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INDUSTRIAL RECORD 1919-1939

A REVIEW OF THE
INTER-WAR YEARS

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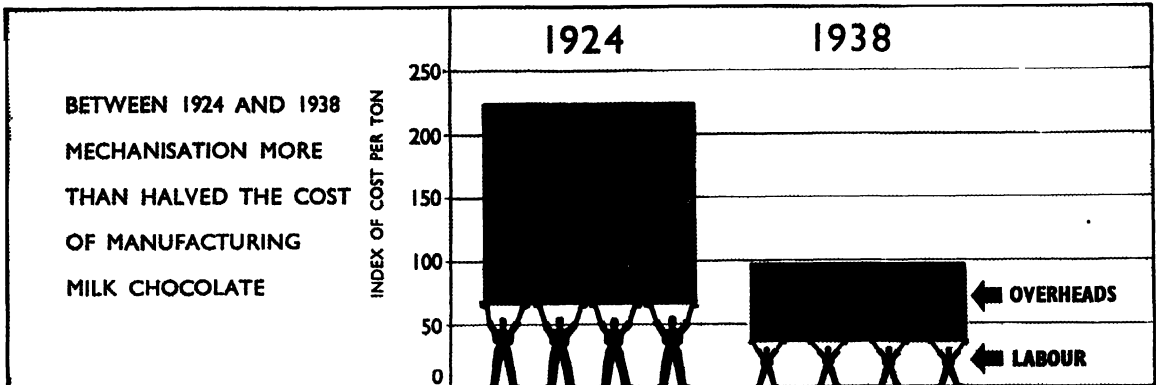
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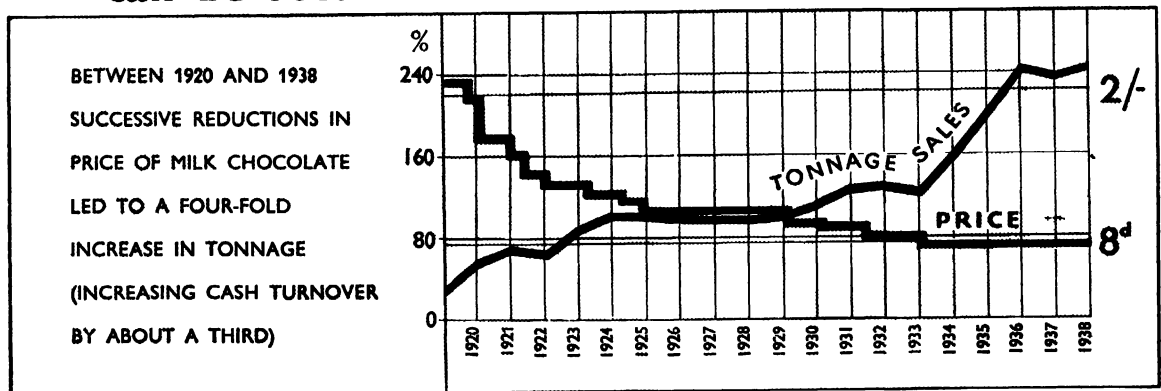
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EXPERIENCE HAS EMPHASISED THESE POINTS

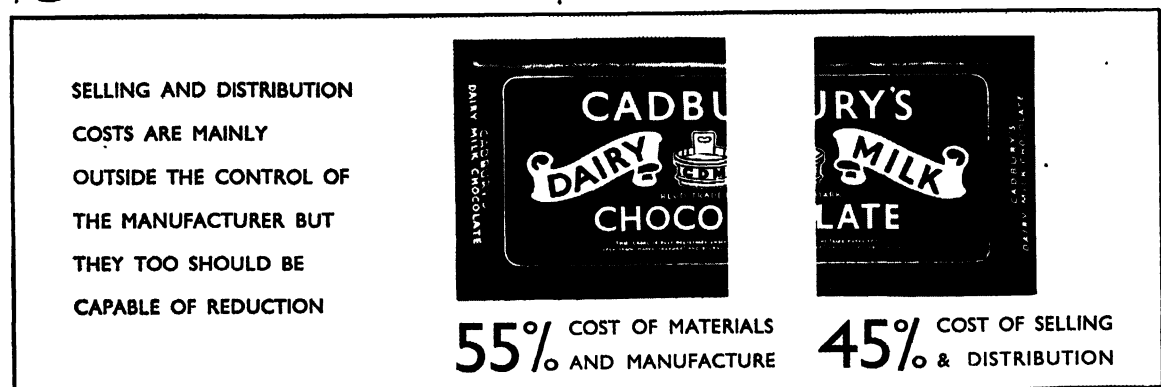
1 Mechanisation is basis of competitive power



2 Interests of Producer and Consumer can be reconciled



3 Distribution in Britain is too costly



INTRODUCTION

IN a world which has to make good so much wastage and destruction the problem of the post-war reorganisation of Industry and Commerce is engaging widespread attention. It is of great importance to this country that Industry should prepare itself for the tasks that lie ahead if the best use is to be made of the opportunities in the task of reconstruction.

Starting with the assumption that Capital and Labour, Management and Workers, Manufacturers and Distributors, are to be collaborators in the enterprise of serving the community, it is worth while trying to determine the sort of industrial organisation which can pursue this aim most effectively. How can changing public taste and variations of demand best be met? How far should the economies of mass production be sacrificed to variety? How can products be distributed most efficiently? What opportunities can the workers be given to fit themselves for positions of responsibility? How can the introduction of labour-saving machinery be reconciled with the claims of the displaced worker?

In the inter-war years this business, which is centred at Bournville, faced these and many kindred problems with varying degrees of success. The aim of this book is to record the experiences of one particular firm working in a highly competitive branch of Industry. It is hoped that they will be useful as evidence in the general discussion on post-war industrial problems, and helpful when activities are again adjusted to peace conditions.

CHAPTER I

ORGANISATION AND MANAGEMENT

THE DEVELOPMENT OF THE FAMILY BUSINESS

FOR the Bournville business the inter-war period was one of continuous and, at times, rapid expansion. As the volume of sales grew and the range of products increased, new problems presented themselves and new methods of management and control had to be developed. The foundations of the business had been solidly laid and there was no need to disturb them, but a more elaborate superstructure, with numerous extensions, gradually grew up on the comparatively simple basis of 1919.

To the outside observer, the most striking single feature of the Bournville business is that, unlike most enterprises of comparable size, it has retained all the essential features of a family firm, notwithstanding that it was converted from a partnership to a limited company as long ago as 1899, and has since grown so greatly.

This combination of ownership with actual practical management affected the running of the business in numerous ways. It has always seemed natural and obvious to pay great attention to such things as the general amenities of the factory, its surroundings and architecture, and to facilitate such developments as Pension Funds, Sick Benefit and Holiday Schemes, and Family Allowances.

THE CONSTITUTION OF THE BOARD

Since its inception the control of the Company has been vested in a Board of Managing Directors, one of whom since 1919 has been a woman. These appointments have been preceded by a period of practical training in the daily routine of the various departments. The Directors meet formally as a Board once a week—or oftener if necessary—and as each Director is personally responsible for a particular section of the business and is in constant touch with his or her colleagues, a close degree of co-ordination is achieved between the policies and programmes of the different departments.

While retaining many features of a family concern, the Company has appreciated that Industrial Management is a highly skilled profession involving careful recruitment and training. This has been recognised for many years by grading the Management Staff into definite groups, each with clearly defined privileges and status. In 1943 three members of the senior Management Staff joined the Board as Managing Directors.

ORGANISATION BY DEPARTMENTS AND COMMITTEES

The executive conduct of day-to-day business is based, as it must be, on a departmental organisation involving a chain of individual responsibility. On the other hand, the formulation of policies, both general and departmental, is in the hands of a number of committees, each meeting under the chairmanship of a Director, through whom it reports to the Board. As each Director is at the same time responsible for the daily activities of a group of departments, the Board becomes an efficient co-ordinator of the policies framed by the committees and the actual departmental conduct of business. An attempt to bring out the main features of the organisation by committees is provided by the chart on page 9.

Although certain members of the Management Staff are more concerned with policy and others with execution, the executive managers and the members of the committees consist in the main of the same individuals functioning in different but complementary spheres. The organisations are thus interlocked at more than one level, whilst each culminates in and is ultimately responsible to the same body the Board of Directors.

COMMITTEES THEIR FUNCTIONS AND USES

The main committees usually consist of eight or ten regular members, including two or three Directors, one of whom is the Chairman. In addition to the principal executives on the side of the business with which the committee deals, the members include representatives of other departments likely to be closely affected by its decisions. For instance, very few decisions can be taken by the Marketing Committee, which is responsible for Sales Policy, without, on the one hand, calling for the co-operation of the production departments, and, on the other hand, raising issues relating to cost. The membership of this Committee therefore includes the Director in charge of Factory Production and the Director in charge of Costs, as well as the Directors and Senior Staff who deal directly with Selling, Marketing, Advertising and Market Research. Similarly, the Production Committee, though consisting mainly of members immediately concerned with the technical and factory departments, also includes the Sales Director, and officials representing the Cost Office, the Statistics Department and the Buying Office. This interlocking of membership ensures that the various committees take account of the whole factory situation and minimises the work involved in co-ordinating their decisions at a higher level.

Each main committee normally appoints a number of sub-committees or "groups," partly out of its own membership and partly sometimes of more junior members of the staff, to settle details arising out of its decisions and to give preliminary consideration to questions which subsequently figure on the agenda. Co-ordination is further assisted by arranging for the part-time attendance at committee meetings of officials

or Directors who, although not regular members, may be specially interested in a particular subject of discussion.

EXAMPLE OF COMMITTEE AND DEPARTMENTAL WORKING IN THE INTRODUCTION OF NEW LINES AND DESIGNS

Whilst space does not permit of a detailed discussion of the functioning of the committee system, some idea of how it works may be gained by a brief consideration of the method of introducing new lines and designs.

Before 1914 the introduction of new lines and designs was regarded as almost exclusively a matter for the Sales Department. It was of course essential to know that a proposed new line was practical, and to have a close estimate of its cost. Subject to this, however, and to the necessity of giving the Factory Departments adequate notice of the proposed date of introduction, the exact shape of a block or bar, or the size of packing or arrangement of an assortment, was to a large extent a matter of indifference to the Factory and Production Departments, whose job was regarded as being to provide what the Sales Department ordered.

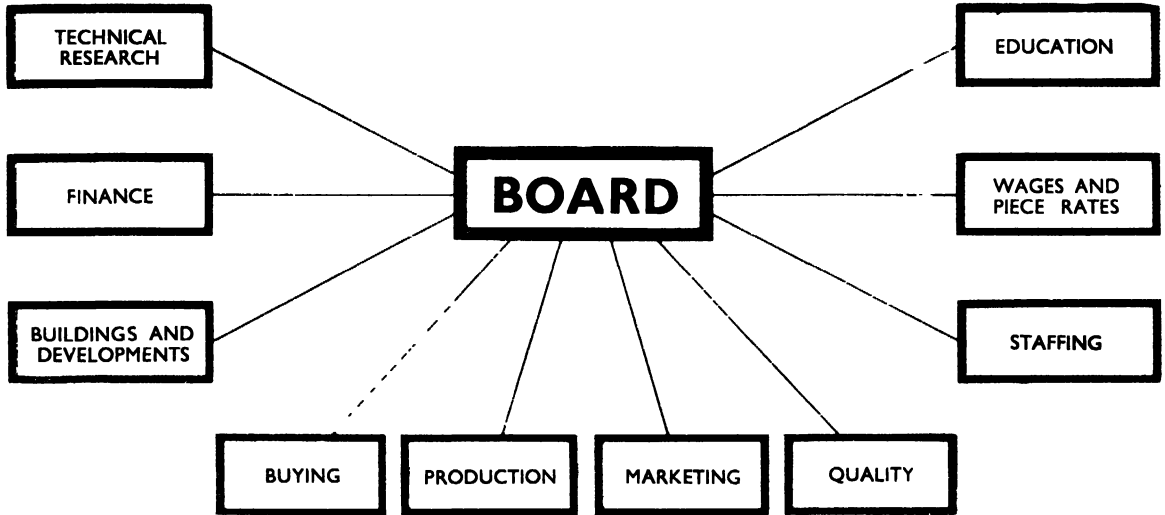
To-day the position is very different. Plant is far more specialised and processes more mechanised. A slight variation in shape or size will almost certainly upset the rhythm of production unless the most convenient manner of achieving it has been carefully considered from the technical point of view. A completely new line may well require the installation of specially designed machines and possibly even necessitate structural alterations in the factory buildings themselves. This evidently means that its introduction must be the subject of close collaboration between the Sales and Production Departments, not merely or mainly at the Board level, but at all stages from its first tentative inclusion in a future marketing programme to the settlement of the final specification and the precise dates on which production, advertising and selling are to commence.

Once the line has been established, its progress reverts to the departmental machinery. Here the central task of providing goods at the right price and of the right quality rests with the Buying and Production Departments, that is with the buyers who purchase the raw materials, and the engineers, chemists, production technicians and other experts who control the factory processes.

On the other hand, it is the Sales side of the business which has both the first and the last word in the life-history of its products. The first word, because with the Sales Department rests the primary responsibility for drawing up the marketing programme—and hence the production programme. For this purpose it must estimate, on the basis of past experience, of continuous study of current public demand, and of the Firm's intentions in the field of advertising and price policy, the probable sales of every line and packing in the Firm's price list. The last word,

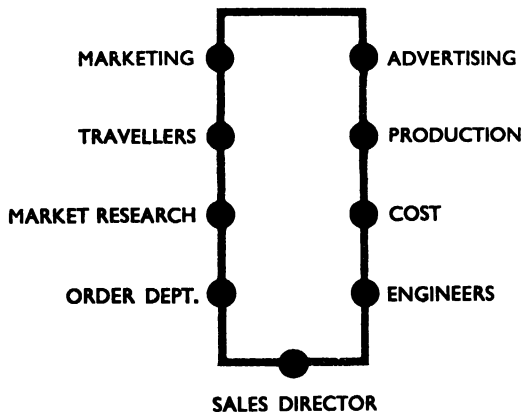
THE BOARD AND ITS COMMITTEES FORMULATE POLICY AND CO-ORDINATE THE DEPARTMENTS

THE PRINCIPAL COMMITTEES

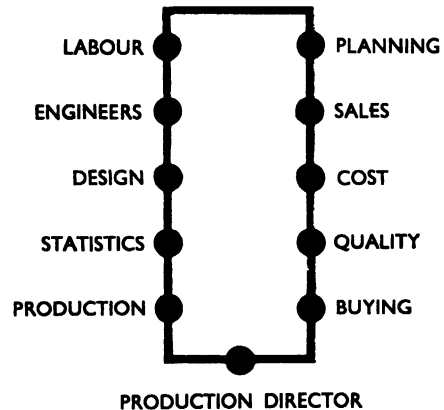


VARIOUS DEPARTMENTS ARE REPRESENTED ON EACH COMMITTEE TO ENSURE CO-ORDINATION—e.g.

MARKETING COMMITTEE



PRODUCTION COMMITTEE



OTHER MEMBERS OF STAFF MAY BE REQUIRED TO ATTEND

The establishment of interlocking Committees (e.g., as between Sales and Production), each under the Chairmanship of a Director, ensures close co-operation in the framing and carrying out of policy. Each Director is also in charge of several departments, so that the Board has effective control over the day-to-day running of the business.

because when the goods have been made and put into the stockrooms and depots, it depends on the efforts of the Representatives on the road and their colleagues in the Sales and Advertising Departments at headquarters whether the sales actually made fall short of, equal, or exceed those anticipated in the estimates.

THE PLACE OF SERVICE DEPARTMENTS

The activities of the three main branches of the business—buying, production and selling— are naturally facilitated and supplemented by many departments of the “service” type. Some of these form part of the essential structure of any commercial or industrial undertaking for instance, the General Office, which keeps sales ledgers, prepares invoices and handles all routine correspondence with the Firm’s customers. Others, like the Legal Department, also perform functions which are essential, but for which in the case of a small firm a specialised department would not be necessary. Yet others, including many of those which are responsible for the amenities of the factory, *e.g.*, the Doctors and Dentists, the Education and Pension Offices, the Gardeners, and the Works Magazine Office—engage in activities which are ancillary to the main undertaking, however valuable and, indeed, essential they may be in relation to the long-term welfare of the enterprise and its employees.

Some of these activities are referred to in a later chapter, but there are two “service” departments—the Planning Office and the Cost Office—without whose collaboration neither the Buyers nor the Factory nor the Sales Department could function effectively, and which therefore occupy a key position in the mechanism of departmental control. The primary function of the Planning Office is to ensure a regular flow of work through the factory, thus avoiding congestion and delays, and ensuring that goods will be ready for sale by the scheduled delivery dates; that of the Cost Office is to keep a close and constant watch over all expenses, and to ensure that every item of expense is correctly reflected in the selling price of the finished article.

THE PLANNING OF PRODUCTION

Production planning at Bournville was started some thirty years ago, with the principal objects of centralising production control and maintaining an even flow of work, daily and weekly, through the factory. If this can be done, employment is stabilised; by minimising production changes and avoiding delays and the necessity for waiting for materials, employees’ earnings are maintained at a high level. In order to secure the most flexible control of production, actual work orders are issued mainly on a daily basis; but wherever conditions permit production in each department is kept in continuous flow throughout the year, as this leads to the maximum economy and smoothness of working and calls for the least oversight.

The starting point for the work of the Planning Department consists of the forward estimates of sales which the Sales Department periodically provides. From these are derived block estimates of materials required, which are passed to the Buying Departments and on the basis of which purchases are made to meet future requirements over a longer or shorter period, according to market conditions. As materials have to be procured from all parts of the world, preliminary sales estimates are obtained months ahead, and factory requirements notified to the Buyers in some instances eighteen months before the supplies will actually be needed. The Planning Office next uses the estimates to plan factory production week by week and month by month, endeavouring to maintain it at a steady total level, irrespective of seasonal or chance fluctuations in the rate of sale of individual lines or in the Firm's turnover as a whole. As manufacturing proceeds, the original sales estimates are revised, and production is checked against actual current sales and the Sales Department's revised estimates of forward requirements. A strict keeping limit for finished goods is observed, so as to maintain the standard of freshness necessary for high quality foodstuffs. The Planning Office must therefore keep a tight control over the size of stocks, including both finished goods and work in progress. It is also entrusted with the task of planning despatches of finished goods to the Firm's sixteen depots in the United Kingdom, in strict relation to local requirements and to the total stock available. Finally, as the link between the Buying Office and the Factory, it controls the entire stocks of ingredients and packing materials, numbering altogether several thousand items.

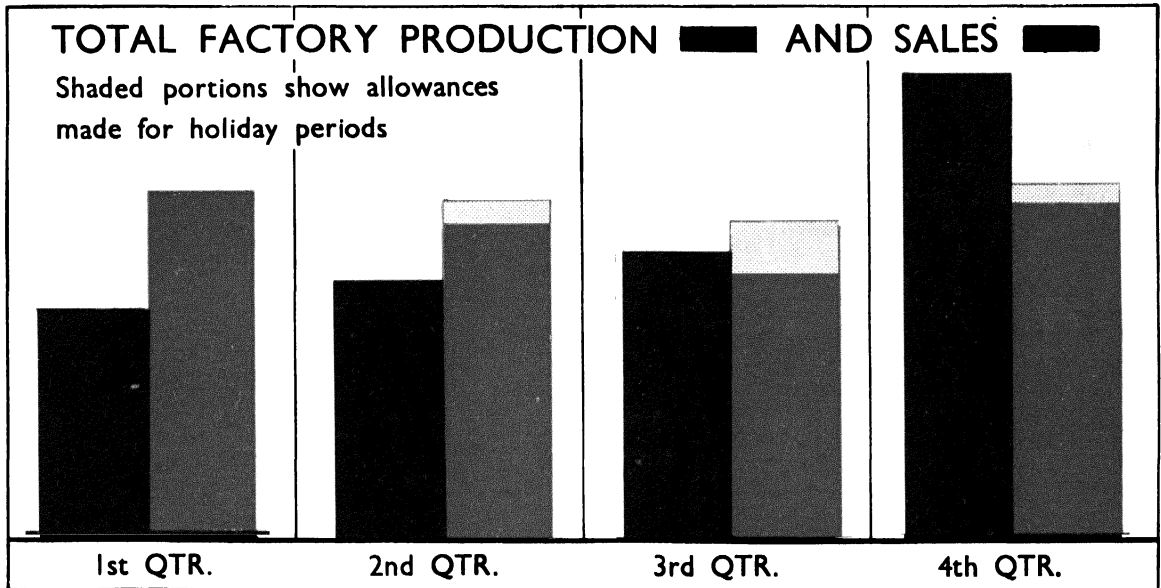
RESPONSIBILITIES OF THE COST OFFICE

The Cost Office performs three main functions. The first is to determine the price at which each line and packing can be sold; the second is to act as a check over all the processes of production and distribution so as to bring to light any kind of waste, and any increase or decrease in costs; the third is to act as a channel for the issue of authorities and instructions.

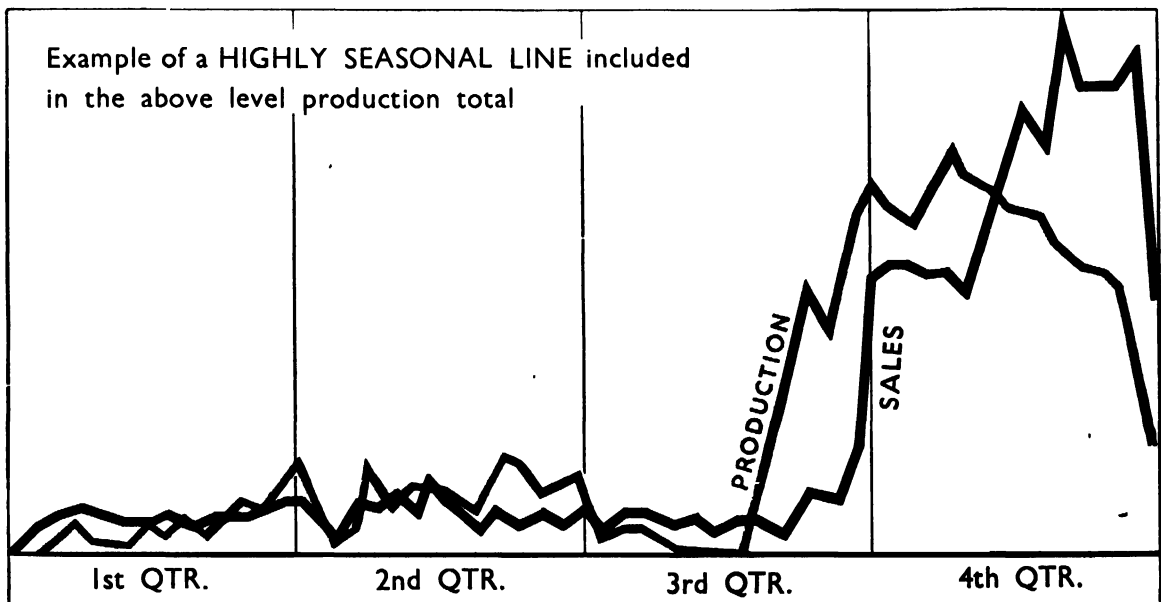
In its first capacity, the Cost Office estimates the selling price of proposed new lines. Working in conjunction with the Sales, Production, and Time Study Departments, it takes into account the expected volume of sales, the detailed specification and the method of manufacture of each line. If the Sales Department considers the estimated price unsatisfactory, the other departments concerned discuss the adjustments necessary to bring the price and quality, and the method and volume of production of the line, to a satisfactory balance.

In its second capacity, the Cost Office records, compares and analyses all expenditure to enable it to review the cost of each line at regular intervals. This brings to light any variations caused by waste or unavoidable changes in costs.

PLANNING MUST STABILISE PRODUCTION WHEN SALES ARE SEASONAL



In spite of seasonality of demand and limitations of storage period and space, the actual rate of production is steady throughout the year.



In achieving a steady rate of production the Planning Department has had to fit in many seasonal lines like the above.

The illustration on page 15 shows the form in which such periodic cost reviews are presented. On the basis of these statements, the Cost Office suggests to the Marketing Committee what variations in price, either up or down, are necessary. If costs have fallen, then the Committee will decide whether to reduce the price; or, if the fall is not sufficient to achieve a price reduction, how to absorb the economics by improved value. If costs have risen, the possibility will first be explored of introducing slight modifications into the line itself, or in its packing and presentation, to offset the increased costs. If this cannot be done without unduly impairing the quality or attractiveness of the line, it will be for the Sales Department to decide whether to accept a price increase or, in an extreme case, to withdraw the line from the price list.

In its third capacity, the Cost Office acts as the channel for the issue of instructions, referred to colloquially as "Blue Notes" from the distinctive coloured paper of the form. "Blue Notes" are the pre-requisite authority for the introduction of new lines, laying down the standard processes, recipes and prices, and for variations in existing lines and normal procedure. The system of canalising through the Cost Office all instructions setting up standards and sanctioning deviations has the double value of ensuring that no change can take place without bringing to light its cost aspect, and that, as all "Blue Notes" must be signed by a Director, the instructions are consistent with the Board's policy.

IMPORTANCE OF EVOLUTION IN MANAGEMENT

It will be apparent that a smoothly working machine of the kind described is not the growth of a week or a month or a year, but is the result of many years' gradual adaptation and of patient trial and error. The salient feature of this organisation, like that of the British Constitution, is that it is unwritten and therefore flexible. Because the voice of the individual is heard at its committee meetings, it ensures that personal initiative is not submerged; and because of the departmental staff hierarchy, that individual responsibility is not surrendered.

A large organisation which seeks to preserve individuality and yet achieves efficient co-ordination cannot be easily designed and developed *ab initio*, as the growing pains of the war-time Government departments have demonstrated. Whatever changes in the organisation and structure of industry may loom ahead, it is to be hoped that those responsible for introducing them will be slow to scrap administrative machinery of proved efficiency until they are fully satisfied that they can develop something better to put in its place. Above all, it will be important for them to preserve the roots of personal endeavour and individual responsibility, and it is difficult to see how this can be done without a larger degree of decentralisation and localisation of authority than some of the protagonists of "State Planning" seem to envisage.

COST OF EACH LINE IS REGULARLY REVIEWED

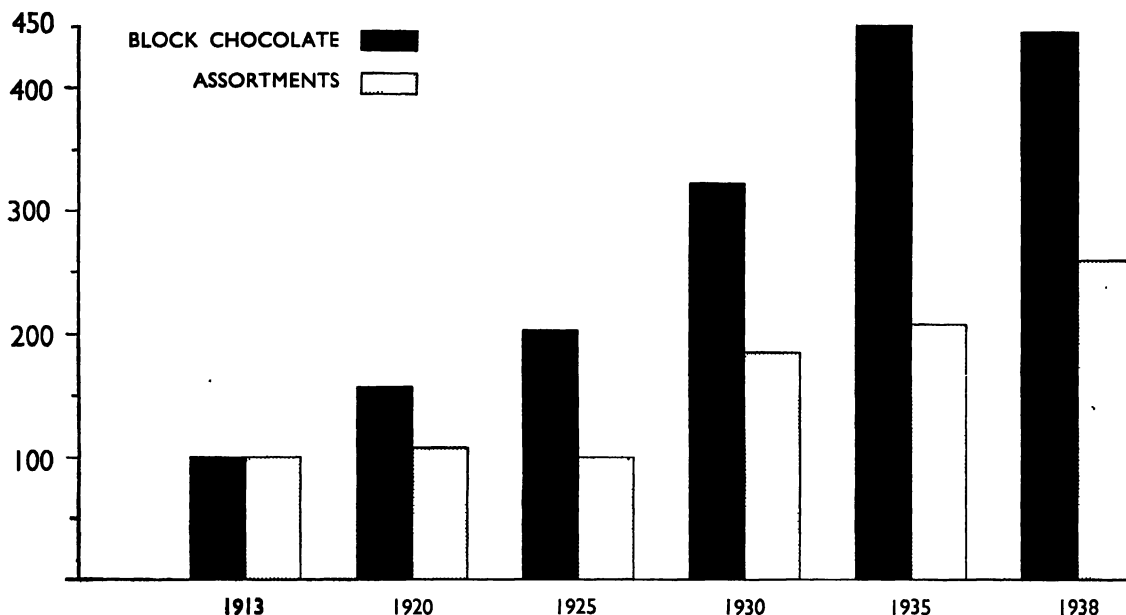
FORM OF COST STATEMENT

NAME OF LINE 3^d "Hypothetical" Block. Date... June 1944	SALES { 1941..... Tons 1942..... Tons 1943..... Tons	
PRICES OF MAIN INGREDIENTS PARTICULARS OF LINE Weight Packed Weight in Box Boxes to 100 lbs. Price less 1½% Cash Discount = per 100 lbs. To Retail at	PRESENT COSTING * Raw Cocoa 56/8 cwt. Cocoa Butter 1/5½ lb. Sugar 50/10 cwt. 32 drams min. 4 doz. 6 lb. 16. bb. 8/2½ per outer 135/1 3 ^d each.	PREVIOUS COSTING Raw Cocoa 56/8 cwt. Cocoa Butter 1/5½ lb. Sugar 50/10 cwt. 32 drams min. 4 doz. 6 lb. 16. bb. 8/2½ per outer 135/1 3 ^d each.
CHOCOLATE Materials Process MOULDING Process WRAPPING & BOXING Materials Process FACTORY COST DISTRIBUTION SELLING EXPENSE MARGIN	Cost per 100 lbs. % s. d. s. d.	Cost per 100 lbs. % s. d. s. d.
	78 5 15 - 93 5	78 6 14 2 92 8
	3 -	2 10
	2 8½ 5 10½ 8 7	2 7½ 5 6½ 8 2
	105 -	103 8
	6 6	6 9
	10 13 6	10 13 6
	125 -	123 11
	7½ 10 1	8½ 11 2
	135 1	135 1

As a result of periodic reviews of the cost of each line, the Cost Office suggests to the Marketing Committee what variations, if any, in price or costs are necessary to give the required margin.

MECHANICAL PROGRESS of the inter-war years

(A) RISING OUTPUT PER DIRECT WORKER AT BOURNVILLE



(B) FALLING COSTS OF PRODUCING MILK CHOCOLATE



The rising output per direct worker (A) is an indication of the great strides made in the mechanisation of processes, which resulted (inter alia) in the reduced cost of the production of Milk Chocolate (B). In (B) 100 is taken as the total of labour costs and overheads in 1935.

CHAPTER II

TECHNICAL PROGRESS AND FACTORY DEVELOPMENT

MASS PRODUCTION AND MECHANISATION

ONE of the sequels to the war of 1914–1918 was a rapid advance in production technique during the twenty years which followed it. The mass-production methods which had been evolved to meet war-time demands were soon adapted to the needs of peace-time industry. In this development America led the way, but progressive manufacturers on this side of the Atlantic were not slow to follow. At Bournville it was recognised that the utmost efficiency in production is the true basis of competitive power, and full advantage was taken of the new mass-production technique to reduce manufacturing costs.

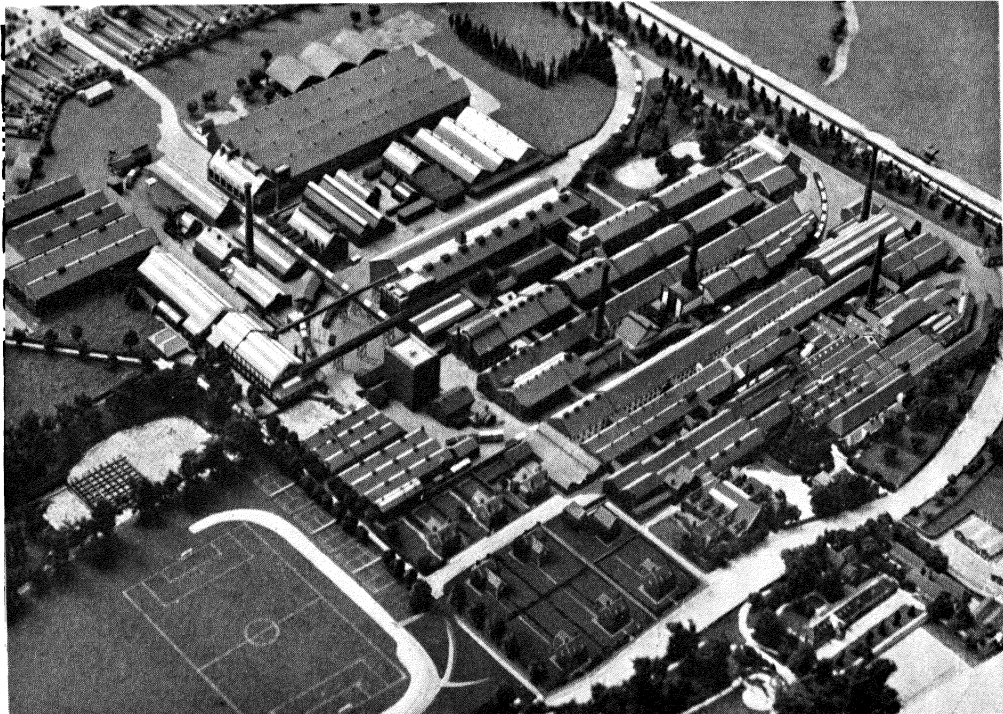
The development of mass-production is best measured by the saving in direct labour per unit of output. The extent of the technical advance in this respect at Bournville is shown in the upper chart on the opposite page. This shows the increase in output of chocolate and confectionery per direct worker between 1913 and 1938 for the factory as a whole. There are big variations, of course, between one line and another. The commercial value of mass-production is measured not in terms of output per head but in those of total manufacturing costs, including overheads. The lower chart shows the extent of these economies in the case of Bournville's leading product—milk chocolate—amounting (for labour and overheads combined) to a saving of 56 per cent over the relatively short period of fourteen years between 1924 and 1938. These production economies in the long run were of even greater importance than appeared at first sight, for, as will be seen in Chapter III, they were an essential preliminary to price reductions, of which the result was an increase not merely in tonnage but in total cash turnover. This in turn led to further economies, since the additional output paved the way for fresh developments in the field of mass-production with its attendant savings.

NEW BUILDINGS OR THE ADAPTATION OF OLD?

Changes of technique, both in the factory and in other industries on which the business depends for raw materials or ancillary services, have naturally given rise to many practical problems of factory development, finance and labour. When obsolete machines are being replaced, it is often difficult to decide whether the new plant should be housed in new buildings specially designed to

 BUILDINGS DEMOLISHED 1919/1939

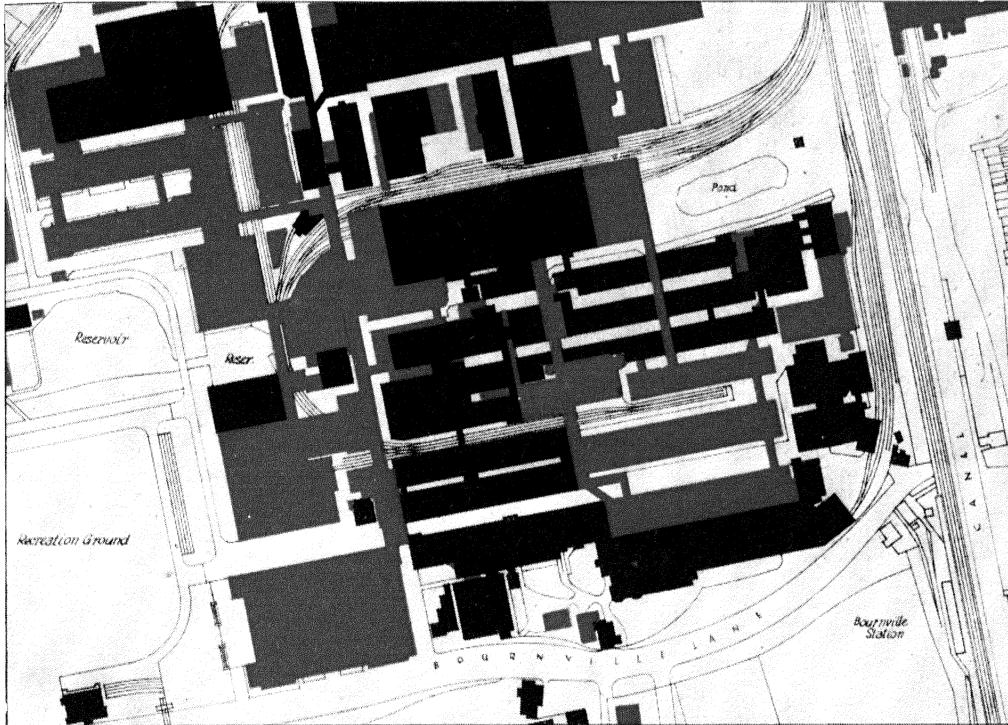
BOURNVILLE WORKS 1919



The comparison of plans and photographs of Bournville Works building that had to be carried out to incorporate the new production

BOURNVILLE WORKS 1939

NEW BUILDINGS 1919/1939



in 1919 and 1939 gives some idea of the demolition and new technique which made possible the great expansion in output.

receive it or in existing buildings which, though not entirely suitable, may nevertheless be in perfectly good repair, relatively modern and capable of adaptation to the new purpose with only a small loss of working efficiency.

No hard and fast rules can be laid down. In general, Bournville's practice has been to rebuild rather than adapt. Unfortunately, the present Inland Revenue arrangements do not encourage this; for instance, they insist on capitalising the cost of demolishing old buildings. Such financial points are raised later in this chapter.

As in all businesses which have developed from modest beginnings and grown steadily over a number of years, difficulties of factory layout have had to be faced. Year by year the original factory of 1879 was added to and adapted. By 1919 the flow of production through the works was unsatisfactory, and many of the buildings were no longer well suited to their purpose. Fortunately, however, the founders of Bournville, with an eye to the future, had acquired ample space for expansion. Indeed, it was not until after 1919 that the original Bournville site became inadequate and fresh land was purchased to the east of the canal and railway, an area now linked by bridge and rail to the main factory.

A MASTER PLAN FOR RE-BUILDING

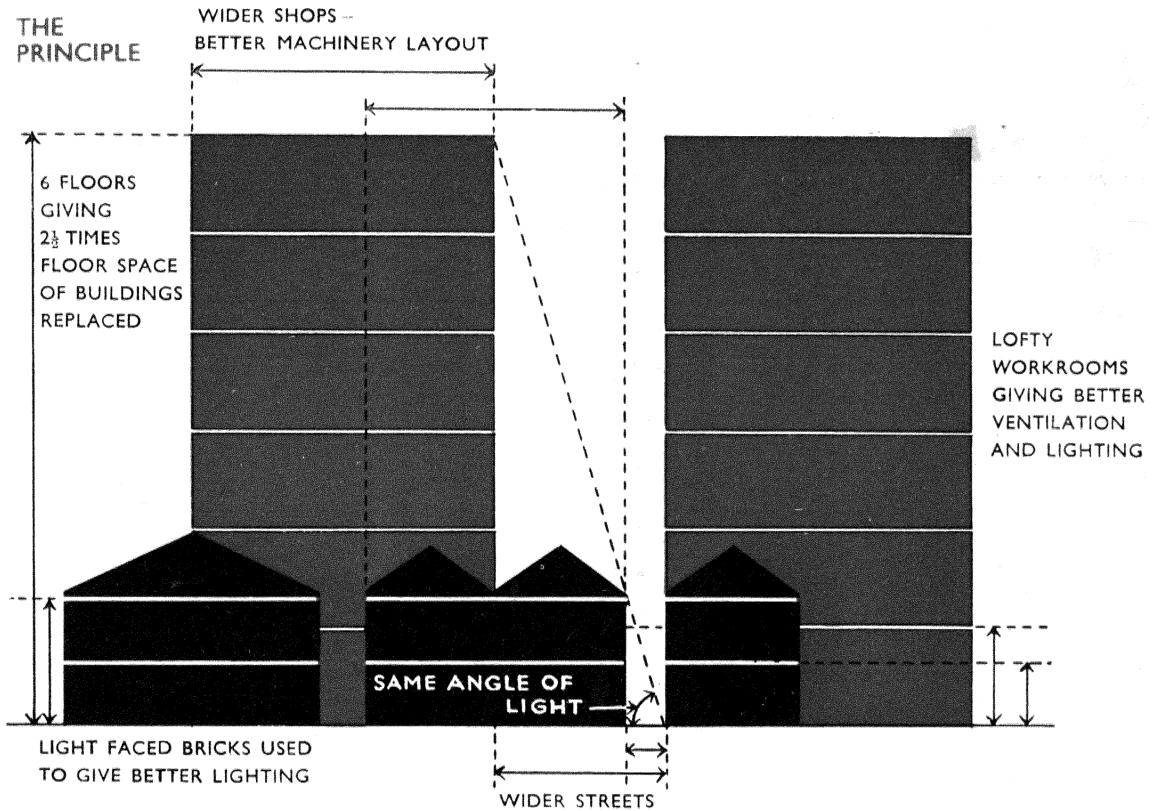
At an early date in the inter-war period plans were drawn up for a long term rebuilding of the factory. Their object was two-fold. First, to arrange the plant so that it could deal with any tonnage which might reasonably be expected in a manner allowing uninterrupted progress from the sidings and wharves, where the raw materials are received, to the stockroom, from which the finished products are despatched. Secondly, to replace existing buildings with long multi-storey blocks, facilitating the utmost use of gravity to carry materials from one process to the next, giving greater floor space per acre of ground, and capable of housing conveniently the long lines of machinery required for modern mass-production methods.

The plans and photographs of the factory on pages 18 and 19 show how far this programme had been carried when interrupted by the second World War. The buildings which are shown as having been scrapped were condemned solely to make way for more efficient production. The new blocks were designed to give wider streets between the buildings, and better lighting and amenities, and also to enhance the architectural effect of the Works as a whole.

Offices, as well as production departments, were involved in the rebuilding. This introduced new considerations. The introduction of machinery into offices made the question of noise important. As a result noise measurement and methods of noise abatement have received close study. A regular test of mechanised offices and also certain factory departments with the audiometer (which measures volume

REPLACING OBSOLETE BUILDINGS

THE PRINCIPLE



IN PRACTICE



But for the war the two-storey blocks in the foreground would have been replaced by a modern six-storey block giving two-and-a-half times the floor space of the old buildings, wider factory streets, better lighting and amenities, and greater efficiency. It will be noted that some of the buildings in the photograph bear war-time camouflage.

of sound in decibels) was instituted at Bournville between the wars. Where excessive noise was found its reduction was usually practicable by the use of various sound-absorbing materials.

CONCENTRATION OF ISOLATED UNITS —*e.g.*, BOILER PLANTS

One phase of the re-building programme, in particular, may be taken as an illustration of the principles which lay behind it. As the factory had gradually increased in size, the expanding demand for power had been met by the construction of one additional power-station after another, so that eventually in 1919 there were six separate power-plants.

Most of these were individually efficient units. The “back pressure” steam system, now generally adopted where power and heat are required, was introduced at Bournville before 1914.* At that date it was common practice for machinery in factories to be driven by “mill” engines through belts, ropes and shafting. By 1919, however, there had been great advances in the electrical transmission of power, and improved methods of insulation had facilitated the distribution of steam over long distances.

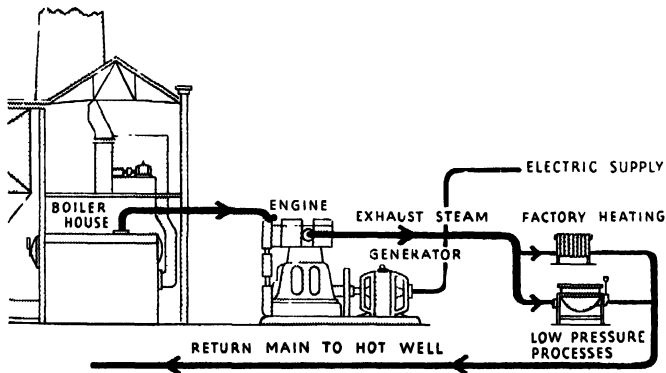
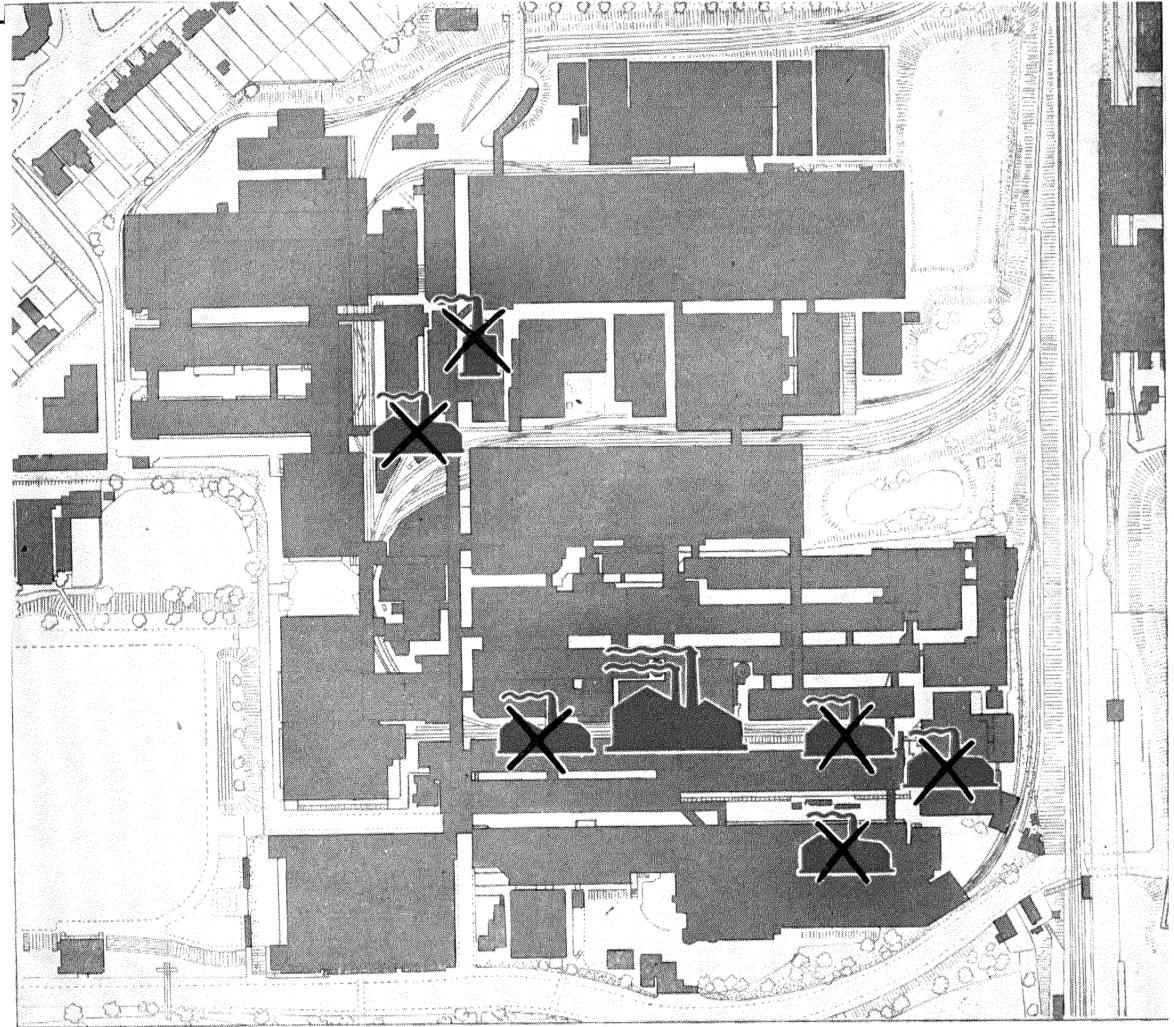
It was, therefore, decided to replace the old plants and the six smoke stacks by the present central power station with its two chimneys. The practical results of this decision in economising fuel, labour, and fuel storage space have fully justified the expectations in which it was made.

ALLIED PRODUCTS— LIMITATIONS OF VERTICAL EXPANSION

When planning a re-building programme of this kind, it is naturally impossible to foresee every detail of factory requirements in the years ahead; as always, the future is full of uncertainty. This has been particularly true of those sections of the business which are subsidiary to the main manufacturing departments. Generally speaking, it has been possible to predict with reasonable accuracy the course of production technique in the manufacture of the basic products—cocoa powder, chocolate, and confectionery—in their various forms. But besides these main products, there are naturally many others of an ancillary character—wooden cases, cardboard boxes, tin canisters, labels and other printed matter, and numerous sorts of trade materials. Some of these are made at Bournville, and many others might be made there if this seemed desirable. In general, however, the principle followed has been to avoid so far as possible the diversion of energies from the specialised task of cocoa and chocolate manufacture. Circumstances occasionally dictate a vertical expansion of the business, but such a move is only made with the greatest circumspection.

* Under this system the exhaust steam from the engines driving electric generators or machinery is used for general works heating and for low temperature process work.

A CENTRAL POWER PLANT SUBSTITUTED FOR SIX SEPARATE PLANTS TO INCREASE EFFICIENCY



An important feature of the programme of reconstruction of Bournville Works was the centralisation of the Power Plants. Although the six old plants yielded efficient units, the centralised plant yielded considerable saving in fuel, labour, and storage space. As it operated on the "back-pressure" steam system, the larger scale plant made it easier to balance the loads of the departments, thus rendering the departmental organisation more flexible.

The Printing Department affords a good example of how this principle is carried out in practice. The Firm's printing requirements are large and varied, and sudden demands from the Sales Department, which have to be met at very short notice, are not uncommon. It has, therefore, been found desirable to do much of the printing at Bournville. But unless the urgency of a particular order or some similar practical consideration precludes it, the rule is that the department should quote for all its work against outside prices; the capacity of the department is also restricted to meeting not more than 50 per cent of all printing needs. The preservation of this element of competition has proved an important factor in controlling the Firm's printing costs.

In other instances economic circumstances have changed, so that departments engaged on ancillary work have become unable to provide for the Firm's requirements as cheaply as they could be satisfied from outside. Where these conditions have persisted the position has been accepted, the department closed down, and advantage taken of the cheaper sources of supply. This occurred, for instance, in the case of the sawmills used in the manufacture of wooden boxes. These mills were of the most up-to-date type, and were only installed after an intensive study of modern methods, particularly in Scandinavia, by the Firm's technicians. Not many years after their erection, however, it became evident that it would be substantially cheaper to import "shooks" (*i.e.*, imported cut wood-box parts). Realising that this was likely to be permanently more advantageous, the whole of the sawmill plant, which had cost so much time and money to instal, was disposed of. As a matter of fact, later still, card and fiberite containers in turn very largely displaced the "shooks," although this modification meant a change in the machines used in making the actual boxes. The development of the Depot Distribution system, referred to in Chapter IV, further simplified packing requirements and substantially reduced their cost.

ADVANTAGES IN EMPLOYMENT OF SPECIALIST FIRMS FOR ANCILLARY SERVICES

With ancillary services, the trend has been to employ outside specialist firms to an increasing extent. Where the Firm has maintained ancillary departments it has done so for a part of the work only, and usually to provide a useful technical and cost check on the work and quotations of the contractors. As examples, three instances may be cited—the employment of "trades" departments, the generation of electricity, and transport.

Builders, painters, plumbers, fitters and other tradesmen are employed at Bournville, but they are used mainly on maintenance. While at one time new buildings were put up by the "trades" departments, this work is now placed in the hands of outside contractors.

In 1919 the Firm generated most of its electric power by steam and producer-gas engines. With the centralisation of the power plant it was decided to generate only such electricity as was produced in providing a sufficient supply of low-pressure steam, and to purchase the balance of electric power from the local electric supply authority. In the twenty years between the wars this balance progressively increased from 600,000 units to over 15,000,000 units per annum.

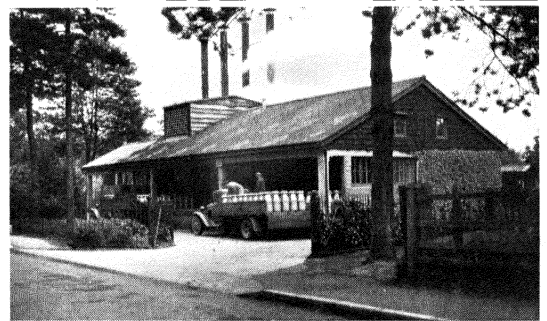
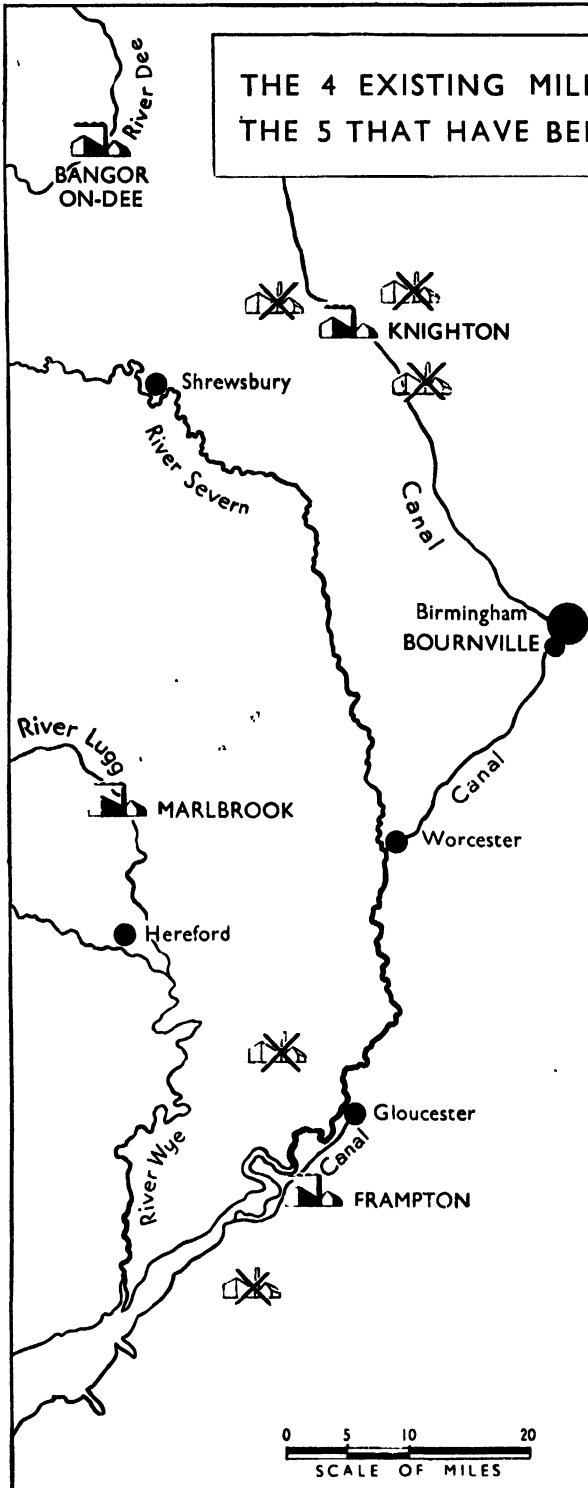
Apart from the railways, the Firm has been concerned with three main forms of transport: (1) the delivery of goods to customers by vans; (2) the collection of milk from the farms and its delivery to the milk-condensing factories; (3) canal transport from the milk factories to Bournville. In the early twenties the Firm operated its own fleets of vans for delivery to customers, of steam and petrol lorries for milk collection, and of canal boats for inter-factory transport. In the development of the railhead depot system of delivery it proved cheaper to employ contractors who operated special vans bearing the Firm's name. With milk collection it was found that the small local haulier with his low overheads, despite his rather higher maintenance costs, could compete successfully with any other form of transport concern. His costs were also helped by his being able to combine a certain amount of general work with milk collection. The Firm's lorries were therefore sold, and the work given out to local hauliers. Similar considerations applied to canal transport; the barges were sold to a canal carrying company in which the Firm had a financial interest.

These experiences have been quoted to show that vertical expansion has not always been economic, and that it does not always pay to strive for self-sufficiency. There is truth in the adage that the shoemaker should stick to his last.

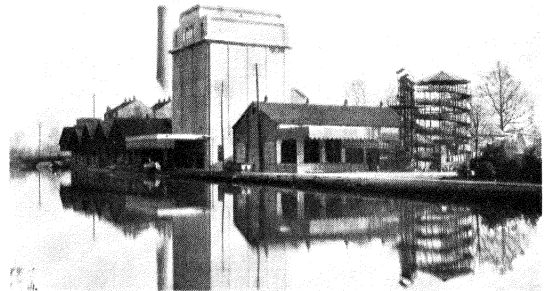
SCRAPPING AND RE-BUILDING TO MEET CHANGING ECONOMIC CONDITIONS

Another example of the need for a flexible attitude towards development problems is furnished by the history of the Firm's milk condensing factories. Just before the outbreak of war in 1939 they were condensing nearly 30 million gallons of milk annually for milk chocolate. This great quantity of liquid milk could not in any case have been handled at Bournville, because the condensing process requires the circulation of a very large volume of cold water, which could not have been made available there; moreover, it is clearly cheaper and better to transport milk after it has been condensed than in a liquid and perishable state. Condensing factories were accordingly built in locations which would minimise haulage from the farms and would at the same time provide adequate water supplies and satisfactory transport facilities to Bournville. Unfortunately, the areas in which large-scale supplies of milk can be most conveniently obtained are subject to constant change. This fact has had its repercussions on the economical siting of the factories. The

EFFICIENCY DEPENDS ON SCRAPPING & REPLACING



The Milk Factory at Newent, Gloucestershire, which was closed.



The Factory at Frampton, Gloucestershire, which has been extended.



A new Milk Factory at Marlbrook, Herefordshire.

As transport became cheaper, it was more economical to operate fewer but larger factories. New factories were, however, built to cope with the increasing demand for Milk Chocolate.

result has been that the four factories which were in operation when the war broke out were the survivors of nine (of varying size) which at one time or another had been established during the previous twenty years.

FINANCIAL IMPLICATIONS OF THE "SCRAP AND RE-BUILD" POLICY

From these various examples of the way in which the best-laid plans may have to be altered and the finest plant and equipment scrapped if a business is to prosper, many lessons could no doubt be drawn. It is clearly necessary to plough back profits into a progressive business on a really generous scale. Only in this way can provision be made not only for wear and tear, but also for the obsolescence of plant and buildings brought about by changing economic conditions.

In this connection, the proposals by the Chancellor of the Exchequer to modify the unrealistic treatment of obsolescence of plant and machinery and the depreciation of buildings are welcome. Commercial practice is to write off annually a sum estimated to cover both wear and tear and obsolescence in the case of machinery. The Inland Revenue Department treat the matter differently. Their annual allowance covers wear and tear only. Their allowance for obsolescence is given when ascertained at the end of the machine's life, but hitherto only if the machine is actually replaced. The projected modifications recognise that capital adaptation does not necessarily imply replacement. In addition, they go far to meeting the other objections to the methods of industrial taxation by proposing an initial allowance of 20 per cent on the cost of new plant as a charge against profits of the year, and the allowance of research expenditure of a capital nature to be written off over a period of not more than five years. But the proposals do not go far enough. The Factory Allowance which has hitherto been allowed on factory buildings only to the extent of about one per cent per annum on the cost for so long as a building is in use, is to be replaced by an allowance of two per cent per annum of the cost (with an initial allowance of 10 per cent in the case of new buildings) until the premises are fully written off. This proposed two per cent allowance on industrial property, implying a life of fifty years, is clearly only a tentative step in the right direction. It will not prove sufficient in all cases under the current conditions of rapid change. In so far as Inland Revenue practice falls short of prudent commercial principles it deters rather than encourages enterprise in keeping plant and buildings up to the latest design.

EFFECT OF MASS PRODUCTION AND MECHANISATION ON EMPLOYMENT AND WAGES

Before closing this chapter, something must be said of the human aspect of the rapid changes in production technique with which it is primarily concerned. The view that technical progress ought to be delayed on the ground that it displaces labour and creates unemployment is now discredited. It is recognised that only by

more efficient production can the national wealth be increased and the standard of living be raised for everyone. Nevertheless, there is a problem of individual adjustment to be faced wherever an employee in a particular job is no longer required or, in the case of a skilled employee, where his skill is no longer necessary.

Where change is gradual, such adjustments can usually be made without undue difficulty; and, if a suitable recruitment and retirement policy is followed, the need for them may hardly arise at all. But where, as was the case at Bournville during the later 1920's, changes are very rapid, the difficulties may temporarily be very great. The chart shows that in the period from 1925 to 1930, the number of employees, the increase in which, except during the period of the first World War, had long been uninterrupted, suffered a sharp set-back on the introduction of mass production methods. Although, as will be seen in Chapter V, an endeavour was made to meet the situation by adjusting the intake of new employees according to the number of available vacancies, the new developments came with such speed that cutting down recruitment was not sufficient to provide a complete adjustment of the labour position.

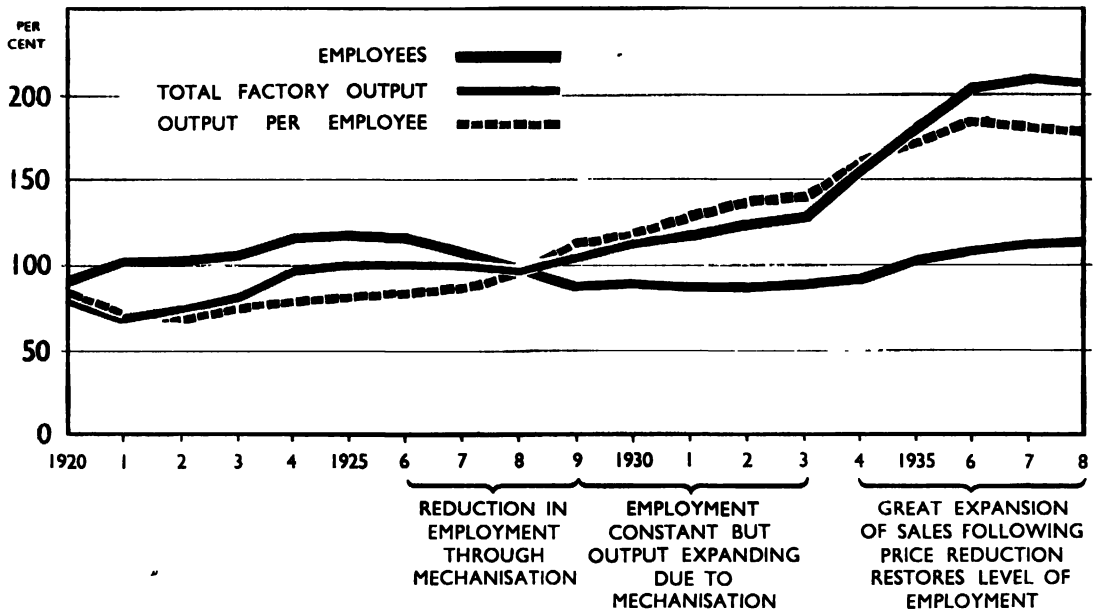
Various schemes were devised to provide for the staff displaced by mechanisation. A number of those normally engaged inside the factory were employed on outside construction work. Parts of a long term plan, such as the excavation of a railway cutting, the extension of railway sidings, the preparation of sites for future buildings were put in hand ahead of immediate requirements. Some road building and estate development work was also undertaken for the Bournville Village Trust.

The factory continued to work a full normal week, but employment was spread over a larger number than was actually required by means of a system of "short time," under which most employees took off a complete week after so many weeks of full-time work. For the week they were off they drew State Unemployment Benefit which was supplemented by the Firm's "Short Time Scheme," so that incomes were made up to 80 per cent of standard earnings.

For those actually discharged State Unemployment Benefit was supplemented for a specified period or until they found other work. Financial encouragement was also given to learn a new trade or to set up in business.

Apart from the problems of short-term labour adjustments Bournville has been fortunate. The "elasticity of demand" for its products has been such that, while mechanisation has increased the output per head, reduced prices in due course so increased public demand that by 1934 numbers were once more on the up grade. But some industries, such as flour milling, have not an elastic demand for their products. It may be necessary, in such cases, when labour-saving developments release workers, to arrange for their transfer to the expanding industries.

MECHANISATION BROUGHT SHORT TERM UNEMPLOYMENT PROBLEMS



Technical progress is essential to industrial efficiency and a rising standard of living, but it often brings problems of labour transfer and of unemployment.

ALLOCATION OF SAVINGS ACHIEVED BY TECHNICAL PROGRESS

Another of the consequences of mechanisation is the problem of compensating the skilled employee who, after perhaps years spent in acquiring a particular aptitude, finds his skill superseded by the machine. Having come to expect a wage reflecting this skill as a permanency, he may suddenly find himself relegated to other work where his skill is perhaps of no practical value and where the standard rate of remuneration is lower than in his old skilled job. Various experiments have been made to meet such cases. Individual allowances have been given to supplement the rate for the new job. Alternatively, a drop in earnings has sometimes been commuted into a capital sum. But there are many difficulties. In a competitive industry, with big seasonal fluctuations in trade, where public demand as well as technical practice is always changing, flexibility and mobility of staff between jobs and departments are essential. It is not easy to work out schemes of compensation which are fair between one individual and another and are at the same time in no danger of being upset by some unanticipated development. A solution, capable of universal application, has yet to be found.

There is sometimes discussion on how the economies of improved industrial technique should be distributed, particularly as between the workers involved, the firm, and the consuming public. In so far as new methods are due to the ideas or

assistance of individual workers, they should receive their reward both in justice and as encouragement to further efforts. Under the Bournville Suggestion Scheme a definite percentage of any saving derived from a suggestion goes to the suggestor. The scheme has operated successfully for many years and has been responsible for many hundreds of new ideas, some of them of great importance. Again, where new methods involve loss of acquired skill, or even of a job, this may be a case for compensation or for assistance in finding alternative employment. Where, however, an employee, thanks to some new process or machine, is turning out more units per hour without extra effort or skill, there is no apparent reason why he should receive extra remuneration for doing so. If the principle of extra remuneration were accepted it would very soon cause inequity between those working processes which happened to be going through a period of frequent and important technical advances and those whose jobs had hardly changed, perhaps for a generation. Such a principle also leaves out of consideration any workers who may be displaced.

This does not mean that workers are denied the benefits of improved machinery. They enjoy these as consumers. As consumers of their own products the advantages may well be negligible. But, in varying degree, all the country's industries are becoming more efficient, and the result of these improvements being passed on to the consumer was a major rise in the standard of living between the two wars.

It is most important that there should be as little hindrance as possible to this process of passing on savings in the cost of production to the consumer. The manufacturer must of course allocate some of the savings to pay his research workers and to write-off plant that new discoveries may have made obsolete. But, subject to this, the more rapidly he turns his lower costs into lower prices the better for the community. It should be the responsibility of the Government to watch that combinations either of employees or of employers do not restrict this process for their own sectional advantage.

CHAPTER III

MARKETING AND PRICE POLICY

DEVELOPMENT OF MARKETING TECHNIQUE

BOTH at home and abroad the period between the two World Wars was for British industry one of fierce sales competition in a market that had lost much of the resiliency which had characterised it in the nineteenth century. Manufacturers of branded goods not only had to hold their own against others in the same trade, but also to persuade a fickle public to buy their wares in preference to goods or services offered by rival industries. Chocolates competed with cigarettes, the cinema with the “dogs,” and the pleasure and convenience of running a cheap motor car with the attractions of a summer holiday on the Continent.

Against this background of competition for the consumer’s favour, the art of selling occupied an ever-increasing share of the manufacturer’s thoughts. To a greater or less extent every successful business was driven to what came to be known as “high-pressure salesmanship”; and to ensure that this expensive technique was applied in the right direction it became necessary to develop the science of market research.

For an old-established business, whose products were already well-established in the public favour, and whose name was already a household word, the extremer manifestations of high-pressure salesmanship were unnecessary. The number of representatives was considerably increased, and the scope of their duties somewhat enlarged. Greater attention was paid to the art of window-dressing and to the design and distribution of display-material. A special department was set up to provide customers with advice about their problems, including such questions as the type and number of lines to stock and the best methods of storage to prevent deterioration. In these and other ways, some of which will be described in the next chapter, the Firm was able to improve its contact with and services to the trade. Simultaneously, the Firm’s advertising of all kinds was enlarged in scope and improved in quality and variety in a manner which, for the most part, need not be described in detail since the advertising itself will already be familiar to the reader.

PURPOSES OF MARKET RESEARCH

Whilst the aim of advertising and salesmanship is to persuade the public to buy the goods a firm has already decided to produce, the main function of market research is to discover what goods to produce, how to present them, and what forms of advertising

and salesmanship are most likely to be effective. In the broader sphere of business policy, market research may also be directed to less immediate ends. For instance, a knowledge of the general background of the distributors through whom sales are made, including such questions as the number of potential sales outlets, the structure of the wholesale and retail trade, and the long-term relationship between profit-margins and traders' incomes, is essential to a manufacturer who wishes to frame his marketing and price policy on sound foundations. As will be seen in the next chapter, a not inconsiderable part of the research which has been undertaken at Bournville has been directed to securing this type of knowledge, of which, at least until quite recently, very little has been available in any reliable form.

In assembling facts on which sales policy is founded a balance between inside information based on the firm's past sales figures and outside field work is necessary. It is clearly dangerous to rely on self-measurement as the only basis for assessing the situation and the scope of the market. This particularly applies to reports from representatives. As a result of trial and error it has been found that the order of precedence in research should be: (1) examination of internal statistics; (2) market research employing trained field workers; (3) the opinion of the firm's own salesmen. The first gives exact experience based on past effort, the second measures changing public opinion, and the third reflects the views of men trained over a number of years to appraise the condition of the market and also those of distributors with whom they are in daily contact.

STATISTICS SHOULD BE DIGESTIBLE

Both in market research and statistics there is a temptation to collect more facts and information than can be properly appreciated. In 1917 the Firm installed a full battery of punched card statistical machinery. This produced detailed statistics, but it was found that only a proportion were of real value, and that the system was too rigid. In recent years the statistical service has been improved by adopting the simpler and more flexible types of adding and calculating machines.

FIELD RESEARCH ANALYSES PUBLIC OPINION

The methods of field research which have been developed at Bournville do not differ substantially from those practised by other up-to-date firms. The subject is, indeed, one in which new methods and ideas spread rapidly, since a large part of the work is usually carried out by advertising agencies and business consultants. This is natural and inevitable. The demand for field research by a particular manufacturer is intermittent in character, and for the field work a specialised training is required, in which experience gained on assignments for a variety of different firms and industries plays an important part.

Whilst the research itself is best entrusted to an outside agency, both for the reasons already given and because the conclusions reached are less likely to be biased, it is important that the manufacturer should take the lead in the selection of the points to be investigated and in the planning, as opposed to the execution, of the field work. However valuable may be the advice of an experienced agency in suggesting subjects for investigation, only the manufacturer himself, who will have to use the results, can formulate the precise questions to which he requires the answers.

In the sphere of marketing reliance on purely technical considerations often leads to wrong policy. The engineer, the chemist and the factory manager may produce an article of the highest technical quality, but this is not sufficient by itself to insure that it will be popular. It is what people *think* about a product that guides their choice, and it is one of the main features of market research that it helps to impress this attitude on the factory technicians, who otherwise tend to disregard public opinion in favour of what they *know* about the product. This point is fundamental to the best sales methods and ideas, particularly in the export market.

IMPORTANCE OF THE "FEEL OF THE MARKET"

What the business man of an older generation would have called "the feel of the market" has certainly not been neglected. In concrete terms this largely means that full advantage has been taken of the practical advice of the Firm's representatives, especially the older and more experienced of them. As a means to this end it has been the practice to include in the headquarters Sales Staff one or more members whose earlier career has been spent "on the road." It has also been found useful to assign to individual members of the indoor staff small territories, consisting of a single town, which can be worked on one or two days in the month, thus giving them a contact with the shopkeeper and his problems which they could not otherwise obtain.

Finally, there are frequent conferences both at headquarters and outside between the Sales Department staff and the Senior Representatives, at which impending marketing developments are fully discussed and the Sales Department's plans are examined, and if necessary revised in the light of the representatives' criticisms.

ACCURATE COSTING OF INDIVIDUAL LINES

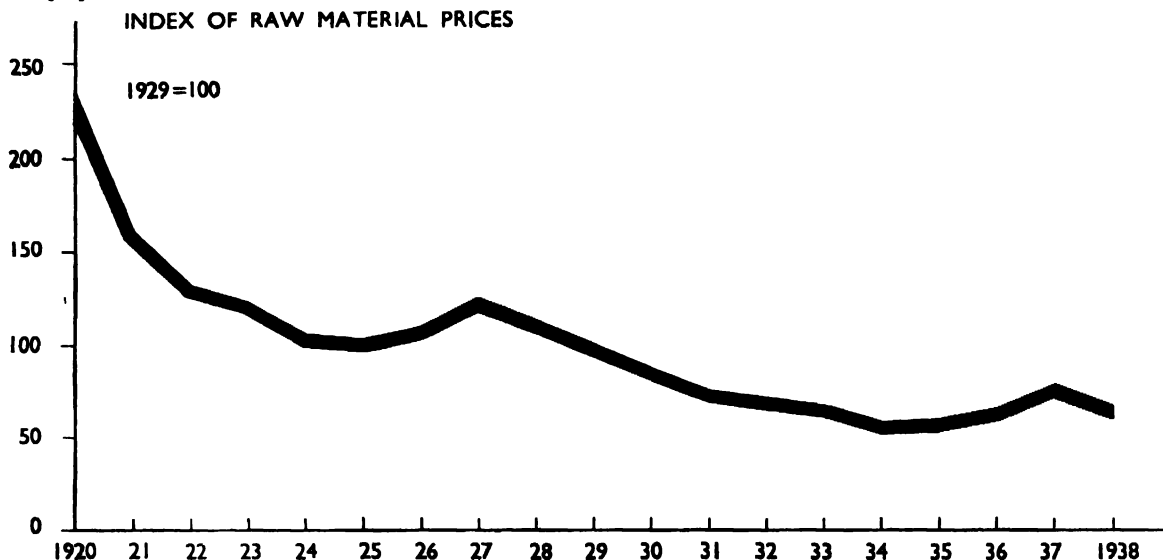
In the development of an active sales policy, the question of price occupies a key position. In this respect commercial enterprises have followed widely differing principles.

It is not sufficient for the selling prices of the Firm's products as a whole to show a satisfactory margin of profit over their cost of production. Each line in the price-list must make its appropriate individual contribution to the total profit. Otherwise

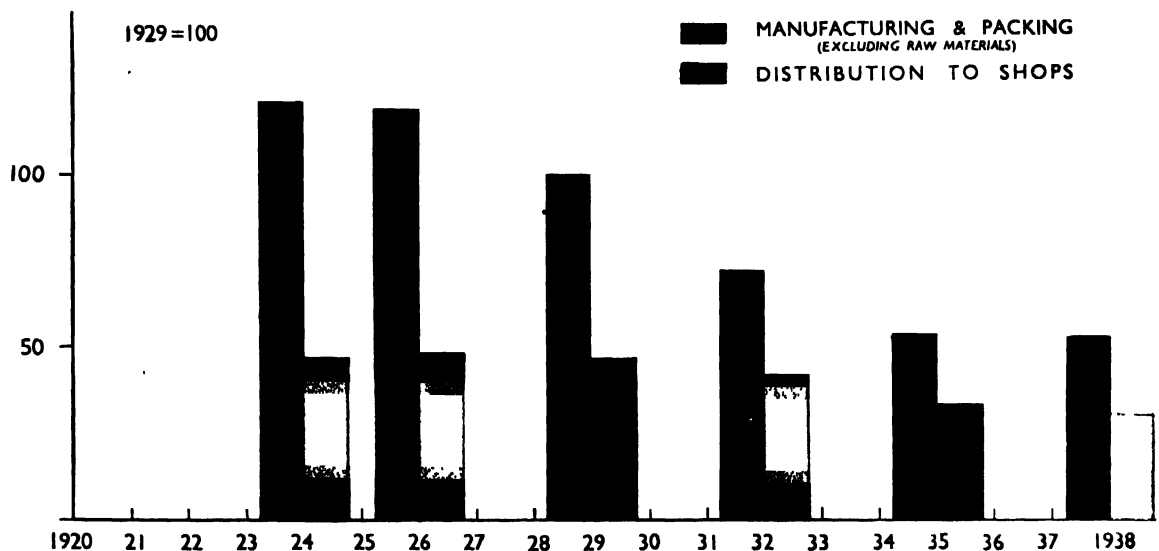
PASSING ON ECONOMIES

PRINCIPAL FACTORS LEADING TO REDUCED PRICES

(A) FALL IN RAW MATERIAL PRICES OF MILK CHOCOLATE



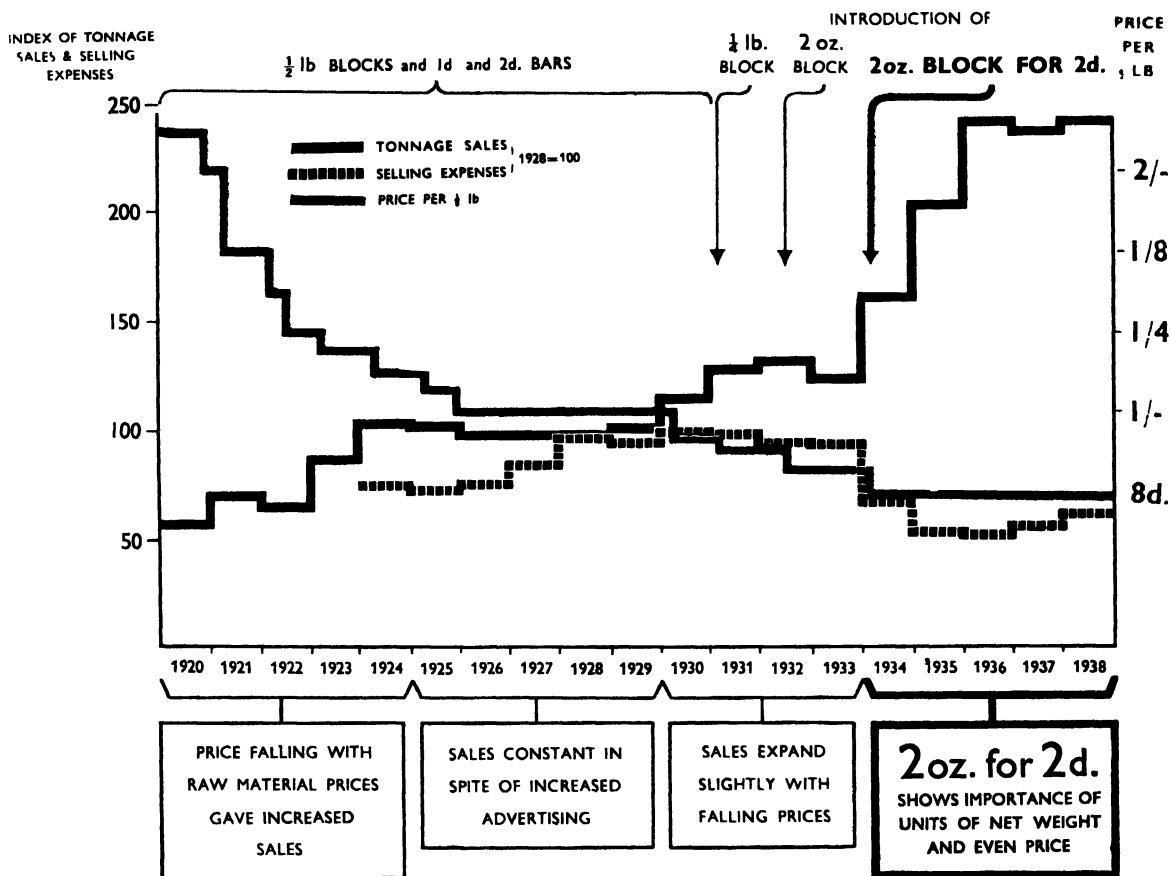
(B) FALL IN FACTORY AND TRANSPORT COSTS PER UNIT



Falling raw material costs were the principal factor in enabling prices to be reduced, but the reductions of processing costs, and to a lesser extent transport costs, were also important.

TO THE CONSUMER

FALLING PRICES AND RISING SALES OF MILK CHOCOLATE



In the inter-war years the sales of Milk Chocolate were very responsive to changes in price. A remarkable feature shown by this chart is the rapid rise in sales, in spite of reduced expenditure on selling, with the achievement in 1934 of a definite net weight of 2 oz. for the convenient price of 2d.

some lines will be subsidising others, which will not benefit either the Firm or its customers. The responsibility for ensuring that lines are correctly priced rests with the Cost Office, and the manner in which it co-operates with the Sales Department to this end has already been described.

IMPORTANCE OF CONVENIENT DENOMINATIONS OF NET WEIGHT AND PRICE

Whilst the principle of continuously adjusting prices to costs is clear, its detailed application is not always free from practical difficulties. No adjustment in the price

of small units of less than $\frac{1}{2}$ d. is possible—which means that in the case of a 2-oz. block of chocolate selling at 2d. the percentage change in cost must be very great before a change in price can take effect. The alternatives to changing the selling price of a unit, where the cost has altered but not to a sufficient extent, are, either to do nothing, to make a proportionate adjustment in the weight, or to improve or simplify the packing or presentation. The first course is appropriate if the change in cost is very slight or not certain to be permanent, but it would otherwise run counter to the Firm's settled policy. The second has much to recommend it and is the obvious one to adopt if the unit is not being sold on an exact weight basis. It has, however, been found that there is a strong public demand for exact weights.

In theory, every small decrease or increase in price per lb. should (at least after a short time-lag) be reflected in a corresponding rise or fall in demand. In practice, slight fluctuations in weight unaccompanied by price changes are hard for the public to detect. Quite apart from this difficulty, there is an overwhelming preference for definite weight denominations, *e.g.*, 2-oz., 4-oz., 8-oz., etc. Far more importance is attached to these standard weight denominations than to standard prices, though here, too, certain unit price levels enjoy special public preference. Such prices as 2d., 3d., 4d., and 6d. are popular; others, like $3\frac{1}{2}$ d. and $5\frac{1}{2}$ d. which sound odd, or do not fit in conveniently with the coinage, far less so. Nevertheless, if it is a question between selling, say 4-oz. for $3\frac{1}{2}$ d. or $3\frac{1}{7}$ -oz. for 3d., the former is preferable. Thus, the practical "demand curve" is different from the theoretical demand curve of the economic text book. Instead of rising and falling smoothly and continuously it proceeds in jumps. There is one level of demand for a 2-oz. block of chocolate at $2\frac{1}{2}$ d. and another at 3d. The demand at an intermediate price of, say, $2\frac{3}{8}$ d., even if such a price were in any way practicable, might well be less than at either of the two former figures.

During the past decade these considerations have increasingly influenced the Firm's price policy. Consistently with keeping prices in line with costs, it has endeavoured first, to sell all—or very nearly all—lines at weights which the public can readily understand and test, and secondly, to sell them at the more popular prices. This has meant that in adjusting price to cost, it has frequently been necessary to make use of the third alternative—that of making some alteration in the packing or wrapping or presentation sufficient to take up the slack without disturbing a convenient price-level like 2-oz. for 2d.

THE EFFECT OF PRICE REDUCTIONS ON SALES OF MILK CHOCOLATE

Every now and then, it may be possible by stepping-up the scale of production, introducing new economies of mass-production, simplifying packing or reducing advertising costs, to set up a new standard of values. The sales history of the

principal block chocolate lines shows that where this can be done the results are sometimes astonishing. In the case of standardised articles of known quality and low unit price, the certainty of getting value for money is by far the most important consideration in the eyes of the consumer.

The Charts on pages 34 and 35 show that from 1920 to 1924, when raw material prices (the largest single element in costs) were falling rapidly, there was an equally rapid fall in the selling price of Milk Chocolate from 2s. od. to 1s. od. per $\frac{1}{2}$ -lb. Tonnage sales rose in sympathy—not, it is true, without some fluctuations, but on the whole in a very satisfactory manner.

For articles of higher unit value than 2-oz. and 4-oz. blocks, or those falling more within the luxury class, *e.g.*, the more expensive chocolate assortments, similar considerations apply, but the problem of reconciling value for money with even weights and even prices is much easier to solve. Price changes can, if necessary, be made in stages; a jump from 2s. 4d. to 2s. 6d., or even from 3s. 6d. to 4s. od. being proportionately much less than from 1d. to 1 $\frac{1}{2}$ d. or 1 $\frac{1}{2}$ d. to 2d. Moreover, the units in an assortment do not all cost exactly the same to produce, and small reductions in cost are easily offset by including a higher percentage of the more expensive, or by making minor changes in the packing.

After 1924 the price of raw materials showed, first, a rise (till 1927) and then a fall, returning by 1929 to much the same level as in 1924. Mechanical improvements led after 1926 to a fall in factory costs, but because 1s. od. seemed a very convenient price-level, and also because at that time the responsiveness of demand to price had perhaps not been fully appreciated, these economies were absorbed in additional expenditure on selling and advertising, and to some extent in improvements in packing. In spite of every effort in these directions, tonnage sales remained obstinately at the 1924 level, even showing some tendency to drop below it.

In 1930 the continued fall in raw material and factory costs, combined with the obvious effects of the economic depression on the consumer's purse, led the Firm to review its price-policy, and (without actually cutting down on selling and advertising expense) to devote further economies in cost to price-reductions. The effect was instantancous, and, in the economic conditions then prevailing, almost entirely unexpected. During the three worst years of the slump—1930 to 1932—whilst prices were reduced by successive stages from 1s. od. to 10d. per $\frac{1}{2}$ -lb., total sales of milk chocolate rose in volume by a third.

In 1934 the further fall in production costs led to the conclusion that only a reduction in selling expense stood in the way of a further price-reduction which would bring the $\frac{1}{2}$ -lb. block to 8d., and enable the weight of the popular 2d. block (or "bar," as it was then called) to be raised to an even 2-oz. The Firm made the deliberate decision to curtail its expenditure on advertising and selling, including

COST OF VARIETY & FANCY PACKING

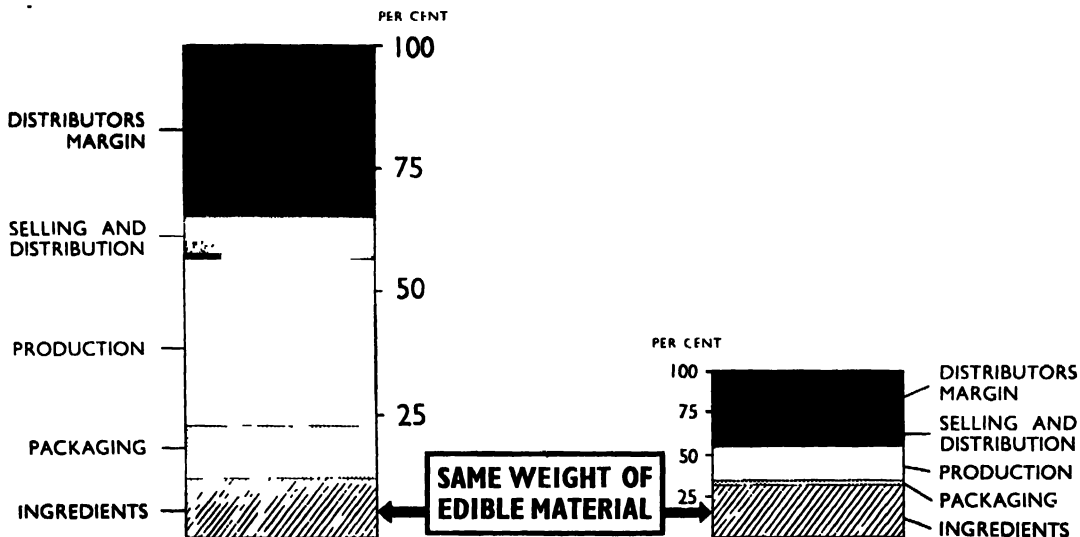
KING GEORGE
 $\frac{1}{2}$ lb. ASSORTMENT

MILK CHOCOLATE
 $\frac{1}{2}$ lb. BLOCK

2/-

RETAIL PRICE

8d.



The cost of the ingredients of the $\frac{1}{2}$ -lb. of Assorted Chocolates was not much more than that of the $\frac{1}{2}$ -lb. Milk Chocolate Block, but because of the cost of the fancy packing, and the variety of sizes, shapes, and flavours of the units, the price of the assortment was three times that of the block. The public quite naturally demands variety, but has to pay for it.

under this head an alteration of the 48-hour delivery service to a 72-hour service, and the great objective of 2-oz. for 2d. was attained. Sales shot up as if by magic, and after reaching a peak in 1936 more than three times the level of the early '20's, remained at a continuously high level till the outbreak of war.

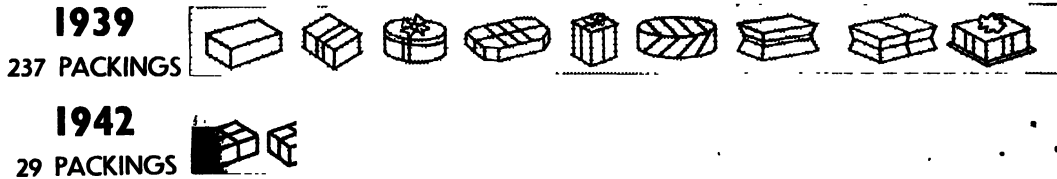
STANDARDISATION REDUCES COSTS OF ASSORTMENTS

It will be seen that a large part of the economies which led to these price-reductions were due to increasing standardisation, both in methods of production and in the product itself. One form taken by this standardisation was the gradual simplification of Christmas and other seasonal and special packings. Whilst not reducing the

Opp. The cost of variety is emphasised by the economies achieved in war-time by standardisation of products, simplification of packings, and the cancellation of assortments and of the more expensive cocoa and chocolate lines. Neither the manufacturer nor the public would wish to retain the extreme degree of standardisation of war-time products, but there is a case for limiting the peace-time multiplicity of lines.

ECONOMY OF WAR-TIME SIMPLIFICATION

NUMBER OF LINES AND PACKINGS REDUCED



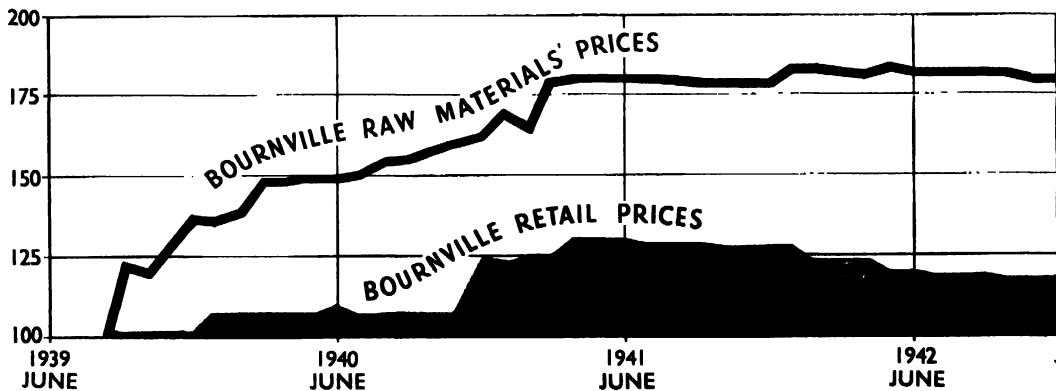
SAVINGS MADE



WITH TONNAGE OUTPUT ONLY SLIGHTLY DOWN



RISING PRICES RETARDED



number of such packings, which was, in fact, steadily increased, it was found both profitable and popular to base them on standard assortments like Milk Tray, "King George" and other lines of proved saleability packed in a variety of different boxes.

Standardisation and simplification could, of course, have gone a great deal further, but variety is one of the things which the public demands and expects to pay for when buying such goods as chocolate and confectionery. Whether it realises quite how much it has to pay for this luxury is perhaps doubtful. For instance, the average purchaser can hardly have realised that the cost of the edible ingredients of a $\frac{1}{2}$ -lb. box of, say, "King George," was not much more than the cost of the equal weight of ingredients in a $\frac{1}{2}$ -lb. block of ordinary milk chocolate which sold at exactly one-third of the price. The additional cost was due almost entirely to the additional cost of manufacture, the more expensive packing, the increased overhead and distribution expenses and the higher retailer's margin. (See chart on page 38.)

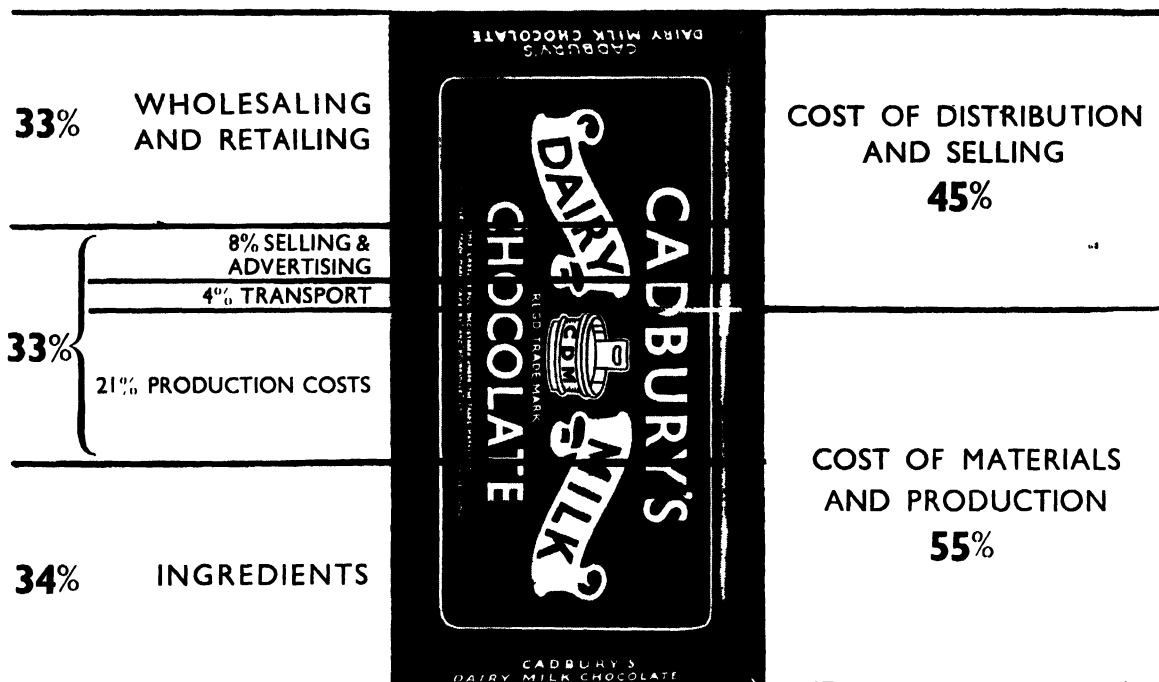
THE COST OF VARIETY AS SHOWN BY WAR-TIME ECONOMIES

It may be that war-time experience will lead to a permanent modification of public expectations in this respect. Force of circumstances and Government restrictions have compelled simplified wrappings and packings to the utmost extent compatible with the protection of the products themselves. The production of assortments which have a relatively high labour cost per ton has been discontinued altogether, and manufacture has been concentrated on a very limited number of plain and filled blocks. Finally, the range of even those plain moulded lines for which ingredients remain available has been reduced in order to simplify production runs.

Indirectly, also, the reduction of the number of lines from 237 in 1939 to 29 in 1942 reduced the work in the Stockroom and Depots and the cost of invoicing and recording. Costs have been further reduced by the disappearance of seasonal variations brought about by rationing.

The combined result of these factors—offset as they partially were by higher wages, A.R.P. and similar charges, by extra overhead expenses per ton due to a lower turnover, and by special war-time distribution and accounting expenses directly connected with the rationing regulations—was that by the end of 1942 the average retail price of the Firm's products had only increased by 17 per cent, although the ingredient cost had risen by 80 per cent. (See chart on page 39.)

COST OF DISTRIBUTION—MILK CHOCOLATE 1938



One-third of the cost of a block of chocolate is taken in wholesaling and retailing, and is, therefore, outside the control of the manufacturer. Including the manufacturer's costs, selling accounts for no less than 45 per cent. of the cost of a 2d. block.

CHAPTER IV DISTRIBUTION

INTRACTABILITY OF DISTRIBUTION COSTS

THE chart on page 35 showed that the period from 1929 to 1934—coinciding roughly with the world-wide economic depression which succeeded the uneasy semi-prosperity of the 1920's—was one in which the Firm's sales policy underwent a definite change. Successive price reductions drove home ever more forcibly the lesson that the best way to increase sales is to give the public the very greatest value possible. To achieve this result every element of cost throughout the process of manufacture and distribution was examined and where possible cut down. From the outset, however, there was one obstinate factor. Only about a third of the final cost of a block of chocolate to the consumer is accounted for by factors over which the manufacturer has any direct control. Roughly, another third consists of the cost

of raw materials; the remainder —also about a third— is the cost of wholesale and retail distribution.

The level of raw material costs is determined by a complex of world-wide factors which a single manufacturer can scarcely hope to influence. It is natural, therefore, to turn to the possibility of economies in the later stages of distribution comparable with those achieved in production and selling.

INVESTIGATIONS INTO RETAILING AND WHOLESALING

About the year 1929 it was decided to undertake an investigation, on a wider front than is usually covered by a trading organisation, into the costs of wholesale and retail distribution— including under this heading not only such matters as methods of delivery from the factory to the shopkeeper, but also the structure and efficiency of present-day wholesaling and retailing, the appropriateness under modern trading conditions of the traders' traditional margin, and the vexed issues of price-cutting and price-maintenance.

DENSITY AND TYPE OF RETAIL OUTLETS FOR CHOCOLATE AND SUGAR CONFECTIONERY

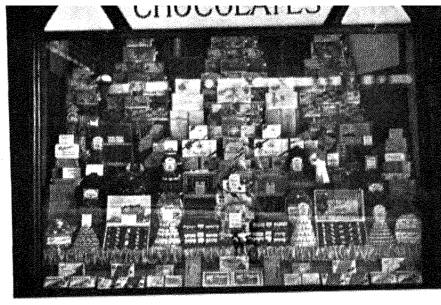
The objective at the outset was comparatively modest. It was to gather information about the general set-up of the wholesale and retail trade—the total number of distributors, their location and the scale of their operations—quite elementary facts, about which, however, very little was known. The number of accounts with wholesalers and a much larger number with retailers were known. Some of these accounts were large and some small. Some were with special types of customers —multiple shops, club traders, places of public resort, and so forth. Some customers were good payers with a high credit rating, others not so satisfactory. Here definite knowledge (as opposed to general impressions) ended. It was not even known how many retailers stocked the Firm's goods, still less how many more, who might stock them, were failing to do so.

Both as the first stage in the cost investigations which it was proposed to undertake, and on account of the value of the knowledge for its own sake, it was decided to carry out a survey of the retail confectionery trade in a sufficient number of districts of varying type to provide a reliable sample of the country as a whole.

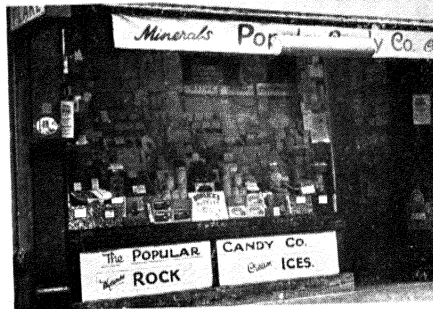
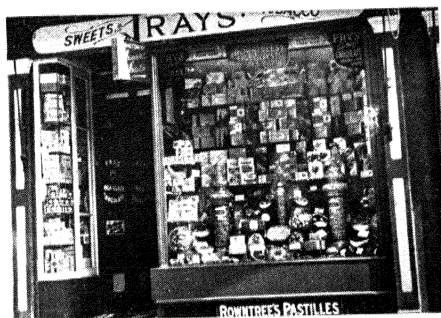
The six areas selected for the survey were in widely separated parts of the country and were chosen so as to exhibit as great as possible a variety of economic types. They included the wealthy South Coast holiday resort of Bournemouth, a portion of rural Cambridgeshire, the prosperous industrial town of Leicester and the depressed seaport of Hull, and two industrial towns in the West of Scotland—Grecnock and Hamilton. This may seem to be a small sample from which to draw inferences applicable to the country at large, but the experience of several subsequent investigations

GRADES OF SHOPS SELLING CONFECTIONERY

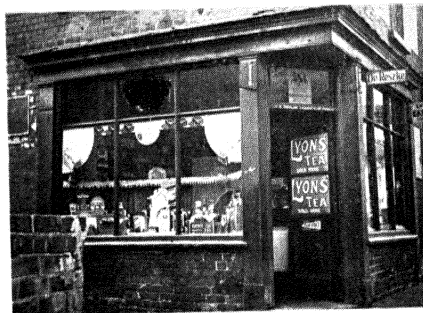
25%
GRADE 1 & 2



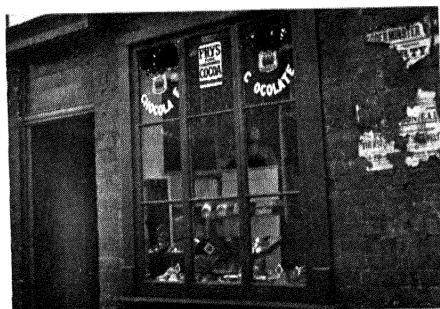
20%
GRADE 3



30%
GRADE 4



20%
GRADE 5



5% OTHER CHANNELS OF SALE

A grading of shops selling confectionery (i.e., chocolate and sweets) showed at least half to be of poor class.

has shown that it was large enough to ensure the correctness of the broad conclusions. Briefly these were as follows —

(a) The Number of Confectionery Selling Points in Relation to Population

The density of outlets for the Firm's goods (and by inference for most other types of consumable goods) varied from place to place, but was everywhere considerably larger than had been commonly supposed. In the areas visited, the population per confectionery selling-point was lowest in Bournemouth (155) and highest in Hull (195). This suggested a figure of at least 250,000 for the total number of confectionery outlets in the U.K. This estimate, large though it is, was proved in 1939 to be too low, as some 330,000 applications were received for licences to sell confectionery by retail. The discrepancy is not large, however, if allowance is made for ten years' growth, and for the fact, which became evident after the introduction of consumer-rationing, that a proportion of the applications came from persons not actively engaged in the sale of confectionery at the time.

(b) The Sizes of Shops Selling Confectionery

The proportion of large, or even moderate-sized, and efficient retailers was very low; that of small retailers very high. A rough grading showed that at least half the outlets were either of too poor a type or had too low a turnover in confectionery to justify their being regarded as potential customers who should be supplied direct by even the largest manufacturer. (It will be seen below that the second of these points has an important bearing on the place of the wholesaler in the structure of distribution.)

(c) The Grades of Shops Selling Confectionery

The results of grouping selling points into five grades are shown in the chart on page 43. The first three of these grades are satisfactory points of distribution, but very few of those in grades 4 and 5 would be so regarded by most people. Of all the selling points recorded, 45 per cent of the total were in the first three grades and 50 per cent in the last two, the balance being made up of selling points other than retail shops. Broadly, as might be expected, the poorer shops were also the smaller shops, though this was by no means always the case.

(d) The Types of Shops Selling Confectionery

Of the 250,000 outlets only a small number were confectionery shops and nothing else. Even if under this heading those who combine tobacco with confectionery were included, the proportion would be found to be no more than about 21 per cent. Of the remainder some 7 per cent were cafés or pastry cooks, 32 per cent grocery and

OF THE TOTAL NUMBER OF SHOPS SELLING CONFECTIONERY

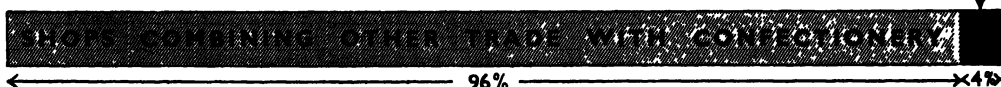
40% were GENERAL SHOPS

32% were GROCERS

17% were TOBACCONISTS AND CONFECTIONERS

7% were PASTRYCOOKS AND CAFES

4% were selling CHOCOLATES AND SWEETS ONLY



provision shops, and no less than 40 per cent general dealers, mostly of the village store or the corner shop variety. It is within the ranks of this class that the majority, though not all, of the poorest shops are to be found. (See chart above.)

A comparison between the total number of selling points and the total annual turnover in confectionery (known approximately from the Census of Production) showed that the sales of many retailers must be insufficient to provide them with a proper livelihood. It was impossible to estimate even roughly what proportion were "uneconomic" in this sense, because so many of them were either grocers or small mixed businesses, selling many other lines besides confectionery. On any reckoning, however, it was evident that the number must be alarming.

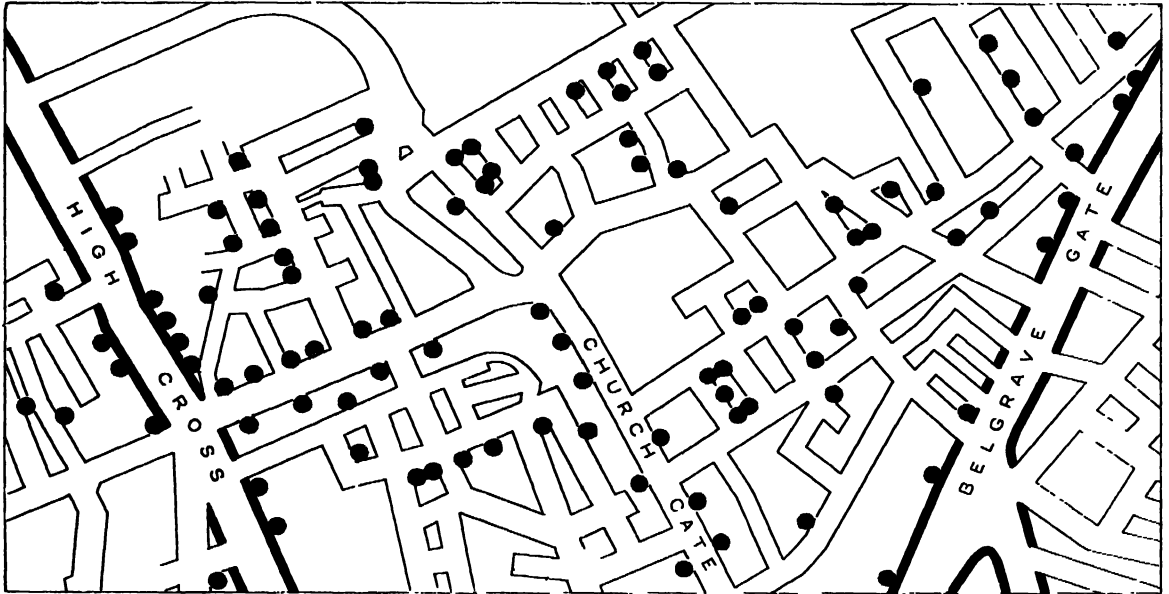
(e) The Location of Shops Selling Confectionery

Although it was difficult to escape the broad conclusion that there were everywhere too many shops—little difference being shown in this respect between town and country or between large towns and small—there was also evidence of serious local maladjustments between the number of shops and the population density in the immediate vicinity. In the residential areas of large towns, and particularly (as subsequent investigations showed) in newly-built housing estates, there were actually no shops at all or too few to meet the daily needs of the immediately surrounding population. On the other hand, in the central districts, especially in the slums, the excess of selling points sometimes rose to fantastic heights. Examples of this unequal distribution are shown in the maps on pages 46 and 47 of two industrial areas in Leicester and Hull, where the population per confectionery outlet is as low as 160, and a municipal housing estate, where it is as high as about 900. In the latter case

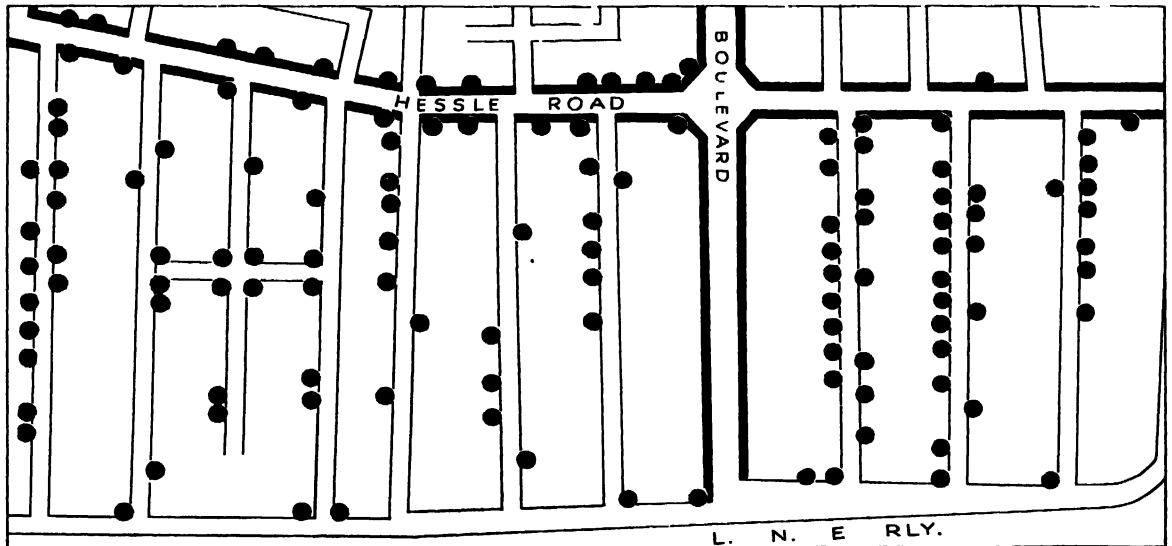
EXAMPLES OF TOO MANY SHOPS

● SHOPS SELLING CONFECTIONERY

LEICESTER (CENTRAL INDUSTRIAL AREA)



HULL (DOCK AREA)



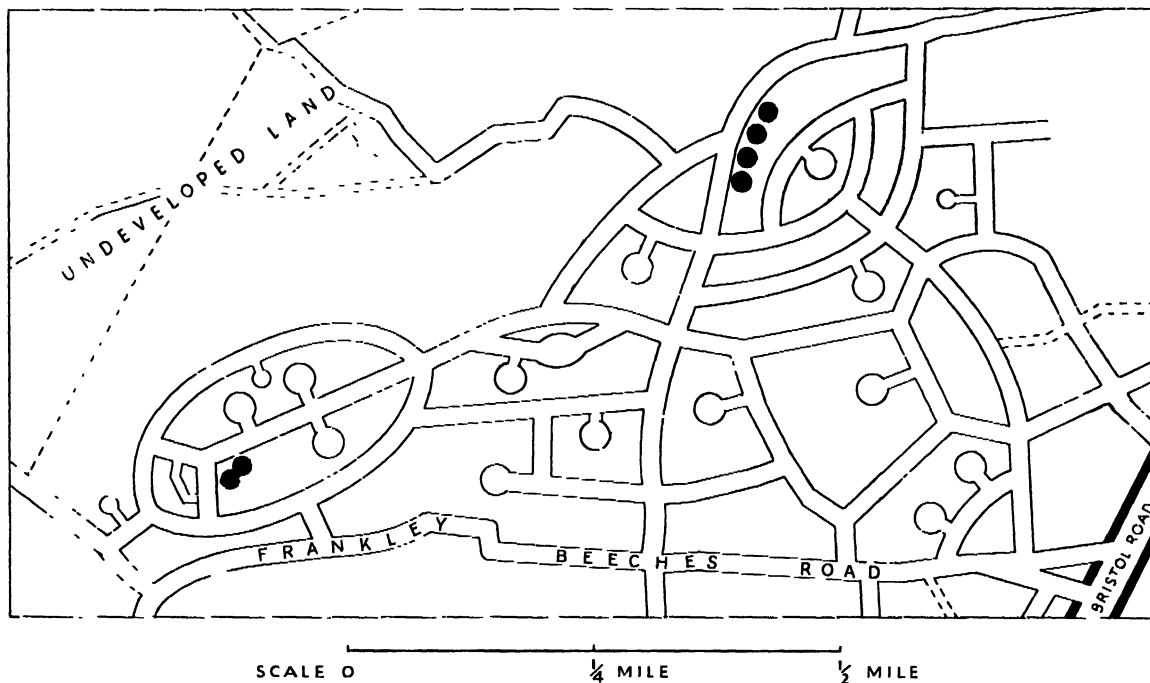
SCALE 0 $\frac{1}{4}$ MILE $\frac{1}{2}$ MILE

These two maps, each covering an area of under a square mile, one of a dock area in Hull, the other of a central industrial area in Leicester, show the obvious redundancy of confectionery shops. These numbers are based on a survey made before the war.

AN EXAMPLE OF TOO FEW SHOPS

● SHOPS SELLING CONFECTIONERY

BIRMINGHAM (A MUNICIPAL HOUSING ESTATE)



This map of a municipal housing estate shows the other extreme—the inadequacy of the number of confectionery shops. Many of the houses are over half-a-mile from the nearest shop. The chief shopping centre is on the main road.

there is a main road shopping centre within reach of the estate, but the convenience of the estate population would have been better served by providing facilities for opening more general shops in the remoter sections.

TURNOVER OF RETAILERS SELLING CONFECTIONERY

The results of these surveys suggested that the next stage in the investigations ought to be an inquiry into the financial results of small-scale retailing. This was a harder task. There is a natural reluctance on the part of traders to disclose their accounts to an investigator, and even when this obstacle had been overcome it turned out too often that such accounts as are kept by the average small retailer are incomplete or unreliable. However, out of several hundred retailers visited, mainly on the introduction of the Firm's representatives, some fifty or sixty proved able and willing to furnish the desired information. The results of these inquiries, conducted under the auspices of the Manufacturing Confectioners' Alliance, were published in

1932 in a Report presented to the Alliance on the "Operating Expenses of Retail Confectionery Shops."

In addition to providing a great deal of interesting and useful information about the trading expenses of different types of retailer under appropriate headings, the report brought out very clearly the unsatisfactory financial position of the small shopkeeper. It showed that whilst a sweet shop with a turnover in the region of £20 a week can provide a reasonable if modest livelihood for a hard-working proprietor, this cannot be said when the turnover falls much below that level. Taken in conjunction with the earlier investigation, it also showed that a very large number of shops were in fact in the under-£20-a-week class. A substantial number, including most of the more successful businesses, had a turnover of between £20 and £40 a week. Very few, apart from the large branches of multiple shops, exceeded this figure. At the lower end of the scale, shops with turnovers of less than £15 or even less than £10 a week, were distressingly numerous. The position is mitigated so far as the shopkeepers themselves are concerned, by the fact that businesses doing less than £10 a week seldom constitute their proprietors' sole means of support. More often than not, they are kept merely in order to help with the rent, to enable the owner to obtain his household necessities on wholesale terms, or as a useful supplement to an old-age or disability pension. It would be going too far to say that the continued existence of all such shops is against the public interest, though this is undoubtedly true of those which are badly run and unhygienic.

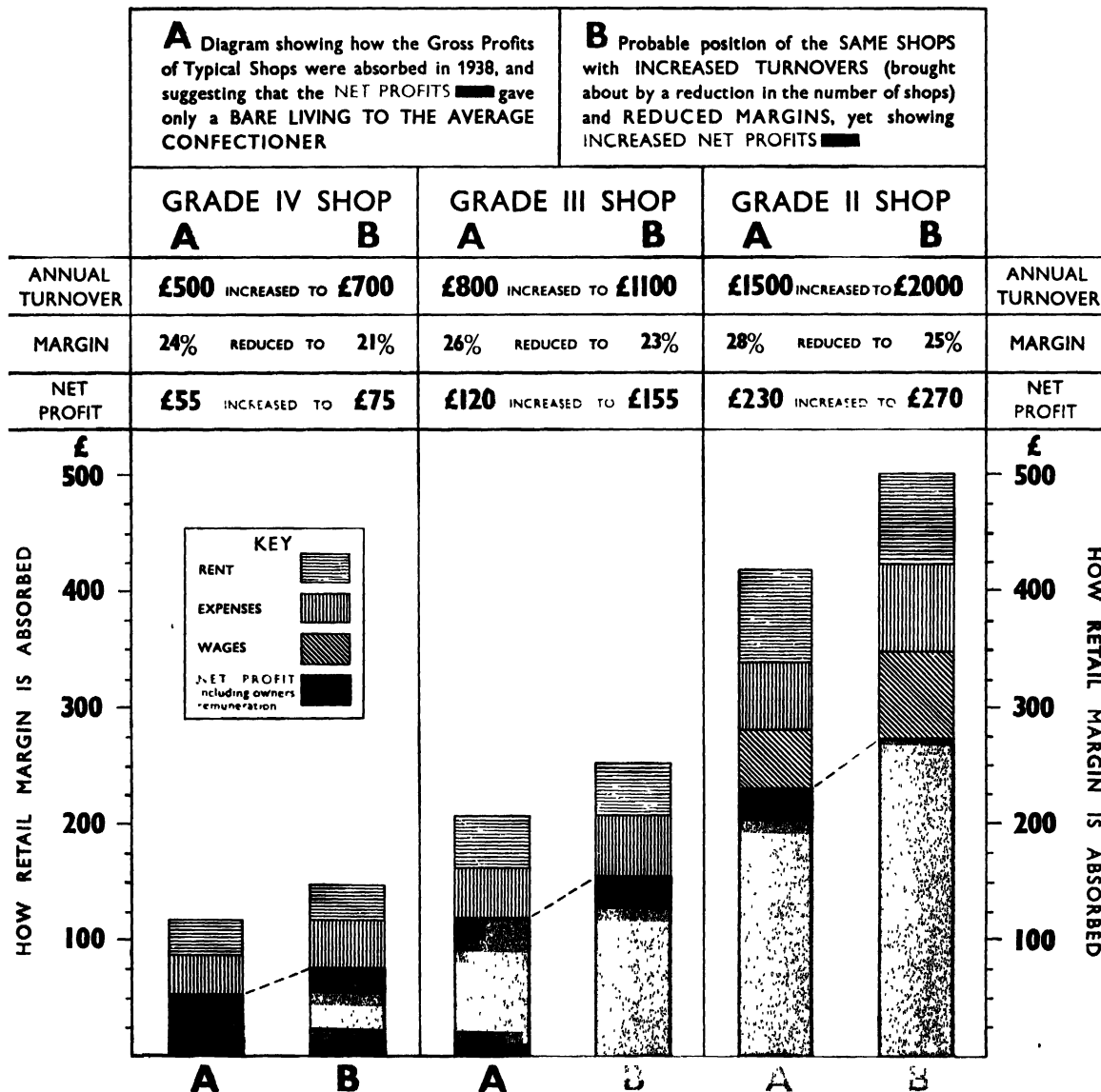
CAUSES OF INEFFICIENCY IN RETAILING

Other points emerging from the Report were the widespread prevalence of lax methods, or of no method at all, of accounting and control, and mistaken policies in regard to buying, to the selection of premises, and, where this applies, to the engagement and remuneration of assistants. One point to which special attention was directed was that of buying policy and stock control. There was evidence of a general tendency to stock an excessive number of lines, many of them very slow sellers, and to buy from too many manufacturers. One shop selling only confectionery and tobacco dealt with no less than 126 manufacturers and wholesalers; this was exceptional, but many others, some quite small, were buying from fifty or sixty different firms. A knowledge of the trade suggests that twenty, or at most thirty, would be a more reasonable figure. Similarly, the number of individual lines often ran into several hundreds, providing the customer with an unnecessary variety.

The unsatisfactory picture reinforced the conclusion that the most important fact about the country's retail trade, as at present constituted, is that there are too many shops. The elimination of the less efficient ones would react favourably on the interests of the consumer and of the retailers themselves. The factors which have

THE COST OF RETAILING

A REDUCTION IN THE NUMBER OF RETAILERS WOULD INCREASE THE AVERAGE TURNOVER OF THE REMAINING SHOPS. THE PROBLEM IS TO REDUCE DISTRIBUTION COSTS (RETAIL MARGINS) AND TO IMPROVE THE EARNINGS OF THE SMALLER SHOPKEEPER



It is assumed that the shops shown above sell tobacco, ice-cream, minerals, etc., besides confectionery. The percentage profit margins on some of these products are comparatively low, but on others are high. The fall of 3 per cent in the average margin, assumed in the chart, might justifiably be brought about by confining reductions to goods with higher margins, such as confectionery. The diagrams take into account the fact that the little shops receive a smaller margin because of the higher cost of wholesaling and distributing to them.

brought the present position about are fairly clear. How it can be altered without undue interference with individual rights and without creating a monopoly for existing traders is a much harder problem.

THE "SIX TOWNS INQUIRY" OF 1936, AND THE NEED FOR A NATIONAL CENSUS OF DISTRIBUTION

Before an effective start can be made towards the solution of the problem, an essential prerequisite is the creation of a sound and realistic public opinion, for which in turn a larger volume of accurate factual information than is at present available is needed. Research such as has been carried on at Bournville is valuable, so far as it goes, but can obviously only be conducted on a limited scale and in a limited field by a private trading organisation. To get a true and complete picture an official survey of distribution, at least comparable in scope with the Census of Production, and repeated at regular and comparatively short intervals, is indispensable. This is a conclusion which is now more widely accepted than it was at the time the investigations just described were completed. It is known that war-time experience has led to a revolution of opinion in government circles as to the need for an enlargement of the scope and the improvement in the quality of official statistics, and it is perhaps not too much to hope that a comprehensive Census of Distribution will have a high priority in the list of statistical tasks to be undertaken when the war is over. But in the 1930's the idea of a Census of Distribution was regarded by business men and government departments alike as an unnecessary and expensive luxury. Convinced of the short-sightedness of this point of view, the Firm decided in 1935 to follow up the earlier investigations with a rather more ambitious experiment. Acting this time under the auspices of the British Section of the International Chamber of Commerce, and in collaboration with Unilever Limited, J. & P. Coats Limited, Tootal Broadhurst Lee Co., Limited, and The London Press Exchange, Limited, a trial "Census of Distribution" was undertaken in six towns of moderate size. In each of these towns, every point of sale of goods by retail was enumerated and classified according to its main and subsidiary trades (under 85 headings), its economic type (independent, multiple, co-operative society, etc.), and the type (dwelling-house or lock-up shop) and rateable value of its premises. In an unofficial census it was not possible to get information about turnover, but a record was made of the number of different groups of commodities stocked, under 127 headings (so far as this information could be obtained by inspection) and the rateable value was taken as providing a broad indication of the probable total cash turnover.

Considerable interest was aroused by the results of this "Six Towns Inquiry," which was given widespread publicity and which testified to the potential value of a complete census, on broadly similar lines, but with the fuller and more accurate

results which an officially-conducted inquiry would naturally yield. The distributor himself would find in the information so provided a valuable yardstick by which to measure his individual performance. The manufacturer would have for the first time a comprehensive picture of the channels through which his goods reach the public. He could thereby eliminate wasteful selling effort, establish more reliable quotas of potential sales, and adjust his marketing organisation more closely to local requirements. That a Census of Distribution would be useful to government departments is demonstrated not only by the extent to which the war-time regulation of distribution has been handicapped for want of reliable data about pre-war trading conditions, but even more forcibly by the fact that the Trial Census just described, despite its small scale and unofficial character, has been used by the Board of Trade as the least unsatisfactory basis for a further survey of war-time changes.

Whilst all those with a direct interest in distribution would thus stand to gain in varying degree from a more copious and reliable supply of factual information than is now at their disposal, the principal, if indirect, beneficiary would be the consuming public. If retailing methods are inefficient, if there is overlapping or redundancy at any point, it is the consumer who is ultimately the chief sufferer, in the form either of unnecessarily high retail prices or of inferior standards of quality and service.

Apart from its main value as a specimen page from an imaginary future Census of Distribution, the "Six Towns Inquiry" again demonstrated the familiar lessons of earlier surveys. In spite of marked variations between individual towns, it showed that they all had too many shops for the available trade and the size of the population, that many of these shops were inefficient, and that competition had too often taken the form of uneconomic poaching between trade and trade, with the consequent emergence of excessive numbers of struggling nondescript mixed businesses of the "huckster" type. It is not, of course, suggested that all mixed or general businesses are uneconomic or inefficient. The "neighbourhood" shop, providing for the daily needs of a small community, and stocking a wide range of articles in common demand, has a very useful function to perform. But the average huckster's shop, especially in the slums of large towns, is something quite different.

It would be out of place in a publication such as this to discuss in any detail, and still less to dogmatise about, the remedies which should be applied to improve the conditions which have just been described. But, as criticism by itself is unconstructive, something may be said about possible lines of approach. First, however, it may be useful to form an estimate of the possible magnitude of the economies which improved methods of distribution might achieve.

FOOD DISTRIBUTION COSTS ONE-THIRD OF SELLING PRICE

As already mentioned, in the confectionery trade the present cost of retailing

and wholesaling amounts to about a third of the retail price. If the manufacturer's own distribution costs are included, the proportion of the price to the consumer absorbed by distribution is not far short of a half. For other commodities distribution costs naturally vary according to particular circumstances such as perishability, handling costs and the rate of stock-turn. For these reasons, and also because the work of distribution is often shared in varying proportions between the manufacturer or grower, the wholesaler and the retailer, the apparent profit-margin is not necessarily a satisfactory guide to the cost of distribution or to the relative efficiency of different trades. Subject to this, however, it would seem that under present (war-time) conditions the cost of distributing the nation's food amounts to about a third of its selling price. This estimate is based on a statement issued by the Ministry of Food that the value of all foodstuffs sold in this country (excluding chocolate, confectionery, alcoholic drinks and mineral waters) was about £900 millions a year when they entered the chain of distribution in their finished state, and that they were sold for £1,350 millions. The Ministry added that "by far the greater part is the cost of retailing."

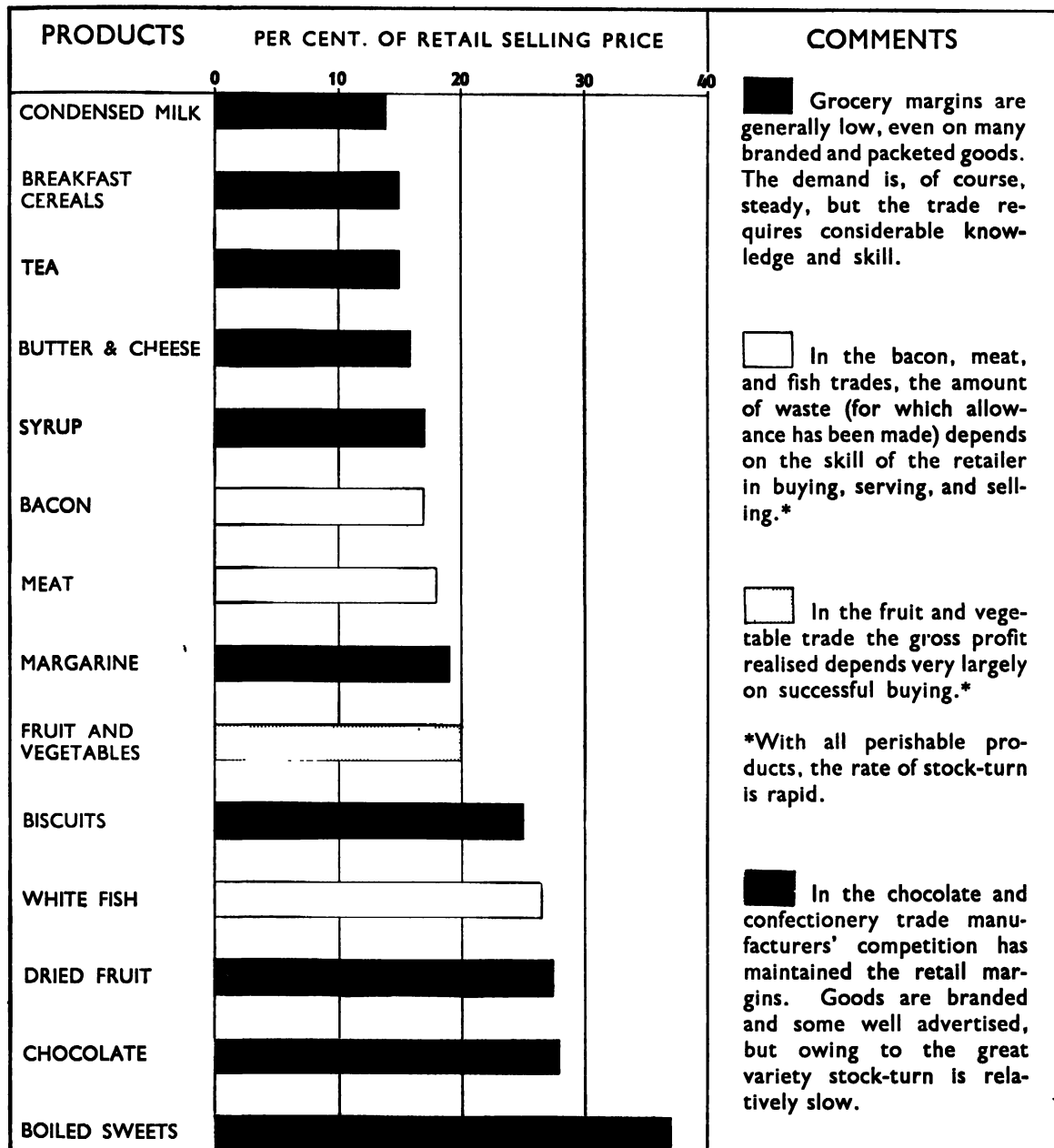
For articles other than food there is insufficient evidence on which to base an estimate of the average cost of distribution over the whole field; but what is known about particular groups of commodities leads to the conclusion that the spread between cost of production and retail price is in general considerably greater. Speaking very broadly, therefore, we may say that for every £1 which the consumer spends, something between 6s. od. and 10s. od. (sometimes considerably more) represents the cost of bringing the goods he buys into his hands from those of the producer.

HOW CAN DISTRIBUTION BE MADE EFFICIENT?

Any proposals for improving the efficiency of distribution must take account on the one hand of this high total cost, and on the other, of the comparatively poor returns it yields at present to most of those engaged in it—whether as small independent retailers, or as paid shop assistants. These considerations may preclude any sweeping suggestion for a drastic reduction in the gross profit-margin. It is, however, reasonable to suggest that there should be no return after the war to the use by manufacturers of unduly high distributor's margins as a competitive lever to attract the custom of retailers or wholesalers. Even for the distributors who receive them, the advantages of such margins are illusory, since the resultant high prices are not likely to encourage the patronage of the public, whilst the lure of easy profits attracts competition from new traders anxious to share in them. This must not be interpreted as an argument in favour of "price-cutting." In branded goods a degree of price-maintenance has been shown by experience to be essential for orderly distribution, but this should be based on as low a distributor's margin as possible,

VARYING RETAIL MARGINS IN FOOD TRADES (1939)

AFTER MAKING ALLOWANCES FOR WASTAGE
AND NOT INCLUDING COST OF WHOLESALING



The figures from which this chart is drawn are based on information derived from the trades themselves and from authoritative publications. The margins on any one class of product vary widely, but the above representative margins give a broad idea of the situation.

coupled with a high turnover, rather than a low and decreasing turnover coupled with a high margin.

Apart from price-policy, the problem of improving the efficiency of distribution seems to fall under two main headings—

- (a) Eliminating any unnecessary links in the chain of distribution.
- (b) Planning the number and location of retail shops in relation to the needs of the consumer.

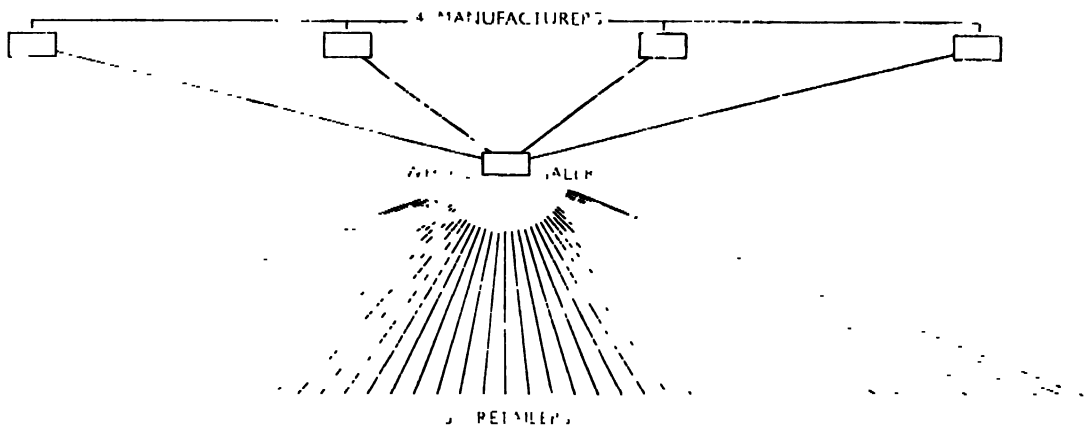
THE PLACE OF THE MIDDLEMAN

The problem of reducing the cost of wholesaling arises less in the distribution of branded goods—which leave the manufacturer in the form in which they will reach the consumer, and whose wholesale and retail prices are normally fixed in advance and not subject to constant fluctuation—than in the trades which give greater scope to bargaining and speculation, or in which the nature of the commodity makes direct contact between producer and retailer impossible. In such trades and particularly in the distribution of perishable produce, the need for simplifying and modernising the distribution processes is widely recognised; in the distribution of such foods as chocolate and confectionery any saving from the elimination of middlemen is likely to be negligible. Apart from certain specialised forms of distribution such as club trading, automatic machines, direct postal trade or the establishment of his own chain of retail shops, the choice for the manufacturer of branded goods usually lies between selling direct to the retailer through his representatives or at one remove through the wholesaler. The immediate advantages to the manufacturer of the former method are so obvious that he is likely to adopt it wherever the account promises to be sufficiently large to cover the expense of a separate call and the delivery of frequent small orders. Indeed, under the stress of competition he may well be tempted to open more accounts than long-term economic considerations really justify.

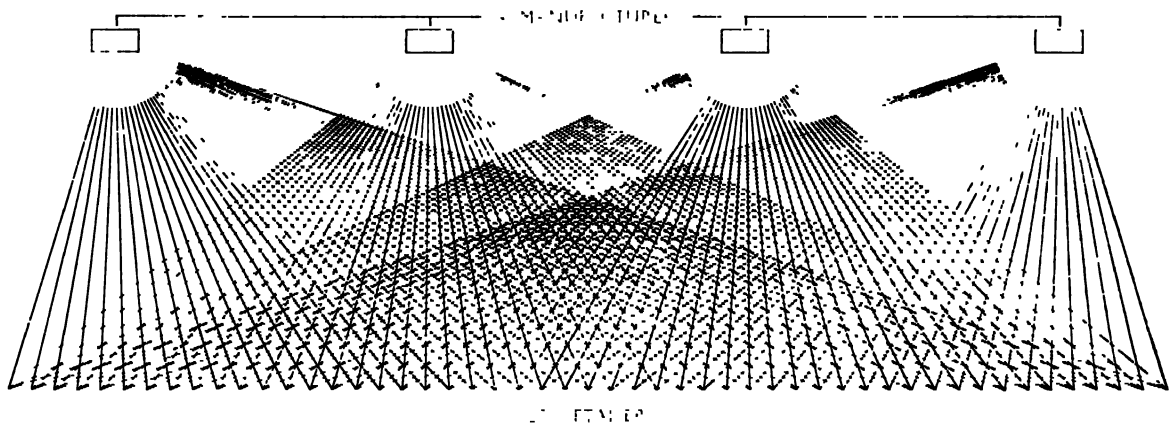
In view of the desire of manufacturers to get as near as possible to the general public it has sometimes been argued that the wholesaler is unnecessary. That this is altogether too sweeping a view may be seen from the diagrams on page 55. The upper diagram shows how a single wholesaler's representative can provide a group of fifty small retailers with several manufacturers' products. The lower one shows the enormous multiplication in representatives' calls which the elimination of the wholesaler would entail. Even on the assumption that only four manufacturers' goods need be stocked to meet public demand, the result would be to increase the number of separate transactions from 54 to 200. The diagrams of course constitute an over-simplification, since it is not uncommon in practice (though usually unnecessary) for several wholesalers to call regularly on an individual retailer. It is also not infrequent for a retailer to buy some goods direct from the manufacturer and some

THE PLACE OF THE WHOLESALER

1. WHERE ALL TRANSACTIONS ARE PASSED THROUGH A WHOLESALER



2. WHERE ALL TRANSACTIONS ARE DIRECT



Although in certain trades and districts there may be too many wholesalers and overlapping may occur between the wholesalers or between manufacturers and wholesalers, these diagrams of two extreme cases illustrate the essential function of the middleman in the chain of distribution.

(of the same brand) through the wholesaler. Against this, however, the average retailer stocks goods made by a much larger number of separate manufacturers than the diagram assumes, which means that the multiplication of transactions which would result if all purchases were made direct would be greater than the diagram indicates.

It is not intended to suggest that direct calls on retailers by manufacturers' representatives are always uneconomic. Where the range of goods bought from an individual manufacturer is considerable—as is the case where a large manufacturer is selling to a retailer with a substantial turnover—the work entailed in taking, say, four separate orders from four separate manufacturers may not be materially greater than that involved in taking one order from a wholesaler covering four

times as many lines. But the smaller retailer who is only buying two or three lines from each firm will be saved much time and possibly some expense if he is supplied by the wholesaler. In the same way the smaller manufacturer with a limited range of lines to offer will not find it worth his while to call on any but the very largest retailers such as departmental stores and multiple shops. The rest of his trade is most conveniently handled by the wholesaler.

The Firm's policy of a retail price with graded reductions for quantity purchases is designed to secure a good balance between direct retail and wholesale buying. The large retailer buys wholesale quantities at the lower prices. The very small retailer who only buys one "outer" at a time pays the same or more than if he bought from a wholesaler.

PLANNING THE LOCATION AND NUMBERS OF SHOPS

The question of planning the numbers and location of retail shops raises wide and controversial issues, many of which lie outside the scope of the present publication. It is, however, clear that if the proposition is accepted that there are too many shops, the steps which should be taken to reduce them must be considered. These steps will evidently have to be taken in two stages. The first will be to prevent an expansion immediately after the war; the second to secure an orderly reduction as part of the general re-planning of our towns and villages during the period of reconstruction. As soon as the war is over there will be an immediate problem of rehabilitating many businesses which have been bombed-out and of re-establishing former retailers who have been in the Forces and wish to return to their previous occupation. The problem will be further complicated by the desire of thousands of men who have not previously been retailers to set up their own business on demobilisation. The Prime Minister has estimated that at the end of the war there will be 8,000,000 men with a capital of £300 each. After the last war large numbers of people in a similar position went into retail trade, only to find after a year or two that they had come to the end of their resources without acquiring a satisfactory means of livelihood. To meet the short-term problem some form of restriction is desirable, but there must be full liberty for former retailers, either bombed-out or released from war service, to re-open.

There are already restrictions on entry in certain trades, e.g., the Newspaper Proprietors' Association and the local retailers exercise control over distribution. Additional newsagents are not allowed to set up in an area which is considered to be already adequately served. Chemists are limited by the obligation to employ a qualified dispenser, and public houses by licences granted by magistrates. The government has an instrument ready to hand in the shape of the existing licensing system for retailers—and it is to be hoped that this will be kept in force at least during the immediate post-war period of demobilisation and re-settlement.

Looking further ahead, however, the permanent retention of the licensing system on anything like its present lines would scarcely result in a distributive organisation well adapted to meet the needs of the public; the long-term problem is essentially one for the town-planning authorities, who will have to determine when and where and how many shops are required. It is interesting to note that the City Council of Birmingham in approving recently the rebuilding of two of the worst slum areas in Birmingham—Duddeston and Nechells—has made provision for the necessary number of shops. At present there are in these areas 778 shops serving a population of about 22,000, *i.e.*, more than one shop to every 30 persons. By planning with a view to what the community really needs, and with due regard to the dangers of monopoly, it is proposed that these neighbourhoods should in future only have 140 shops to serve a reduced population of about 15,000. Precise suggestions about carrying a similar policy into effect on a nation-wide scale will only be possible when Parliament has laid down the framework in which re-planning will be undertaken and decided how far it will be allowed to go; but the general objective is plain. With fewer but more efficient shops we may look to see rather lower margins of profit per unit of turnover, but higher total incomes for the individual shopkeeper; at the same time the increased size and improved location of the shops will simplify the manufacturer's and wholesaler's distribution problems and give the public better service at prices no higher, and probably lower, than before.

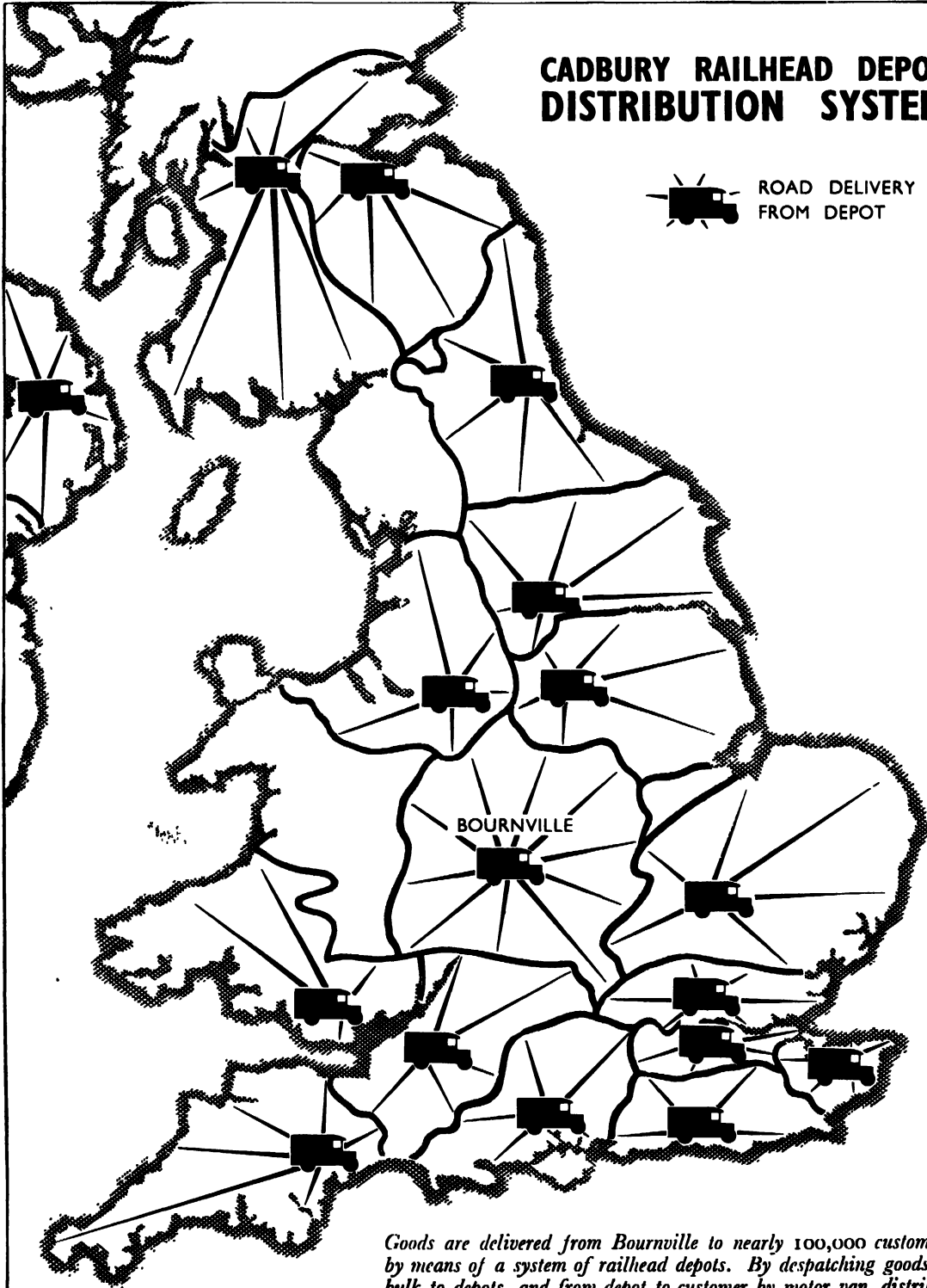
THE DEVELOPMENT OF THE FIRM'S RAILHEAD DEPOT SYSTEM OF DELIVERY

Before concluding this chapter, which has so far been mainly concerned with questions of wholesale and retail distribution, as viewed by a manufacturing firm anxious to get its goods to the public as cheaply and efficiently as possible, a few words may be said about the manufacturers' own distribution problem. Under present conditions—and the position would not be very much altered if the reforms advocated in the organisation of the retail trade were carried into effect—the number of points to which the Firm has to deliver its goods runs into nearly six figures. The physical task of moving them from the production lines to these thousands of wholesale and retail customers is obviously one of considerable magnitude, and it is surprising that this represents so small a proportion of the total costs of distribution. In the case of Milk Chocolate, for instance, as shown in the illustration on page 41, transport costs account for no more than 4 per cent of the final selling price, compared with 33 per cent as the cost of retailing and wholesaling.

This state of affairs has not been brought about without a strenuous endeavour to cut transport costs to the lowest practicable level. In order to do so, efforts have been mainly directed to the building-up of a system of railhead depots, commencing with one which was opened in London in 1922 and ultimately covering the entire

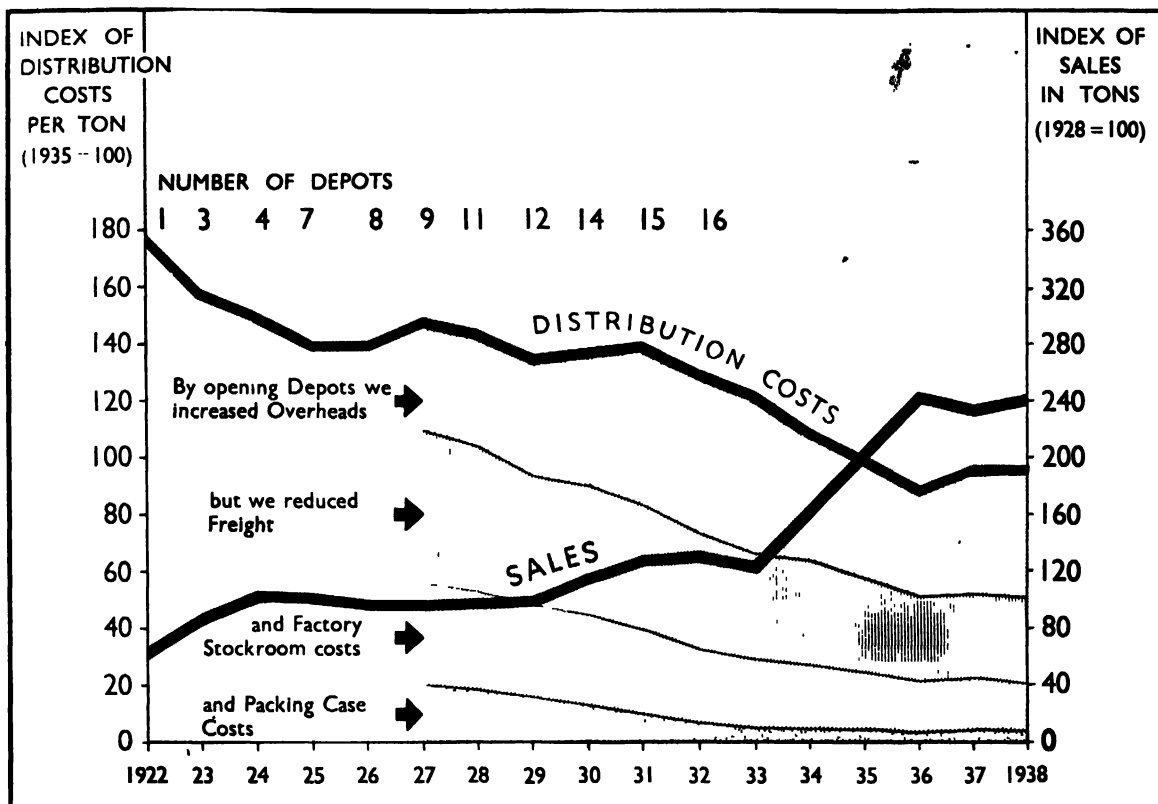
CADBURY RAILHEAD DEPOT DISTRIBUTION SYSTEM

 ROAD DELIVERY FROM DEPOT



Goods are delivered from Bournville to nearly 100,000 customers by means of a system of railhead depots. By despatching goods in bulk to depots, and from depot to customer by motor van, distribution costs have been reduced by 50 per cent.

ECONOMIES ACHIEVED BY RAILHEAD DEPOT DISTRIBUTION COMPARED WITH SALES



WITH EXPANSION OF SALES, OVERHEADS PER UNIT WERE REDUCED GIVING AN OVER ALL REDUCTION IN TRANSPORT COSTS.

country. The accompanying map shows their location and the areas covered by them by means of motor vans, whilst the chart on this page shows how the depot organisation has led to a reduction in transport costs per ton of nearly 50 per cent.

The main advantage of the depot system is that by sending out loads from the factory in bulk-containers, the cost of carriage and freight and particularly of packing and packing cases has been greatly reduced. Bulk is broken at the depot and goods are distributed by motor vans to the customers within each depot area. At first, this did not produce any saving, and, with the expansion of the number of depots from 7 to 15 between 1925 and 1931, the economies in carriage and freight from the factory failed to offset the increasing cost of the depots. Subsequently, however, the very great rise in turnover fully justified the development of the depot transport system and the reduction of direct transport costs.

CHAPTER V

RECRUITMENT, EDUCATION AND PROMOTION

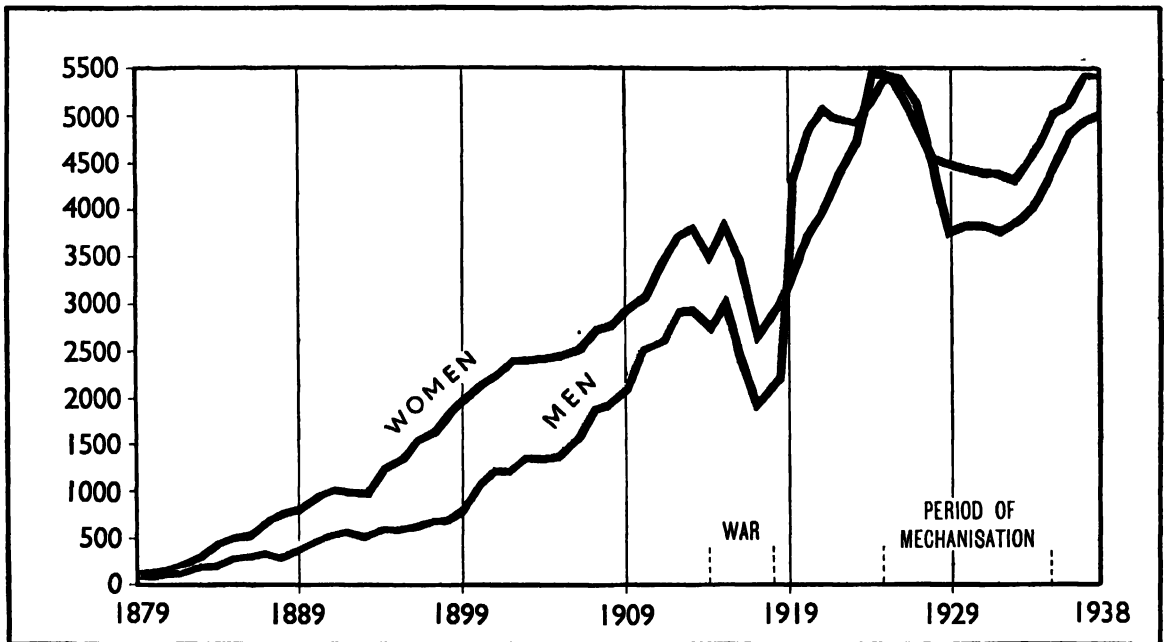
GROWING IMPORTANCE OF RECRUITMENT PROBLEMS AND EDUCATION IN INDUSTRY

IN a small business, the spur to diligence and efficiency on the part of those in control is mainly provided by their direct personal interest in its success or failure. As the business increases in size, the manager's personal stake in its prosperity largely disappears, whilst simultaneously the need for a high level of managerial ability on the part of the staff increases. Problems of recruitment, education and staff-training consequently assume a position of major importance in the administration of all large industrial undertakings.

RECRUITMENT DESIGNED TO AVOID BLIND ALLEYS.

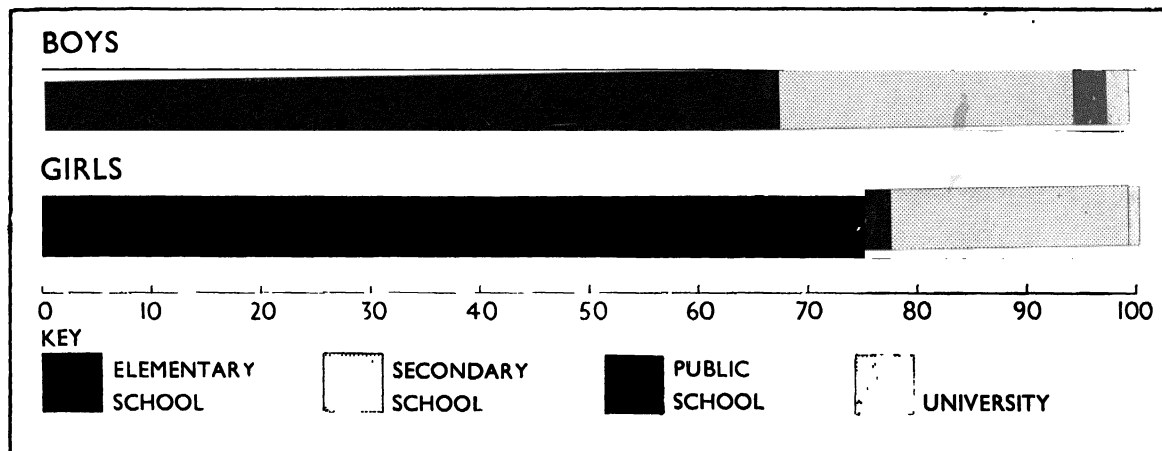
In 1938 the total number of the Firm's employees amounted to about 10,000, of whom half were men and boys and half women and girls. As no married

MEN AND WOMEN EMPLOYED BY THE FIRM IN BRITAIN 1879-1938



The progress of mechanisation has coincided with an increase in the proportion of men to women.

PROPORTIONS NOW RECRUITED FROM ELEMENTARY AND HIGHER SCHOOLS (Average 1928-1937)



Before 1914 almost all junior labour was recruited from local elementary schools. In the inter-war period an increasing proportion was selected from higher educational institutions. The proportion of girls so selected was smaller owing to the higher labour turnover caused by marriage.

women were employed, except on a part-time basis or for short periods during the Christmas rush, when former skilled employces were temporarily re-engaged, the turnover in female labour was much greater than in male labour. The chart on this page shows a steady expansion in the employment figures right down to the outbreak of the second World War, except during the war of 1914-1918, and from 1927 to 1934 when much labour was being displaced by the new mass-production installations. Reference is made elsewhere to the difficulties of the latter period, and to the steps which were taken to mitigate the personal hardships of those who were directly affected. At the best, these steps were palliatives, and the main solution, as might be expected, was found in an adjustment in the engagement of new employees over a period of years. It was impossible to close down recruitment altogether, as, apart from other objections, this would have created a dangerous gap in the continuity of factory skill, but some idea of the decline is given by the fact that between 1927 and 1929 the annual intake of girls and boys averaged only 105 girls and 29 boys, compared with a previous average of 425 and 184 respectively.

Before the first World War practically all the Firm's junior labour was drawn from the local elementary schools, and all were trained on more or less similar lines. After 1919 it appeared that the expanding opportunities called for a greater variety in educational background and method of training. At the same time an increasing

number of the brighter children were continuing their education beyond the age of 14, so that it became necessary, if a fair proportion of the abler boys and girls was to be obtained, to recruit a greater number from secondary and higher schools and to a limited degree from universities. The extent to which this tendency had developed by 1938 is shown in the diagram on page 61. In studying it the reader should bear in mind that the higher turnover in female than in male labour naturally reduces the proportion of girls as compared with boys who are drawn from schools beyond the elementary stage.

INITIATION SCHOOL FOR NEW EMPLOYEES

With the increase in the variety of types and ages of recruits, the types of training have been multiplied accordingly. Both boys and girls attend an Initiation School during their first week of factory life. The main purpose of this school is to introduce them to industry and to give them a picture of the business. The syllabus includes films and lectures by the staff, and tours of the Works. Instruction is given in Works rules, safety precautions, cleanliness, health and wages, and the girls are given intelligence and dexterity tests in order to find the work for which each is suitable.

DAY CONTINUATION SCHOOL --GENERALLY NON-VOCATIONAL.

All young employees, of whatever educational background or Works status, are required to attend the Bournville Day Continuation School until they attain the age of at least 18. The present scheme of continued education is the outcome of a process of gradual development which began in 1906, when attendance at evening classes was made a condition of employment. In 1913 evening classes were replaced by day classes under the control of the City of Birmingham Education Authority, and all juvenile employees were then required to attend for one half-day a week, the Firm reimbursing the wages lost. As the chart on page 63 shows, attendance at the School was subsequently extended to one whole day per week. Though evolved to suit local conditions, the constitution of the School conforms to the spirit of sections 10-12 of the Fisher Education Act of 1918. These sections provided for the establishment of Day Continuation Schools for the compulsory free part-time attendance of all young persons between the ages of 14 and 18 not attending full-time at other schools. As is well known, they were never enforced owing to difficulties encountered at a time of industrial depression.

The Bournville School is not a Works School in the ordinary sense, but has always been administered, financed and staffed by the City of Birmingham Education Authority. The Firm provided the building and has a claim on it for its own purposes out of school hours, but the Local Authority reimburses a proportion of the up-keep expenses. When the School began only one other firm participated and the students

EDUCATION PRECEDES RESPONSIBILITY

	MAIN EDUCATIONAL FEATURES (COMPULSORY VOLUNTARY)	DEVELOPMENT OF COMPULSORY CONTINUED EDUCATION					VOLUNTARY 19 & over	EXAMPLES OF ADVANCE IN RESPONSIBILITY
		AGES	14	15	16	17		
1900	Youths' Club and Annual Boys' Camp							
1901								
1902	Boys' & Girls' Gym Classes (in Works Hours)							← SUGGESTION SCHEME
1903								
1904								
1905								
1906	Evening Classes							← WORKS COMMITTEE comprising MANAGEMENT REPRESENTATIVES only
1907								
1908	Apprenticeship Scheme Qualifying Exams for Forewomen							
1909								
1910								
1911	Education Officer Appointed							
1912								
1913	Day Classes (Time paid for by Firm) (1)							
1914	Annual Camp School for Boys							
1915								
1916								
1917	{ Voluntary extra ½-day at School							
1918	{ without pay (2)							
1919								
1920	Extra ½-day at School for Ages 14 to 16 Initiation School for Juvenile Recruits							
1921	University Scholarship Scheme							
1922	Continental Tours for Boys } All 1921							
1923	Camps for Girls }							
1924								
1925	Present Day Continuation School Erected							
1926	Second half-day at School extended to 17's & then							
1927	18's							
1928								← 5% of Representatives had passed through Continuation School
1929	Whole day a week for Boys and Girls							
to								
1938								← 45% of Representatives had passed through Continuation School

NOTES

- Attendance at one evening class in addition was at first required, but was discontinued in 1914 owing to war conditions.
- The voluntary second half-day scheme in 1917 to 1919 was attended by no less than one-third of the School's students. It was continued until the second half-day became compulsory for all in 1927.
- On reaching Continuation School-leaving age (18) employees may be granted one or two half-days a week (with part payment for time lost) for a year or more up to the age of 23 for special study courses. In addition, employees are encouraged to attend voluntary evening classes by a scheme for refund of class and examination fees.

numbered less than 700. In 1937 students were sent to the School by four other firms and two municipal departments; but 70 per cent of the boys and 85·6 per cent of the girls out of a total 700 boys and 2,000 girls were Bournville employees.

The School provides a general cultural education, and physical training (including swimming) is compulsory. The Firm has no control over the curriculum except in so far as it is represented on the Day Continuation School Advisory Committee of the Education Authority and can ask for some of the senior students to be given certain facilities in line with their work or prospects at the factory. The curriculum is broad and essentially non-vocational, and the special courses for certain employees are more in the nature of a general background to the subjects on which they intend to specialise.

Of necessity, the great majority of those who pass through the School continue in semi-skilled and unskilled occupations. For them it provides interests which, if taken advantage of, are at least a compensation for repetitive mass production work, and at the best bring out qualities which are valuable primarily to the community and the employee himself, but in some measure also to the employer.

Although the advantages of having a well-educated staff, whether from the point of view of the Firm or the employees, can obviously not be measured in pounds, shillings and pence, some idea of the cost to the Firm of the Day Continuation School scheme, will be of interest. Including wages for the day spent at the Continuation School, the maintenance of the school buildings, a proportion of the cost of the Works Education Office, and deducting the Local Education Authority's and other grants, the cost to the Firm of the Day Continuation School is about £11 10s. od. per annum per student, or £2 10s. od per head of all employees. The actual cost borne by the Firm of the school organisation, attendance, etc., was calculated for 1938 to be £23,000 out of the total of £28,000 for the whole of the Firm's educational service.

SCHOLARSHIP AND APPRENTICESHIP SCHEMES

In addition to the Initiation and Continuation Schools, encouragement is given to those intending to acquire professional and technical qualifications to make use of the facilities, both day and evening, of the City of Birmingham's Technical and Commercial Colleges—in fact, provision for compulsory attendance is contained in the terms of engagement of apprentices and certain other student employees. Such encouragement includes the allowance of time-off without loss of wages (or in some cases with the loss of only a proportion of wages), and the refund of examination fees and 50 per cent of class fees to successful students.

FUNCTIONS OF THE WORKS EDUCATION OFFICE

The Firm's educational activities are all centred in the Works Education Office, whose most important function is to maintain the liaison between the Continuation

School and the Works. Obviously, when some 2,000 junior employees have to attend one day a week, it is necessary to co-ordinate the requirements of the School with those of the factory departments, so that the School can make up its classes and the departments are not denuded of juniors. Moreover, it is necessary to keep a watch on the school attendance and reports in order to maintain school discipline. Besides these functions connected with the School, the Works Education Office attends to matters such as the organisation of apprenticeship in factory departments, the setting of tests for applicants for employment, the administration of Works examinations and all other educational matters, such as the provision of voluntary evening classes, Firm's scholarships, and the keeping of educational records of employees, to which reference is made when promotions are considered.

SOCIAL EDUCATION

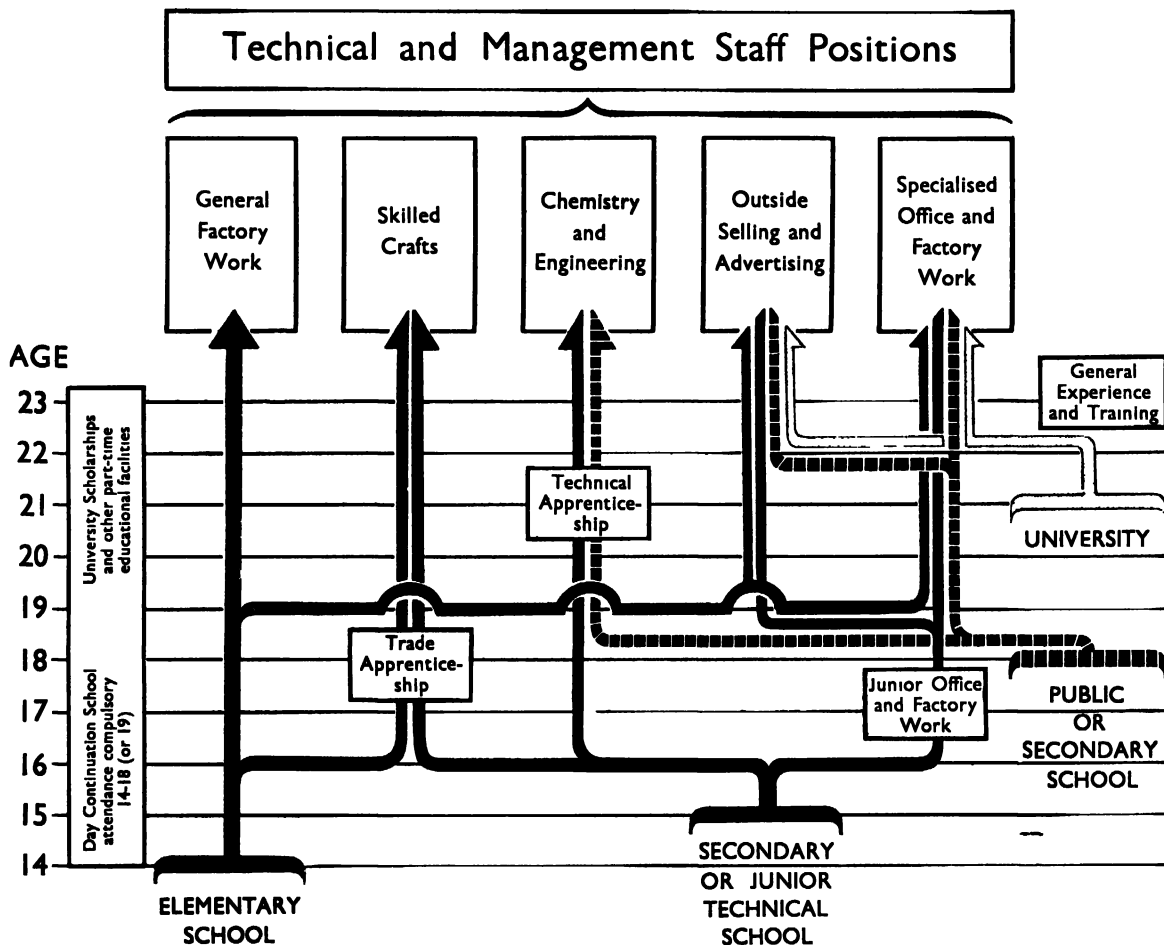
Scholarships and technical qualifications are not, however, regarded as the "be all and end all" of education. An endeavour has been made to broaden the outlook of the younger employees by providing them with spare-time opportunities organised through a Youths' Club, of which each boy becomes a member on joining the firm. The Club is governed by a Youths' Committee, largely composed of the elected representatives of the boys, and this body is generally responsible for the welfare and, to a certain extent, the discipline of its members. The Club organises games, camps, tours both at home and abroad, and hobbies, and also runs boys' clubs in other parts of Birmingham. It provides, therefore, a valuable means of character-building and the development of leadership and initiative, which from many points of view are as important as scholastic and technical achievement. Comparable opportunities are provided for girl employees.

Besides the general and vocational education of junior employees, facilities are also provided for adult evening classes in the arts and crafts which are both recreative and educational. These inevitably overlap the more purely recreative activities, such as those organised by the various Works Societies for Drama, Music, Opera, and so forth, which are completely self-governing and are in no way controlled by the Firm's Education Office.

EDUCATION AND PROMOTION WITHIN THE BUSINESS

Great importance is attached to maintaining avenues of promotion for each new entrant, and where advancement may seem slow in the early years of employment the Day Continuation School provides a useful function in keeping alive ambition and initiative that might otherwise be stifled. Those who do particularly well in this preliminary training for trades and professions may be given scholarships or other facilities for whole- or part-time training which enable them to obtain university

RECRUITMENT AND ADVANCEMENT

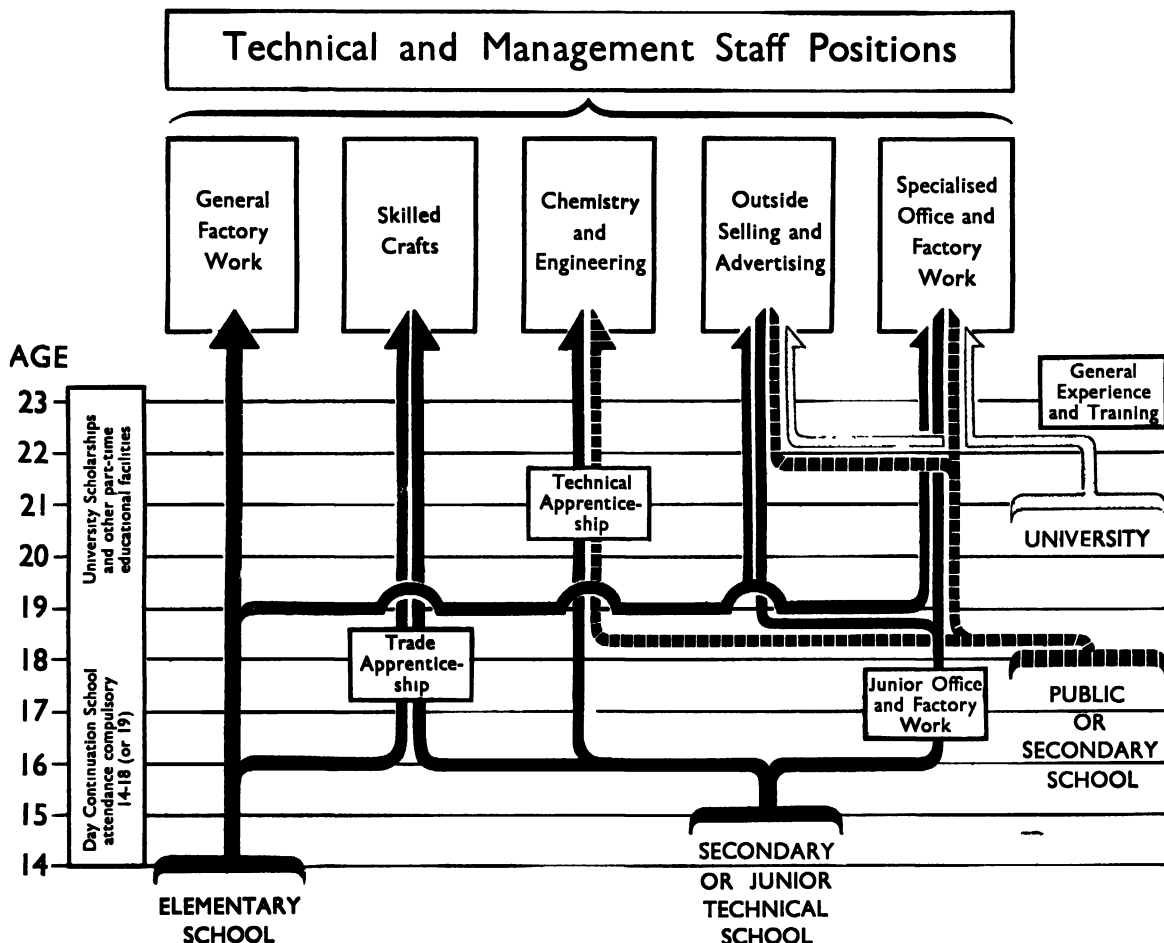


The main avenues of promotion for young recruits of differing educational attainments.

degrees or professional or trade qualifications. Young men and women are also introduced from Universities and public schools for specialised training. They are graded as trainees, start work in the factory, and are expected to justify themselves *vis-à-vis* the experienced employee (who may also qualify as a trainee), and are therefore given no promise of progress or permanent employment until they have established themselves by proof of their own merit. This parallel method of training with special opportunities for those who start work as juniors and those who come later straight from school or University avoids many personal difficulties.

The policy of keeping open the opportunities for advancement is not confined to the younger employees only. When vacancies become available among the ranks of charge-hands, foremen and forewomen, they are normally advertised to the employees and a qualifying examination is held for applicants. The final selection, of course,

RECRUITMENT AND ADVANCEMENT



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depends on the personality and record of the candidate. It is considered preferable when making appointments to positions of responsibility to look for (and sometimes to give) a general background education, leaving the necessary technical training to be given afterwards. It is felt that the type of man or woman selected by this method is likely to handle labour more efficiently and sympathetically, and that he or she will be more adaptable and will therefore possess the valuable attribute of being more "mobile" within the factory.

TRAINING AND PROMOTION OF FOREMEN AND FOREWOMEN

Special consideration is given to the training of the women's factory supervisory staff, *i.e.*, Forewomen and Deputy Forewomen. Since 1919 regular classes have been held (half-day per week) for those who have passed the qualifying examination, and while attending these classes the women have had experience on different types of work, *e.g.*, clerks have been put on factory piece-work, piece-workers have had an opportunity of doing semi-clerical work, and others who have been on individual work have acted as charge-hands. The transfer of clerical workers to factory supervision is a fairly frequent occurrence, and the provision of simplified engineering training for women likely to take charge of girls in mechanised departments was an experiment begun long before the exigencies of war made it a commonplace of women's employment.

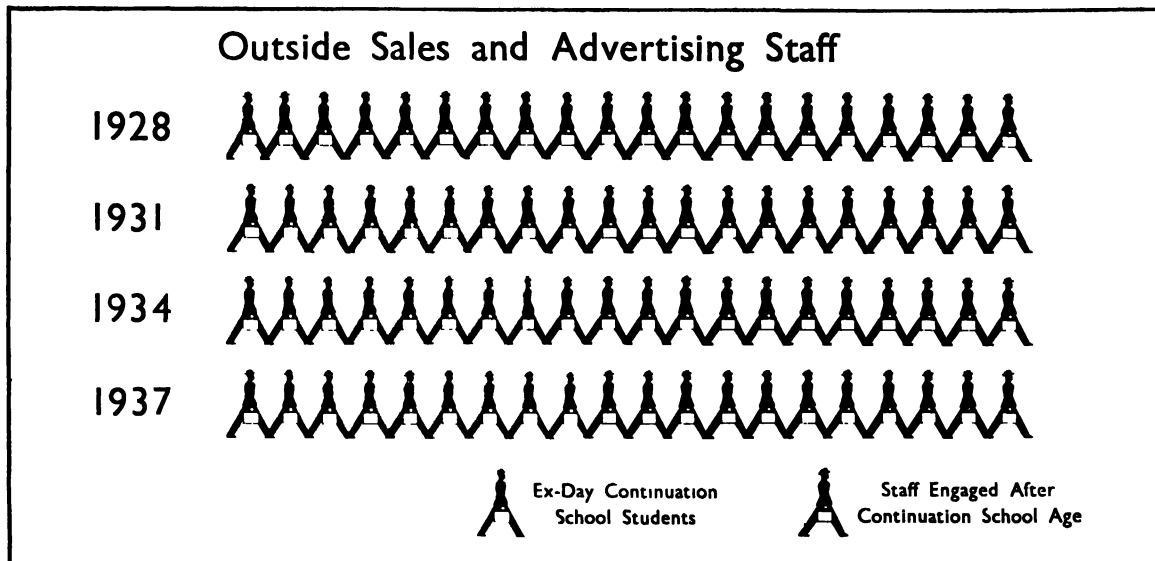
Courses on Industrial Administration, both for men and women, have been held from time to time for those seeking promotion, particularly for office workers.

Generally speaking, all such courses have been non-specialised, covering a broad knowledge of the various departmental functions, *e.g.*, planning, costing, wages, sales, and personnel management, and of elementary industrial history and psychology.

The training of Foremen and their Deputies and Charge-hands is usually more technical and specialised, and is generally given within the department, but winter evening and summer week-end courses are frequently held on subjects selected by the men themselves, with the idea of broadening their outlook and keeping them up to date in matters which, while having little or no direct bearing on their specific jobs, assist them in a more intelligent handling of day-to-day management problems. Selected younger candidates for foremanship are awarded scholarships, with leave of absence up to, say, a year, to attend full-time courses such as that in Industrial Administration at Manchester College of Technology.

It has occasionally been necessary to depart from the main principle of filling appointments from among the employees where a distant territory or some particularly specialised job has fallen vacant. But, taking the Management Staff as a whole, the number of such appointments has been small compared with the number

ONE RESULT OF CONTINUATION SCHOOL EDUCATION



The effort expended by the Firm on Educational Schemes and in keeping open opportunities for advancement has been amply repaid. It enables a large proportion of responsible positions to be filled from within the organisation. In 1938 and 1939 six out of seven of those appointed to the Representative Staff had passed through the Day Continuation School.

of those who have been promoted from the lower grades, or as a result of specialised training after a period of service with the Firm. For instance, in 1928 only five per cent of the Firm's representatives were products of its own training, but in 1937 no less than 45 per cent had passed through the Day Continuation School.

CO-OPERATION OF INDUSTRY UNDER THE EDUCATION ACT, 1944

The raising of the school leaving age and the provision of continued education should prove of benefit to industry. It will create problems, in particular those of co-ordinating factory requirements with the continuation school attendances of the juvenile employees. Most of them can be overcome by careful organisation. A more detailed account of Bournville educational schemes than has been possible in the present chapter may therefore be of interest; the reader's attention is directed to the appropriate pamphlet mentioned in the Appendix.

CHAPTER VI

WELFARE AND SOCIAL SECURITY

DISTINCTION BETWEEN WELFARE AND SOCIAL SECURITY

MANY of the schemes which have been set up at Bournville to provide for the welfare and security of the workpeople have been described in some detail in a series of pamphlets issued by the firm in recent years. (See Appendix.) The present chapter is, therefore, confined to a general outline of welfare and social security arrangements as a whole, and of the policy behind their inception.

It may be useful at the outset to draw a distinction between welfare and social security. By welfare is understood the provision made for the recreation and well-being of employees in their daily lives, whether during work or leisure hours. Social security, on the other hand, is any provision made by way of insurance against events of varying uncertainty, such as sickness, disablement, old age, unemployment, and so forth. It is, of course, not always easy to draw a precise dividing line between these two types of provision, but the broad distinction is clear.

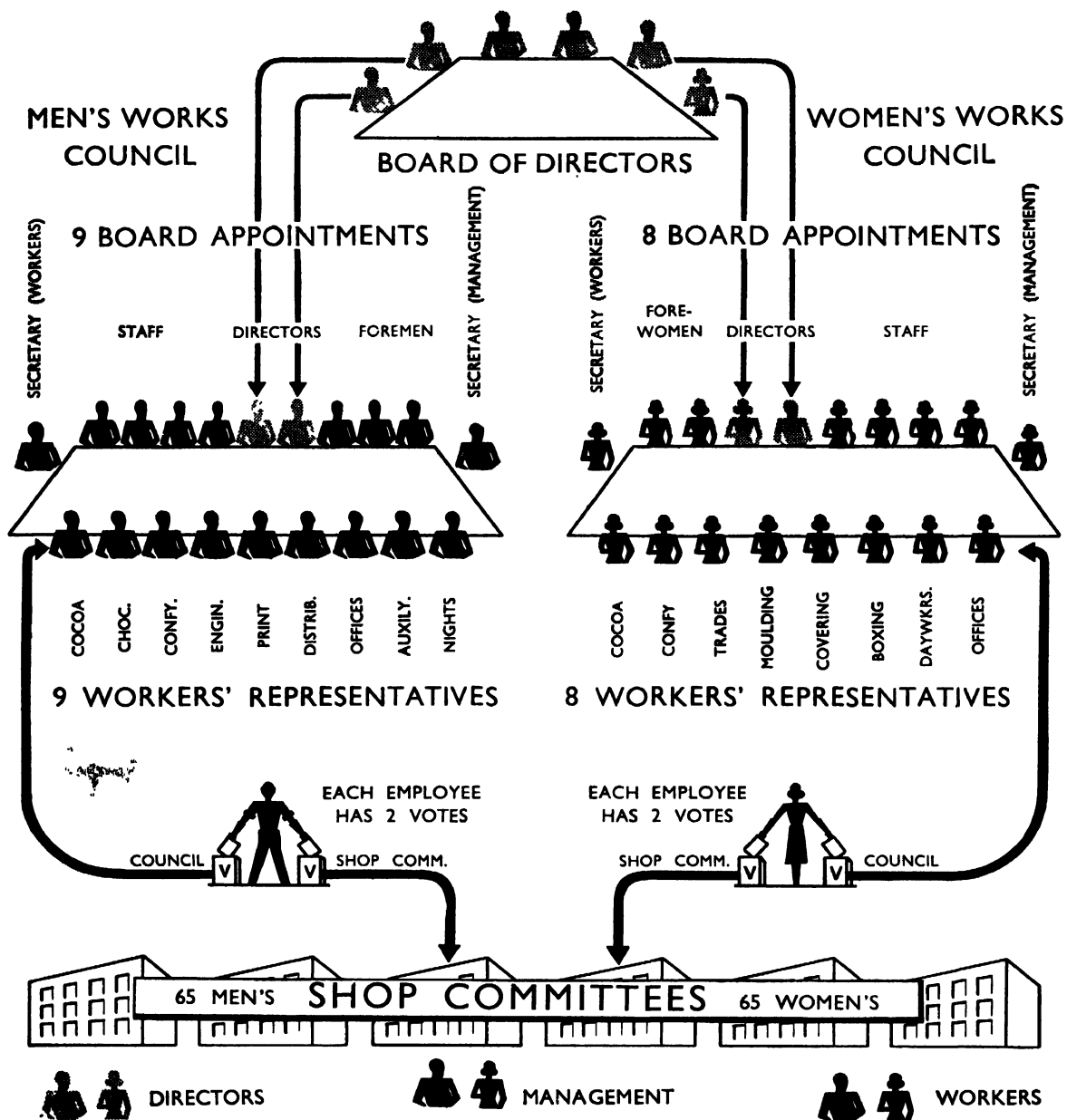
WELFARE SCHEMES ADMINISTERED THROUGH THE WORKS COUNCILS

The administration of many of the welfare schemes is in the hands of the Works Councils, whose functions and organisation are illustrated in the diagrams on pages 70 and 71, and are more fully described in the pamphlet "A Works Council in Being." (See Appendix.) These Works Councils have a number of full-time paid officers, but the Firm as such does not maintain a welfare supervisor in the ordinary sense. Recreational activities are controlled through athletic and social clubs, which, in varying degrees, are financed by contributions from their members and from the Firm, but are independently administered by the club members themselves.

The first duty of the Works Councils is laid down as being "to encourage and establish good relations and mutual trust between Workers and Management, and to foster and maintain a spirit of co-operation, thus promoting the welfare and prosperity of the Bournville community." There are separate Councils for men and women, but many of the Standing Committees through which the Councils carry out their administrative and executive functions, and their main Sub-Committees, are jointly representative of both sexes.

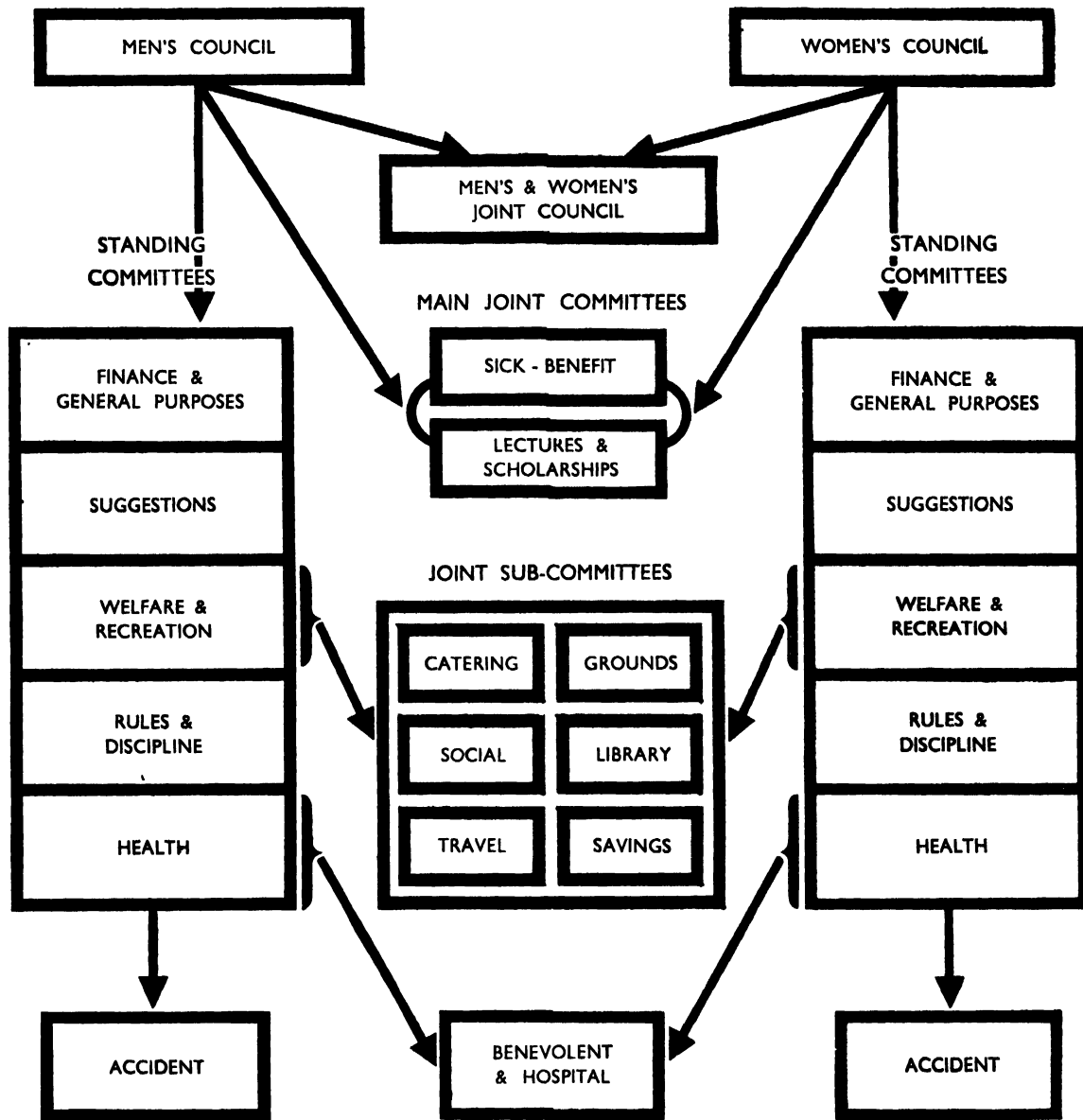
It will be seen that the sphere of the Councils is a wide one; but it is subject to two important limitations. The first is that care has been taken to prevent them from

CONSTITUTION of WORKS COUNCILS (1938)

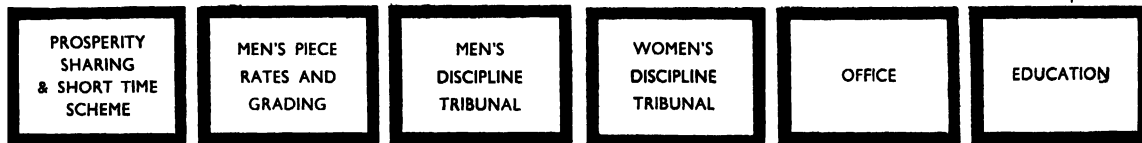


Each employee has two votes, one for a Works Council representative, and one for his Shop Committee members. The Shop Committees consist of Workers' and Management Representatives from each department. They advise the Works Council on matters affecting working conditions and welfare (see chart on opposite page) or may take action through the departmental management. There is thus a clear channel upward and downward between the individual employee and the Board, replacing as far as possible the personal contact which was a characteristic of the business when it was a "family concern."

FUNCTIONS of WORKS COUNCILS (1938)



FIRM'S COMMITTEES ON WHICH COUNCILS ARE REPRESENTED



Although there are separate Councils for men and women, much of the work is done through joint committees.

interfering with matters which are more properly the functions of Trade Unions. Secondly, they do not deal with management and commercial policy. Subject to these qualifications, the Councils exist to maintain contact between the worker and the employer.

SOCIAL SECURITY

Turning to social security, the schemes operating at Bournville fall under two headings. Some of them are financed solely by the Firm; these are either administered departmentally by the Firm or by Joint Committees under the aegis of the Works Councils. Others are financed by joint contributions from the employees and the Firm; these, with the exception of the Pension Funds, which are constituted under separate Trustees representative of both parties, are administered normally by the Works Councils.

SCHEMES FINANCED BY THE FIRM

The schemes financed by the Firm include various measures for the relief of distress, such as those taken to relieve the result of working short time, a certain amount of which is inevitable because of seasonal fluctuations in trade, especially during the summer months.

To finance these measures a "Short Time Scheme" was set up in 1923, in conjunction with a "Prosperity Sharing Scheme." The income of both schemes is drawn from a "Welfare Fund," into which a sum is paid annually by the Firm. The "Short Time" payments have the first claim on this fund, and after they have been met the balance is distributed according to length of service among non-management employees.

The scheme of Family Allowances provides 5s. od. per week for each child of school age or under after the second. The payments are made to all employees qualified by the number of their children to receive them, irrespective of the amount of their incomes from wages or other sources.

JOINT CONTRIBUTORY SCHEMES

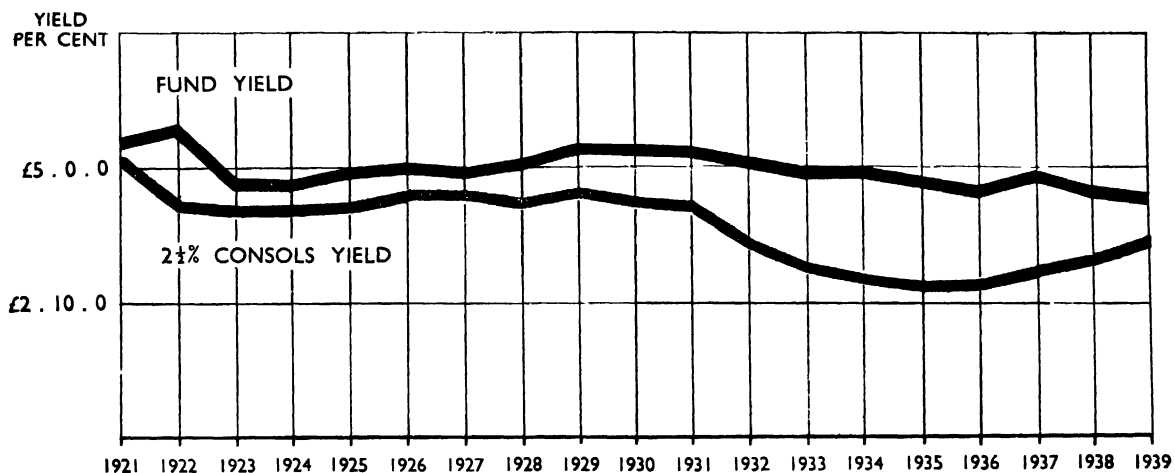
The contributory schemes administered by the Works Councils include a Sick Benefit Scheme contributed to by the Firm and the workpeople to provide for the payment of benefits to supplement the National Health Insurance, and a Dependants' Provident Fund which provides a lump sum or pension based on the earnings and the period of service of a male employee who dies before reaching pension age.

PENSION FUNDS

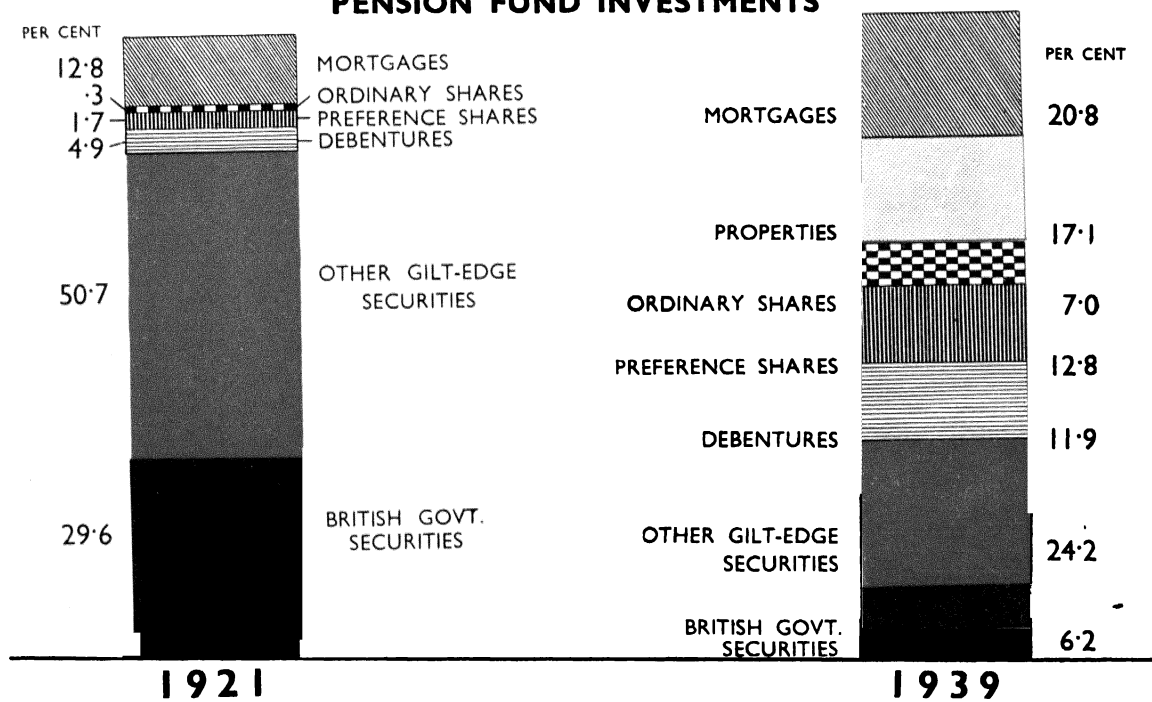
The most important of the Firm's contributory schemes are the Pension Funds. The Men's Fund was founded in 1906 and the Women's Fund in 1911. In 1923

PENSION FUND

FALLING INTEREST RATES HAVE ADDED TO THE DIFFICULTY OF PROVIDING ADEQUATE PENSIONS



PENSION FUND INVESTMENTS



A change in the distribution of Pension Fund investments was made to meet the problem caused by falling rates of interest.

SOCIAL SECURITY CONTRIBUTIONS

PER WEEK PER EMPLOYEE

COMPANY

BOURNVILLE
(Actual 1939)

BEVERIDGE
(Proposed 1945)

8/-

SICK BENEFIT, CHILD ALLOWANCES, Etc. (NOTE 1)	1/6d.	
SPECIAL GRANTS TO PENSIONS FUND (NOTE 2)	11d.	
MEN'S & WIDOWS' PENSIONS (NOTE 3)	3/9d.	3/3d.
UNEMPLOYMENT INS.	10d.	
NATIONAL HEALTH INSURANCE	1/-	
The Firm's expenditure for employees in 1939 was more than double the contribution of the Employer proposed under the Beveridge Scheme		

NOTE 1

These figures include the Firm's contributions to the Sick Benefit Scheme and Hospital Contributory Association, which are on a "per head" basis. They also include the Dependants' Provident Fund contributions and schemes provided wholly by the Firm, e.g. Accident Payments, Children's Allowance, Benevolent Fund, Additional Pensions, etc.

NOTE 2

This is the average amount per head per week of the special Firm's grants made from 1920 to 1939 to maintain and extend the Pension Funds.

NOTE 3

Company's and Employees' Pension Contributions shown in this example are based on a male adult employee earning £4 per week and engaged by the Firm at the age of 16.

EMPLOYEE

BOURNVILLE
(Actual 1939)

BEVERIDGE
(Proposed 1945)

6/6d.

SICK BENEFIT, HOSPITAL, DEPENDENCY ETC...	11d.	
MEN'S & WIDOWS' PENSIONS (NOTE 3)	3/9d.	4/3d.
NATIONAL HEALTH INSURANCE	10d.	
	1/-	
The Bournville employees' own contributions in 1939 were half as much again as the contributions proposed under the Beveridge Scheme.		

At the time of going to press the Government's White Paper on Social Insurance is published, and proposes weekly contributions of 3s. 1d. from the Company, compared with 3s. 3d. proposed in the Beveridge Scheme, and 3s. 10d. from the employee himself, as against 4s. 3d. (These figures apply to an adult male employee.)

the Men's Fund was supplemented by a Pensioners' Widows' Fund, and the two were amalgamated in 1931. The benefits have since been extended to include pensions for widows of men who had not retired but were still in the service of the Firm at the time of their death.

The administration of the Pension schemes is in the hands of Trustees representing the Firm and the subscribers. Both funds are approved by the Registrar of Friendly Societies and also by the Inland Revenue under Section 32, Finance Act, 1921, so that they do not pay income tax on their investment income, and members' contributions are allowed as deductions from their individual tax assessments. Details of the schemes are described in one of the pamphlets listed in the Appendix.

The charts on page 73 show the Pension Funds investment yield during the inter-war period, and the widening spread of their assets. The yield is, of course, a vital factor in determining the pension rates. A falling yield and increasing longevity are difficult problems for the Trustees to face. If pensions are to be adequate in future years, it is possible that higher retirement ages will have to be considered or provision made for the part-time employment of pensioners. It may well be that the messenger boys of the future will have to be pensioners!

COST OF THE BOURNVILLE AND BEVERIDGE SCHEMES COMPARED

The total weekly cost of the private and national Social Security schemes at Bournville in 1939 averaged 8s. od. per employee as the Company's share and 6s. 6d. as the worker's share. In view of the considerable discussion which has recently been caused by the Beveridge Social Security proposals, in which questions of costs have been freely raised, it is interesting to compare these figures with the cost of the Beveridge schemes. This comparison, as it affects both the employer and the worker, is shown in the diagram on the opposite page.

CHAPTER VII

EXPORT AND OVERSEAS FACTORIES

EFFECT OF THE FIRST WORLD WAR ON EXPORTING

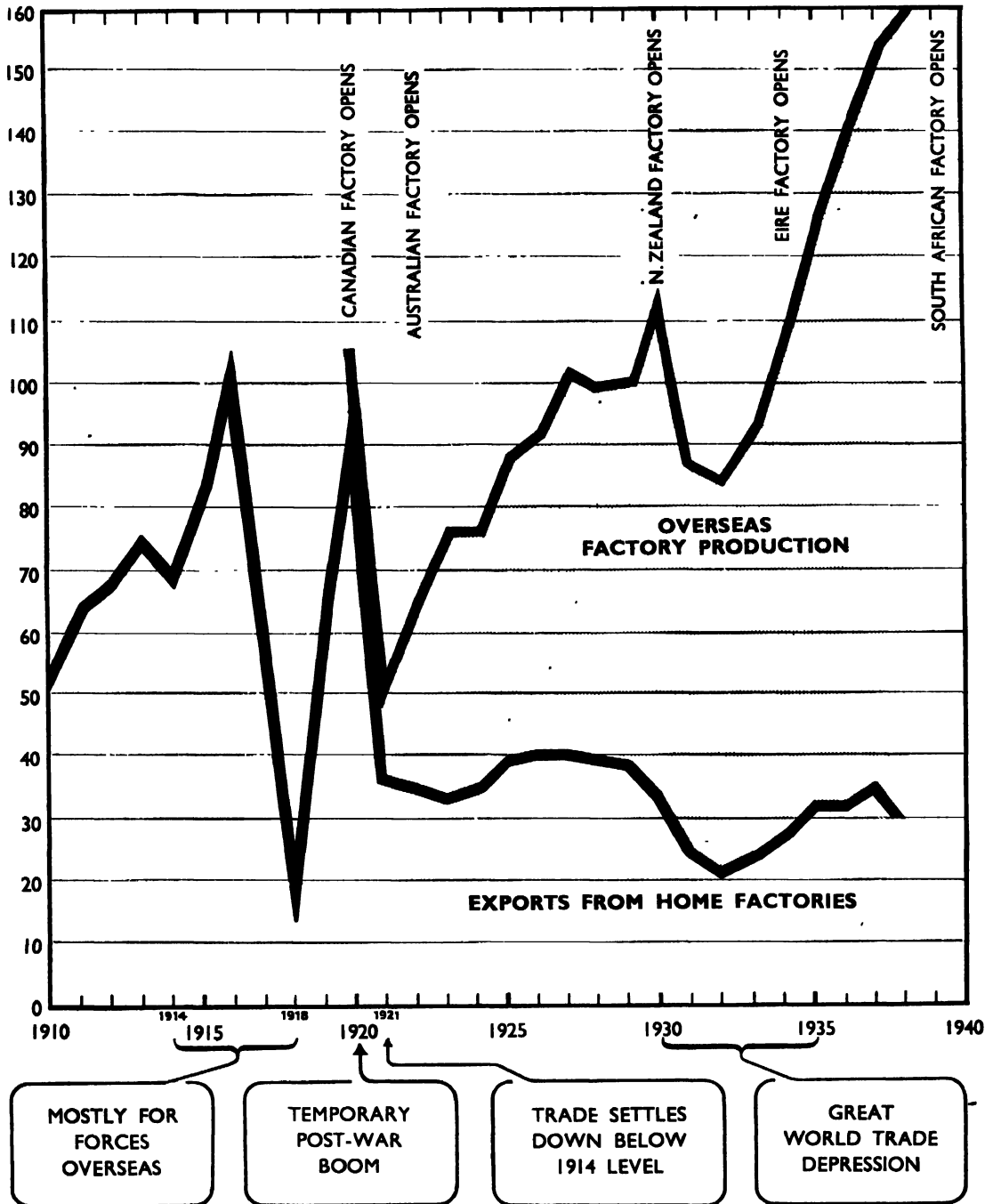
WHEN the first World War broke out in 1914, the Firm's export trade, which has always been mainly within the British Empire, had been built up to about half the value of the growing home trade. During the next two years it continued to expand, but from 1916, apart from supplies to the expeditionary forces overseas, it fell to very small dimensions. Immediately the war ended, the scarcity of consumable goods and the complete dislocation of the cocoa and chocolate industry on the European continent led to a substantial but transient demand for exports. With the restoration of more normal conditions this demand soon disappeared and the real extent of the damage inflicted by the war on export trade became clear.

The virtual suspension of exports during the years 1917 and 1918 led to the appearance of local manufacturers in the overseas countries, particularly the British Dominions, which had always been the Firm's principal overseas customers. These new factories were given generous assistance by their home governments, in the shape of high tariffs, to enable them to find their feet. In Australia the measures of assistance went to the length of prohibiting imports altogether.

As a result of these developments, opportunities for exporting the Bournville products were severely limited in the inter-war years, being almost entirely confined to tropical areas where climatic conditions preclude local manufacture. Even in this restricted sphere competition was severe, especially from Swiss and Dutch manufacturers. During the period of the great depression of 1930 to 1934, when foreign competition was at its worst, the depreciation of sterling in 1931 did something to ease the position, especially as there was no corresponding depreciation of Swiss and Dutch currencies. Apart from this alleviation, however, the maintenance of the Firm's export trade had to depend entirely on the energy with which the assault on the few remaining markets could be conducted.

One factor which has always helped greatly has been the employment abroad of the Firm's own trained representatives, with their ability to assess correctly the conditions of the markets assigned to them. Just as the right denominations of net weight and price have been studied in the home market, so the export representatives have advised the Firm on the best type and size of packing, the most convenient units of price, and also the best forms of advertising. The convenience

DEVELOPMENT OF OVERSEAS FACTORIES AS A RESULT OF EXPORT RESTRICTIONS



of separate markets could not, of course, be met by manufacturing distinctive packings suitable to each of them. Two courses were possible. The home unit of net weight could be sold at the correct price but with a reduced profit. Alternatively, a packing different in weight from the home article could be produced to sell at the desired export price. The latter course could only be taken if the sales estimates were sufficiently large to warrant production on an efficient scale, and in practice local sales seldom were great enough to justify special weight packings for export.

OVERSEAS FACTORIES MADE NECESSARY BY TRADE RESTRICTIONS

The chart on page 77 shows that between the wars the Firm opened five overseas factories in Canada, Australia, New Zealand, Eire, and South Africa respectively. This has come about either through the actual imposition of import tariffs or even prohibitions, or through the imminent threat of such developments. The decline in exports which is evident in the chart was largely due to supplying the Firm's goods from local production, but the fall was far more than offset by the increasing volume of sales made by the overseas subsidiary companies. That the opening of these factories was a wise precaution was shown, for instance, in the case of New Zealand which, because of its adverse balance of payments and diminishing foreign exchange resources, threatened in 1938 the prohibition of all imports of cocoa products, although in fact a certain deferment of its enforcement was obtained.

In view of the second World War this policy was especially fortunate because it has prevented the severance for the second time of the Firm's connections with these areas.

DECIDING THE LOCATION OF FACTORIES

The location of industry is now a subject of public discussion and even of suggested legislation. Many, and often conflicting, considerations have to be weighed up before the best site for a new factory can be chosen. Between the wars the Firm and its associated companies built, or in one or two cases bought, fourteen factories at home or overseas. Some of these are highly specialised, such as those for condensing milk for chocolate, which have already been described. Others manufacture a complete range of products. In deciding their location, suitability of surroundings and subsoil, access to raw materials, fuel, power and water, availability of labour, proximity to ancillary trades, and convenience as a distributing centre, all have to be taken into account.

As an example of this in connection with the Firm's overseas activities, the Australian factory was established near Hobart, Tasmania, where, despite its distance from the main markets, it has the advantage of good climatic conditions (an important matter in the making of chocolate and confectionery), an inexhaustible supply

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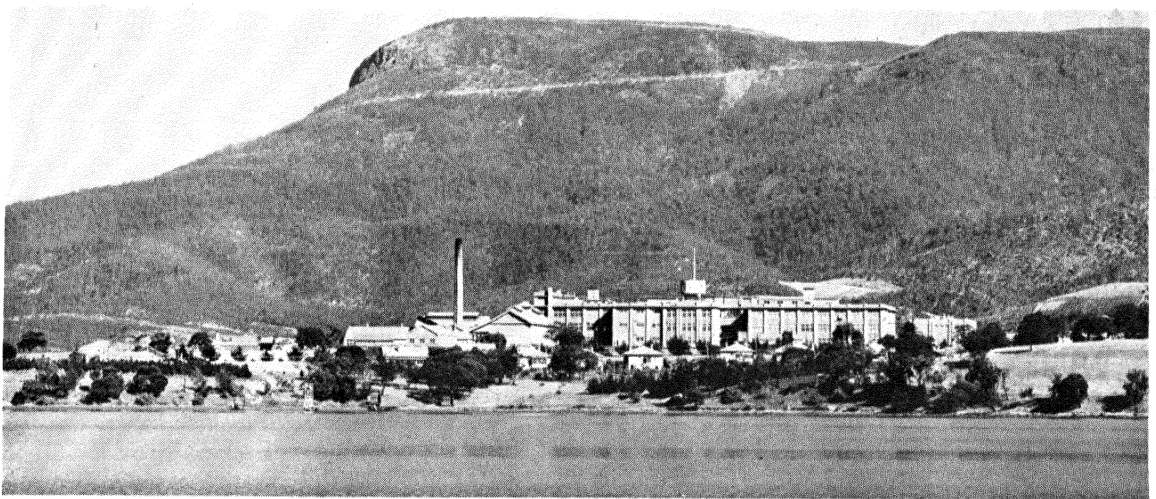
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The main factors governing the choice of the site of the Australian factory opened near Hobart, Tasmania, in 1921 were the suitable climate, shipping facilities, hydro-electric power and abundant water supply.

of cooling water for condensing and refrigerating purposes, rural surroundings, hydro-electric power, and good shipping facilities.

MANAGEMENT OF OVERSEAS FACTORIES

The control of manufacture and selling in the factories overseas is in the hands of Directors appointed to Companies locally formed and registered. Assistance is given from Bournville in the supply or loan of technical personnel, advice on manufacture and marketing, the buying of the principal raw materials and machinery, the interchange of visits, and by the sharing of experience generally.

DISADVANTAGES IN OVERSEAS PRODUCTION

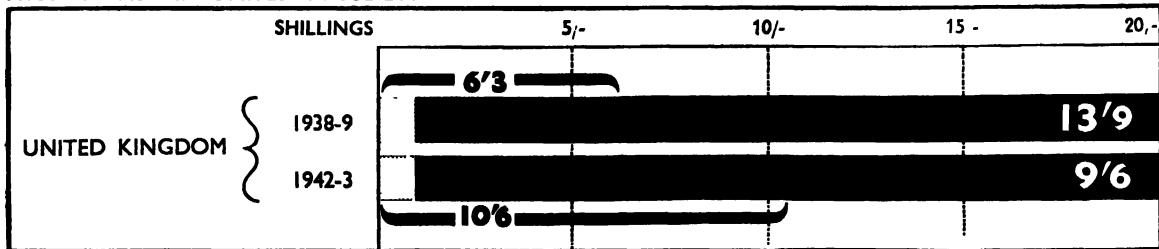
While the chart of the Firm's total overseas trade on page 77 certainly shows that overseas sales greatly expanded, the establishment of overseas factories is not a complete solution to the general problem of the country's future exports. From the point of view of the United Kingdom it would have been better if articles could have been manufactured in this country than that a Dominion firm should merely remit a part of its profit. But for tariffs, it would originally have been more economical to have produced the finished article at Bournville where production can take place on the largest scale, and to distribute it through overseas selling organisations. Even now, with the expansion of the Dominion companies, comparisons of costs show that the greater production costs of the overseas factories balance the cost of packing and transporting the finished articles from Bournville to the Dominions.

From the Firm's point of view, a still more important objection arises when the

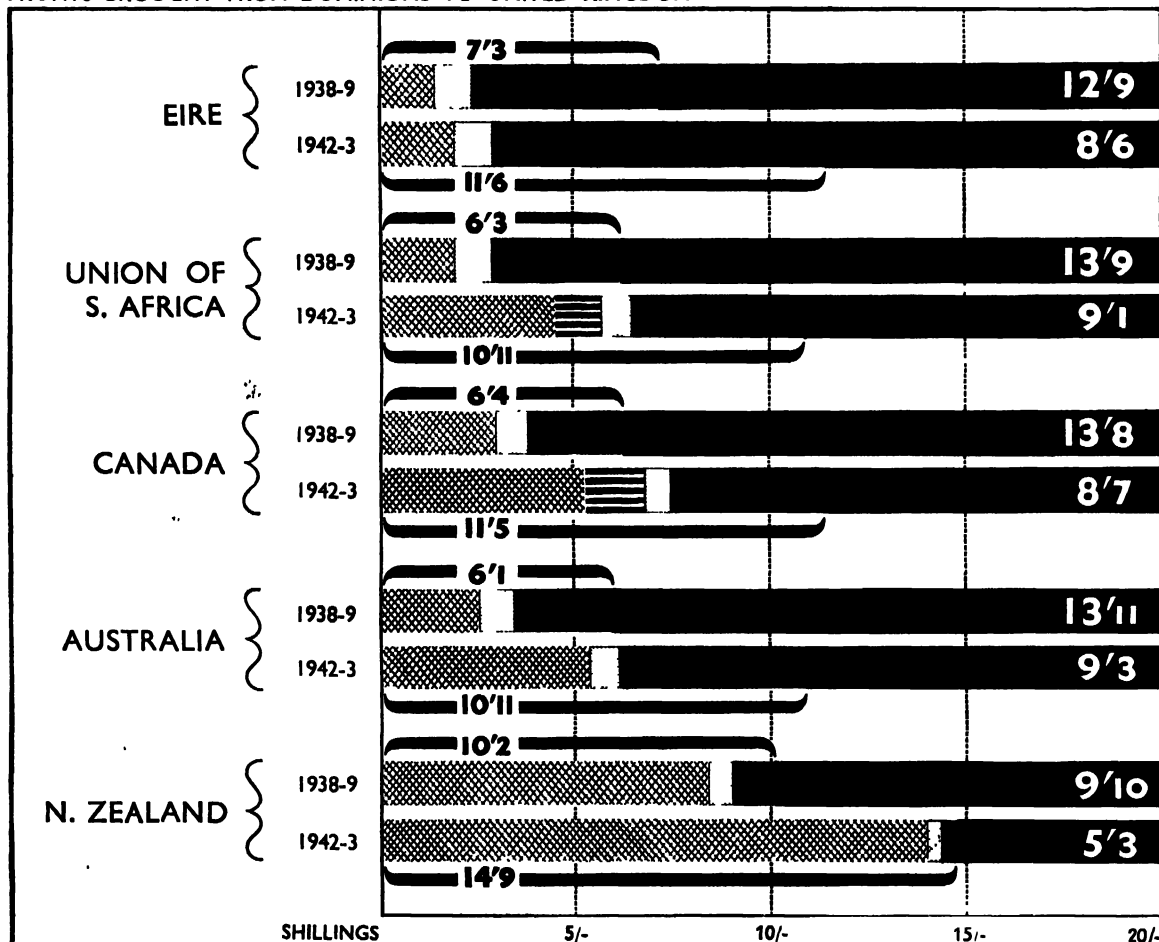
TAXATION AS IT AFFECTS OVERSEAS ENTERPRISE

EFFECT OF TAXATION (EXCLUDING E.P.T.) ON £1 OF PROFITS

PROFITS MADE IN UNITED KINGDOM



PROFITS BROUGHT FROM DOMINIONS TO UNITED KINGDOM



KEY

- OVERSEAS INCOME TAX etc.
- NON-RESIDENT SHAREHOLDERS TAX
- U.K. INCOME TAX
- N.D.C.
- PROFITS REMAINING

The high rates of taxation borne on the profits of the Dominion Companies constitute a strong deterrent to the setting up of companies overseas.

net return on the capital sunk in the new factories is considered. Inevitably some of the Dominion companies had to be financed through an initial period until they were established on a profit-making basis. Once established, they have shown a reasonable profit, but this has been whittled down by taxation. The operation of doubled taxation, Dominion income tax relief and the reciprocal arrangements for relief from double taxation are very complicated and beyond the scope of this publication. The cumulative effect can be gauged from the chart on the previous page, which shows the extent to which the profits of the companies are taxed when brought to this country; and even this does not tell the whole story, because for the war years it excludes the effect of excess profits tax imposed both in the Dominions and in the United Kingdom.

Briefly, then, it has been found that the development of production overseas is often the only alternative to a complete loss of trade and goodwill. The home company sends overseas the results of its technical research departments, designs for new lines, its latest experiences in marketing and advertising, as well as performing certain buying services. From the national standpoint this may not be as satisfactory as the export of home production, but it has advantages because the bulk of the capital equipment and replacements come from this country.

CHAPTER VIII

SUMMARY

THE main points of general interest which characterise the experience in business administration described in the foregoing pages may now be summarised.

MANAGEMENT

In the sphere of organisation and general administration the aim of the Firm has been to combine continuity in basic policies with an adaptable system of executive control and a flexible approach to practical issues. The element of continuity has been encouraged by the existence of family ties at the seat of control. The co-ordination of executive departments by committees and a Board of full-time managing directors, as described in Chapter I, has shown itself in practice to be readily adaptable to meet changing circumstances. This organisation gives full recognition to the importance of developing a professional management staff. The policies of careful recruitment and continued general and technical education have benefited the employees by giving a wider outlook and better opportunities for advancement, but also the Firm by providing a continuous flow of talent from which to fill managerial and technical posts as they fall vacant. The recreational, welfare and social security schemes are operated in the main by the Firm and its employees jointly. The Works Councils, which are concerned with welfare and working conditions, give scope for the workers to bring to light their ideas, suggestions and grievances, and for the management to receive and meet the workers' views.

This organisation has grown up over many years of patient trial and error. A tradition of individual initiative and responsibility has been built up and yet the personalities have been merged to form an efficient unit. In the larger sphere of State organisation it is well to remember that efficient planning depends as much on initiative as on co-ordination. To preserve and foster initiative and responsibility a greater degree of decentralisation would seem to be necessary than is envisaged by many "State Planners."

PRODUCTION AND FACTORY DEVELOPMENT

In the sphere of production and factory development the fullest possible advantage has been taken of technical progress and mechanisation. Though this

policy nowadays commands general assent, it is not always as obviously beneficial as it appears to be at first sight. For instance, its full application sometimes involves making what are felt at the time to be painful financial decisions, involving the scrapping of buildings only recently erected or of machines only recently installed and still in perfect condition. Examples of such decisions have been quoted in Chapter II. Even more difficult than the financial aspect of the "scrap and build" policy has been the human problem involved in the displacement of labour or the supersession of specialised skill. At the end of Chapter II are described the compensation schemes provided to ease the position of the individual workers affected and the temporary modification of recruitment and retirement policies which took place during the most difficult periods. In this chapter examples are also given which show that vertical expansion is by no means always economic, that it does not always pay to aim at self-sufficiency, and that there is much truth in the adage that "the shoemaker should stick to his last."

Where subsidiary departments are operated it is essential for efficiency to keep them in competition with outside suppliers. There is a tendency for some public corporations and municipal bodies to aim at self-sufficiency by undertaking ancillary activities. In such developments there is always a danger that inefficiency will creep in unless a check is kept by constant competitive quotations and supplies.

MARKETING AND DISTRIBUTION

It is in the sphere of marketing, price-policy and distribution that the conclusions will be regarded as most controversial. Briefly, they resolve themselves into two main propositions. The first is that the keynote of a wise marketing policy should under all circumstances be to provide the utmost possible value for money. There are those who believe that the average consumer is a poor judge of his own best interests and is easily taken in by the specious advertiser, but examples are given which show that the manufacturer's constant aim should be to reduce the costs not only of producing his goods but also of distributing them to the public.

The second main argument is that distribution as at present organised in Great Britain is more costly than it need be, and as such constitutes a drain on our national resources which after the war we shall ill be able to afford. The reasons for holding this view, which many would accept in principle but deny when confronted with its implications, have been set out at some length in Chapter IV and need not be repeated.

In the light of these considerations the possibilities have been examined of eliminating wasteful processes and methods in distribution wherever they may occur. As a result, the Firm has been able to make far-reaching economies in its own distributing organisation without any real diminution in the standard of service

provided to its trade customers and to the consuming public. Nevertheless, distribution still presents a large and mainly uncharted field of inquiry, both to the academic student and to the practical man of affairs. It is of great importance to the future welfare of this island that the efficiency of distribution should be improved, not only by manufacturers but in the later stages of distribution by the wholesale and retail trade. This is one of the many problems on which further discussion and research are necessary.

A P P E N D I X

A SELECTED LIST OF BOOKLETS ISSUED BY THE PUBLICATION DEPARTMENT, BOURNVILLE

“BOURNVILLE WORKS AND ITS INSTITUTIONS” (1939): A concise account of the Educational, Recreational and other Schemes.

(These are dealt with in more detail in the following booklets.)

“A WORKS COUNCIL IN BEING” (1926): An account of the scheme at Bournville Works. (Out of print.)

“HEALTH IN THE FACTORY” (1936): An account of the work of the Medical and Dental Departments and other Schemes in operation at Bournville Works.

“EDUCATION IN INDUSTRY” (1939): A survey of Schemes for the Recruitment, Training and Further Education of the Employees of Cadbury Brothers, Ltd.

“DAY CONTINUATION SCHOOLS,” by R. W. Ferguson, B.Sc., A.R.C.S., and A. Abbott, C.B.E., M.A. (1935).

“THE FACTORY AND RECREATION” (1935).

“PENSION, PROVIDENT, AND BENEVOLENT FUNDS” (1932).*

“AN INDUSTRIAL CANTEEN.” (Out of print.)

“A CENTURY OF PROGRESS”: A History of Cadbury Brothers, Ltd. (1931).

“THE FIRM OF CADBURY,” by I. A. Williams (Constable, 1931).

The dates given in brackets are those of the latest editions of the respective booklets. All were up to date in general outline at the outbreak of the war (with the exception of that marked *), although details of individual schemes might have been modified; and in most cases some modifications have since been made to meet war conditions.

Copies of those noted as out of print may be consulted in many libraries.

