

INTERNATIONAL CO-OPERATIVE SERIES

No. 1

Co-operation in Denmark

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CO-OPERATION IN DENMARK

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PREFACE.

THIS volume is one of a series of books, each dealing with Co-operation in a particular country, published by the Publications Department of the Co-operative Union. The present volume contains a description of the origin, growth, organisation, and results of Co-operation in Denmark. Volumes shortly to be published will deal with Co-operation in Ireland and Scotland, and a number of others are now in course of preparation.

It is believed that the publication of this series of books will enable both the student of co-operation and the general reader to obtain knowledge of the co-operative movement in every land. Although the co-operative principle is everywhere the same, the method of its application is necessarily determined by local circumstances. No one country has a monopoly of co-operation, and knowledge of what is being done by co-operators elsewhere should stimulate thought and thus aid the progress of the international co-operative movement.

In Denmark, as the following pages show, co-operation is the foundation of national prosperity. Agriculture, the chief industry, is co-operatively organised from beginning to end, and in the towns, as in the villages, the co-operative spirit finds expression in a variety of ways. Danish

co-operative creameries and credit banks have served as models to be copied by agriculturists in other countries, and it will be seen that the value of the contribution made to co-operative thought by Danish co-operators is very great. In Denmark, both government and people recognise the value of co-operation, hence all who desire to encourage agriculture and to raise the status of the rural population may profit by a study of this book.

October, 1919.

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Co-operation in Denmark.

CHAPTER I.

Early Conditions in Denmark.

DENMARK is one of the smaller countries of Europe and has a population of less than three millions, the great majority of whom are farmers. Lacking coal and metals, and having no abundance of labour, it has not developed any of the industrial centres familiar to dwellers in the great English towns. Copenhagen is the only city with a population exceeding 100,000, and it impresses the traveller rather as a political and social than an industrial centre. When, therefore, we speak of the co-operative movement in Denmark we speak of something wholly different in structure and appearance from the industrial co-operative movement of Great Britain. Both are great movements; each derives its strength from the application of co-operative principles to the amelioration of the conditions of the people; but the conditions with which each is concerned differ radically. Let us look at the problem which presented itself to the pioneers of co-operation in Denmark.

To do so, it will be necessary to examine the state of Danish agriculture in the middle of the 19th century and to trace the causes which led the Danes to apply co-operative methods to their farm-production, but it will be useful first to go somewhat further back in their social history, and to examine the process by which Denmark became what it now is—a nation of smallholders.

Up to the year 1788 the agriculturists of Denmark lived in a condition of feudal bondage, similar to that which

existed in mediæval times in most European countries. The land was in the hands of the great landed-proprietors, who had absolute control over the work, and nearly absolute control over the lives of all who laboured on their estates. No man working on an estate could leave to take up any other occupation, or go to any other part of the country, nor was he in much better case in regard to his remuneration for the work which he did. Wages were paid, not in money, but in kind, and the rate of remuneration was entirely determined by the landlord. Denmark was then—as now—almost altogether occupied in agriculture, and as social distinctions were as rigid as in other feudalised countries, it may easily be imagined that the lot of the majority of the people was by no means desirable. In the 18th century, however, there began a gradual movement towards the emancipation of the peasants. This movement was animated not so much by moral considerations or fear of the workers—for the Danes are a peaceful people—as by the realisation that freedom is a condition necessary for the most profitable use of land. Inasmuch as the revenue of the Crown and the Government was mainly derived from land, this consideration had much influence upon Danish statesmen.

, In 1781 we find the beginnings of an agitation for the division of land amongst the people, and the first definite step in this direction was taken in 1788 by the Danish Prime Minister, Bernstorff, a man of considerable liberalism in his dealings with the people. His policy began by putting an end to the feudal prescription which bound the peasants to a particular estate. Having removed this first hindrance to free agricultural development, the Government embarked upon an agricultural policy which it has consistently maintained ever since. It aimed at the creation of independent holdings, not too small to be economically organised. |

In 1819 a law was passed to limit the extent of landed property in the hands of one owner. In 1850, forced labour

on behalf of landlords was made illegal, and in 1861 and 1872 enactments were adopted affording labourers State assistance in the buying of the land which they required. Although a change had thus commenced in the conditions under which land was held there was as yet, however, no change in the nature of Danish agriculture. The land was still cultivated on what is called the extensive system, that is to say, while large areas were devoted to the growing of cereal crops, such as wheat, barley and rye, the remainder of the country was given over to the grazing of cattle, and dairying was practically neglected. The reason why the modern intensive system in which dairying and the raising of pigs and poultry occupy so large a place was not adopted, is to be found in the fact that Denmark was able to command a ready market for her grain and her livestock in the large cities of Germany. These markets were within easy reach; they exacted no tolls; and the German people were very glad to be supplied with produce which they were unable to raise in their own country.

It must also be remembered that at this time the area of Denmark was considerably greater than it is at present, for the Danes then possessed the territories of Schleswig and Holstein, which were not only in close proximity to the German markets but were also well suited to the raising of cattle and the production of corn crops. Although, therefore, it may well be argued that Denmark was not making the best possible use of her land (and in the light of modern knowledge and conditions, we should say she was not), she was nevertheless prosperous and progressive, and her people were able to obtain a relatively good revenue from a small amount of work performed.

Had no external force instituted a change in the method of Danish agriculture, it is possible that she would not to-day present the spectacle of a highly-organised community of farmers working their land upon a system so intensive as to place their country at the head of the food-producing small nations of Europe. In the second half of the 19th

century, however, two new factors entered into her agricultural economy. The first was connected with German, and the second with American, competition. A large part of the inhabitants of the Provinces of Schleswig and Holstein were German in sympathy and in speech, and in 1848 they invited the assistance of Germany to free them from the government of Denmark. Germany sent an army to aid them, but at the battle of Fredericia, in 1849, she was defeated by the Danes.

The result of this defeat was to affect trading relations between Germany and Denmark, particularly in regard to the export of Danish butter. At this period little butter was made in Denmark, and what butter there was had so bad a reputation that it was known all over Europe under the name of "Forty Rod" butter, because its odour invited attention, even at a distance of over 200 yards. Its only chance of sale outside Denmark—inside the country the people were either too poor or too wise to eat it—was through the agency of German middlemen, who bought it at Kiel or Hamburg, at the rate of 6d. or 7d. a pound, and exported it to England under the title, not of "Danish" but of "Kiel" butter. After 1850, the Danes began in a small way to export their butter direct to England, and this may be said to be the first definite step in the transition of Danish agriculture.

The second stage in the relations between Germany and Denmark began after the death of Frederick the Seventh of Denmark, in 1863. The Government proclaimed Prince Christian of Glücksburg as the new King, and the young Duke of Augustenburg, on behalf of Schleswig-Holstein, set himself up as Pretender under the style of Frederick the Eighth. His claims were supported by Prussia and Austria, and Denmark was called upon to give up Schleswig-Holstein to the military occupation of these two powers until his claims were settled. Denmark declared war, believing that England and France would support her; but no support was given, and the Danish army, after a brave stand, was

overwhelmed on the Heights of Dybbol, in 1864. Austria and Prussia maintained a suzerainty over Schleswig-Holstein until 1866, when war broke out between them, and upon the victory of Prussia the Duchies passed under her complete control, and were merged into her territories.

Thus at one blow Denmark was deprived of a large and fertile portion of her territory, and at the same time of her German market for agricultural produce; for while, on the one hand, the feeling of the Danes was sufficiently bitter to prevent them from dealing with Germany, on the other hand, the Germans took measures which prevented them from doing so, even if they had so wished. Prohibitive duties and restrictive regulations were also imposed, first on the import of Danish corn crops, and afterwards on the import of livestock.

But this was not all; during the twenty years following the political crisis, scientific methods were introduced into agriculture all over Europe, partly as a result of increased scientific knowledge and partly in order to meet the competition of America, which was now beginning—as a result of the breaking of virgin soil and the increase of transport facilities—to flood European markets with her produce. Thus with a greatly restricted area, with no manufacturing industry, with no near markets for her bulky produce of grain and cattle, and having to meet American competition, Denmark was faced with absolute bankruptcy, and every class of the population began to feel the pinch of necessity. If economic ruin was to be avoided, it was necessary for the Danes to abandon the extensive system of cultivation and to change their agricultural industry in such a way that the nearness of markets would give them a decided advantage, and make it possible for smallholders without much capital to hold their own. The story of agricultural Denmark from that time onward is a story of a nation of peasants, seeking by the adoption of scientific methods in production, and by co-operative methods in manufacture and distribution, to revolutionise its industry

and to transform itself from a producer of cereals and cattle into a producer of butter, eggs and bacon.

We hope to show in the following pages how, by a judicious admixture of State direction and voluntary organisation of co-operative effort, this result has been achieved, and how Denmark has become a country of small farmers, combined in hundreds of co-operative societies which assist them to produce commodities which rank higher in the markets of Europe than those of any other agricultural country. Curiously enough, the introduction of the co-operative method into the country was not in the direction of either production or marketing. It so happened that a minister of the Danish Lutheran Church, the Reverend Mr. Sonne, was preaching one day in his church on the subject of the Christian virtues and enthusiastically praising them, when suddenly a labouring man in his congregation interrupted him by saying: "Virtue is well enough in its way but it does not feed one; a piece of bread would be more in our line."

A new field of endeavour was at once opened to the overflowing activity of the preacher. The interrupter had simply expressed in his blunt way the same idea that inspired Karl Marx when he explained that the whole sum of human activity was devoted in the last resort to solving the problem of hunger. Mr. Sonne devoted himself to his new-found task with a zeal which was stimulated by the fact that after the giving up of Schleswig and Holstein the material condition of the people was desperate, and the knowledge that any amelioration of their lot which could be secured would serve to heal the wounds caused by the war and would give an impetus to the future prosperity of the Danish nation.

The first result of Mr. Sonne's activity was the foundation of a co-operative store in the town in which he was minister. As we shall see in a later chapter, he was influenced greatly by the work of the Rochdale Pioneers. The store which he founded does not seem to have been a lasting success,

but its importance lies in the fact that its establishment introduced the principle of co-operation into Denmark, while its founder's teaching influenced many of the pioneers of the economic regeneration of the country.

{ A few years later, agricultural scientists employed both by the Government and by the Danish Society of Agricultural Economy, began to consider the possibilities before the Danish dairying industry. They found that butter was being made almost entirely in private dairies on the large estates. No scientific, or even ordinary commonsense, methods were used in its production; the quantity of milk used was guessed or measured in an absolutely primitive fashion, while the salt and colouring material were put in, as cooks say, "to taste."

From the 'sixties to the 'eighties, such scientists as Professor S. Segelcke strove hard to introduce scientific and accurate methods into butter-making, and to accustom the farmers to the keeping of proper accounts. By 1865, Professor Segelcke had trained a small number of expert butter makers, and had published a book on the subject to serve as a guide for smallholders. }

In 1879, a revolution was effected in the butter industry by the introduction of the separator. This invention made it both possible and profitable to build and equip creameries; and, in Denmark, private capitalists soon came into this field of industrial activity. Most of the creameries they established failed, however, mainly because farmers took no interest in them beyond supplying them with milk, and also to some extent because they were unable to turn to account the skim-milk and other offals, which might have made the foundation of a pig-rearing industry, had Danish farmers at the time owned a sufficient number of hogs.

In another chapter we shall discuss at length the history of these dairies, and show how the co-operative method was adopted as a means of surmounting the difficulties which had caused the failure of proprietorial enter-

prises. We shall show how the Danes, having established their co-operative creameries, set themselves to solve the new problem which faced them when Germany prohibited the import of Danish live hogs. With the help of the creamery organisation and the separated milk, the pig-breeding industry was set upon its feet, and, as a consequence, bacon-curing became an important feature of Danish agriculture. Again, with the help of the creamery organisation, poultry-raising was encouraged, and the egg trade of Denmark built up. It is our purpose in this book to describe the various steps which were taken in each branch of co-operative organisation, the structure of each type of society, and the results produced by the growth of co-operative organisation throughout the country. It will not be out of place at this stage, however, if we say something concerning the attitude of the Government towards the development of the industry of agriculture in Denmark.

It must be remembered that ever since the introduction of democratic institutions into the country the Government has been largely influenced—if not entirely controlled—by men interested either directly or indirectly in agriculture. Accordingly, the policy of the State has been consistently in favour of fostering the development of the farming industry. Once the Government realised that the best method of stimulating agricultural production was by vesting the ownership of land in the small farmers, it courageously assisted in giving effect to that policy. Nor was it slow to see that, when co-operation was begun, the greatest advantages in marketing and in producing could be obtained for the smallholders through this form of organisation. It therefore gave every encouragement to the establishment of co-operative societies of every kind, but, unlike the State authorities in many other European countries, it refrained from any interference with the purely business side of the movement. In Denmark, no State subsidies have been given for the purpose of organising trading societies, or in order to help them to carry on their business. These

societies, therefore, are not under any obligation to accept State control in the management of their affairs. What the Government did was to subsidise education and to encourage the standardisation through State control of agricultural products, such as butter and bacon. For the rest, it confined itself to a policy of benevolent watchfulness.

We would ask the reader of the chapters which follow to keep before his mind the fact that the Danes enjoyed no natural advantages of soil, climate or economic conditions, which would enable them to compete in the English market with other producers. Without their highly-developed organisation they would have been left far behind in the race. We may note also that little has been written or said about the Danish co-operative movement by the Danes themselves. With their material success they combine a certain reticence and a lack of superficial enthusiasm which suggests that most of their energy has been turned to matter-of-fact organisation rather than to idealistic propaganda. In spite of this, however, the spirit of co-operation is thoroughly understood and continually translated into practice, and there seem to be few obstacles of a social or psychological nature to be overcome by the leaders of the co-operative movement in Denmark. }

CHAPTER II.

The Dairying Industry in Denmark.

WE have seen that in the period immediately preceding, and well into, the 'eighties, Danish livestock was wholly neglected, and that Danish butter was of such an inferior quality that even the good butter produced on Danish landowners' home farms had to be exported under a false trade description. We have now to show the steps by which the Danes solved the problem of transforming their butter industry so as to make it—instead of the worst—the best in Europe.

The Danes had the wisdom, not always found in other countries, to deal with the two problems—the improvement of Danish milk, both in quality and in quantity, and the improvement of Danish butter—at one and the same time. They had to ensure that their butter was produced under the most up-to-date conditions, and that the dairy herds which supplied the milk for their butter-making should be of a good milking strain instead of being inferior and poorly-fed animals, with a resultant small yield of poor-quality milk. It may be said at once that for every improvement in butter-making, there has been in Denmark a corresponding improvement in livestock.

It is outside our scope in dealing with co-operative creameries to describe in detail the progress made in developing in Denmark a breed of dairy cows which cannot be surpassed anywhere in Europe. It is sufficient to say that as a result of keeping milk records, by good farm accountancy, and by eliminating gradually all bulls of inferior strain, nearly all the Danish dairy cattle are now pure bred. In 1914 no less than 92·9 per cent of Danish bulls were pure bred, and of the total number of cattle in Denmark there were 1,310,268 cows—or 53 per cent—which had calved for the first time. This improvement in livestock would

not have been possible had not Danish farmers been educated gradually to keep correct farm accounts. These accounts always proved that cows of nondescript breeds did not pay. No farmer is likely to remain unconvinced when he sees by his books that whilst his own animals do not give good results those of his neighbours—which are pure bred—yield excellent returns.

Before the formation of co-operative creameries proper, there were some quasi-co-operative experiments in butter-making which are of some historical interest. In order to secure butter made under better conditions than that produced on a small farm, several Faellesmejerier, or dairies in common, as they were called, were established. These were founded by groups of people who combined to buy dairy machinery and to make butter, but who did not themselves supply milk. Nearly all these dairies failed. In some instances the suppliers deserted them after a time to search for a more remunerative market; other dairies were inadequately capitalised and hardly any of them worked upon a sound financial basis. In 1882, two years after the beginning of these experiments, Mr. Stiller Andersen founded the first co-operative creamery.

This pioneer of co-operation was born in Ögod, in 1858. From 1880 to 1881 he studied at the agricultural school in Tune, and took a particular interest in dairying. He afterwards worked in several dairies in the district of Svendborg. In order to reform the primitive methods of manufacturing milk into butter in West Jutland, he proposed to the farmers in that district that they should form a creamery, deliver their milk to it in good condition, and then trust him to manage it for them. It was decided that his proposal should be adopted, provided the milk of 400 cows could be obtained for the creamery. Very soon the owners of 300 cows were brought into the scheme, but owing to lack of interest—and in some cases to the active objection of the peasants to the new idea of co-operation—it was found difficult to get the owners of an additional 100 cows to guarantee a supply.

But Mr. Andersen was not to be balked in his scheme. Full of youth and enthusiasm, he offered to buy the milk of 100 cows, and himself become the supplier to the creamery, thus fulfilling the condition previously laid down. In the summer following the establishment of the first co-operative creamery, three other creameries were started in the neighbourhood—one in Stralluf, one in Skovlund, and one in Jandrup. They were all small concerns occupying low-rented premises. Their outfit consisted of an engine, a centrifugal separator and scales, the separated milk being returned each day to the members of the society.

From that time onward, the creamery movement developed with surprising rapidity. Ten years after the foundation of the first creamery there were no less than 800 creameries in Denmark, and in 1914 there were 1,190. A remarkable influence was exerted on the development of the creameries by many Danish scientists, who expended much energy and learning in efforts to promote the adoption in dairying of efficient modern methods. Two of these scientists, Professor Segelcke and Professor Fjord, both attached to the Royal Veterinary School, are entitled to special commendation. By carrying out experiments on large farms in close touch with agricultural organisation, they helped to make co-operative butter-making in Denmark the scientific and efficient process it is to-day. Nor were the farmers themselves lacking in a desire to help on the work. Many of them placed their farms at the disposal of the scientists in order that they might carry out their experiments without cost. Nothing could have been more fruitful at the beginning of the co-operative movement in Denmark than this joint working of the theoretical student and the practical man; the scientists setting themselves to solve the problems which confronted the farmers and the farmers putting into operation the results of their research. Agricultural education and technical instruction figure largely in Denmark to-day. That this is so, is due in a large measure to the knowledge gained by the farmers at the beginning of the

co-operative movement from the work of Professor Segelcke and Professor Fjord./

In Denmark, the co-operative creameries are capitalised in a somewhat unusual manner. The members do not take "shares" in the undertaking in the sense that we understand "shares." They assume a joint and several liability for their initial capital for a fixed period, and on the security of this they obtain a loan at a favourable rate of interest. The working capital is provided by making a small fixed charge for the separated milk returned to the members. This charge is deducted each month from the cheques issued in payment for the milk supplied. In addition to this source of revenue additional funds for working capital are provided by the entrance fees and subscription levied on members joining after the foundation of the society. This system is an equitable one, for, although on the one hand, it is an essential principle of co-operation that membership should remain open to all, it would obviously be unfair that original members should sustain the burden of a greater liability than new members are required to bear.

In Denmark, the legal constitution of societies is different from what it is in Great Britain. A number of members form a society and become a corporation for a number of years. For example, the period for which a creamery is founded is generally from ten to fifteen years. Within that time all borrowed capital must be paid off out of profits. At the end of the period the members are free to register the society again as a new society, with the same members or with different members as the case may be. Within the period for which the society is registered any person who is a member is liable, in proportion to the number of cows he has, for his share of the joint and several guarantee. If he desires to withdraw from the society during the period he may compound for his liability by a payment of so many shillings for each cow, the sum paid being reduced in proportion to the number of years he has been in the society. For example, suppose a member desires to withdraw during

the first year, he may have to pay about £1 per cow, in the next year, he will pay 2s. less and so on. If he wishes to withdraw at the end of the period the creamery will pay him his share as determined by the general committee meeting. Members who withdraw at any time cease, of course, to have rights in the society.

In many respects, the working methods of Danish creameries are similar to those prevailing in Ireland. The members undertake under a binding rule to supply all the milk of all their cows, except the quantity required for household purposes, to the creamery. The milk is paid for on the basis of the amount of butter fat it contains, and payments are made monthly less a deduction as noted above for separated milk returned. This charge is a small one, that generally made being about sevenpence for every 32lbs. of separated milk. The separated milk is used for feeding pigs, and the value of the co-operative movement in fostering this important industry can be estimated from the fact that whereas in 1880, when the experiment of the "faellesmejerier" or dairies worked in common was being tried, there were not enough pigs to consume the separated milk of these dairies, in 1914, there were 2,844,097 pigs slaughtered in Denmark, 93 per cent of which were classed as A1, and 86 per cent of which were slaughtered in co-operative abattoirs.

The Danish creameries are grouped, not in one federation, but in several. At first sight there may seem a certain weakness in having a number of federations, but in reality the difficulty is overcome by the federations being in close touch with each other, and by their being linked together by a common information service relating to dairy matters. In 1913 the number of creamery federations was 20, with 709 affiliated creameries. The advantage claimed for this multiple method of organisation is that the creameries in a given area can get better service from a local federation in some matters than a larger body covering a very much wider area could give them, while by having various central

unions for technical and statistical purposes they can all get the real benefits of a large central. In addition to these smaller federations there are larger federations of great importance. The most highly developed of these are the Danish Farmers' Co-operative Purchasing Association, which acts as a wholesale society, and the General Organisation of Danish Dairy Societies, which acts as a central advisory union for the local federations.

In addition to these centrals the creamery managers have a union of their own, called the Association of Technical Dairy Managers. This body, which organises the managers and their staffs, is organised in provincial sections, and collaborates from time to time with the other central bodies. The Danish creameries are not content, however, with having co-operative federations of these types only. They long ago realised that their export trade depended greatly on an intelligence system, and this branch of their organisation they have developed with their characteristic thoroughness. Thus, there is a bureau for the preparation of statistics relating not only to prices but to costs of production. This department works in close touch with the local federations, and its chief aim is to see that the quality of Danish butter is maintained at a high competitive level. In closer connection with their export business is the Wholesale Butter Organisation Committee, whose work is to keep the creameries informed respecting the prices English merchants are offering, and to compile a price list based on the prices offered. Finally, there is an association which acts as a large friendly society for the employees of the creameries, and since 1898—when compulsory accident insurance was abandoned in Denmark—as an insurance society. Over thirteen hundred dairies are represented in this association.

Nor is there wanting a bond of union between the creameries and the other co-operative organisations in Denmark. The creameries, through their federations, have representation on the Central Co-operative Committee of

Denmark, which unites all the co-operative undertakings of the country for the purpose of united action in cases in which the whole movement has a common interest.

The history of the standardisation of Danish butter is of interest, not only as showing the thoroughness with which Danish dairy farmers organise their export trade, but as affording an example of the right way of combining State encouragement with the principle of self-help. In other countries, *e.g.*, Ireland and Germany, the State has erred either through excessive zeal or through rooted antipathy. In Germany, the State exercises a more than paternal control; in Ireland, the State in the past has probably hindered more than it has helped; in Denmark, on the other hand, the State exercises its authority only to give effect to what is already the policy approved by the organised co-operators. It gives a legal sanction to what the co-operators have already decided.

As early as 1889, the Royal Veterinary and Agricultural College inaugurated butter shows in its experimental laboratory, and invited creameries to send in specimens of their produce for grading and testing. At first, these shows did not have the importance which they afterwards attained, but they were of great service to dairy managers in giving them a knowledge of butter produce. The butter was judged by a *rota* of dairy managers under the guidance of experienced specialists. As a result of these shows, the dairy managers not only improved in their technical work, but creameries in increasing numbers exhibited their produce. In connection with these shows, lectures were delivered on technical matters connected with butter-making. The results of experiments conducted with the laboratory were also announced, and discussions took place on various questions of interest to the dairy managers.

As time went on and the creamery managers grew more and more expert in their business, the need for providing a standard article of uniform quality began to be felt. In 1891, the creameries were almost all convinced of the

desirability of pasteurising their cream, and within a few years of that date the majority of them were employing the process. In 1898, the State made pasteurisation of separated milk and buttermilk compulsory; and in 1904 it was made obligatory that all producers should pasteurise the cream from which butter for export was made. Here again the law did not anticipate the action of the majority of the creameries, but merely gave legislative sanction and endorsement to what they had themselves agreed upon.

A similar process took place in regard to the adoption of a national trade mark for exported butter. In 1900, the Co-operative Creameries Association organised a body, styled the Danish Butter Brand Association, for the purpose of adopting a trade mark to be registered both in Denmark and in Great Britain—Denmark's chief market—as a guarantee to the consumer that the butter sold under the trade mark was high-grade Danish butter. The Association registered as its trade mark a device consisting of four interlaced cattle-horns, with the words "Danish butter" running through the design, and the title of the brand "Lur" (a cattle-horn) above and below the design. The Association was divided into a number of county sections with affiliated creameries, and a central committee was elected from these sections. In 1905, 95 per cent of the creameries were members of the control, and in 1912 the State enacted a law making it compulsory that no butter should be exported from Denmark which did not comply with the conditions of the butter control, and bear the stamp of the "Lur Brand" upon the package or cask containing it.

The conditions of the control are such as to provide an adequate check on the creameries, and to ensure that the standard is rigorously adhered to. Each creamery pays a small sum (about five shillings) as an affiliation fee, and the working expenses of the control are paid by the members in proportion to the amount of butter exported by each. The machinery of the control is worked through the shows. Each creamery before it is admitted to the control has to

send samples of its butter to be examined. If it is satisfactory the creamery is admitted, and must then send a "drittel" of butter (220lbs.) three times a year, at a period determined by the judges. The creamery does not know beforehand on what day it will be required to send a sample. When it does receive notice it must at once despatch the requisite sample of butter made that day. The butter is kept for fourteen days before being judged. Dairies whose butter exhibits a falling off from the standard required are warned that they should seek expert assistance from the Government instructor, and that if they do not show an improvement they will be suspended from the control, and ultimately, if they persist in inefficient butter-making, deprived of their right to use the trade mark. The result has been that the butter exported from Denmark is of a uniform quality, and hardly varies throughout the whole year.

The great bulk of Danish butter is exported to Great Britain. Denmark, in fact, furnished two-fifths of the total amount which Great Britain imported before the war. The export trade is not carried on for the most part by co-operative export societies, but by ordinary wholesalers. Although this may at first sight seem a weakness in co-operative organisation, it is not so in reality, for there are so many checks on prices owing to the work of the statistics bureau and the Butter Quotations Committee, and there is such keen competition among the wholesalers that the creameries find no difficulty in obtaining the top price. For that reason they do not feel it necessary to market the great bulk of their butter through export societies; but should there be in the future any necessity to do so they have at hand the beginnings of an organisation to deal with export for themselves. This body consists of the Butter Export Unions, which are federations of exporting creameries for the purpose of organising direct sale to the English markets. They number only about half-a-dozen at present, but they do a very respectable trade, handling in 1917 about

£3,000,000 worth of butter, or one-fifth of the total export. These unions increase the competition among the wholesalers, so that now the middleman's profits taken by the latter are very small. They have also had another important effect. All Danish butter is sold free-on-board at the Copenhagen quotation, so that, as can readily be seen, this figure is of great importance. Before the unions were established the wholesalers were in the habit of offering butter to the exporters at a price slightly below that fixed by the creameries on the advice of the Quotations Committee. As a result they obtained the exporters' orders, but the producer who sold to them had to suffer by the lower price. The Export Unions, however, always gave the creameries the price quoted by them, and as a result the wholesalers were compelled to pay the same price to other suppliers; thus the creamery quotation now holds the field. The presence of the six unions is quite sufficient to ensure that this uniformity of price shall continue. The unions moreover, help the Quotations Committee with their advice in making their prices as accurate as possible.

But it is not merely to organisation that we must look for the secret of Denmark's success in the world's butter market. She is depending for that success on a continual supply of highly-trained managers for her creameries, and it is because the Danes have perfected a system of rural education which might well serve for a model for the whole of Europe, that they can always rely upon having the requisite number of well-educated and scientifically-trained men. Indeed, they already have the best-trained creamery managers in Europe. Dairying is taught, not only in special technical schools, but in several of the rural high schools, where it forms a part of the school curriculum. There are special courses in milk-testing and book-keeping for butter-makers, and in the schools of agriculture a thorough course is given to students who desire to qualify as creamery experts. The State fosters and subsidises technical instruction of this character, and its grants-in-aid are administered either

through the Danish Agricultural Society or through the County Councils, while people of small means are enabled, through the agricultural schools, to qualify themselves for good positions as creamery managers or instructors.

‘ In Denmark, as in other countries, the co-operative movement has stimulated education, and has been well rewarded for so doing, for the Danes can claim that through their zeal for education a peasantry not more than usually intelligent has become a well-educated rural community. ‘

CHAPTER III

Co-operative Credit Societies.

WE have already alluded to the fact that in Denmark, unlike many other European countries, co-operative credit societies play only a small part in the movement as a whole. This is the more surprising when we consider the close proximity of Germany, and the influence which the institutions of that country must necessarily have exercised on its neighbour.

We must, however, remember that in Denmark the whole energies of the State have been devoted to the creation of a country of independent smallholders, and that the great assistance which the Government has given to the farmers in carrying out this policy has to a great extent compensated for the lack of credit societies on the usual co-operative model.

Of the whole area of Denmark, we find that only 25 per cent is rent-bearing land at present. Even the ecclesiastical tithes are being paid off by a system under which 70 per cent of the money needed is loaned by the State and derived from a bond issue terminable in 55 years. Writing in 1916, M. Desbons states that : " The increasing process which places the land freely in the hands of those who work upon it has gone on without interruption throughout the 19th century ; out of a rural population of 1,647,350, there are now only 125,000 labourers and servants. The peasant proprietor, owner of his own holding, is now the vital cell of the national organism."*

In carrying out this extensive system of land purchase, the State has made itself responsible for a large amount of complicated legislation and also for a considerable financial

* American Commission on Agricultural Co-operation and Rural Credit in Europe, 1913 (p. 557).

burden. We need not here enter into the technical details ; it will be sufficient to give an account, first of the direct State aid which is given to smallholders by the law of 1889, and second of the various mortgage associations which, with more or less official encouragement, work together for the same end.

The following account of the system of 1899 was given by a witness who appeared before the American Commission in 1913 :—

“ The State has put at the disposal of the people who want to start small farms some millions of crowns (one kroner or crown is equivalent to about 1s. 1d.) ; it started with about two millions, and now it has been increased to four millions per year at three per cent.

“ Only the very small farmers can get this State credit. During the period this has been working, about 6,000 small farms have been established. The borrower has to fulfil some obligations, too, to get the loan, because the State is not giving the money away, and it wants some security that the money does not go to the wrong quarter. The idea was to assist the small farmer, who had previously worked for other people, to build his own home and to become independent. Therefore the law says that those who have worked for at least four years for other farmers, can enter applications for a loan.”

Loans granted in this way amount to 90 per cent of the total valuation of the land. The minimum area which can be purchased is one hectare (about 2½ acres), and the price (including buildings, stock, &c.), may not exceed £360. The conditions which are imposed include an age limit, *e.g.*, the applicant must be not less than 25 and not more than 50 years of age. The applicant has to furnish two guarantees of his respectability and capacity, from persons of good standing ; he must have worked at least four years on a farm, and must have enough available capital to enable him to have some prospect of working the farm properly.

The most striking fact about the system is the method

of repayment, which is as follows:—"During the first five years interest only is paid. Afterwards, the total loan is divided into two parts, one of two-fifths and one of three-fifths. The latter section of the loan is converted into what may be called public stock, and placed on the market with a State guarantee through the mortgage bank of Denmark. On the other two-fifths section, after the first five years, during which he has only paid three per cent, the borrower must pay four per cent, the extra one per cent accumulating as a sinking fund for the ultimate redemption of the loan. He, however, continues to pay four per cent, and thus, as the loan is reduced through repayments, these repayments automatically increase in proportion year by year. When the two-fifths section has been paid off in $46\frac{1}{2}$ years, the three-fifths section is dealt with in precisely the same manner, the complete loan being repaid in 98 years."*

It will be seen that in the issue of the Government stock and in the provision of a large loan payable by a system of amortisation over a long period, this scheme resembles the Irish system of land purchase; but the terms and especially the length of the period of repayment are considerably easier. As an inducement to sell, the landlord of an entailed estate is allowed to keep twelve per cent of the purchase price himself, if he sells to his own tenants, and eight per cent if he sells to outsiders, the remainder of the sum realised having to be invested in trustee securities for the benefit of the heirs of the entail.

Small holdings acquired in this way cannot be cultivated in common or added one to another; they must remain small holdings. In order to prevent landowners from selling poor land only, to purchasers under this scheme, associations may be formed for the purpose of choosing and surveying suitable tracts of land and making a collective offer for them. Such societies receive assistance from the Treasury on almost the same conditions as are granted to isolated persons, and any individual member of an association may

* "Denmark and the Danes," by Harvey and Reppien (p. 109).

from the others. They are the Smallholders' Credit Associations, which were established by a special Bill in 1880, for the purpose of making smaller loans than were available in the case of the other nine associations, which previously granted loans of about £50 only, so causing great dissatisfaction among smallholders, especially in Jutland. The following account of the machinery of the Bill is given in the proceedings of the American Commission :—

1. Loans can be issued from £5 to £180, subject to the usual rate of interest and repayment.

2. The association does not issue loans on property lying outside the district or on property rated at a higher value than £300.

3. The Government guarantees the quarterly payments (interest and amortisation). It also refunds the expenses incurred in valuing a property, not exceeding 16s. 8d. for every transaction.

4. All certificates showing that a property has been encumbered shall be drawn up for a sum of 1s. (This is otherwise charged as 4s.)

5. The Government names and pays one of the two auditors belonging to every association.

The purpose of the Government guarantee was to ensure that the price of the bonds should not fall in the market, and as a result they have been one or two points above the quotations for the bonds of other credit societies. Loans are allowed up to 60 per cent of the valuation on houses with farm land, and 50 per cent on houses without land. The losses incurred have been negligible, amounting to only a small fraction of the accumulated reserves. The amount of maximum loan permissible has been twice raised by Parliament, once to £400 and later to £500. Although the amount is not sufficient to attract large proprietors, not only smallholders but shopkeepers and other townspeople in a small way of business have been largely benefited. The expenses incurred by the State (mainly in the revision of valuations) have amounted on an average to about £4,300, and the outlay has been fully justified.

Mention must also be made of the Credit Society for Municipalities established in 1899, which gives municipalities the power to make loans, and of the Credit Society for Industrial Estates, founded in 1898, with the object of giving loans throughout Denmark to owners of industrial estates within a limit of 50 per cent of the appraised value. The society has two bond issues, at four and five per cent respectively, which in 1912 totalled rather over £400,000.

Finally, since 1895, a number of mortgage associations have been founded for the purpose of granting loans on second mortgage, up to three-quarters of the value of the property, with an amortisation period of 25 to 30 years. There are now nine of these societies, with loans totalling about £50,000,000.

It will thus be seen that in the matter of long-term mortgage credit, the Danish population of all classes is exceptionally well cared for. We now come to the less important organisation of short-term credit. It is in this matter that Denmark does not seem to have followed the precedent set by many other European countries.

In answering the questions of the American Commission, Mr. Cohn, the statistician of the Department of Agriculture, said that there were not in Denmark any associations similar to the Raiffeisen and Schulze banks of Germany. Associations of this type received in 1898 a Government loan of £250,000, and made loans from this fund, which were well appreciated, for a few years, but no further contribution was forthcoming and the farmers were not asked for deposits, so the scheme died out, and in 1908 the loans were recalled, by an Act of Parliament, and had to be repaid within two years.

The defect of these societies seems to have been their complete subservience to the Government. The only money available was the State loan, which was granted at three per cent and re-loaned at not more than four-and-a-half per cent. Deposits on outside loans were not allowed, so that the only method of increasing the capital was by the formation of a

reserve fund out of profits, obviously a very slow process. The liability was collective and unlimited. The State exercised the most vigorous control over the rules and over the appointment of officers. The area of the Society's operations had to be strictly limited by rule, and the rules were also required to provide against the use of outside capital. The loans were granted for nine months only, and no new loan was allowed until a month after the old one was repaid. Loans could not exceed £2. 10s. per head of cattle owned by the borrower, and where the society had no money in hand, except the State's original loan, they were limited to £1. 10s. There were at one time 180 societies of this kind, with about 30,000 members, of whom 90 per cent were smallholders; but the conditions described were obviously not calculated to ensure any kind of progress or permanence. It seems curious that deposits, which have been so much emphasised in most movements of the kind, received no encouragement in Denmark.

At the same time, Mr. Cohn expressed the opinion that no further facilities for small credit for farmers were considered necessary in Denmark, and he explained that their business was practically all done through the savings banks. These are village institutions, founded on a voluntary but not exactly co-operative basis by groups of energetic inhabitants, and administered by a self-perpetuating board of directors, under the supervision of a travelling inspector appointed by the Government. These savings banks appear to have been introduced by a Mr. Holstein, about 50 years ago, as a philanthropic measure, probably occasioned by the distress then prevailing, and were modelled more or less on the German savings banks. They received legal recognition, accompanied by inspection, under the law of 1880. The rate of interest charged on loans is five per cent, and four per cent is paid on deposits. All profits (the directors being paid small, if any, salaries) go to a reserve fund, and after this fund exceeds five per cent of the liabilities, further profits are devoted to benevolent purposes. In no case

are profits returned to depositors, who are not necessarily represented on the board of directors. Most of the money is loaned on personal security, but a certain amount is loaned on mortgages. There are about 500 of these banks in all.

Thus it will be seen that these somewhat vague institutions have more or less taken the place of the Raiffeisen system, and the general opinion seems to be that they are doing their work very well. The advantages claimed for them are that they keep the money in the neighbourhood where it is earned, and that they tend to prevent the rate of interest rising unduly.

CHAPTER IV.

The Distributive Movement.

IN Denmark, co-operation shows equal progress upon the lines of both producers' societies and consumers' societies. In this it differs from most other countries, for the tendency in countries mainly agricultural is to develop the type of agricultural society to be found in Ireland, and in countries mainly industrial to develop the type of consumers' societies familiar to us in Great Britain. It is to be noted, moreover, that in Denmark, as in Finland, the vast majority of the consumers' stores are in the country, and that very few are in the towns. The membership of the societies is accordingly mainly agricultural; farmers, smallholders, labourers, and domestic servants making up the bulk of the societies' clientele. We have, therefore, an example in Denmark of a rural community completely organised in a co-operative manner, not only to do its business on the productive side, but also to satisfy its requirements as a body of consumers.

The Danish commercial law contains a provision which, although it was framed for a totally different object, has greatly helped to foster the growth of the store movement in Denmark. This enactment provides that, in order to restrict competition, no retail shops shall be opened within a certain radius of a town. It has been held by the courts that this provision does not affect co-operative societies which sell only to their members, and that consequently they are free to establish their stores wherever they please. It does apply, however, to societies which trade with non-members, which find themselves in exactly the same position as if they were private traders. The consequence has been that in many districts near towns the inhabitants have found it extremely convenient to avail themselves of the only means of avoiding having to go some distance for their

groceries and provisions, and have established flourishing co-operative stores. The result has been that most of the societies trade only with their members, as those within the prescribed radius of a town are, of course, obliged to do so.

Like the store movement in Italy, the Danish movement found not only its inspiration but its model rules in the famous society founded by the Rochdale Pioneers, to whom Danish co-operators look as the founders and originators of distributive co-operation.

The first Danish store was opened in the year 1866, in the town of Thisted, in Jutland. It was founded by the Danish pioneer of wholesale co-operation, the Rev. H. Chr. Sonne, to whom we have already referred in Chapter I. He adopted as the foundation of his rules the cardinal principles of the Rochdale Pioneers, viz., sale of goods at current price, cash trading, distribution of profits in proportion to purchases, open membership to everyone at all times, one member one vote, and one vote only; and collective responsibility of the whole society for all its actions. There are now over 1,400 store societies in Denmark, of which about 50 are in towns, the rest being in rural districts.

The organisation of these societies was at first very difficult. In 1885, after nearly 20 years of effort, there were only 200 societies. By 1890 they had increased to 500, and after that year progress began to be rapid and far more steady. The latest figures show that in 1915 there were 1,488 societies affiliated to the Danish Co-operative Wholesale Society, with a membership of 232,128, a turnover of about £3,958,333 (in distributive trade alone), and reserve funds of £139,583.

We now come to the internal organisation of the societies. The societies do not as a rule raise their capital by issuing shares. There is nothing to prevent their doing so—if they should so desire—but in actual practice they tend to raise their capital in other ways. Each member is bound to pay a small entrance fee. This varies from about 5s. to

6d. according as the member is a farmer, smallholder, labourer, or domestic servant; but the payment of 6d. for a domestic servant does not carry with it the privilege of voting as a member of the society. The majority of the stores throughout Denmark have adopted the principle of collective liability, of all the members, that is to say, the members are responsible for the liabilities of the society, each for all and all for each. If they do not raise capital by a guaranteed loan they find it very easy, owing to the form of their liability, to get credit from the wholesale merchants. The merchants feel themselves to be quite safe in giving the societies an extended term of credit; but although this is useful to societies which would otherwise find difficulties at commencement, we cannot commend it as a feature of co-operation in Denmark. In the first place, the societies lose the discounts to which, if they paid cash, they would be entitled, and secondly, they are in some danger of becoming tied to the merchants and dependent on their goodwill, a condition of affairs exceedingly bad for a co-operative society of any kind.

The by-laws of most of the societies provide that where the capital of the society is raised by means of a guaranteed loan the committee shall have power to raise it; but the committee must not, except with the sanction of the general meeting, raise capital exceeding 25s. per member of the society. It is also provided that all entrance fees shall be put to reserve, and shall not be repayable on withdrawal from the society. This practice, of course, tends to increase the stability of the society.

In lieu of a fixed cash wage many of these societies pay their managers on a percentage basis. Thus it is not uncommon to find a manager being given living accommodation in the store, and a commission of 4½ or 5 per cent on the gross trade, paying for assistance out of that if assistance is necessary. This system of remuneration, although not unknown in England, is unlikely to commend itself to people familiar with the usual British and American methods of doing

business. It seems, however, to work satisfactorily in Denmark. The average turnover in individual societies is somewhat over £2,400.

We take the following description of a typical Danish store from the report of the American Commission on Agricultural Co-operation in Europe, 1913:—"The store is situated in the midst of a very fertile and prosperous countryside, but no doubt its proximity to the City of Odense adversely affects the volume of its business. The premises are scrupulously clean, and the stock, though small, was neatly kept. The manager and the members of his family are evidently cleanly persons, and there was a decidedly attractive air about the establishment, viewed as a country store. The store proper was about 14 by 30 feet, and very well lighted. The manager and his family lived on the premises. His remuneration was 4½ per cent of the gross receipts, besides living accommodation. He supplied help and light. The society was organised in 1892, and now has 150 members. The membership fee (*i.e.*, entrance fee), is 10s. The liability of members is unlimited. The store may not sell goods to non-members. Practically the entire community is included in the membership. The society holds seven £5 shares in the central society, purchases nearly all of its goods from that body, and received in 1912 as profit, £95. The total sales in 1912 amounted to £2,400."

The Wholesale Federation of the Danish distributive co-operative movement is called *Fællesforeningen for Danmarks Brugsforeninger*, or the Common Union of Danish Supply Societies. For convenience we shall allude to it as the Wholesale Society. In 1871, the store movement comprised less than a hundred societies. Nevertheless, Mr. Sonne, who was, as we have seen above, the pioneer of this form of Danish co-operation, thought that the time was ripe for a wholesale federation. Accordingly he convened a meeting in July, 1871, in the University of Copenhagen, and explained the nature of his scheme. The project was welcomed, and he established his society under the title of the Common Union

of Danish Societies for the supply of household necessities. In the first year the turnover of this Wholesale amounted to £2,500; in 1873 that turnover was nearly doubled. In 1884 it was amalgamated with the existing Wholesale Society which was formed in that year.

Another Wholesale Society was formed in Jutland, in 1888, by Severin Jorgensen. It sought to do for Jutland what the Danish Wholesale was doing for the rest of the country. It too, came into line in 1896, when it amalgamated with the Danish Wholesale. The President of the Jutland Society, Severin Jorgensen, was then elected President of the Danish Wholesale. Since then the Wholesale has progressed steadily, not only in distributive trade but in manufacture. Its total turnover in 1917 was something like £4,250,000, including both its productive enterprises and its distributive trade. The Society was first induced to embark on manufacture by a boycott by the wholesale tobacco merchants, who sought to injure it; but the Danish Wholesale Society at once accepted the challenge. It now manufactures tobacco, chocolate, soap, ropes, fine chemicals, margarine, sweets, and coffee; it refines sugar, and has spice mills and a knitting department for the production of knitted goods. The extent of its manufacturing enterprises is rapidly growing. The profits, according to the 1915 balance sheet, issued in 1916, were over £200,000. Almost all of the Danish distributive societies are affiliated to the Wholesale Society.

The Wholesale has several branches throughout Denmark, the most important being those at Aarhus, at Aalborg, at Horsens, and at Odense. The headquarters are still situated at Copenhagen, close to the port.

In 1913, the capital of the Wholesale was about £400,000, of which sum £40,000 was subscribed by the local societies as share capital, and £255,000 was reserve fund. The property of the society was estimated at a value of £150,000.

Although the Wholesale is not allowed by law to do a banking business, it has a loan department in which sympa-

traders with the movement have deposited considerable sums at $4\frac{1}{2}$ per cent. The amount thus deposited in 1913 was £150,000. In 1916 the amount shown was considerably less, being only £100,000. This money is used as working capital.

The profits of the Wholesale are allocated as follows:— One-third is put to the reserve fund to increase the working capital, and the remainder is divided among the societies in proportion to their purchases. This dividend, expressed as a percentage of turnover, varies between five and six per cent.

It is encouraging to note that the Wholesale Society now finds itself quite independent of the joint-stock banks. A few years ago their help would have been necessary; now the movement is strong enough and business-like enough to capitalise itself.

We have now to deal with the methods by which the local societies furnish capital to their central federation. The rules of the Wholesale provide that each local society which is affiliated to it shall take up one £5 share for each 20 members who possess the necessary property qualification, that is to say, for all those who are not admitted on payment of the special entrance fee of 6d. referred to above.

An idea of the loyalty of the societies to the Wholesale may be gained by taking into consideration the fact that whilst the value of the annual average purchases made by each Danish co-operator through his store is only £17, no less than £15 worth of these purchases comes in the first place from the Co-operative Wholesale Society. Contrast this proportion with that of the French Wholesale Society, the Magasin de Gros in Paris. It is estimated that the average annual purchase made by each French co-operator through the French store societies is about £13, of which goods to the value of about 10s. only are supplied by the Magasin de Gros.

The important rope factory of the society is situated at Viby, in Jutland, where the society, in 1906, purchased

a building site. The turnover of the department in 1915 amounted to £30,000. At the same time as the rope factory was started, another factory for the manufacture of soap was established by the Wholesale. Both soft soap and toilet soap are made in this factory, which had in 1915 a turnover of £55,000. In the beginning of 1913 the Wholesale decided to build a margarine factory. Although—as we have seen in a previous chapter—the manufacture of butter is one of Denmark's great national industries, the Danish people do not eat much of it, the vast bulk of butter being manufactured for export. The importance of handling the margarine trade of the societies led the Wholesale to enter upon its manufacture, and the results have amply justified this enterprise. After three years' working, the trade done by this department—we quote the 1916 figures—is £300,000 annually. This department is the largest of the society's manufacturing enterprises. At Copenhagen the society has a tea department, which imports and blends tea. A tailoring department, started in 1911, supplies the societies with ready-made clothing to meet the needs of their members.

It is, as we have already said, a feature of Danish co-operation, that it includes many federations. The only danger in this system of organisation seems to be the danger of overlapping, but in practice where this occurs it does not seem difficult for Danish co-operators to adjust their differences amicably. One difficulty did arise between the Wholesale and another federation on the question of the supply of seeds. The other federation was amongst other things a grower of seeds, and naturally protested when the Wholesale entered upon this trade. In some countries we might have had in this situation a very dangerous dispute fraught with menace to the whole movement. Not so in Denmark. The Dane is a good business man and a thorough co-operator, and, as such, does not believe in useless quarrels if a way out can be found. A way was found and an agreement entered into by the two

bodies, with eminently satisfactory results. The terms of the agreement were that the Wholesale should discontinue the cultivation of seed, and that the seed growers should cease to retail seeds. It simply amounted to a division of functions between the two bodies. Machinery was also provided to ensure joint-control by both bodies over the growing, cleansing, and sale of seed, so that, in case of dispute, justice could be done and the quality of seeds guaranteed. The machinery works perfectly harmoniously, and the two bodies instead of being in conflict act as co-operators, each helping the other. We could wish that a similar spirit of practical give-and-take were utilised to solve many difficulties confronting the co-operative movement in other countries. We do not mean to say that friction is a common experience in the households of co-operation. Quite the contrary; but we do believe that in adjusting differences of a business nature co-operators are often apt to adopt a *non-possumus* attitude, similar to that adopted by their rivals in the world of private trade. Denmark realises that co-operation has no room for such un-co-operative methods.

CHAPTER V.

Types of Agricultural Societies.

THERE is perhaps no more characteristic institution in the world than the "English Breakfast," and everybody knows that the chief necessities for its proper composition are—or, perhaps one had better put it, were—butter, eggs, and bacon.

Denmark, as we have seen, has appreciated the opportunity thus offered of a close and profitable market for produce suitable to her agricultural system, and has resolutely set herself to supply the English breakfast-table. Her chief competitor in this matter has been Ireland, a country which enjoys the advantages of closer proximity and a better climate and soil, but which falls behind in respect of organisation and technical skill. We have already seen how in the case of butter the superior strategy of the Danes has brought them to success, and we shall find that their success is even more marked in the case of bacon and eggs. By the application of the same co-operative principles they have out-distanced all their competitors in this department of agricultural production.

Pig-breeding is, of course, largely influenced by the condition of the dairying industry, the by-products of which are of the greatest importance for this purpose. Thus it is not surprising to find that the position of Denmark with regard to the production of bacon has changed in proportion as her dairying output has increased. Before 1860, when Danish agriculture was mainly extensive, the number of pigs kept was at a minimum, but with the revolution of methods which we have already described, it increased by leaps and bounds. The following table, given by Brinkmann*, clearly illustrates this point:—

* "Die Dänische Landwirtschaft" (p. 118).

	Total Number of Swine.	Number of Swine to 100 Inhabitants.
1861	303,976	18.9
1881	527,417	26.4
1898	1,168,493	49.0
1903	1,455,699	57.9
1909	1,466,800	—

By the last-named date, the number of pigs was sufficient to produce 50 per cent more bacon than was required for consumption in the country, even reckoning that consumption at the same rate as that of Germany. As a matter of fact, with bacon as with butter, the Danes are content with cheaper foods, and produce bacon more for export than for home consumption.

The export trade has been even more varied in the case of bacon than in that of butter. In the early days of Danish pig-breeding the export was almost entirely confined to live pigs, the greater number of which went, as might be expected, to Germany. This trade was largely affected by the war of 1865, and still more by subsequent restrictions imposed by the veterinary authorities, nominally from fear of swine fever, but probably for politico-economic reasons. The immediate result was that the Danish producer was compelled to find not only a new market but a new method of placing his wares upon that market, and the solution of the problem was at once seen to lie in the English demand for bacon. But the production of bacon demanded a somewhat different type of pig, and also the establishment of a factory in which the curing and preparation could be carried out and the valuable by-products utilised.

The first problem was at once tackled by the State and by the various farmers' associations, and the energies of agriculturists have since been devoted to breeding exactly the right kind of pig to satisfy the English consumer's requirements. The amount of bacon now sold and the prices it commands, as well as the fact that successful Irish bacon-curers have thought it worth while to acquire factories

in Denmark, bear eloquent testimony to the success of these efforts.

The second problem has gradually been solved by the application to bacon factories of the same method as that which proved successful in the case of the creameries. This result was not achieved without a struggle with private interests. As early as 1850 there were two private factories in existence which traded with England, although most of their raw material was bought, not in Denmark but in Sweden. When this trade began to develop after 1870, the number of factories increased to eight, all of which were privately-owned. Until the year 1887, these factories only secured those pigs which were unsuitable to the Hamburg live trade, which was still flourishing, and their output consisted largely of sausages and salt pork. In 1887, as the result of an outbreak of swine fever, Germany entirely forbade the importation of live pigs. Hard hit by this, the Danish producers tried to create a trade with Holland, but met with little success, and the whole output then came into the hands of the small band of factory owners. They were not slow to profit by this unexpected opportunity. Brinkmann records that while the price of bacon in England steadily rose till it reached a level of 46-56 shillings a hundredweight, the price paid by the buyers actually decreased. The English price represented the equivalent of from 27-28 öre (one hundred öre is roughly equivalent to a shilling) per pound live weight, and the actual price paid was only from 17 to 18 öre per pound. It is true that the utilisation of by-products was at that time poorly developed, but the loss incurred in this direction did not exceed one öre per pound.

The result of this treatment of the producers was naturally to evoke the bitterest resentment against the monopolists, and, as might be expected, the producers' thoughts turned at once to the possibilities of co-operation, which had already been so successful under the somewhat similar circumstances obtaining in the butter industry. The organisation of co-operative bacon factories was at once begun, and received

a further impetus in the year 1888, when Hamburg, which had admitted swine free of tax, joined the German customs union which imposed an import duty of about 5s. per head.

The pioneers of the bacon factory movement were at first anxious as to its success. The example of the creameries was undoubtedly most encouraging, but the difficulties confronting the bacon factories were considerably greater. The opposition was more strongly organised, more concentrated and more tenacious. The amount of capital required for the bacon factories was large and, in the existing state of the money market, hard to obtain, and there was a considerable scarcity of highly-trained technical assistance such as was necessary for the proper conduct of these factories. The co-operators undertook the work with so much energy and enthusiasm, however, that instead of moving too slowly their progress was for a time too rapid. The number of societies increased out of proportion to the need for them, and some losses occurred which were made more dangerous by the bitter opposition of the private traders. The latter attempted to kill co-operation in its infancy by using all their available resources to pay increased prices and so destroy the loyalty of the suppliers. Danish agriculturists, however, possess a large fund of foresight, commonsense, and loyalty; and in the fight which ensued, the co-operative factories found great advantage in their ability to pay for the pigs delivered, on the basis of live weight and quality. By this means the price was brought into intimate relation with the demands of the producer with a minimum of risk to the factory. The private traders, whose relations with their suppliers were not based on the same amount of mutual knowledge and confidence, could not adopt this system. The natural result was that the co-operative societies brought about a great and rapid improvement in quality and uniformity, and thus obtained the confidence of the public and a commanding position on the market. At the same time, the problem of obtaining sufficient credit facilities and of securing trained employees for the management of

the new factories solved itself automatically. At present, although the struggle still continues, the co-operative societies have thoroughly established their position and do by far the greater part of the trade.

The method of organisation of a co-operative bacon factory requires little detailed description, as it is in the main similar to that of the creameries already discussed, while the technical methods are of course similar to those commonly prevailing in the industry. The same method of obtaining capital, by means of a guarantee over a period of years, is practised, as in the creameries. The amount of capital involved being large, the area covered is very much greater than that covered by the creameries, and in some cases the persons resident in a given parish make themselves collectively liable for a certain part of the debt. The money is usually obtained from a local savings bank, such as is described in Chapter III., though in one case at least it was raised by the members themselves.

Another rule which is strictly enforced, is that by which members bind themselves to supply all their pigs between certain weights to the factory. In order to make it possible to cover a large area without inflicting any hardship on the outlying suppliers, the freight charges are usually borne by the society and not by the individuals, so that distance is no handicap. A fine of 2½ dollars per pig may be imposed on any member breaking this obligation to supply the society, but in practice loyalty is universal, and this power to fine is hardly ever used.

The question of admission of new members during the period covered by the original guarantees is even more difficult in this case than in the case of the creameries. Each of the societies has its own method of dealing with this problem, but all of them have solved it on more or less satisfactory and equitable lines. The method differs according to the plan by which the factory has been financed. In some instances the members guarantee a sum proportioned either to the number of pigs owned or acreage of land farmed

by them, or the number of pigs delivered by them each year; in other cases, the principle of collective liability is adopted. The ownership of the factory is vested in the members, either proportionately to the number of pigs delivered during the period or in proportion to the amount guaranteed. The position of new members has to be determined in accordance with these considerations.

The most striking results of this co-operative activity have been an increase in the number and importance of pigs in Danish agriculture, an improvement in breed and the complete utilisation of all by-products. Lard-refining and sausage-making are universally undertaken, and some of the factories also carry on the manufacture of blood-and-bone manure, which is sold at a very small profit to the suppliers. In addition to the export of bacon to England, which is by far the most important part of their trade, some factories undertake the manufacture of all kinds of tinned meats, and accordingly a certain number of cattle are handled, in addition to pigs. After the passing, in 1903, of a law prohibiting the import of livers into Germany, the societies set themselves with some success to create a local demand by sending out attractive recipes and instructions for the use of liver in cooking.

The progress of the co-operative bacon factory movement is illustrated by the following figures, taken from the report of the Irish Department of Agriculture and from Brinkmann's book, from which we have already quoted:—

Year.	No. of Factories.	No. of Pigs killed.	Value in £	Average price per Pig.
1888	1	23,407	57,000	2 9 0
1889	8	131,548	327,000	2 18 0
1894	15	385,731	1,114,000	2 18 0
1899	25	729,171	1,733,000	2 5 0
1902	27	777,232	2,500,000	3 4 6

In 1905 the number of factories working was 30, in addition to one founded during the year. These factories disposed of 1,134,390 pigs, or an average of 37,813 per factory.

the estimated value being about £2,800,000. The number of members was roughly 70,000. In 1909, there were 34 factories with 86,000 members, and the number of pigs slaughtered was 1,362,500.

As might be expected, the local societies soon banded themselves together in a federation. This federation is known as the "Co-operative Bacon Curers' Association," of which the delegates of the Irish Department of Agriculture reported in 1908, that "for its own purposes (it) is perhaps one of the most efficient commercial intelligence bureaus in the world." A representative committee is formed by the election of three delegates from every society. This body elects from its own number five persons to form a standing committee together with two factory managers. The committee in its turn elects two of its own members to act as an executive committee to deal with routine matters. The expenses involved are borne by the federated societies in proportion to the number of pigs killed in the year, at the rate of about a half-penny for every three or four pigs. The total expenditure does not exceed £500 a year. The objects of the federation are thus summarised :—

1. The protection of the societies' interests in all legal matters
2. The keeping up by all possible means of the standard of production.
3. The improvement of freight and transport facilities and rates.
4. The creation of a system of market reports.
5. The consideration of questions affecting labour.
6. Improvement in pig-breeding.
7. The compilation of comparative statistics.
8. Education of the more important employees, both in co-operative principles and in technical detail.

A complete system of workmen's insurance has also been carried out; annual bacon shows are held, and in general the work under all the headings given is done efficiently, thoroughly, and at a low cost.

The application of the co-operative principle to the egg trade is a somewhat later development than those with which we have been dealing hitherto, but it bids fair to be of hardly less importance to the people concerned, who include in this case the poorest class of all, the smallholders in the country. In Denmark, as in other countries, the production and sale of eggs was originally undertaken in a casual and haphazard manner. It was not until the butter and bacon trades were well established that small farmers began to realise the possibility of revenue offered by handling the egg trade on the same lines of standardised quality and bulked quantity.

A practical lead was given in 1893 by the attempt of the two wholesale egg houses in Copenhagen to create a union of exporters for the purpose of capturing the English market by the delivery of eggs of good quality. This plan broke down owing to the inability of the private traders to put pressure upon their suppliers to give them really good eggs. It was clear that in this respect the co-operative societies, which in the case of the bacon trade had already demonstrated their disciplinary powers, would have a great advantage. An impulse was given by the Danish consul in England, Mr. H. Faber, who reported on the necessity of taking advantage of the market by improving the output of eggs. The matter was taken up on behalf of the co-operators by Mr. Severin Jorgensen, the leader of the store movement, and Mr. Moher. In 1896, two large co-operative societies were founded, one, the Danish Co-operative Egg Exporting Society for the Islands, the other, the Egg Export Society of Danish Butter Packers, for Jutland. These acted as central organisations for a great network of "egg circles" or small local collecting centres, formed on a co-operative basis. There were, in addition, two smaller local societies, formed in 1895, which preserved their independence, though similar undertakings were soon swallowed up by the larger bodies. Seven or eight of the bacon factories also do a considerable egg trade.

In 1906 there were affiliated to the two central bodies, 790 circles, with a membership of about 57,000. The Egg Export Society did a trade of £200,000; the Jutland Society a trade of about half, and the other agencies a trade equal to a little more than half that amount.

The constitution of the egg circles is extremely simple; and the following brief description, taken from M. Desbon's book*, will suffice to illustrate it:—

“Every day, each co-operator sends the eggs from his poultry yard to the local agent, after having carefully stamped all the shells with his number and the date of laying. A wrong date is punishable, the first time by censure, the second by a fine of five kroner (about 5s.), and the third by exclusion. The district superintendent, as the local agent is called, forwards the eggs without delay to the central depot at Copenhagen, where they are “candled” by the aid of electric lamps and sent on to England, graded and classed in accordance with British usage according to weight and packed in long grosses in double boxes carefully lined with wood wool.”

The striking feature of the system lies in the provision that every egg must be stamped with a number and date so that it can be traced without difficulty to the original producer. In this way, an absolutely guaranteed produce is ensured, which is much appreciated on the market. The co-operative societies have had the greatest possible influence in inducing producers to breed their poultry in such a way as to give a supply of the exact size, colour, and weight of egg required. All payments are made by weight, and this in itself is a powerful inducement to standardisation.

In addition to the various types of society already described, there remain a number of miscellaneous types, among which we may mention implement societies, societies of seed growers, &c. More important are the breeders' societies, through the medium of which the Danish small-holder is enabled to keep up the standard of the stock on his farm to practically as good a level as that maintained

* “La Crise Agricole et le Remède Co-operatif” (p. 69).

by the wealthiest landowner. The principle of these societies is very characteristic of the commonsense and co-operative spirit of the Danes. Obviously the individual small farmer cannot afford to own expensive male animals of pure strain. Yet it is most important, not only for his own sake, but also for the success of the butter and bacon industries and for the general welfare of the nation, that he should have the use of such animals. As usual, the problem is solved by co-operation; the farmers combine in associations and purchase a pure sire from which their stock is served. Each farmer contributes to the cost of maintenance in proportion to the number of animals kept by him.

According to the statistics last published there were in Denmark 400 cattle breeders' societies, 250 pig breeders' societies, and 270 horse breeders' societies. So important are these societies considered to be, that they receive not only advice and assistance but also small subsidies from the State. That the money is well spent may be seen by the merest amateur as he travels through Denmark, and observes the uniform quality and practical adaptation of the stock of all kinds by small and large farmers alike. On this result, depends largely the success of all the enterprises we have described. Applied commonsense is the outstanding characteristic of Danish agriculture; hence the Danish smallholder instinctively turns to co-operation when he needs assistance of any kind whatsoever.

CHAPTER VI.

Some Results of Co-operation.

EVERY writer on the economic conditions of Denmark attributes the present agricultural prosperity of its people to the influence of co-operation. As we have seen in our first chapter, the agricultural industry in Denmark before co-operative organisation was attempted was threatened with grave danger, if not with extinction.

Denmark owes very little of her agricultural success to the munificent gifts of nature. The soil is not rich enough nor is the climate of a kind likely to attract the farmer. There are degrees of frost on as many as 116 days of the year, and the number of days on which there is either a rain or a snow fall is on an average 156 in the year, while the usual average number of hours of sunshine is only 1,200.

Before the rise of the co-operative movement the Danish peasant was almost a serf. The system under which he laboured made it almost impossible for him to eke out anything but the scantiest existence by cultivating the soil. The tithe system bore heavily upon him, and he was obliged, when called upon, to give the services of his labour to his superior landlord, so that at a time such as harvest, when his own farm required all his attention, he very often had to leave home to do his landlord's work. We have seen that by the Acts of 1899, 1904, and 1909, the State carried through a policy of establishing the Danish smallholder as the proprietor of his land. Only a small portion (27 per cent) of the total number of farms is now owned by landlords, and, as time goes on, this remaining 27 per cent will become the property of the people.

Many people hold that Denmark is a country more suitable for the large farmer with capital than for the smallholder, but although many of the holdings are rather too small for the best results, it is a singular fact that as

a result of very intensive cultivation, although the price of land has increased since 1870 by 5·38 per cent, the annual value of the harvest has increased during the same period over 100 per cent. Of the holdings of Denmark, only 800 are of more than 600 acres, 1,600 are between 300 and 400 acres, while there are 116,000 of less than eight acres. The Danish legislature classifies holdings into manors possessed by large landowners, medium farms and small holdings, bought as we have described with State aid. It is of interest to note that labourers may purchase small holdings, and many observers think that the trend of events in Danish agriculture will lead to the creation of co-operative societies of existing smallholders, who will co-operate to work their land and who will pool their profits, thus effecting a great saving in working, and enabling them to overcome the undoubted disadvantages of working single-handed a property which is too small to allow of the continuous use of a standard equipment. So great have been the triumphs of co-operation in Denmark, that more and more co-operative enterprise is bound to come, and the co-operative method is likely to be used in solving the remaining problems of land tenure.

In the census taken in Denmark, in July, 1909,* we find that in the whole country there were 164,152 farmers, members of co-operative dairies, owning between them 1,958,359 cows. Of this number, 75,000 farmers, owning 500,000 cows, were holders of less than 60 acres, whilst there were only 12,000 persons who were members of creameries which were non-co-operative in character. Affiliated to the co-operative abattoirs there were 86,510 holders, owning between them 926,886 pigs. In addition, 45,619 people, owning 442,405 pigs, were holders of property under 60 acres.

In the egg-exporting societies there were 38,172 members, owning over three million hens. The cattle export societies, the horse-breeding societies, the pig-raising societies, and the sheep-raising societies had between them a member-

* Danmark Statistisk Aarbog.

ship of about 60,000 members. Finally, the total number of co-operative store societies in 1916 was 1,562, with a membership of 243,855. Of these, 17 societies, with a membership of about 13,000, were in Copenhagen, the remainder being in rural districts and country towns. In 1916 the Copenhagen societies amalgamated in one large society, called Hovedstadens Brugsforening.

The result of the amalgamation of the 16 existing societies has been remarkable. The membership increased in less than a year from about 8,000 to 13,000, the total turnover of the new society for a period of nine months amounting to over £200,000, or £5,000 a week, and this in spite of the scarcity of commodities. This large society has 20 branches, and it retails its goods to its members at prices from 7 to 12 per cent below those of the local retailers.

Besides the types of society with which we have dealt at length, there are insurance societies, building societies, societies for the supply of electricity, potato export societies, and societies for the insurance of crops and livestock.

When it is remembered that the population of Denmark is less than three millions, the figures which we have given will sufficiently indicate that the co-operative movement has taken possession of the whole people and has spread its net over the whole country. Naturally enough, the standard of living is lower in Denmark than it is in rich industrial countries like England. Much more margarine, for example, is consumed, although it is an interesting fact that in the budgets of family expenditure compiled by the Danish Government the returns show that the Danish artisan, alone among the various classes of the community, consumes more butter than he does margarine. Although the standard of living is low there are no such extremes of poverty and riches as are to be found in great industrial countries. The Danish agricultural labourer is, on the whole, better clothed, better fed, and more comfortably housed than most members of his class in France, Germany, or England.

The agricultural labourer in Denmark, unlike those of his class in other countries, does not find it difficult to become possessed of property if he is thrifty and attends to his work. He may in time avail himself of the State-aided facilities and obtain a little holding of his own. It has often been observed that the drudgery of agricultural labour in Denmark is very much greater than it is in countries like England and Ireland, and that the Danish farmer, in his struggle for subsistence with an unkindly soil, has to labour so much more strenuously than his competitor, who has a life well balanced between work and recreation, that he has no time for the cultivation of his mind. Although it is difficult to strike a happy mean between the laziness and inertia which we observe in many countries and this life of over-toil, it is probable that the Danish farmer, in working as hard as he does, is not deprived of every possibility of making his occupation pleasant and not burdensome to him. ¶ Indeed, it is certain that the standard of rural education in Denmark is much higher than in many agricultural communities. Not only is this so in regard to the usual subjects of education of a rural people, but it is true of agricultural education as well. From the Royal Agricultural College in Copenhagen, which has 31 professors and 500 pupils, to the adult or popular high schools, which have about 8,000 pupils, and the agricultural and horticultural schools, to which the State makes a yearly grant of £26,000, every facility is offered for old and young to receive both cultural and technical education. ¶

In 1913-14, the last year for which we have statistics of the agricultural and the popular high schools, we find that there were 2,000 male and 300 female students in the popular high schools. In the agricultural schools, 1,300 pupils were between 18 and 25 years of age, and over 400 were 25 years of age, whilst in the popular high schools over 5,000 males and females were between 18 and 25, and about 700 were over 25 years old.

¶ In the agricultural schools, there are courses in agriculture, horticulture, dairying, and management. Most of the

students in these schools follow courses in dairying, and a small number also take the course in horticulture. In the popular high schools there are courses in general knowledge suitable for those who had little education in their youth, a course in gymnastics, courses of a more advanced general character for those who want to combine the education which they received in primary schools, and technical instruction in the calling which the students follow. For the girls, there is also an additional course in domestic economy. In the popular high schools, most of the students, as one would suppose, follow the course in general instruction, a good number take the technical classes, about 100 take the course in gymnastics, and about the same number a more advanced general course. In these schools, artisans and villagers, small farmers and labourers, are to be found, and the cost of the education of some of the students is defrayed by the State. †

Some industries which have now attained a remarkable size owe their present standard of success entirely to the co-operative movement. As we have seen in a previous chapter, it is so in regard to the bacon industry. When the co-operative creameries were first established there were not enough pigs in Denmark to utilise the separated milk; now the Danish bacon industry is in a flourishing state. Such was the case with the egg industry also, although the egg trade was the last to come within the sphere of the co-operative movement. While a certain amount of leeway, so far as membership goes, has still to be made up, it is nevertheless true that the export of Danish eggs has been tremendously increased by co-operation, whilst the still more important principle of securing improved quality by scientific grading has been insisted upon from the beginning by the co-operative societies interested in this business. The exportation is effected through a central federation called the Danish Egg Export Corporation. To this corporation there are affiliated about 500 societies with, as we have seen above, a total membership of 47,172 persons, who own between them

three million hens, that is to say, a fourth of the total number of hens in Denmark. The grading and packing of the eggs is done under the strictest supervision, and heavy fines are imposed by the Federation on any members who are found negligently or deliberately sending bad eggs for export. The annual egg export trade of Denmark has increased from 800,000 eggs in 1864, to 430,000,000 in 1900. There is no doubt that this large trade has been in the main built up by co-operative methods, and that the reputation which Danish graded eggs enjoy to-day is due to the stringent supervision of the Export Federation.

| What gives Danish co-operation its chief significance for other countries is that the Danes realised that agriculture, being their main industry, required thorough organisation, and should not be left to develop by the haphazard methods which still prevail in many countries. The State, the scientists, and the farmers themselves, when they once realised the value of co-operation in one branch of the farming industry, were not prepared to leave their main industry to chance. They proposed to apply the principles of scientific organisation to every branch, and to aid and stimulate the industry by providing the facilities for education of a technical as well as of a general character which we have described, and by placing at the services of the farmers the most authoritative expert advice which can be secured in all matters connected with agriculture. Eighteen agricultural experts are now employed by the State, two of whom are agricultural consuls, to look after Danish agricultural interests in her two great markets, England and Germany. Four of these gentlemen are dairy experts; the remainder give advice concerning such matters as the horse-breeding industry, the cattle industry, fruit culture, plant culture, and agricultural machinery, while others devote themselves to scientific research of a character likely to be of benefit to the industry as a whole. In addition to these, the agricultural societies of various kinds employ 70 experts, who supplement the work of the State experts. In most countries

agricultural societies are left to their own devices in choosing, paying, and allocating the services of such men. In Denmark, the State supervises their appointment, recognises their authority, and pays three-fifths of their salaries, leaving the rest to be borne by the societies. Should a society require the services of one of these experts it is required to pay a fee varying from 6s. 9d. to 9s. a day and his travelling expenses. At the end of each year an account of the work done by each expert is published. }

In Denmark, as in Germany, the co-operative movement early recognised the necessity of making farmers keep accounts. It is well known that the agriculturist is by the tradition of his industry a bad book-keeper. It is equally true that there is nothing more important in sound farming than to keep all books, however simple, as accurately as the farmer can be induced to keep them. A great deal of valuable educational work leading to this end has been accomplished in Denmark. The work was slow but it is giving admirable results, and will lead in the future to results much greater than those which have already been achieved. The results obtained in Denmark by the thorough and consistent application of the co-operative method to every phase of the agricultural industry prove conclusively that co-operation is a thoroughly sound method when applied to farming, and further, that it is the only method which can be applied to farming on small holdings. Enormous economies have been effected by the adoption of co-operative methods, not only in raising produce but also in marketing it when raised.

Before the establishment of the co-operative movement, one per cent only of the Danes, owning 15.5 per cent of Danish land, bought their supplies economically, and sold their produce profitably. To-day, the holders of 84.5 per cent of the land, the remaining 99 per cent of the farmers, buy their agricultural requirements as cheaply and as well, and sell their produce as advantageously as the one per cent. Before the establishment of the co-operative movement the

number of cattle in Denmark was 1·4 million head ; in 1914 it was 2·4 million, being an increase of one million head in 33 years. In the same number of years the value of the harvest has been doubled, the value of the exports has become five times what it was, the value of the imports has grown to eight times the previous figure. These are figures which speak for themselves, and which prove that by using proper methods and combining State aid and voluntary association in the proper way, a nation of smallholders can rise from economic depression to a state of sound material prosperity. To achieve this, a thorough system is necessary. It is to the thorough way in which the Dane has applied these three factors in co-operation and in scientific research that the present prosperity of the Danish agricultural industry is due.

The co-operative movement in Denmark as in every other country has had to face abnormal difficulties during the period of the war, but all available evidence goes to show that it has triumphantly surmounted them. Recent developments have shown that the advantages of co-operation are coming to be appreciated in the big towns, and the progress of the amalgamated distributive society in Copenhagen is most striking. There is in fact every reason to suppose that in a comparatively short space of time the bulk of Denmark's business will be done through co-operative agencies, and in spite of the fact, on which we have commented above, that there is not very much talking or writing about ideals, the co-operative commonwealth may come nearer to realisation in business-like Denmark than in any other of the countries which count it among their ambitions.

BIBLIOGRAPHY.

- BJERKNES, ISAK.—Om Landkonomisk Samvirke i Danmark. Kristiania, 1903.
- BRINKMANN, THEODOR.—Die dänische Landwirtschaft. Jena, 1908.
- "CONSUMERS' CO-OPERATION IN DENMARK."—Articles in "Review of Agricultural Economics" (International Institute of Agriculture, Rome), January, 1917, and March, 1919.
- "DAIRYING IN DENMARK": Article in "Better Business" (Co-operative Reference Library, Dublin). Vol. II., page 127, February, 1917.
- DESBONS, GEORGE.—La Crise Agricole et le Remède Coopératif: L'Exemple du Danemark. Paris: Les Editions Juridiques, 1916.
- FABER, HARALD.—Co-operation in Danish Agriculture London, 1918.
- "FÆLLESFORENINGEN FOR DANMARKS BRUGSFØRENINGER." Copenhagen, 1913.
- "GROWTH OF THE CO-OPERATIVE MOVEMENT IN DENMARK:" Article in the Journal of the Board of Agriculture. London, September, 1911.
- HAGGARD, H RIDER.—"Rural Denmark and its Lessons." London, 1911.
- HARVEY, W. J., AND REFFIAN, C.—Denmark and the Danes. London, 1915.
- "LE MOUVEMENT COOPERATIF EN DANEMARK": les Congrès International des Associations Agricoles et de Démographie Rurale. Bruxelles, 1910. Copenhagen, 1910.
- O'DONNELL, THOMAS.—A Trip to Denmark. Dublin, 1908.
- PRASADE, CHANDRIKA.—Agricultural Co-operation in Denmark. Ajmer, India, 1917.
- "RURAL AND URBAN CO-OPERATION IN DENMARK": Article in "Better Business" (Co-operative Reference Library, Dublin). Vol. I., page 363. July 1916.
- SMITH-GORDON, L., M.A., AND O'BRIEN, C.—"Co-operation in Many Lands." Co-operative Union, Manchester, 1919.

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