OF BUSINESS WORDS AND TERMS. Size 2 in. by 6 in., cloth, rounded corners, 540 pp. 5s. net.

FRENCH-ENGLISH AND ENGLISH-FRENCH COMMERCIAL DICTIONARY of the Words and Terms used in Commercial Correspondence. By F. W. SMITH. Second Edition. In crown 8vo, cloth, 576 pp. 7s. 6d. net.

GERMAN-ENGLISH AND ENGLISH-GERMAN COMMERCIAL DICTIONARY. By J. BITHELL, M.A. Second Edition. In crown 8vo, cloth gilt. 992 pp. 16s. net.

A NEW GERMAN-ENGLISH DICTIONARY FOR GENERAL USE. By F. C. HEBERT and L. HIRSCH. In crown 8vo, cloth gilt, 1769 pp. 16s. net.

ENGLISH-GERMAN AND GERMAN-ENGLISH DICTIONARY OF BUSINESS WORDS AND TERMS. Size 2 in. by 6 in., rounded corners, 440 pp., cloth. 6s. net.

SPANISH-ENGLISH AND ENGLISH-SPANISH COMMERCIAL DICTIONARY of the Words and Terms used in Commercial Correspondence. By G. R. MACDONALD. Third Edition. In crown 8vo, cloth gilt. 833 pp. 12s. 6d. net.

ITALIAN-ENGLISH AND ENGLISH-ITALIAN COMMERCIAL DICTIONARY. By G. R. MACDONALD, F.I.L. In crown 8vo, cloth gilt, 1180 pp. 80s. net.

BARETT'S ITALIAN AND ENGLISH DICTIONARY. Compiled by GUGLIELMO COMBLATI and J. DAVENPORT. In two volumes, cloth gilt, Vol. I, 796 pp.; Vol. II, 752 pp. 25s. net. (Reprinted.)

PORTUGUESE-ENGLISH AND ENGLISH-PORTUGUESE COMMERCIAL DICTIONARY. By F. W. SMITH. In crown 8vo, cloth gilt, 486 pp. 16s. net.

A NEW DICTIONARY OF THE PORTUGUESE AND ENGLISH LANGUAGES. Based on a manuscript of Julius Cornet. By H. MICHAELIS. In two volumes, demy 8vo, cloth gilt. Vol. I, Portuguese-English, 736 pp.; Vol. II, English-Portuguese, 742 pp. Each 21s. net. Abridged Edition, 783 pp. 25s. net.

TECHNICAL DICTIONARY OF ENGINEERING AND INDUSTRIAL SCIENCE IN SEVEN LANGUAGES—ENGLISH, FRENCH, SPANISH, ITALIAN, PORTUGUESE, RUSSIAN, AND GERMAN. Compiled by ERNEST SLATER, M.I.E.E., M.I.Mech.E., in collaboration with leading Authorities, complete with index to each language. In five volumes. Each in crown 4to, buckram gilt, £8 8s. net complete.

PITMAN'S "ART AND LIFE" SERIES

GENERAL EDITOR:

WRIGHT WATTS MILLER, B.A.

LONDON (FIRST CLASS HONS.), M.ED., MANCHESTER
*Late Campbell Clarke Scholar, University College, London,
Lecturer of the Borough Road College, and to L.C.C. Literary
Institutes and the Workers' Educational Association*

A new series of popular introductions to literature, the arts, and other subjects of general interest. The volumes are specially intended for evening students voluntarily attending the cultural, non-vocational classes held by the L.C.C. Literary Institutes, the Workers' Educational Association, and the University Extension Boards, and for all general readers interested in self-culture.

NOW READY

ECONOMICS: THE STUDY OF WEALTH

By A. L. GORDON MACKAY, M.Litt., M.A., M.Econ. 5s. net.

BOOKS: AN INTRODUCTION TO READING

By WRIGHT WATTS MILLER, B.A., M.Ed., Manchester. 5s. net.

ART: AN INTRODUCTION TO APPRECIATION

By RAYMOND COXON, A.R.C.A., *Lecturer at the Chelsea School of Art.* 5s. net.

THE FILMS: THE WAY OF THE CINEMA

By ANDREW BUCHANAN. 5s. net.

READY SHORTLY

MUSIC APPRECIATION

By W. J. TURNER.

THE DRAMA

By MALCOLM MORLEY

Each in large crown 8vo, cloth, about 200 pp. 5s. net.

SIR ISAAC PITMAN & SONS, LTD., PARKER ST., KINGSWAY, W.C.2

COMMON COMMODITIES AND INDUSTRIES SERIES

In each of the handbooks in this series a particular product or industry is treated by an expert writer and practical man of business. Beginning with the life history of the plant, or other natural product, he follows its development until it becomes a commercial commodity, and so on through the various phases of its sale in the market and its purchase by the consumer. Industries are treated in a similar manner.

Each book in crown 8vo, illustrated. 8s. net.

Asbestos	Corn Trade, The British	Paper
Bookbinding Craft and Industry, The	Cotton Spinning	Perfumery
Books from the MS. to the Bookseller	Engraving	Photography
Boot and Shoe Industry	Explosives, Modern	Pottery
Brushmaking	Fishing Industry, The	Rice
Butter and Cheese	Furniture	Rubber
Carpets	Furs	Salt
Clocks and Watches	Gas and Gas Making	Silk
Cloths and the Cloth Trade	Glass	Soap
Clothing Trades Industry	Gloves and the Glove Trade	Sponges
Coal	Gums and Resins	Stones and Quarries
Coal Tar	Iron and Steel	Sugar
Coffee	Ironfounding	Sulphur
Cold Storage and Ice Making	Jute	Tea
Concrete and Reinforced Concrete	Knitted Fabrics	Textile Bleaching
Copper	Leather	Timber
Cordage and Cordage Hemp and Fibres	Linen	Tin and the Tin Industry
	Locks and Lockmaking	Tobacco
	Match Industry	Weaving
	Meat	Wheat
	Oils	Wool
		Worsted Industry

PITMAN'S SHORTHAND

INVALUABLE FOR ALL BUSINESS AND PROFESSIONAL MEN

The following Catalogues will be sent, post free, on application—

EDUCATIONAL, TECHNICAL, LAW, SHORTHAND, FOREIGN LANGUAGE, AND
ART AND CRAFT

LONDON: SIR ISAAC PITMAN & SONS, LTD., PARKER ST., KINGSWAY, W.C.2