

C. E. I. 14.

LEAGUE OF NATIONS — INTERNATIONAL LABOUR OFFICE

**INTERNATIONAL ECONOMIC
CONFERENCE**

Geneva, May 4th, 1927.

DOCUMENTATION

**THE PART PLAYED BY CO-OPERATIVE
ORGANISATIONS IN THE INTERNATIONAL
TRADE IN WHEAT, DAIRY PRODUCE,
AND SOME OTHER AGRICULTURAL PRODUCTS**

GENEVA, 1926

TABLE OF CONTENTS

	Page
I. AGRICULTURAL CO-OPERATIVE MARKETING SOCIETIES AND INTERNATIONAL TRADE	6
Dairy Produce	6
Denmark	6
Other Countries	11
Wheat	12
Canada	14
United States and Australia	16
International Wheat Pool Conference	17
Problems of Co-operative Marketing	17
II. DISTRIBUTIVE CO-OPERATIVE SOCIETIES AND INTERNATIONAL TRADE	19
Co-operative Wholesale Societies	19
Dairy Produce	23
Wheat and Flour	24
Co-operative Bakeries	24
Co-operative Grain Mills	25
III. INTERNATIONAL RELATIONS BETWEEN DISTRIBUTIVE CO-OPERATIVE SOCIETIES AND AGRICULTURAL CO-OPERATIVE MARKETING SOCIETIES	26
Dairy Produce	26
Wheat	28
APPENDIX :	
Preliminary Observations	31
Bacon	31
Eggs	34
Fruit	35
Honey	39
Tobacco	39
Textiles	40

THE PART PLAYED BY CO-OPERATIVE ORGANISATIONS IN THE INTERNATIONAL TRADE IN WHEAT, DAIRY PRODUCE, AND SOME OTHER AGRICULTURAL PRODUCTS

There can be no exaggeration in saying that whether the international trade in agricultural produce is carried on under satisfactory or unsatisfactory conditions, it is a matter of the greatest importance to every country without distinction, and in each country to every social class.

It is not possible here to describe these conditions in their full complexity. What it is proposed to do is to select from the mass of facts and problems which the experience of the last few years has brought out the efforts of rural and industrial populations to satisfy their respective needs for markets and supplies through the medium of co-operative organisations created out of their own resources. An indication will be given of the extent to which these simultaneous efforts have already produced practical effects, the importance of which is sometimes considerable and always growing, and it will finally be shown how their increasingly accentuated and conscious convergence is perhaps preparing the way for a particularly effective and appropriate form for the organisation of international trade.

The present Memorandum, necessarily brief, can merely attempt to throw light on certain significant facts and to indicate, without discussing in detail, the nature of the problems. As only very few examples can be offered, two will be taken into special consideration, that of wheat and that of dairy produce (butter and cheese)¹. The importance of these products in international trade is in itself sufficient to justify the choice. Moreover, it will appear that this choice is particularly suited to illustrate the development in the international sphere of agricultural co-operative marketing societies and distributive co-operative societies.

The study will be divided into three parts:

- I. Agricultural co-operative marketing societies and international trade.
- II. Distributive co-operative societies and international trade.
- III. The international relations between distributive societies and agricultural marketing societies.

¹ For a few other agricultural products, see Appendix (p. 31).

I. AGRICULTURAL CO-OPERATIVE MARKETING SOCIETIES AND INTERNATIONAL TRADE

The agricultural co-operative marketing societies now to be found on the international market were not improvised suddenly. They are the present outcome of, and have behind them, a long process of evolution, the successive phases of which were parallel to the phases of development of marketing in general, and may be briefly outlined as follows:

(a) In rural districts where economic conditions are still fairly primitive, co-operatives will be found, each member of which belongs to the society both as producer and consumer, e.g. dairy co-operative societies (*fruitières* in the Jura, Savoy, Switzerland) and combined milling and baking societies (France, Czechoslovakia, etc.), which return to their members in the form of cheese, flour or bread their produce of milk or corn.

(b) Where marketing conditions have become more advanced and the separation between rural and urban centres is accentuated, the village trader appears, who combines the functions of grocer, draper, agent for fertilisers, etc., with those of intermediary for the disposal of agricultural produce in the towns, besides which he generally keeps the rural producer in a state of dependence by the practice of usury. It is for the purpose of replacing this middleman that multiple function co-operatives are formed such as the German Raiffeisen funds, the Czechoslovak *Kampelicky*, and the Irish or Indian general purpose societies, village societies, etc.

(c) The development of the rural co-operatives, together with the development of regional and national markets, leads to the creation of powerful central co-operative societies for commercial purposes (the purchase of materials and agricultural machinery and the sale of agricultural products).

(d) Finally, the specialisation of certain countries or certain regions in a given form of agricultural production (butter, wheat, fruit, flax, etc.) which can be disposed of only in distant markets leads to the creation of agricultural co-operative marketing societies for particular products (the sale may be preceded by a more or less important process of transformation). These co-operatives correspond to the most advanced stage reached by agricultural economy in its relations with world economy.

Dairy Produce

DENMARK

Denmark, which in 1881 produced only 49,000 metric tons¹ of butter, produced in 1924 157,000 tons, and exported 123,400. It supplies about 38 per cent. of the total net exports of butter of all countries, and is therefore by far the most important exporter in the world.

Its progress is to be ascribed to the co-operative organisation of the peasants, whose methods have subsequently served as a model to other countries with a large

¹ In this report the metric ton is used throughout. One ton of 20 cwt. is approximately equal to one metric ton (exactly: 1.016 metric tons).

dairy output. Moreover — as will be shown below in discussing the marketing societies of wheat producers — it is the rules devised and perfected in Denmark for solving the problems connected with production and marketing that have led directly to the principles of organisation underlying agricultural marketing co-operative societies in general.

At present more than 85 per cent. of Danish agriculturists are members of co-operative dairies and co-operative slaughter houses. The milk of over 86 per cent. of the dairy cows is transformed into butter by co-operative dairies.

In 1900 the co-operative dairies represented 66.2 per cent. of the total number of dairies including those on large estates, and the proportion had risen to 86 per cent. in 1924. To-day the capitalist dairies have become the exception, their continued existence being due to special local conditions; moreover, they do not work for the international market. Even the dairies on large estates, although they generally do not suffer to the same extent as the limited companies from certain disadvantages, tend to become less numerous. There were 244 in 1900 and not more than 16 in 1924, most of the large landowners finding it to their advantage to join the co-operative societies.

The almost complete setback of private undertakings may be explained by a number of economic and psychological reasons, most of which arise out of the difference in the relations between the producers and the undertaking, according as the latter is private or co-operative.

It is a practical rule of the co-operative dairies not to begin their undertaking before they have secured a sufficient membership for economic working; each combines, on the smallest possible area of land, about 150 members raising 800 to 1,000 cows in all, and producing 1,500,000 to 2,500,000 kilogrammes of milk a year. The distances between the farms and the dairy are thus reduced to a minimum — besides which transport is usually organised in common by the producers themselves — and the plant is turned to the best possible account. These measures are supplemented by a contract binding the producer to the society for a specified period (5 to 20 years, generally 10 years) according to which he undertakes under penalty of a fine to supply the co-operative dairy with all the milk he produces (except the quantity needed for home consumption). He undertakes further to feed and care for his cattle according to the rules which he has himself helped to draw up, or at all events accepted. Finally, all the members of the co-operative dairies are jointly and severally and to an unlimited amount responsible for the financial obligations contracted by the society¹. This provision gives the society an unshakable credit, which moreover constitutes its only financial basis²; it also serves as a powerful agent for cohesion within the society, binding the members to each other and their society by their joint interests.

¹ As regards their liabilities to the society, these are often fixed in proportion to the quantity of milk delivered by each member during the period of the contract.

² The Danish co-operatives, or at least the majority, are set up without an initial share capital. The funds they need for starting work are obtained by loans guaranteed by the

There is no need to explain that, as in any other co-operative society, the members take part in or supervise the management of the undertaking, and that this participation is effected on a basis of absolute equality, whatever inequalities there may be in their respective economic situations. Another feature which is to be found in many co-operative societies is a clause frequently included in their rules under which any disputes between members and the society are settled by arbitration and cannot be brought before the civil courts.

These are the principal factors which have given the co-operative dairies the advantage over private undertakings. Moreover, they have made it possible to increase production, bring down costs, raise the quality and value of the product, and improve the conditions of producers.

Increased production. — The increase in the production of butter has been effected by a large increase in live stock as well as an improvement in its quality, and more rational methods of feeding and breeding, which have led to an increase in the annual milk output of each animal and to a larger percentage of fat in the milk produced¹.

	1881	1924	Percentage increase on 1881
Number of dairy cows	889,000	1,369,000	152
Average annual output per cow:			
Milk	1,136 kg.	2,900 kg.	255
Butter	54 „	115 „	213
Total output of milk	1,440,000 tons	3,970,000 tons	276
Total output of butter	49,000 „	157,000 „	321
Butter exports	15,600 „ (1885)	123,000 „	788

unlimited liability of their members. These are repaid during the first period, equal to that of the contracts of delivery, at the end of which the net surplus of the society, which is then free from all indebtedness, is divided among the members on the basis of their transactions with the society during the period. This distribution is used as a basis for the issue to the members of credit bonds on the society which are repaid during the subsequent period, and so on.

¹ The increase in the quantity of live stock and the improvement in its quality are largely the work of the stock-breeding societies, the first of which was founded in 1884, their number now being 1,223. The improvement in the output of milk and butter is due to the co-operation of these societies with the so-called "control societies". The latter, of which there were 1,099 in 1925 (the first was founded in 1892) comprising 31,939 members (with 424,756 head of cattle) are particularly characteristic of the co-operative work of Danish agriculturists. They deserve detailed examination, but a brief account of their aims and methods may at least be given. They take the place of the individual farmer in supervising the feeding and output of his cattle: in co-operation with him, the quality of the milk given by each animal, and its fat content are carefully determined; the feeding (in weight and quality) of each individual animal is related to the quantity and quality of its milk; the animals whose output is not economical are fattened and sold; the agriculturist is given advice of every kind, and, moreover, subjected to very strict rules concerning the care of his cattle. Of course, these societies are distinct from the dairies and stock-breeding societies: Danish agriculturists are fully convinced that the efficiency of the co-operative societies depends on the degree of cohesion and internal discipline they are able to enforce, and that such cohesion can be obtained only by the homogeneity of the interests of all the members with respect to one and the same object. This is why each society is strictly specialised with a view to satisfying one end and one only, however specific.

It may be added that with a view to supplying a market whose needs are practically constant throughout the year, the Danish co-operative dairies have succeeded by the careful study of appropriate fodder in maintaining a winter output of milk and butter.

Improvement of quality and market value of butter; trade mark. — The quality of the butter may be explained on the one hand by the very precise rules, as regards conditions of milking, delivery, etc. — which cannot be discussed here in their minute details — to which the members of the co-operative are subject, and on the other to the actual conditions of dairy production. When the milk from any particular producer has arrived at the dairy, it is weighed and graded. The price due to the producer is in relation not only to the quantity of the milk delivered, but also to its quality, which it has become more and more usual to estimate by the fat content. This measure obviously encourages the farmers to seek the best possible conditions of production. The importance attached to it, as well as the pronounced desire to arrive at a fair and indisputable judgment of the quality of the milk supplied, have led certain local co-operative dairies to organise special societies for milk testing ¹.

Having succeeded in organising the mass production of butter of uniform and recognised quality, the Danish producers were not slow to consolidate the results of their work by using a uniform system of packing and trade mark. In 1900 a special association was formed with a view to giving all Danish butter an official trade mark; by 1906 practically every co-operative dairy had joined this association. The mark "Lur Brand ² Danish Butter" was registered in Denmark, Great Britain, and Germany. By an Act of 1906, amended in 1911, the association succeeded in having the mark made compulsory for all Danish butter intended for export (pasteurised butter with not more than 16 per cent. of moisture). Having achieved its purpose, the association was dissolved.

Any dairy which obtains a permit to use the official trade mark is given a number, which must be placed on all the casks of butter it exports, so that the origin of the butter may be identified in case of complaint. It is further subject to the supervision of Government experts, who may withdraw the right to use the trade mark if the quality of the butter falls below the specified level.

Price fixing; export co-operatives. — The growth of the dairies and the measures taken by them had improved the conditions of production and raised the market value of the produce. It remained for the associated Danish farmers to extend their own regulative influence to the conditions of marketing and export of their produce, firstly by intervening directly in the determination of prices, and secondly by creating their own export institutions.

¹ The efforts of the Danish co-operatives to produce butter of a superior and uniform quality have been further stimulated by the competitions organised in each district and each province by the co-operative dairies themselves and the Association of Co-operative Dairy Managers. Moreover, competitions organised by the public authorities are held once a week at Copenhagen. Participation in these, which used to be optional, is now compulsory for all dairies which wish to export and therefore use the official trade mark.

² Two pairs of old-fashioned trumpets entwined.

In early days the butter traders obtained their supplies from the producers under annual contracts. This system was unsatisfactory. The contract stipulated a fixed price and therefore took no account of fluctuations during the year. It followed that when prices were rising the producers, being bound by their contracts, could not profit by this, while, on the contrary, when prices were falling the traders tried to make up for their losses by deductions, on the alleged ground of insufficient weight or quality. It was therefore decided to fix an official weekly quotation. An estimate was made on the basis of the prices actually obtaining during the previous week, increased or decreased by a coefficient for the expected fluctuations in the British demand and the Danish, Irish, French, etc., supplies. The basic prices thus determined could be increased by a supplement for special quality. The so-called "overprice", however, soon became the general practice, owing to the competition between the traders, and ultimately it upset the whole system. The supplement no longer measured quality and therefore became a factor in the determination of the quotations and consequently of the basic prices. The producer felt more than ever that he was being unfairly treated and at the mercy of the traders, who took no interest in his conditions of work and life, but were only concerned to turn the fluctuations of the market to their own best advantage.

In August 1912 the co-operative dairies decided to have their own quotation, and set up a committee for this purpose which worked side by side with that of the traders. After some years of struggle for the supremacy in fixing prices, a compromise was reached in October 1915 by which the two committees agreed to co-operate and prepared for the present system, which was inaugurated in 1920. Once a week each of the two committees, of traders and producers respectively¹, determine separately the prices they consider suitable in view of the information at their disposal. They then hold a joint meeting to arrive at an agreement, at which the presidents of the two committees take it in turns to preside. The chairman of the joint meeting is not entitled to vote, and if the voting is equal the president of the other committee has the casting vote.

The butter export co-operatives are associations of the co-operative dairies. Their conditions of working and their relations with the local co-operative dairies are very similar to the conditions of working of, and the relations between, individual producers and their local societies, that is to say, the local co-operatives undertake to deliver their total output to the export co-operative to which they belong (as a rule under a yearly contract which may be cancelled only after six months' notice). The administration of the export central is in the hands of representatives of the local societies, elected directly by the producers.

¹ The traders' committee consists of five members, the president being nominated by the Association of Wholesale Butter Traders from among its members. This Association also designates the remaining four members (two Copenhagen wholesalers and two provincial wholesalers), but on the proposal of the Association of Danish Butter Exporters.

The producers' committee also consists of five members, appointed by the Statistical Committee, a joint organ of the National Federation of Co-operative Dairies and the Association of Co-operative Dairy Managers, on the nominations made as follows: three members proposed by the National Federation of Co-operative Dairies, one member by the Association of Co-operative Dairy Managers, and one by the export co-operatives.

Practically all the butter export co-operatives were created after 1894, and there has been a steady growth in the movement. In 1911 there were seven such societies, providing over 16.7 per cent. of the total exports of Danish butter. In 1914 this proportion had risen to 20.3 per cent. In 1922 there were eleven societies, covering 546 local co-operatives, or one-third of the total number of dairies, and their combined turnover represented rather more than one-third (38.8 per cent.) of the total exports.

These export co-operatives work quite independently of each other. Moreover, all but one limit their sphere of activity to their local area of dairy production; but with a view to examining jointly the questions in which they are interested, they formed a federation in 1918.

OTHER COUNTRIES

The following table shows the exports of cheese and butter of the chief exporting countries in 1925.

Net exports of butter in 1925		Net exports of cheese in 1925	
	Tons		Tons
Denmark	121,986	Netherlands	79,174
New Zealand	63,259	New Zealand	69,941
Australia	58,279	Canada	63,715
Netherlands	37,123	Italy	37,359
Argentina	26,887	Switzerland	21,755
Russian Soviet Union	25,077		
Ireland	16,102		271,944
Finland	13,189	Other countries exporting	
Canada	12,041	over 1,000 tons	20,008
	373,943		
Other countries exporting		Total	291,952
over 1,000 tons	23,888		
Total	397,831		

In the countries in which dairy production for export was developed during the second half of the nineteenth century, such as the Netherlands, Finland, and Switzerland, as also in countries where this industry is of more recent date, such as Australia, New Zealand, and the Baltic States, the part played by co-operative organisations in the production and marketing of dairy produce has steadily

increased in importance. In all these countries the producers of dairy produce have formed co-operative organisations which provide for the marketing of milk, as in Switzerland for instance, where co-operative dairies deliver the milk to the cheese factories, or else the co-operative dairies themselves provide for the production of butter and cheese. In the Netherlands 65 per cent. of the butter produced in 1925 and 45 per cent. of the cheese came from the co-operative dairies affiliated to the *Allgemeene Nederlandsche Zuivelbond*. In Finland the co-operative output represented in 1924 92 per cent. of the total output of butter and 70 per cent. of that of cheese. In Esthonia the volume of co-operative production in 1925 was 84 per cent. of that for the whole country. Out of a total number of 349 dairies working for export, 266 were co-operative dairies. In Australia 91 per cent. of the production of butter and cheese and in New Zealand 80 per cent. of the production and 92 per cent. of the exports were provided by the co-operative dairies.

Moreover, in all the more important dairy producing countries, the co-operative organisations take part in the export of dairy produce. They may either be given certain powers to supervise the export societies, as in Switzerland, or they themselves organise co-operative export societies, as in the Netherlands. In Finland, it is "Valio", the central co-operative society for butter export, which exports 70 to 80 per cent. of the total quantity of butter and cheese intended for export. In other countries, the central federations of co-operative dairies are responsible for export. Thus in Latvia about 90 per cent. of the butter exported came from the co-operative dairies, of which 60 per cent. was exported by the Central Federation of Co-operative Dairies (*Latvian Piensaimniecības Centrālā Savienība*). In the Russian Soviet Union the export of butter, which amounted in 1925 to 25,077 tons was all in the hands of the "Maslocentre", the central organisation of the co-operative dairies. Similarly, in New Zealand a large proportion of the dairy produce is exported by the New Zealand Co-operative Dairy Company, which receives about 32 per cent. of the total output of the country. As will be shown below in the part of the report dealing with the relations between the agricultural co-operative marketing societies and distributive co-operative societies, another New Zealand federation, the New Zealand Producers' Co-operative Marketing Association, has established direct relations with the English Co-operative Wholesale Society¹.

Wheat

The world output of wheat fluctuates round 100 million tons, only one-fifth of which is dealt with in international trade. The total exports of the exporting countries amounted for 1925 to 15,370,000 tons for wheat, and 3,070,000 tons for wheat flour. It may be added that about nine-tenths of the total exports are derived from a small number of countries, as below:

¹ See p. 27.

	Net exports (1925)	
	Grain Tons	Flour Tons
Canada	6,039,706	912,790
United States	1,982,291	988,545
Argentina	2,993,371	137,350
Australia	2,688,119	407,100
Total	<hr/> 13,703,487	<hr/> 2,445,785

Russia and Roumania, which before the war exported 4,100,000 tons and 1,300,000 tons of wheat respectively (average 1909-1913), have only partially regained the position they formerly held in the international wheat trade.

In all the chief exporting countries, though as yet to a very slight extent in Argentina, the co-operative organisations of wheat producers play a part of growing importance in the export trade. They already predominate in Canada and Australia, where, during the past year, the co-operative exports formed two-thirds of the total exports.

In order to demonstrate the nature and importance of those recent developments it is necessary to distinguish two stages in the evolution of the co-operative organisation of wheat producers.

In the first stage the producers form local or regional associations to exploit and manage in common an "elevator", where all the machinery needed for cleaning, grading, and, if necessary, drying the grain is available. The grain may also be stored at the elevator. Incidentally, the co-operative may undertake on commission the individual selling orders of its members, but even in this case it remains essentially a warehousing and grain-handling co-operative.

In the second stage, on the contrary, the producers delegate to the co-operative the marketing functions they formerly performed individually. Thenceforward the individual output of the members, as soon as it has been received, weighed and graded, is pooled with other output of the same quality, and the co-operative undertakes to market the total quantity accumulated. It pays to each member an immediate sum on account, and then subsequent instalments, ending the operations with a final payment which secures to each member an average price, regardless of the circumstances of time and place in which his particular harvest may have been sold.

The method briefly described above is characteristic of the marketing co-operatives which, on the earlier model of Danish co-operative societies, began to be formed in 1900 among the fruit growers of California and have since gained much ground, chiefly in the United States and Canada. In these two latter countries, as in Australia, these co-operative organisations for joint marketing are generally known as "pools", the term being taken in the technical sense of a pooling of products and the payment to all the members of the average price obtained by the

co-operative organisation. The application of this method involves as a rule an obligation on the members to deliver, during a specified number of years, their total crops to the co-operative society.

The perfected organisation of the marketing co-operatives is particularly adapted to the need for disposing of the produce in distant markets. In point of fact, these co-operatives have been most widely adopted in the export countries, as for instance in Denmark and other countries exporting dairy produce, and in Canada, to-day the greatest exporter of wheat.

CANADA

Owing to its relatively small population, Canada has to export about 70 per cent. of its wheat output. The large distance between the producing areas and the ports and markets have made it necessary to create a very complete machinery of means of transport, warehousing, commerce, and banking. This machinery has been developed both under the influence of the very requirements of the trade and under the pressure of the farmers. The latter had to fight the combined interests of the railways and the elevator companies inch by inch to acquire storing facilities and a free road to the markets. Their struggle may be divided into three periods, for the farmers passed through the successive stages of legislative action, the organisation of elevator co-operatives and, finally, during the last few years, the organisation of marketing co-operatives.

1. The first period of the struggle culminated in 1899 in the nomination of a Royal Commission. The report of the Commission and the continued pressure of the farmers led to the adoption in 1900 of the Manitoba Grain Act, which was subsequently amended and completely revised in 1912 under the name of the Canada Grain Act. The principal object of this law was to enable the farmers to escape from the clutches of the elevator companies. It made it possible for them to deliver their grain right up to the "terminal" market, and governed the conditions under which the operations of grading, sampling and transporting the grain were to be carried out.

2. The progress made under this legislation was insufficient to allay the discontent of the farmers. They formed associations in the three prairie provinces of Alberta, Manitoba, and Saskatchewan, and demanded that the Governments of these provinces should construct public elevators. This was conceded in Manitoba, which passed an Act in 1910 providing for the buying and management of elevators by a board of three commissioners. The Manitoba Government thus acquired 175 elevators, but after two years it gave up the undertaking and leased the elevators to the United Grain Growers Limited, which had been formed in the meantime by the farmers. This company amalgamated in 1917 with a co-operative of a similar type set up in 1919 in Alberta.

In the province of Saskatchewan the Government recommended instead of public elevators the organisation of a society run by the farmers. It also offered to advance 85 per cent. of the cost of constructing the elevators considered necessary, on condition that the farmers would subscribe the balance. In this way the Saskatchewan Co-operative Elevator Company was formed in 1911. Between 1900 and 1910 a considerable number of local co-operative elevators were constructed, but most of them were gradually absorbed either by the Saskatchewan Co-operative Elevator Company or the United Grain Growers Limited. Within a few years these two great farmer-owned companies became the largest handlers of wheat in Canada. In 1925 the former owned 452 local elevators and at Fort William-Port Arthur terminal elevators with a total capacity of 15,175,000 bushels, representing one-fourth of the total capacity of the terminal elevators, where a large proportion of the grain output of Canada is collected before export. The Saskatchewan Co-operative Elevator Company recently ceded the whole of its plant to the wheat pools, which are now characteristic of the organisation of farmers in Canada.

3. During the war the whole organisation of the marketing of wheat in Canada passed into the hands of two bodies, the Wheat Export Company and the Board of Grain Supervisors. The Wheat Export Company acted on behalf of the British and Allied Governments and was therefore principally an organisation of consumers. The Board of Grain Supervisors on the other hand, consisting of the chief members of the Winnipeg Grain Exchange and representatives of the farmers and Governments of the different provinces, governed the movement of wheat within the country and fixed the prices on which the farmers and wheat export companies could agree.

When this twofold form of organisation was abolished in July 1919 a new Wheat Board was set up under the authority of the Dominion Government to market the 1919 crops. The following years' crops were marketed in the ordinary course of trade, but the collapse of grain prices in 1920-1921 induced the farmers to demand the restoration of the Wheat Board. This demand was refused, and they therefore sought other means; by 1923 they agreed in favour of the idea of organising voluntary boards. Thus co-operative marketing societies, on the pooling principle referred to above, were created in Alberta in 1923, and in Manitoba and Saskatchewan in 1924. These three provincial co-operatives subsequently formed a joint agency, known as the Canadian Co-operative Wheat Producers Limited. The number of farmers thus grouped in a central selling agency through the medium of the provincial co-operatives, which are themselves subdivided into local associations, is at present 127,200. They are bound by five-yearly contracts to deliver their total crops to the selling agency representing a cultivated area of 10,018,756 acres in 1924 and 14,091,308 acres in 1925, or 50 per cent. and 67 per cent. respectively of the acreage under wheat in the three prairie provinces together. The wheat handled by the agency in the crop year 1924-1925 amounted to 81,700,000 bushels, or 2,200,000 tons, and in the following year to 187,500,000 bushels or nearly 5,100,000 tons. The size of the latter figure is seen to be more striking

when it is remembered that it represents two-thirds of the wheat exports of the Dominion and over one-fourth of the total wheat dealt with in international trade.

From the very first the Canadian Co-operative Wheat Producers Limited set out to carry out its programme of direct relations with the grain milling industry, both in Canada and in the importing countries. For this purpose it set up an office in Toronto for direct sales to Canadian millers, one in Paris for sales to French millers, and two others, one at Calgary and the other at New York, for super-intending shipments from Vancouver and the United States ports. It has at present 36 agencies in the importing countries, and it was stated at the beginning of 1926 (*Co-operative News*, 20 February 1926) "that 65 per cent. of the wheat marketed by the central selling agency was handled entirely apart from the grain exchanges":

These vast operations, which are likely to lead to profound changes in the conditions of the wheat trade, were made practicable firstly by the arrangements with the elevator companies referred to above ¹, on the basis of the arrangements made with the Dominion Wheat Board in 1919, and secondly by the credits granted by the eight principal Canadian banks. These credits allow of payments by instalments, which is an essential part of the pooling system.

UNITED STATES AND AUSTRALIA

The information given above on Canada allows of greater brevity with respect to the United States and Australia, where the co-operative organisation of wheat producers, although already advanced, is not so perfect as in Canada.

In the United States local elevator co-operatives have been in existence for some time. At the beginning of 1924 there were 3,134 associations with a membership of 443,000 wheat growers, their combined turnover being about 170 million dollars. The organisation of marketing co-operative societies on the pooling system was started in 1920 and 1921. Each of these co-operatives covers one State, and some of them several neighbouring States. They are at present ten in number with a total membership of 95,500. In 1924-1925 they handled 27,637,000 bushels of grain.

In Australia, membership of the State boards set up during the war for supplying the Allies was compulsory for all wheat growers. Since 1922 they have been replaced by voluntary organisations, one for the State of Victoria, one for those of South Australia and New South Wales; and one for Western Australia. The wheat is exported to Great Britain where the Australian co-operatives have opened agencies. 70 per cent. of the Australian 1922-1923 crops were marketed by these co-operative societies.

¹ Subsequently, the co-operatives in each of the three provinces began to run their own elevators, and recently they acquired the whole plant of the Saskatchewan Co-operative Elevator Company.

INTERNATIONAL WHEAT POOL CONFERENCE

In view of the common aims and methods of the wheat marketing co-operatives in the exporting countries, relations were established between them which led to the holding of an international conference at St. Paul (Minnesota) on 26 February 1926. The Conference was attended by 70 delegates from Canada, the United States, and Australia, including also a representative of the New York branch of the "Centrosoyus", the All-Russian Central Union of Consumers' Co-operative Societies, which, together with the State authorities, undertakes the export of Russian corn.

After hearing a description of the organisation and marketing methods of the co-operative associations represented, the Conference agreed on the following points:

1. The necessity of bringing co-operative organisations in the different countries up to the standard reached in Canada;
2. To set up a permanent committee for the preparation of future wheat pool conferences.

The Permanent Committee was immediately formed under the chairmanship of Mr. C. H. BURNELL, of the Canadian Co-operative Wheat Producers Limited. Subsequently this Committee decided to send a delegation to the Argentine wheat producers. Other delegations consisting of leaders of the Canadian co-operative movement have acted on the invitation of the American and Australian co-operatives to examine on the spot the best methods of raising the standard of the co-operative organisation of wheat marketing in these countries.

Problems of Co-operative Marketing

In order that the present report might be kept within the proposed limits, the information given on co-operative marketing societies has been confined to that needed to bring out the important part they may, and already do, play for certain articles of international trade.

The different ways of applying co-operative methods to the marketing of various agricultural products according to their perishability or distance from the place of consumption or according to whether demand is seasonal or not; the transformations which the gross farm produce must undergo, and the industrial processes which may therefore usefully be included in the functions performed directly or subsidiarily by the marketing co-operatives; the federal or centralised structure of the associations; the part played by the local groups and the obligations of members; the reflex influence of joint selling on the producer himself, his working methods, and the quality of his produce — all these questions, including those of the social aspects of the movement, the reciprocal

action of education and the development of social conditions on the economic efficiency of co-operative undertakings, have been the subject, especially during the last few years, of numerous investigations, based on the experience of the past and contemporary experiments¹.

The principal conclusions of these investigations can be indicated only in outline without the shades and distinctions necessary for so complex a material.

The aim of agricultural co-operative marketing societies is twofold, being in the first place the regular and certain marketing of the produce and secondly, the stabilisation of prices at a level corresponding to the expenses incurred by the producers and their families as determined by the prices of other products. This twofold end can be achieved only by a co-ordinated body of methods which relate not only to the organisation of the marketing of the products but also to the products themselves.

It is true that a co-operative marketing society, by bringing together the output of its members, may strengthen their position as sellers by substituting joint sales for their individual sales; it may strengthen and extend their markets by a careful study of the demands of the centres of consumption and endeavour to limit price fluctuations by making their deliveries at all times correspond to the actual demand; they may also improve the physical conditions of distribution by improving the methods of packing, preservation and transport, and for certain articles by the co-operative organisation of the initial processes of industrial transformation. But all these methods cannot operate fully unless from the outset, already when the products leave the associated farms, their qualities and the conditions in which they are presented are such as to facilitate marketing and allow of economies in the various stages of distribution.

Further, even in the absence of co-operative organisations, the conditions of marketing already exert an influence on those of production by the agency of middlemen, in so far as the latter finds an opening to make a profit. This influence of intermediate traders, however, is far from being as efficient as the co-ordinated intervention of a marketing co-operative. This is exercised in two directions. On the one hand the marketing co-operative is in a position to make its members act on its advice and submit to supervision for improving the methods of cultivation, harvesting, etc.; on the other hand it may assist the individual farms by organising joint supplies of selected seed, fertilisers, parasite destroyers and preventives, etc. In this way it can arrange that the stock of individual products thus brought together shall form a homogeneous mass, possessing the qualities which, besides satisfying the demands of the consumer, reduce the costs of grading, preservation and transport to a minimum.

¹ Cf. THE AMERICAN INSTITUTE OF CO-OPERATION: *American Co-operation. Collection of papers and discussions comprising the first Summer Session of the American Institute of Co-operation at the University of Pennsylvania in Philadelphia, 20 July to 14 August 1925.* 2 Vols. Washington, D.C., American Institute of Co-operation, 1731, Eye Street, N.W. 1925. I: 4,003 pp. A second session of the Institute was held at the University of Minnesota from 21 June to 17 July 1926.

The co-operative marketing societies must obviously supplement these efforts to improve the product by a certain commercial strategy. They try to obtain control over supply by securing the general support of the producers concerned, or at least of the large majority. Such control will be used by the co-operative to regularise the quantities offered for sale, account being taken of the variations in market, due to situation and date. But any effort to go further than the improvement of methods of marketing and to fix monopoly prices seems condemned to failure.

Mr. William R. Camp, in a study submitted to the annual meeting of the American Academy of Political Science in October 1925¹, remarks that: "Growers individually are inclined to give greater weight to all bullish factors and may even handicap the management by understating their crop in order to influence the management to set a higher opening price. But experience has shown the management in those associations which can determine seasonal prices, as in dried fruits and nuts, that if prices are set too high it may be impossible to move all the products to market during the year and that any carry-over is likely to have a most depressing effect upon the next year's opening price".

It should also be observed that raising prices may not only reduce consumption², but also increase the area under cultivation and thus lead to an increase in production which may overburden the market. Now, an increase in production, not intended to satisfy an increase in demand but due to an arbitrary rise in prices, has the contrary effect to that desired, which is to establish and maintain a stable equilibrium by satisfying the demands of consumers as regards both quality and quantity.

¹ CAMP, William R.: "Agricultural Pools in relation to Regulating the Movement and Prices of Commodities", published in the *Proceedings of the Academy of Political Science in the City of New York: Trade Associations and Business Combinations*, January 1926. This study was submitted to a session of the Academy held to discuss industrial agreements.

² The following example of the practice followed in 1922 by the American Cranberry Co-operative Association shows that in certain circumstances marketing co-operation may be brought into systematic opposition to the rise of prices. In 1922 the cranberry harvest was not abundant; if at the beginning of the market season (which lasts only 4 or 5 months) the Association without paying attention to the special circumstances of the year had simply put on the market the same proportion of the harvest as in normal years, prices would have risen; a certain number of consumers would have abstained and might have contracted the habit of going without cranberries. The result would have been that in the following year sales would have been more difficult and the market season longer and more expensive. Therefore the Association set out to supply the market in proportion to the demand at the prices to which the consumers were accustomed.

Other similar examples might be quoted and also examples to the contrary of cases where co-operative marketing organisations and their members have repented of having yielded to the temptation of prices exceptionally and excessively high.

II. DISTRIBUTIVE CO-OPERATIVE SOCIETIES AND INTERNATIONAL TRADE

Co-operative Wholesale Societies

At the other end of the market the distributive co-operative societies are also an expression of the effort to concentrate, namely, to concentrate purchases, at the same time as they represent a movement towards the sources of supply.

As long as the distributive societies confine their operations to purchase and distribution and remain independent of each other, they influence only the local or regional market, but as soon as they are grouped in powerful purchasing federations (wholesale societies) the part they play changes. On the one hand they tend to cover a by no means insignificant proportion of the national market, or at all events to appear among the leading purchasers in their respective countries, a tendency which for some of them, in certain countries and for certain commodities, is already a practical reality. On the other hand, in the process of their growth and with the increasing financial stability due to larger membership and the mutual support they obtain in their federations, they tend more and more to engage, either on their own account or through the medium of their wholesale societies, in the production of the commodities they distribute and in procuring the raw materials at the actual place of production. The local and regional co-operative societies, their wholesale societies and productive undertakings, created in the first place to satisfy the more essential demands of their members, have been developed above all in the trade in, and the industries for, transforming agricultural produce.

Their growth since the war in number, membership, and turnover was greater than during the previous thirty years. During the last ten or fifteen years the membership of distributive societies increased threefold in certain countries, such as France, Germany, and Sweden, and even fourfold in Belgium and Finland. In some countries, such as Finland, Great Britain (4,910,983 members in 1925), or Switzerland, 10 per cent. of the population belong to distributive societies. Most of the members being heads of households, it is likely that in these countries over one-third of the population bring part of their purchasing power to co-operative institutions. On the most modest estimate there are in over 50 countries 50,000 distributive co-operative societies with an aggregate membership of 35 to 40 millions.

The wholesale societies run by the distributive co-operative societies have also become important undertakings. The turnover of the Hamburg Wholesale Society, for instance, rose from 109,605,470 marks in 1911 to 228,169,471 marks in 1925. In Great Britain the aggregate transactions of the English and Scottish Wholesale Societies amounted in 1924 to £94,244,833 (£35,744,069 in 1912).

The turnover of the distributive societies in Great Britain is close on £200,000,000. The total capital, both subscribed and borrowed, was £99,531,737

in 1924, or more than double what it was in 1913 (£45,267,115). The English Wholesale Society alone, leaving the Scottish Wholesale Society out of account, is the largest manufacturer, trader, and landowner in the United Kingdom. It runs over a hundred undertakings in some forty of the most varied branches of industrial production. The value of its output, which has doubled during the last ten years, is close on thirty million pounds¹.

It is proposed to show here the dimensions of their demand for wheat or flour and dairy produce, and, in particular, the proportion of the supplies obtained from the international market. The intention is not to provide complete information, but to give certain characteristic and well-established data. In the present state of statistics, it is impossible to make an exhaustive enquiry, the difficulties of which would, moreover, differ according as the subject dealt with is that of the supply of butter or cheese on the one hand and wheat or flour on the other.

Dairy produce is the object of specialised co-operatives only in exceptional cases, which makes it practically impossible to compile complete statistics. On the other hand, there are large numbers of specialised co-operatives for the manufacture of bread, and even if these bakeries belong to general distributive societies they are nevertheless technically separate and distinct units which can more easily supply the information required.

The proportion of their demands which the distributive societies satisfy from the international market depends, of course, very largely on the economic conditions in each country, especially the ration of its own production to its consumption of the product in question.

The co-operative organisations belonging to the International Co-operative Alliance set up in 1919 an International Committee, which in 1924 was converted into a society known as the International Co-operative Wholesale Society. This body compiles statistics of the international transactions of each of the national wholesale societies, and studies the possibilities of joint supplies. The data collected by the International Co-operative Wholesale Society on the quantities directly imported by the wholesale societies of the distributive societies are steadily increasing in completeness. The figures for 1925 are given in the table below. The last column shows the value of the goods that each wholesale society has bought directly from co-operatives in other countries, whether distributive or agricultural, or procured from its own depôts opened abroad.

¹ On the power of the distributive co-operative societies to increase the purchasing power of the masses, see Memorandum C.E.I.11: *Results of Certain of the Enquiries for Instituting a Comparison between the Retail Prices in Private Trade and those of Distributive Co-operative Societies.*

VALUE OF TRANSACTIONS AND IMPORTS OF WHOLESALE SOCIETIES ¹

	Total sales to affiliated societies	Goods imported	
		Total import	Bought from foreign co-operatives or through depôts opened abroad
	£	£	£
England	76,585,764	28,252,961	11,420,657
Scotland	17,659,069	2,733,215	2,192,867
Germany	11,262,066	2,705,871	319,044
Sweden	5,443,143	1,269,128	12,447
Finland (2 wholesale societies)	7,103,395	1,224,866	30,320
Czechoslovakia (2 wholesale societies)	4,849,201	1,023,955	3,566
Russia	19,800,000	811,648	—
Switzerland	5,026,131	805,053	25,402
France	3,517,989	348,500	—
Austria	2,061,153	307,574 ²	—
Norway	1,157,590	213,799	427
Latvia	1,328,572	169,976	2,364
Ukraine	7,646,600	156,318	35,903
Esthonia	802,118	137,893	27,972
Belgium	1,405,080	114,426	3,338
Poland	1,576,386	110,734	81,587
Netherlands	1,052,679	48,062 ²	—
Total imports		40,433,979	

¹ The figures in the second column of the table showing the total sales of each wholesale society to its affiliated societies are taken from a statement kindly supplied by Mr. H. J. May, General Secretary of the International Co-operative Alliance. The figures of those countries only have been taken for which it was possible to show also (3rd and 4th columns) the direct imports according to the statistics of the International Co-operative Wholesale Society.

² Three-quarters.

The imported goods were derived from Europe to the value of £15,871,527, America £15,752,617, Asia £5,466,039, Oceania £2,317,508, and Africa £1,026,188. Wheat and butter head the imports of the European wholesale societies (wheat £8,287,513; butter £4,735,033). These two commodities alone represent 32 per cent. of the total imports.

The International Co-operative Wholesale Society has no commercial functions, but is essentially an institution for bringing the national wholesale societies together and for establishing a statistical record of their international transactions. Another

international body, which has commercial functions but is limited to three countries — Denmark, Norway, and Sweden — was set up in 1910 under the name of “Nordisk Andelsforbund” (the Scandinavian Co-operative Wholesale Society). This body acts as a joint purchasing agent for the three Scandinavian wholesale societies. The total value of the purchases effected through the “Nordisk Andelsforbund” in 1925 was 19,100,000 Danish crowns, of which total 2,800,000 crowns represented purchases of flour and cereals — in particular the purchase of American flour and wheat required by the Danish Wholesale Society and bought direct from a certain number of American grain-mills (the Danish customs duties make it possible to import larger quantities in Denmark than in the other Scandinavian countries).

Dairy Produce

A distinction must be made between the different countries according as they obtain their supplies locally, regionally, or nationally, or from the international market.

In Austria, for instance, a producing country, the imports of butter and cheese are very small: the local co-operatives obtain their supplies from the agricultural co-operative marketing societies or directly from the producers. As regards butter, over 62 per cent. comes from the marketing co-operatives; nearly 35 per cent. is bought direct from the farmers, and the rest is supplied by the Wholesale Society. In Finland the distributive co-operative societies obtain their supplies direct from the countryside. One of the two chief central organisations purchases 78.67 per cent. of its butter and 25 per cent. of its cheese from the agricultural co-operatives. The other does not directly undertake the distribution of butter and cheese, as its local societies obtain their supplies from “Valio”, the Central Sales Office of the Co-operative Dairies. The Swedish Co-operative Union is equally independent of imports: it buys all its butter from the agricultural co-operatives and all its cheese on the open market.

These facts are of interest as evidence of the relations between marketing co-operatives and distributive co-operatives, but they do not affect the international market. In Switzerland and Great Britain, for instance, the position is different.

In Switzerland a large number of distributive societies include the distribution of dairy produce in their transactions. In 1922 for the Basle Distributive Co-operative Society, whose membership roughly corresponds to the number of households in the area it covers, milk, butter and cheese were responsible for 25 per cent. of the turnover¹. The Swiss Union of Distributive Co-operative Societies, which covers most distributive societies, obtains the whole of its cheese supply, or 1,607,000 kg., from the Swiss agricultural co-operatives (1925), except for 5,000 kg. imported from Italy. For butter, on the other hand, the supplies obtained from the Swiss

¹ Scarcely less than groceries (26 per cent.).

agricultural marketing societies cover only a small proportion of the requirements of the Union. Its imports of butter in 1925 amounted to 1,412 tons, or nearly 16 per cent. of the total imports of butter in Switzerland in 1925. The greater part (over 78 per cent.) of the imports of the Union came from the Danish co-operatives.

Of all countries, Great Britain is incomparably the largest importer of butter and cheese. In 1925 the net imports of butter were 278,942 tons and of cheese 149,480 tons, or over 70 per cent. and over 51 per cent. respectively of the total net imports of all the principal importing countries (397,830 tons of butter and 291,952 tons of cheese)¹. The English and Scottish Wholesale Societies absorbed in 1925 about 38,838 tons of butter, or 13.9 per cent. of the total gross imports, and 12,917 tons of cheese, or 8.6 per cent. of the total gross imports. The relations of these Wholesale Societies with the marketing co-operatives of the exporting countries will be discussed below.

Wheat and Flour

CO-OPERATIVE BAKERIES

The manufacture of bread was undertaken by co-operative organisations at a very early stage of development. In certain countries, especially Belgium, France, the Netherlands, etc., the co-operative bakeries, whether specialised societies or productive undertakings of the general distributive societies, are among the oldest co-operative organisations. At first these bakeries were small and there was no connection between them, and they obtained their supplies direct from the producers if they were set up in rural districts, or from the large grain mills if they were situated in urban centres. But they grew rapidly, and in many countries, such as Austria, Belgium, France, Germany, Great Britain, Sweden, and Switzerland, the bakeries of the distributive co-operative societies are now among the most important large industrial bakeries. In Germany the distributive co-operative societies affiliated to the Central Union ran 294 bakeries in 1925 whose aggregate turnover was 104,124,374 marks. In Austria seven large bakeries used in 1925 11,245 tons of flour and produced 10,996,318 kg. of bread of which 2,319,402 kg. were white bread. In Belgium 38 of the societies affiliated to the Belgian Co-operative Union ran 78 industrial bakeries which consumed about 683,900 tons of flour in 1925. In Denmark 35 co-operative bakeries had a combined turnover in 1925 of 2,500,000 kroner. In Finland 50 co-operative bakeries used 8,732 tons of flour in 1925. In France the number of bakery societies was 1,071 with a combined turnover in

¹ As regards butter in particular, it may be mentioned that Denmark, Australia, and New Zealand, the three countries in which co-operative dairy farming has been shown to be so highly developed, alone cover nearly 70 per cent. of the British gross imports. As regards the gross imports of cheese, two countries, New Zealand and Canada, are responsible for 86 per cent. of the total.

1925 of 153 million francs, and the number of distributive societies owning a bakery was 587. The membership of the former societies was 258,596 and of the latter 639,712, giving a combined total of 898,308. In the United Kingdom 720 co-operative bakeries or bakeries run by the societies affiliated to the Co-operative Union consumed three million 280-lb. sacks of flour, or about 375,000 tons, to which should be added 112,050 tons of flour for home baking, giving a total of 487,050 tons of flour. In Latvia 18 bakeries consumed 2,525 tons of flour in 1924. In Sweden, in 1925, of the 53 co-operative bakeries 41 were affiliated to the Co-operative Union and consumed 2,100 tons of wheat flour and 5,345 tons of rye flour. In Switzerland in the same year 159 bakeries run by the co-operatives affiliated to the Swiss Union of Distributive Co-operative Societies used 30,600 tons of flour.

CO-OPERATIVE GRAIN MILLS

In most of these countries and some others the growing importance of the bread-making functions of the co-operative organisations has led to a re-examination of the problem of flour supplies. It was an obvious solution to pool their requirements either by making their wholesale societies procure all or the greater part of their flour, or by renting grain mills and buying grain, whether, as in certain cases, on their own account or, as more often, through the medium of the wholesale societies. In this way, in so far as national production is insufficient to satisfy their requirements, they play a direct part in the international market. In this respect, too, Great Britain and its co-operative movement offers the most characteristic example.

Great Britain, which is the principal wheat importing country, imported in 1923-1924 5,500,000 tons of wheat. Now in 1925 the grain mills of the English and Scottish Co-operative Wholesale Societies together required 731,500 tons annually. Leaving aside the wheat required for seed or for stock-feeding, British consumption is estimated at 4,600,000 tons. Hence the wheat requirements of the grain mills of the English Wholesale Society cover already 15.5 per cent. of the requirements of the population of Great Britain. This proportion shows a steady tendency to increase. The output of the English Co-operative Wholesale Society alone rose by 49.68 per cent. in the period 1914-1924. To secure what they need the English and Scottish Wholesale Societies, being subject to the general economic conditions prevailing in their land, must necessarily utilise the produce of the leading exporting countries. They find themselves thus engaged, with all their purchasing power, in vast international transactions.

In point of fact only a relatively small proportion (slightly more than 10 per cent.) of their supplies are obtained in Great Britain (about 78,660 tons); close on 90 per cent. are derived from Canada, the United States, Argentina, Australia, Russia, Poland, India, and a few other countries. Canada and the United States alone contribute 55 per cent. of the imports of the English Co-operative Wholesale Society, and 88 per cent. of those of the Scottish Co-operative Wholesale Society.

III. INTERNATIONAL RELATIONS BETWEEN DISTRIBUTIVE CO-OPERATIVE SOCIETIES AND AGRICULTURAL CO-OPERATIVE MARKETING SOCIETIES

As a result of the investigation undertaken in 1925 in accordance with a resolution of the Mixed Agricultural Advisory Committee of the International Labour Office and the International Institute of Agriculture, it is possible to give some examples of the economic relations, national and international, between distributive and agricultural co-operative societies. As far as the information at present available shows, Switzerland for butter and Great Britain for dairy produce and wheat are the only countries in which the distributive societies have direct and constant relations with the agricultural co-operatives of the exporting countries.

Dairy Produce

Switzerland, which exports cheese, imports butter. This explains why the Swiss Union of Distributive Co-operative Societies, which can obtain practically all the cheese it requires from co-operatives of Swiss producers, buys so much butter abroad that it ranks as one of the chief butter importers of the country. Out of the 1,412 tons of butter it imports, 1,111 tons come from Denmark. Quite recently it became possible to dispense with the services of middlemen and the purchases are now made direct from the co-operative organisations of the Danish producers.

During 1925 the British Co-operative Wholesale Societies met their butter requirements by purchases abroad to the amount of 38,100 tons, of which 24,800 tons came from Denmark. It was shown above that all or practically all the butter exported from Denmark is produced by the agricultural co-operatives. The purchases of the British Wholesale Societies represented 20 per cent. of the total Danish butter exports and 29 per cent. of the Danish exports to Great Britain. The English Wholesale Society has for many years been in touch with the Danish co-operative movement through the medium of five purchasing agencies in Denmark; the first of these agencies was opened at Copenhagen in 1881.

Direct relations have also been established between the English Wholesale Society and the Finnish butter co-operatives grouped in the "Valio" organisation.

The relations between the English Wholesale Society and the Russian co-operatives date from 1922. In 1924 the Anglo-Russian co-operative transactions included 25,000 casks of butter of a value of £205,162; the corresponding figures for 1925 were 41,914 casks of butter and £305,176. In 1924 the transactions were effected through the medium of the "Centrosoyus" (Central Union of Russian

Distributive Co-operative Societies), and in 1925 through that of the "Selosoyus", the London selling agency of the "Maslocenter" (Union of Russian Co-operative Dairies) ¹.

Relations between the English Wholesale Society and the New Zealand Producers' Co-operative Marketing Association were organically constituted in 1921 by the creation in London of a joint company to act as agent for both parties.

This organisation is termed the New Zealand Produce Association Ltd., in which the New Zealand marketing company and the English Co-operative Wholesale Society have an equal shareholding, these being the only shareholders. Two directors from each organisation form the board of management, the chairman being appointed alternately from each organisation every year. The business is run on ordinary commercial lines, commission being charged at current rates for all business done, and after all expenses are met the margin saved, which hitherto went to private traders, is distributed between producer and consumer. The New Zealand company looks after the handling, shipping, insurance and financial arrangements in the country of origin, and keeps the London company advised of all shipments coming forward; it also advises its members of prices realised for the products and any information regarding marketing that may be sent to it. The London company clears the goods on arrival, looks after storage when necessary, acts as selling agent and determines the price the goods are to be sold at on the British market.

There is no compulsion on the part of the English Wholesale Society to buy from the company, or on the company to sell to the Wholesale Society. If the price fixed by the company is in the estimation of the Wholesale Society buyers too high, they are at liberty to purchase their requirements from other sources, while the company is always at liberty to sell to outside traders. This agreement arose as a result of objections on the part of some New Zealand dairy companies, which feared that on the board of management the chairman, having a casting vote, would on a question of price fixing vote in the interests of his own organisation. Immediately this objection was raised, and the reasons for it put to the Co-operative Wholesale Society, the latter waived its right of fixing prices, and now this function is performed by the New Zealand representatives. This arrangement has worked quite smoothly.

The joint company sells in Great Britain butter, cheese, and other produce from the agricultural co-operatives belonging to the New Zealand organisation. The English Wholesale Society is the principal and sometimes the only buyer of those deliveries. In 1924 the total amount of cheese imported in this way was 6,895 tons to a value of £330,948.

¹ The total value of the goods purchased by the British co-operative movement from the Russian co-operatives was £705,770 in 1925. This figure does not include the wheat transactions of the Russo-British Grain Export Company. Further, the sales of the English Wholesale Society to the Russian co-operatives amounted to £304,194 in 1925.

Wheat

In 1923 a company known as the Russo-British Grain Export Company was formed with a capital of £100,000 held equally by Russian and British interests. The Russian representatives include on the one hand State institutions (the Commissariat for Foreign Trade, its London agency "Arcos", and the State Bank) and on the other hand the "Centrosoyus" (the Central Union of Distributive Co-operative Societies), the "Selskosoyus" (the All-Russian Union of Agricultural Co-operative Societies), and the "Vsekokobank" (the All-Russian Co-operative Bank). Half the British shares are held by the English Co-operative Wholesale Society and the other half by two private commission and shipping firms. The object of the company is to purchase grain in bond in Russian ports or in cargo, and to dispose of it in Great Britain, France, Italy, and South European countries. The quantity of grain exported by the company was 79,250 tons in 1923, 282,450 tons in 1924, 560,830 tons in 1925, rising to 685,800 tons in 1926.

The English and Scottish Co-operative Wholesale Societies have established relations with the Canadian wheat growing co-operatives. In 1925 the English Wholesale Society imported 253,000 tons of Canadian wheat¹. The recent development of the co-operative organisation of the marketing and export of wheat in Canada and the already well-established relations between the Canadian and British co-operative movements suggest that in future the British Wholesale Societies will satisfy the whole of their demand in Canadian wheat, obtained through the medium of the Canadian wheat growers' co-operatives and in direct contact with them. Conversely, the Canadian distributive societies, which are now making rapid progress in the Canadian provinces, obtain their groceries and manufactured goods from the British Wholesale Societies.

The Manchester Co-operative Wholesale Society has also established direct relations with the marketing co-operatives of the Australian wheat producers. Last year the Co-operative Wheat Pool of Western Australia, considering that the terms demanded by the Australian private banks were excessive, applied to the bank of the English Wholesale Society and obtained the assistance it required at a rate of $\frac{1}{2}$ per cent. below that offered by the Australian banks under a State guarantee. The bank of the English Co-operative Wholesale Society agreed to open a credit of £1,365,000, which enabled the Western Australian organisation to make its members a first payment of 5s. 6d. per bushel of wheat immediately on delivery, followed by instalments until the closing of the transactions, which involved 9,500,000 bushels (250,000 tons) to a value of £3,167,000. This agreement was considered so satisfactory that it was renewed for the 1925-1926 season.

¹ For the Scottish Wholesale Society only the total figure of imports from Canada and the United States (107,000 tons) is available. It is a well-known fact that part of the Canadian wheat is shipped from American ports.

As the examples given above will have shown, the relations between distributive and agricultural co-operative societies take various forms, ranging from the accidental or customary relations of ordinary commercial transactions to the constitution of permanent joint organisations.

The bargains effected in the ordinary form of commercial transactions are in themselves only a slight advance on the transactions which either party may have with private traders; at all events they introduce no new principles. By being renewed, however, they may create a stable commercial current and prepare the way for closer relations.

Contracts which are equivalent to agreements for association and undertakings which are run jointly form, on the contrary, connecting links which tend to establish in regular and organic form a continuous co-operative chain from the farm to the household.

It was necessary that the co-operative movement should already have reached a certain degree of development both among the distributive societies and the agricultural societies if the idea, no longer new, of a connection between them was to become more than a simple desire born of the recognition of the close relationship between their principles and methods. This relationship has not always received full recognition, especially in countries where economic evolution has tended to separate, and consequently to create, hostility between the rural and urban population. Yet in certain countries where urban co-operation and rural co-operation were temporarily afar or ignorant of each other, joint committees or organisations have latterly been set up or are in process of constitution (Germany, France, Switzerland, Great Britain). As a further symptom of the growing interest taken by the co-operative movement in the question of the relations between agricultural and distributive societies, reference may be made to its inclusion in the agenda of the 12th Congress of the International Co-operative Alliance to be held at Stockholm in August 1927.

APPENDIX

PRELIMINARY OBSERVATIONS

In the course of its second meeting the Preparatory Committee for the International Economic Conference, after taking note of the preceding Memorandum, expressed the desire that a similar document concerning agricultural products other than wheat and dairy produce be prepared for presentation to the International Economic Conference itself. This document, the elements of which had already been collected and were organised during the time required for printing the Memorandum, refers to the part played by co-operative organisations in international commerce in bacon, eggs, fruit, honey, tobacco, natural silk, linen, wool, and cotton.

Although this new document is merely complementary, the number of products under consideration is much greater than in the Memorandum itself; this necessitated extreme brevity. On the other hand the very short time allowed made it impossible to fill with completeness and certainly the gaps necessarily present in information collected day by day without the systematical effort involved in a special investigation.

The fact that the following notes are a continuation of the Memorandum made it possible to omit all general historical information and description of peculiarities of co-operative methods, except for an occasional brief explanation of particular details.

The material for the information given, as in the Memorandum, is derived from the activities of co-operative organisations both of producers and consumers of the products in question. It has been pointed out that co-operative marketing organisations, especially those trading with distant markets, specialise as narrowly as possible in single products, while conversely the co-operative organisations of consumers have generally endeavoured to satisfy through the same institution the greatest possible number of needs of their members. This difference shows itself in the manner in which the two kinds of organisation report their activities, and consequently in the use that can be made of their reports and statistics for our present purpose. For a given product it is, as a rule, less difficult to get information as to the quantity which a marketing organisation has exported and its destination than to discover with certainty the amounts and origin of purchases even in the accounts of a very great and prosperous distributive co-operative organisation¹.

The data which have been collected will be presented in the following order, corresponding as closely as possible to the order in which co-operative methods of marketing and supply were successively extended and perfected from one country to another and from one product to another: (a) bacon, (b) eggs, (c) fruit (raisins, oranges and lemons, prunes and dried apricots, dessert apples), (d) honey, (e) tobacco, (f) textiles (silk, wool, linen, cotton).

Bacon

In most cattle-breeding countries co-operative institutions for marketing stock have developed very extensively. It is necessary to leave out of account countries such as Germany, Norway, etc., where co-operative organisations for marketing cattle already play an important part in the national market, but which are not to any great extent exporters of meat.

¹ At this point we must express special appreciation of the assistance of the German Co-operative Wholesale Society, which was able to give us very quickly the results of a detailed analysis of its importations.

In the exporting countries a distinction must be made between the exportation of pork and that of other meats. As far as meat other than pork is concerned it is as a rule only the initial stages of marketing which are organised on a co-operative basis. In the United States, for example, the central exchanges created by the co-operative associations of cattle-breeders, the oldest of which dates from 1919, put on the market, in 1923, 9,939,512 head of cattle with a value of \$192,564,431; but the larger part of this total was sent to the central market at Chicago.

In the marketing of pork, however, the co-operative movement, guided and supported by the already existing co-operative organisations (maize, wheat, potatoes, and especially milk), has succeeded in reaching the point of direct contact with the international market. Even in exporting countries of small importance the co-operative movement plays a great part; thus, for example, in 1925 the co-operative organisation "Konzums" in Latvia exported 71,059 kg. of bacon, which represents 54.3 per cent. of the total quantity exported by the country.

For the sake of simplification this report will be confined to bacon. Of all the pork entering the international market it is by far the most important. In Great Britain, a great importer of pork, bacon represented in 1925 about 75 per cent. of all the pork imported both in quantity (380,335 tons out of 522,160 tons¹) and in value (£42,239,817 out of £57,031,488¹). Of this total, importations from the Irish Free State represent 6.2 per cent., from Canada 16.9 per cent., from the United States 19.9 per cent. Denmark heads the list, providing more than 50 per cent. of the total.

Co-operative slaughter-houses in Denmark. — After the dairy industry, the pork industry is the most important in Danish agriculture. These two industries mutually support each other, since the latter depends to a great extent on the utilisation of the by-products of the former. Originating a little later than the dairy industry, the pork industry assisted it to establish itself on a peculiarly economical basis and has itself followed the same line of development.

The number of pigs in Denmark according to the statistics of 1881 amounted to 527,417; on 15 July 1924 the number had risen to 2,868,139, showing an increase of 443.8 per cent. in 43 years; the number of pigs killed during the same year was 4,024,038².

The amount of bacon exported has increased in proportion. Precise comparisons are not possible through lack of sufficient statistical information. It can only be noted that in 1887 the quantity of pork exported including all kinds (fresh pork, bacon, ham, etc.) amounted to 25,000 tons while in 1924 the exportation of bacon alone amounted to 197,172 tons.

This strikingly rapid development at first met with some difficulties. The two most important were connected with the conditions of production and the conditions of marketing respectively. On the one hand a regular supply was essential for the slaughter-houses to enable them to make full use of their equipment; on the other hand the pigs brought to the slaughter-houses had to be all of the same kind and of a uniform and constant quality so as to correspond to the demands of the British market³. The success of the industry thus depended almost entirely on the extent to which it was possible to count on active and permanent collaboration with the breeders. Presumably it was this necessity which brought about the predominance of the co-operative slaughter-houses over the private slaughter houses.

The first co-operative slaughter-house was established in 1887; three years later there were ten co-operative slaughter-houses and in 1925 there were fifty. From 1888 to 1914 the number of pigs handled in the co-operative slaughter-houses increased more than a

¹ Provisional figures.

² The corresponding figures are not obtainable for the period preceding 1912 (2,423,564). In 1888 after one year of activity the first co-operative slaughter-house had killed 23,400 pigs.

³ After producing a heavy fat pig for the requirements of the German market, the Danish breeders had to produce a lighter pig (about 90 kg.) but longer and more muscular to furnish bacon. The remuneration of the producers is reduced by 1 per cent. or 2 per cent. per lb. on the total weight when the weight of the animal delivered to the slaughter-house is more or less than the required weight.

thousand times (from 23,400 to 2,434,615). In 1923 there were only 16 private slaughter-houses. Their number is declining (there were 21 in 1912). Their average importance is also less than that of the co-operative slaughter-houses, since in 1924 out of 4,024,038 pigs killed in Denmark, 3,297,286, or 81.9 per cent., were handled in the 49 co-operative slaughter-houses then existing.

The principal and practically the only outlet for this industry is Great Britain, which in 1923 absorbed 85 per cent. of the bacon produced in Denmark.

The organisation of this marketing shows some interesting features marking the systematic effort of the Danish breeders to shorten the road from production to consumption.

In Denmark there is no middleman engaged in the exportation of the bacon from co-operative slaughter-houses. They are in direct contact with the British market. Half of them employ agents to represent them in England and to keep them in touch with the wholesalers.

The others have endeavoured to organise their marketing in a manner still more direct, that is, in exceptional cases by establishing direct relations with the retailers (generally large businesses with many branches), and otherwise through an importing agency under their control, the Danish Co-operative Bacon Trading Company.

The Danish Co-operative Bacon Trading Company. — This organisation, which is incorporated as a British company, was created in 1902 by three co-operative slaughter-houses; it now represents eighteen, which undertake to deliver to it their total weekly production for exportation. It alone distributes about one-third of the bacon imported from Denmark and is thus the most important organisation distributing bacon in Great Britain.

It combines the functions of commission agents and wholesalers and for these operations collects only a commission of 1.5 per cent., which is the average remuneration of commission agents alone. For this reason it is supposed to have brought about a reduction in the rate of the commission formerly charged by representatives of the slaughter-houses. In addition to this, although it cannot be established by unquestionable documentary evidence (on account of methods of book-keeping which make comparison very difficult), the Danish Co-operative Bacon Trading Company asserts that it ensures to the co-operative slaughter-houses which it represents a higher price than other slaughter-houses receive from their commission agents; and at the same time it claims that on account of the great supply of which it disposes it is in a position to sell to retailers at a price lower than that charged by the wholesalers. In any case it is generally admitted that its activity exercises a stabilising influence on the bacon market as a whole.

A few interesting details concerning the division of its profits and the constitution of its capital may be given here. The net profits are divided equally between the purchasing retailers and the supplying slaughter-houses, and each slaughter-house or retailer receives a premium in proportion to the amount of business which he has done with the company. The capital is furnished mainly by the 18 co-operative slaughter-houses, in proportion to the importance of their respective production for export; a small part is contributed by some of the retailers who derive their supply from the company; these retailers may, if they wish, use the amount of their premium to increase their share in the capitalisation of the company.

In its constitution and activities and in the part which it plays in the market, this company in certain details resembles the New Zealand Produce Association Ltd., which brings together in the market of dairy produce the co-operative organisations of New Zealand producers and the co-operative consumers' organisations in Great Britain¹.

Requirements and methods of supply of British distributive co-operative societies. — In 1925 the Co-operative Wholesale Society (Manchester) and the Scottish Co-operative Wholesale Society (Glasgow) together imported bacon to the value of £5,038,066 which represents 11.9 per cent. of the total British importation of bacon for that year. More than three-fifths (£3,272,254) of this importation is from branches which they have established in different countries for the sake of direct contact with the place of production. The total importation of the C.W. S. alone represents a value of £4,821,942. Of this amount

¹ See p. 27.

£3,056,130 represents the importation of bacon from branches established in the United States, the Irish Free State, and especially from five branches established in Denmark, one of which is a slaughter-house.

The C.W.S. and the S.C.W.S. also import bacon through the Danish Co-operative Bacon Trading Company (£354,122 and £10,695 respectively for the year 1 December 1925 to 30 November 1926). It should be noted that as a purchaser the C.W.S. is related to this company in much the same way as to the New Zealand Produce Association.

Eggs

Eggs are an important article of international commerce in food products and their market interests most countries either as exporters or as importers. In both categories co-operative organisations play an important part either in distribution or more commonly in marketing.

Principal co-operative marketing organisations. — It should first be noted that for eggs also the principal market is Great Britain, where the net importation of eggs (not counting importation from Northern Ireland nor importation of dried eggs, egg powder, etc.) represents about 55 per cent. of the consumption. It might be convenient, therefore, to classify the exporting countries in order of importance by reference to the British market.

The principal sources of supply for eggs in the shell exported to Great Britain in 1924 (expressed in millions) are as follows: Denmark (725), Irish Free State (562), Egypt (195), Netherlands (148), China (124), Russia (99), Poland (88), Latvia (86), Belgium (84), etc.

If the classification is by the value of the importation (expressed in thousands of pounds sterling) the order is as follows: Denmark (5,496), Irish Free State (3,363), Netherlands (1,025), Egypt (861), China (660), Belgium (553), Russia (579), Latvia (441), Poland (431), etc. In this classification, which shows the difference in commercial value of the eggs exported, the Netherlands pass from the fourth place (by quantity) to the third, and Belgium from the ninth to the sixth.

In the following remarks only those countries will be considered for which it is at present possible to furnish some recent information concerning the co-operative marketing of eggs. The importance of the Irish Free State, where the co-operative marketing of eggs has developed rapidly in the course of recent years and has considerably improved the quality of the product¹, is best measured by reference to the English market and the figures given above will suffice.

In *Denmark* during the last thirty years the number of hens has more than quadrupled (5,900,000 in 1895; 25,000,000 in 1925) and the value of eggs exported has increased nearly eighteen times (from 7,000,000 kr. to 125,000,000 kr.). In 1925 a little over 25 per cent. of the total exportation was supplied in the proportion of about three-eighths and five-eighths respectively by seven co-operative slaughter-houses and the Central Danish Co-operative Egg Exporting Society ("Dansk-Andels Aegekspor"), which have regulated, organised and improved conditions of collection, cleaning, candling and grading of eggs.

In the *Netherlands* also the marketing of eggs is organised to the extent of about 25 per cent. on a co-operative basis. (In 1925 one of the principal central co-operative societies for the sale of eggs put on the market about 100,000,000 eggs.)

In 1925 *Russian* co-operative organisations supplied eggs for export with a value of £1,278,611 or about half the value of the total exportation of eggs from the U.S.S.R. for the same period (£2,566,700).

It might be mentioned that of the quantity supplied by co-operative organisations, about one-quarter came from the "Centrosojus", which is the central organisation of distributive co-operative societies. Thus, in certain countries where the distributive co-operative movement has developed extensively in rural districts, the local associations have often organised the marketing of eggs.

¹ See *Year Book of Agricultural Co-operation in the British Empire*, published by the Horace Plunkett Foundation, London, 1926.

This is the case also in *Poland*, where the Union of Distributive Associations of the Polish Republic from January to September 1926 exported 803,000 kg. of eggs. The egg-marketing co-operative societies, which were seriously affected, and in some cases annihilated, by the war, are proceeding with reorganisation. In 1926, for example, the Central Lwow Co-operative Society for the marketing and exportation of eggs exported about 10,484,400 eggs, and the Cracow Co-operative Union for marketing eggs ("Jajo") exported 15,228,400. It may be estimated that during the past year the co-operative organisations mentioned above and certain others have supplied about 5 per cent. of the eggs exported from Poland.

Another example is *Estonia*, where the Central Co-operative Farmers' Wholesale Association ("Estonia") exported in 1923 a quantity of eggs (1,384,200) which, though not very great, represents about 33 per cent. of the total exportation of eggs from Estonia¹.

Sources of supply of some distributive co-operative organisations. — In spite of the difficulty of establishing statistics of the distribution of eggs, it is possible to show by certain examples the extent to which certain co-operative wholesale societies have entered the international egg market. The Scottish Co-operative Wholesale Society has established an important purchasing branch in Ireland (Enniskillen), which in a single year supplied 34½ million eggs. In 1924 the S.C.W.S. received 1,000 cases of eggs from the United Farmers' Co-operative Company (Ontario).

In the same way the English Co-operative Wholesale Society is supplied with eggs by the branches which it maintains in Ireland as well as from its five Danish branches.

The German Consumers' Co-operative Wholesale Society in 1925 imported more than 38½ million eggs with a value of 4 million marks; the principal sources were, Styria (8,920,000), Italy (6,158,000), Russia (6,040,000), Hungary (4,225,000), Poland (2,704,000), Netherlands (2,140,000), Kingdom of the Serbs, Croats and Slovenes (1,431,000), Bulgaria (1,252,000), etc. Of the total 1,263,000 eggs came from Russian co-operative organisations (Centrosojus and Selskosojus), and all the eggs imported from Switzerland (208,000) came from co-operative organisations².

Fruit

Large co-operative marketing organisations, called forth by the necessity of selling an increasing product in distant markets, have been formed in all countries where fruit growing has developed very rapidly in the course of the last two decades (United States, Canada), or in the course of the last few years (Australia, New Zealand, South Africa, North Africa, Palestine). In countries which have engaged in the exportation of fruit for a long time, such as Greece, Spain, France, Italy, etc. the producers have likewise increasingly turned to co-operative organisation. As a rule co-operative organisations of fruit growers have conformed to the principle of "commodity by commodity" except that they have sometimes instituted services in common among themselves. Thus in Australia, New Zealand and South Africa co-operative marketing organisations specialising more or less in single products have formed federations, and these federations have in turn united to establish

¹ In the United States the marketing of products, even when effected within the limits of the national territory, is very often to distant markets and consequently in most of its technical aspects presents the same characteristics as exportation. Some figures showing the importance of co-operative organisations even on the national market might be given here. For example 50 per cent. of the fresh eggs sold in New York came from co-operative organisations on the Pacific Coast. In 1924, 156 co-operative farmers' organisations marketed 840 million eggs with a value of about \$22,000,000. In 1925, 50 co-operative associations specialising in the marketing of eggs effected sales to the value of \$26,936,459.

² In view of the development of the agricultural co-operative movement in most of the countries of origin other than Russia and Switzerland, although the purchases were made without direct contact with co-operative organisations, it can hardly be doubted that a large proportion of the eggs purchased had been put on the market by co-operative marketing organisations.

in London a common agency (Overseas Farmers' Co-operative Federations, Ltd.)¹. It should be noted at this point, first that practically the whole of the fruit production of these three Dominions is sold in Great Britain by this common agency, and second, that this agency is in direct relation with the C.W.S. These two remarks need not be repeated in each of the following paragraphs, in which the data made possible by our present sources are collected separately for each of the principal kinds of fruit.

Raisins and Currants

(a) *Currants*. — Greece is the principal producer and exporter of currants. Its production, which in a good season may amount to more than 150,000,000 kg., is sufficient for the consumption of the world.

The Greek growers have formed among themselves a considerable number of co-operative societies. These societies are for the most part grouped in district exchanges, which carry out exportation for their members, obtain advances for them and endeavour to eliminate exporting agents. 700 co-operative societies have formed a common agency, the Central Currant Exchange. In the two principal districts of production, the Peloponnese and the Vostizza district, the proportion of growers within the co-operative societies amounts to 40 and 65 per cent. respectively.

The French Consumers' Co-operative Wholesale Society has been since May 1926 in touch with the Greek co-operative societies through their central exchange; transactions for the second half of 1926 amounted to 20,000 kg. of currants.

On the other hand mention should be made of the recent development of currant production in *Australia*, the relative importance of which as compared with Greek production may be appreciated by the proportion in which the two countries figure in British importation. In 1924 the British importation of currants was made up in the proportion of 86.3 per cent. by Greek exportation (58,860 tons) and 13.6 per cent. by Australian exportation (9,300 tons). The Australian Dried Fruit Association includes the majority of Australian fruit growers and 90 per cent. of the currant growers.

(b) *Raisins*. — The British importation of raisins may give an approximate idea of the relative importance in the international market of the countries of origin, old and new.

In 1924 British importation of raisins amounted to about 600,000 cwt., of which 47.2 per cent. came from the following old producing countries: Turkey (22.8 per cent.), Spain (14.4 per cent.), Greece (10 per cent.). 51.7 per cent. came from the following new producing countries: Australia (32.2 per cent.), United States (15.4 per cent.), Union of South Africa (4.1 per cent.); 1.1 per cent. came from other countries.

The information given above as to the development of co-operative marketing organisations in Greece applies equally to all kinds of raisins and currants. It might be noted that the C.W.S. purchases its raisins in Spain, Greece and Turkey directly at the places of origin. Since 1896 the C.W.S. has had a supply branch at Denia (Spain). In Greece and Turkey its agents discuss prices on the spot. When an agreement has been made, the C.W.S. advances 85 per cent. of the price arranged and pays the balance on receipt of the produce after its arrival in England. These methods of direct purchasing in the country of origin have enabled the C.W.S. to avoid the restrictions and charges of the associations which in England control the importation and sale of dried fruit².

The C.W.S. and the S.C.W.S. are also in touch with the marketing agency established in London by the Sun-Maid Raisins Growers' Company. This co-operative organisation effects the sale of about 90 per cent. of the Californian raisins, which represent practically all the production of the United States. It was founded in 1919 and reorganised in 1922 and includes 17,000 members. Since its reorganisation it has succeeded in considerably extending its markets especially in Canada, Europe, and the Far East. Thus in two years, from 1923 to 1925, the proportion of the sales of the Californian Co-operation Organisation in the total importation of raisins in Scandinavian countries passed from

¹ This agency also represents on the British market the fruit growers of Seattle, Washington, and the Federation of Co-operative Dairies of Latvia.

² *Report of the Imperial Economic Committee on Marketing and Preparing for Market all Foodstuffs Produced in the Overseas Parts of the Empire. Third Report: Fruit.* 1926. Cmd. 2658.

11.8 per cent. to 47.6 per cent. for Denmark, from 6 to 37 per cent. for Norway, and from 1.7 to 37 per cent. for Sweden. In the British importation the share of the United States, the majority of which passes through the co-operative organisation, passed from 15.4 per cent. in 1924 to 32.5 per cent. in 1925¹.

Oranges and Lemons

Spain heads the list of countries exporting oranges. In 1924 Spanish oranges supplied 81.7 per cent. of the requirements of Great Britain.

In the district of Seville, a producers' association sells about 25 per cent. of the harvest and in the district of Denia the producers, already associated in two agricultural syndicates, recently undertook to form an association for organised exportation.

In *Palestine*, the production of oranges is the most important branch of agriculture. The majority of the producers are organised in three co-operative societies.

In *Algeria*, the "Coopérative des Agrumes de Boufarik" alone handles about a quarter of the total production of oranges and tangerines. It handled, in 1925-1926, 11,700 tons. The fruit is sorted and, according to its quality, exported to France, used for local consumption, or made into preserves in the society's factory.

The exportation of lemons, lemon juice and calcium citrate forms an important part of the *Italian* export trade. Organisations of lemon growers exist in continental Italy and in Sicily; the most important is the "Camera Agrumaria" of Messina, which controls the entire export of calcium citrate. In the British importation of lemons, lemon juice and calcium citrate, the Italian exportation represents respectively 82.2, 20.9 and 98.8 per cent.

In the *Union of South Africa*, the South African Fruit Growers' Exchange, a co-operative society, includes 70-75 per cent. of the lemon producers. This organisation, like the similar organisations in Australia (Victoria, New South Wales, and South Australia) and New Zealand, was formed on the model of the great co-operative associations of fruit growers in the United States, of which one of the most remarkable is the California Fruit Growers' Exchange.

According to the statistics of the *United States* for 1922, out of a total of 70,918 car loads of oranges and lemons, 43,620 car loads, representing a value of \$69,202,327, were shipped by co-operative organisations. Almost the whole of the co-operative marketing (98.9 per cent.) was affected by five federations, of which the two most important are the California Fruit Growers' Exchange and the Florida Citrus Exchange². The former, founded in 1895, marketed, in 1924-1925, 37,258 car loads of oranges and lemons, with a value of \$70,236,507, or 70-75 per cent. of the Californian production. The latter,

¹ It is impossible in this Appendix properly to explain the very complicated methods of large agricultural co-operative marketing societies. It can only be stated that these methods are closely derived from the methods which assured the success of the Danish co-operative societies (see above p. 9.) See also pp. 13 et seq. for the explanation of the methods of the Canadian Wheat Producers' Co-operative Societies. The rapid development of agricultural co-operative marketing societies in the United States has resulted in the publication of considerable literature. Reference may here be made to one of the most recent and most complete works: E. G. MEARS and M. O. TOBRINER: *Principles and Practice of Co-operative Marketing*. Ginn and Co., Boston, 1926.

² These two organisations have the same federal constitution. The producers are organised in local associations, which are in turn grouped in district exchanges. The district exchanges elect the directors of the central exchange. The local associations are responsible for grading the fruit according to quality and size and for packing. The district exchanges determine the conditions of sale. The central exchange is regularly informed by its own agents of the situation in the different markets; it transmits this information to the district exchanges and carries out their orders. On the rules of the organisation, the methods and the duties carried out by the various constituent units of the California Fruit Growers' Exchange see: *Organisation and Development of a Co-operative Citrus Fruit Marketing Agency*, by A. W. MACKAY and W. MACKENZIE-STEVENS (Bulletin No. 1237 of the United States Department of Agriculture, May 1924). See also: *Management Problems of Co-operative Association Marketing Fruits and Vegetables*, by A. W. MACKAY and W. J. KUERT (Bulletin No. 1414 of the United States Department of Agriculture, July 1926).

founded in 1909, marketed, in 1925-1926, 10,484 car loads of oranges at a value of about \$15,000,000 or 35-40 per cent. of the production of Florida. The California Fruit Growers' Exchange has greatly developed its exportation to Canada and in recent years to Great Britain and the Far East. In order to utilise fruit not fit for shipment it has created two subsidiary societies, one for handling lemons (in 1924, 25,800,000 lb. of citric acid, 30,000 lb. of citrus oil and 30,000 lb. of pectin), the other for the manufacture of concentrated orange juice, the sale of which was extended in 1924-1925 to Japan, Sweden and Austria.

Prunes and Dried Apricots

The United States furnishes the largest portion of the prunes and dried apricots which enter into international commerce. In 1924 their share of the British importation amounted to 83.8 per cent.; the remainder came from France (3.9 per cent.) and Yugoslavia (3.6 per cent.).

Co-operative marketing organisations play an important part in the sale of the American production. Of a total of 11,257 car loads of plums and prunes shown in the statistics for 1922, 3,195 car loads with a value of \$12,453,720 were shipped by co-operative organisations. Of these shipments 89.3 per cent. came from three large federations, the most important of which is the California Prune and Apricot Growers' Association. This organisation, founded in 1917, included in 1925 11,300 members, whose production represented 75 per cent. of the Californian harvest of apricots and 85 per cent. of the prunes.

The California Prune and Apricot Growers' Association has given particular attention to methods of grading so as to be able to supply each market with the particular variety of fruit which, in quality and price, corresponds most closely to the taste and purchasing power of the consumers. Thus, in one recent year it marketed in Europe 70,000,000 lb. of prunes, the majority of which were cheap on account of their small size. Similarly, the low price of a certain class of dried apricots enabled 55 per cent. to be marketed in Germany¹.

Dessert Apples

In the export of dessert apples, as in the case of the other fruits mentioned, it is the countries where the development of production is relatively recent (United States, Canada, Australia) which are the most prominent in the international market, and it might be remarked that these are precisely the countries which have carried to the furthest extent co-operative organisation in marketing their produce for the purpose of reaching distant markets.

In *Canada*, the provinces of Ontario, Nova Scotia and British Columbia supply the majority of the production.

A considerable number of co-operative societies have been formed in the province of Ontario. But it is in the other two provinces that co-operative marketing is most highly developed. The United Fruit Companies of Nova Scotia, Limited, and the Associated Growers of British Columbia market 40 per cent. and 83 per cent. of the production of their respective provinces. Their principal foreign market is Great Britain, where they are in competition with the American exporters.

The share of the *United States* in the British importation, which averaged only 27 per cent. from 1900 to 1912, has steadily increased; in 1924 it was 38 per cent. This increase is due in large measure to the development in the States of Washington and Oregon of the boxed-apple industry. In these two States about one-third of the production is packed and marketed by co-operative organisations. Another third is also sorted and packed by co-operative organisations, but the marketing is entrusted to commission agents.

¹ The German Co-operative Wholesale Society furnished the following information as to the quantity and the countries of origin of its supply of dried fruits. The total importation in 1925 amounted to 2,344,244 marks (4,675,992 lb.) and is made up by countries as follows: Italy, 860,950 marks (703,342 lb.); Turkey, 540,005 marks (1,125,762 lb.); North America, 254,762 marks (471,026 lb.); Greece, 239,250 marks (975,092 lb.); Yugoslavia, 177,665 marks (759,000 lb.); France, 139,006 marks (308,000 lb.); other countries, 131,606 marks (333,768 lb.). The remark at the foot of page 35 applies to a great extent here also.

Honey

In almost all the countries producing honey, co-operative associations have been formed by the beekeepers for the purpose of marketing their produce both in the local or national market and in foreign markets.

In *Canada* the example of the co-operative society of beekeepers of the province of Ontario is a good instance of the efficiency of co-operative methods in reaching distant markets.

The Ontario Honey Producers' Co-operative, Limited, was formed in April 1923. Its members, numbering 1,100 (November 1926), produce over 85 per cent. of the total. When the society began its operations it was discovered that 1,500,000 lb. of honey remained unsold from the year 1922 in the hands of the members. Following an investigation of various foreign markets carried out on the spot by the Director of the society, this supply was sold, and, since then, the society has made regular shipments to Europe, particularly to Great Britain, Holland and Germany. Shipments to the two latter countries in 1924 amounted to about 50,000 lb.

In *Europe* the most important co-operative society for the sale of honey is very probably the Hungarian society, the "Biene", founded in 1911. This co-operative aims at improving the conditions of both production and marketing. On the one hand, it provides its members with technical information by publishing a special periodical and with equipment by manufacturing in its own workshops the various articles needed for beekeeping. On the other, it brings together different sorts of honey, varying according to producer and date, grades them by quality, taste and colour, and places them on the market. On 1926 the total exports of honey in Hungary amounted to about 410 tons, the "Biene" being responsible for about 260 tons or 63 per cent. of the total.

Tobacco

In *Bulgaria*, the first co-operative society of tobacco growers was founded in 1919. During the critical years 1920-1921, representatives of this society and of three others went abroad and succeeded in selling 1,460,230 lb. of tobacco directly in the Hamburg market. In 1922, co-operative societies sold 2,860,000 lb. to foreign companies, principally in Vienna and Budapest. At the present time (end of 1926), there are fifty co-operative societies comprising 30,970 members. The most important of them has founded a cigarette factory and owns experimental fields. It marketed in 1924 3,036,831 lb. of tobacco, of which 1,544,040 lb. were exported. The combined operations of the Bulgarian societies in 1925 amounted to 15,449,398 lb. of tobacco, of which 5,639,581 lb. were sold abroad, principally in Germany, Czechoslovakia, and Belgium.

The *Union of Socialist Soviet Republics* in 1924-1925, exported about 4,400,000 lb. of tobacco. Of this total 85 per cent. was supplied by co-operative organisations. A union of co-operative societies of tobacco growers, the "Centrotabaksoyus" was formed within the "Selskosoyus", the union of agricultural co-operative federations.

In *Algeria*, the tobacco growers are organised in three co-operative societies, the "Tabacoop de Bône", the "Tabacoop kabyle" and the "Tabacoop de la Mitidja", the first founded in 1921 and the other two in 1922.

These three co-operative societies fitted up docks with a capacity of about 440,000 cwt. of tobacco, which was equivalent to all the tobacco produced in Algeria since their foundation. But the activity of the societies has so stimulated the growing of tobacco that the average production at the present time is about 660,000 cwt.

Marketing is effected by the co-operative societies mostly in French territory but also to a considerable extent locally and for export. The export trade is carried on especially by the "Tabacoop de Bône", which has succeeded in extending its sales to all the countries of Europe as well as to America and Japan.

Since the suppression of the tobacco monopoly, the production of Turkish tobacco in *Palestine* has developed considerably, increasing from 2,200 lb. in 1921 to over 2,000,000 lb. in 1923-1924. The Palestine Jewish Tobacco Growers' Co-operative Association includes practically all the producers of the provinces of Judea and Samaria, as well as a number of

producers in the Northern provinces. The operations of this society in 1924 amounted to 538,000 lb. and in 1925 to 236,418 lb. (This decrease from 1924-1925 is in proportion with the decrease in the total production of the country, which was 4,059,759 lb. in 1924 and 1,598,850 lb. in 1925.)

In the *Union of South Africa*, a number of co-operative societies of tobacco growers have been formed. The most important, the "Magaliesberg Ko-operatieve Tabakplanters Vereeniging", comprised in 1923 about 3,500 members and handled about 3,307,807 lb. During 1924 it succeeded in entering into direct relations with foreign markets in which it sold 450,000 lb. of tobacco.

In the *United States* there were, in 1915, 43 co-operative societies of tobacco growers comprising 16,849 members. In recent years the movement has grown rapidly. In 1925, about 300,000 producers were organised in 25 societies. The majority of the producers thus organised belong to societies with a very large membership; three of them alone comprise 250,000 members. The most important, the Burley Tobacco Growers' Co-operative Association, included in 1925 108,300 members; in the course of the year 1925-1926 it handled about 140,000,000 lb. or nearly 60 per cent. of the production of "Burley" tobacco in the United States. The quantity of tobacco collected, sorted and marketed by the combined co-operative societies in 1924 amounted to 431,460,233 lb. or 34.7 per cent. of the total harvest of the United States. The more important of these societies have entered into relations with foreign markets. In the course of the years 1924 and 1925 the Burley Tobacco Growers' Co-operative Association sold directly to foreign purchasers about 10,000,000 lb. of tobacco.

Tobacco manufacture by distributive co-operative societies. — The C.W.S. has had since 1898 a tobacco factory employing about 800 persons; production in 1925 amounted to £1,392,889; it has direct relations with the Burley Tobacco Growers' Co-operative Association and the Dark Tobacco Growers' Co-operative Association.

The S.C.W.S. has carried on the manufacture of tobacco since 1891. The value of its production in 1925 amounted to £558,661.

In 1925 the German Co-operative Wholesale Society of Hamburg sold cigarettes to the value of 51 million marks. To fill a part of its requirements the Society operates 7 factories, which in 1925 employed altogether 694 persons with a total production of the value of 5,058,000 marks.

In 1925 these factories used 1,401,853 lb. of foreign tobacco, the majority of which came from North America (773,306 lbs.), Java and Sumatra (374,462 lb.), and the Balkan States (119,992 lb.)¹. The other German Co-operative Wholesale Society (of Cologne) at the beginning of 1926 opened a tobacco factory which so far provides for only a part of its requirements, producing 250,000 cigars a month.

Textiles

Silk

There is no information to show that co-operative organisations are directly in touch with the international silk market. Nevertheless it may not be irrelevant to observe that the exigencies of exportation combined with the conditions of production² have in the principal silk producing countries given rise to co-operative organisations which handle the first stages of production and marketing.

¹ See note, p. 35.

² On the one hand the best conditions of cultivating cocoons are realised in small establishments; on the other hand, for exportation it is necessary to prepare from the raw material coming from numerous establishments a large quantity of silk thread of uniform quality. Hence the natural tendency of producers (which we have already observed in other countries and for other products) to impose mutually upon themselves regulation of production and to pool their produce.

This is especially the case in *Japan*¹, which supplies about 65 per cent. of the world's production of natural silk.

In several districts the cultivation and marketing of cocoons have been carried out on a co-operative basis since 1868, and as the country was gradually opened to international commerce the organisation of producers developed, remarkably enough, in a manner at first purely indigenous, even before the promulgation of the law of 1900 on co-operation.

In spite of their spontaneous formation, the co-operative organisations thus created by silk producers for the most part applied the same principles as the European or American co-operative societies (supply contracts between members and societies, and between societies and federations; classification of produce by quality; trade marks; advances to producers calculated according to quality on a basis lower than the anticipated price of sale; and finally reimbursement to the producer of the price obtained for his stock after deduction of the expenses of administration).

The different organisations may be roughly distributed in three great classes according to functions which are complementary but sometimes overlap:

(1) Co-operative organisations for the marketing of cocoons (improvement of the quality of the cocoons by selective production of silkworms and mulberry trees, employment of experts, etc.). To this category may be assigned a considerable number of co-operative cocoon-drying establishments.

(2) Co-operative organisations for the marketing of spun silk.

(3) Co-operative organisations for the marketing of silk goods.

Finally it should be added that a large quantity of silk thread is also put on the market by co-operative societies not strictly confined to the sale of silk.

The most prosperous organisations are those of the second category. They may further be classified under three types corresponding to three phases of the evolution of the silk industry but not excluding intermediate types: (a) federations of co-operative societies for selling silk spun by hand (this type is tending to disappear); (b) in proportion as winding by hand is replaced by machine winding, creation of co-operative service societies putting at the disposal of their members machines for common use; (c) societies themselves undertaking machine-winding before marketing.

Through their federations all these societies are in touch with the Yokohama export market.

The most recent available figures concerning co-operative societies for the sale of silk show that 282 societies in 1921 sold silk to the value of 16,542,440 yen, which is equivalent to \$8,271,220 (at par)², but this figure is far from expressing the whole Japanese co-operative activity in the production and marketing of silk. The following figures are a little older but show not only the sales of specialised co-operative societies but also the sales carried out by co-operative societies not specialising in the sale of silk: in 1918 the total amount of co-operative marketing of raw silk amounted to 51,464,298 yen (about \$25,750,000); when the marketing of silk goods is added the amount is increased to 86 million yen (about 43 million dollars).

In *Italy* also co-operative cocoon-drying establishments have recently (established since 1920) developed to some extent in Friuli; their principal objects are:

¹ On co-operation in Japan, see Kiyoshi OGATA: *The Co-operative Movement in Japan*. London, 1923.

² Convenient statistics not being available, there are no terms for significant comparisons. To put this figure in relation with others, it might be observed that in 1916 the sales effected by 362 co-operative marketing societies and valued at a similar price (about 13 million yen) represented about 1,364,000 lb. of silk. This quantity is about equal to the amount (1,374,903 lb.) of the total French production for 1912 (the silk spun from French and foreign cocoons).

(1) To relieve their members of the necessity of hasty sale of cocoons at the time of harvest by putting at their disposal both means of perfect preservation and advances on dried cocoons;

(2) To organise collective marketing of produce.

Their activity has thus resulted in stabilisation of the market; it has also contributed effectively to the improvement of the quality of the product.

The co-operative drying establishments do not hesitate to subject the cocoons (already carefully selected by the members) to a very careful sorting. Eliminations in normal years amount to 10 to 15 per cent. and in bad years to 28 to 30 per cent.

These co-operative drying establishments collected, in 1920, 3,828,000 lb. representing, at the average price of 13 lire per pound, a sum of 50,000,000 lire.

Co-operative organisations of this kind exist also in the provinces of Treviso, Venetia and Trentino.

Wool

The difficulties resulting from the great number of identifiable varieties of wool make organisation specially necessary. However, the co-operative organisation of wool producers is generally of a much looser type and much less elaborate than in the case of most other agricultural products.

After *Australia* (490,000,000 lb. in 1923), where the wool market until recently was organised on a basis of compulsory co-operation with State assistance¹, and close to *Argentina* (270,000,000 lb.), where the co-operative movement is in course of formation, the *United States* is among the greatest wool producing countries in the world. In 1923 it produced 266,110,000 lb. In the same year 53 district and local co-operative associations, half of which were formed since 1920, put on the market altogether 19,647,861 lb.

Three central co-operative exchanges marketed 19,700,000 lb.

In the *Union of South Africa*, which is the fourth great wool producing country, the Farmers' Co-operative Wool and Produce Union exported wool to England in 1925 to the value of £29,569 which represents about 8 per cent. of the total exportation of the Union of South Africa. This exportation took place through the Overseas Farmers' Co-operative Federations, Ltd., a co-operative agency of an international nature mentioned above².

The wool production of *Canada* is much smaller, but an important portion of it is marketed by co-operative organisations created since 1914. The Canadian Co-operative Wool Growers in 1925 marketed about one-quarter of the total Canadian production, and the majority of its sales were for foreign consumption; two-thirds was exported to the United States (in 1923 the Canadian Co-operative Wool Growers exported to Great Britain and the United States respectively 25 per cent. and 46 per cent. of the wool which they handled). The New Brunswick Sheep Breeders' Association in 1921 exported 42,788 lb., of which 22,000 lb. were exported to the United States.

Flax

Before the war the greatest flax-exporting country was Russia. At the present time the U.S.S.R. and countries which were recently partially or totally incorporated in Russia, such as Poland, Esthonia, Latvia and Lithuania, are the most important sources of flax.

According to the net exportation in 1925, these countries are classified as follows: U.S.S.R. (924,891 cwt.), Latvia (429,435 cwt.), Lithuania (310,274 cwt.), Poland (249,964 cwt.), Esthonia (164,087 cwt.). In all these countries co-operation among flax producers is highly developed.

Societies and federations specialising in the marketing of flax have been formed in *Esthonia* and in *Latvia*. In the latter country the exportation of flax is a State monopoly and the flax harvest is handed over to the State by the co-operative organisations.

¹ Principally for the liquidation of war stocks.

² See p. 36.

In the U.S.S.R. 30 to 35 per cent. of the total quantity of flax exported in 1925 came from co-operative organisations. 53.61 per cent. of this portion was furnished by the "Lnocentre", which is a federation of flax growers' co-operative societies, and 46.39 per cent. by the "Centrosojus", the central organisation of distributive co-operative societies¹. These two Federations have each a sales agency in London and the "Centrosojus" has also agencies in Paris, Berlin and New York.

Cotton

The present organisation of cotton producers in the United States dates from the crisis of 1920-1921. It has taken the form of large societies each comprising the producers of a whole district or more often of a whole State. There are at present 15 co-operative societies for marketing cotton, comprising about 300,000 members in the 13 principal cotton producing States.

The part played by co-operative societies in marketing cotton production has increased proportionately every year. In 1925-1926 they handled 1,488,000 bales or 9.3 per cent. of the total production. Thirteen of these organisations have united to form a central organisation for information and co-ordination. This organisation, the American Cotton Growers' Exchange, also serves as a sales agency for the majority of the associations belonging to it in the case of foreign sales and for one of them in all sales. In addition to its general sales office at Memphis, the American Cotton Growers' Exchange has established seven agencies on the principal exchanges of the United States and five agencies abroad: Liverpool, Le Havre, Bremen, Barcelona and Kobe (Japan). It is also represented at Copenhagen, Rotterdam and Enschede (Netherlands), Ghent, Milan, Vienna, Winterthur, Gothenberg.

The cotton producers' co-operative societies have endeavoured to put in practice a programme of marketing taking account of the effective market demand from day to day. Although the production of thread is continuous throughout the year, the quantities of cotton utilised and the periods of supply are variable. The co-operative societies have adapted themselves to this situation and instead of selling fixed quantities in an inflexible way month by month, they study the conditions of supply and demand and in practice endeavour to sell the cotton at such a time or in such quantity as in their opinion best corresponds to the interests of their members. Following the method which is essential to the technique of co-operative societies, the supplies delivered by the members are subjected to careful sampling and classification. Each distinct quality is then sold on the common account of all the members who have supplied it².

¹ The majority of the co-operative societies included in the "Centrosojus" are in touch with rural populations and, as remarked in the case of eggs (p. 34), they include among their functions that of collecting agricultural products.

² See p. 13 for the explanation of the method of collective accounts established by quality (pools). This method assures to each member the average price obtained by the association for the total quantity of the same quality which it has been able to market. But it may happen that through special conditions of the markets the average price thus established for each different quality does not correspond exactly to the order of value commonly assigned to this quality. When this happens it contradicts one of the objects pursued by the co-operative society, which is to encourage the improvement of the product. For this reason certain co-operative societies (those for the sale of fruit, for example, and, among societies of cotton producers, the Texas Association) have adopted a new method called the "economic value differential method". In the application of this method the association introduces for each quality, i.e. for each "pool", a co-efficient of "relative economic value". In establishing the different co-efficients, the following considerations may be taken into account: (1) the judgment of the directors of the association as to the relative value of different qualities; (2) the prices realised for different qualities at the same time or on the same market; (3) the average price realised in the course of a whole season for each quality. Of the total proceeds of the sales of the association there is assigned to each "pool", or collective account, a share in proportion to the product of the quantity appearing in the account multiplied by the co-efficient assigned to the quality.

This method of co-operative association eliminates for the members the possibility of gain or loss resulting from fluctuations of the market.

The first four organisations formed in 1921 were in their first years of activity without funds or credit. The local banks refused their support or would only allow loans of insufficient extent. Finally the societies obtained advances from the War Finance Corporation. Ultimately the societies easily obtained from large banks the credits which they required in order to make advances to their members at the time of delivery. When the season is advanced the members in turn supply to the associations part of the funds which they may need.

The co-operative societies of cotton producers have endeavoured not only to provide for the marketing of the production of their members, but also to carry out these services as economically as possible. This is clearly seen in the care which cotton producers' societies, and in general all co-operative marketing societies in the United States, take to publish not only detailed accounts of their expenses but also the proportion of the latter in relation to the quantity of the product marketed; this proportion expresses the cost of the service. According to the accounts of the Staple Cotton Co-operative Association, the general expenses were on an average for the four years 1921-1922 to 1924-1925 3.16 per cent. of the amount of the sales¹.

From these expenses must be subtracted various accessory receipts which reduce the cost of the service rendered by the association on account of its members to 1.2 per cent. of the amount of its sales after distribution of premiums, which took place at the end of the period of four years.

The cotton producers' co-operative societies have sought with a certain measure of success to make their sales directly to the spinning factories. The most remarkable results have been obtained by the Staple Cotton Co-operative Association; according to the following table its sales made directly to spinning factories in 1924-1925 amounted to nearly 92 per cent. of its total sales.

DISTRIBUTION OF SALES OF THE STAPLE COTTON CO-OPERATIVE ASSOCIATION

Sales direct to spinning factories	1921-1922	1922-1923	1923-1924	1924-1925
United States	35.6	59.2	62.5	71.2
Canada	—	10.6	1.5	4.4
England	17.0	20.0	23.2	10.6
Italy	0.3	1.2	2.2	4.9
Germany	—	—	—	0.1
Other countries	0.1	0.4	0.4	0.7
Totals	53.0	81.4	89.8	91.9
<i>Sales to middlemen</i>	47.0	18.6	10.2	8.1
	100.0	100.0	100.0	100.0

Egypt comes immediately after the United States as a cotton producer. In 1925 its exportation of cotton represented in value 87 per cent. of its total exportation (91.5 per cent. of the exportation of seed is added to the exportation of cotton fibre).

On account of its qualities (long, tough, silky fibre) the Egyptian cotton realises high prices in the international market. Nevertheless in recent years a decrease in the value of Egyptian cotton has been remarked; this is primarily due to the use of indiscriminate seed.

¹ This 3.16 per cent. included the salaries of the administrative personnel (1.12 per cent.), the salaries and wages of the personnel employed in sampling (0.5 per cent.), other wages (0.53 per cent.), rent and interest (0.13 per cent.), and other expenses (0.88 per cent.).

The Government is endeavouring to remedy the situation by scientific research and by controlling the quality of the seed. In June 1926 it decided to grant a credit of £1,000,000 for advances to co-operative societies. It is expected that these societies will contribute to raise the general level of agricultural production, especially by organising the distribution of good seed. There are at present 141 agricultural co-operative societies comprising 1,800 members. The Sultanian Agricultural Society is a central organisation for supplying these societies with material and manure.

In *India*, on account of the economic and social conditions of the cotton producers, the co-operative movement, though developed in the matter of co-operative credit, is still in an incipient stage in the matter of co-operative marketing organisation. Nevertheless there are already seven co-operative societies comprising 20,000 members, which marketed, in 1925, 80,000 bales of cotton.

In the *Union of South Africa* eleven societies affiliated to the Central Co-operative Cotton Exchange¹ in 1925 sold locally 2,724 bales of cotton and exported 1,376 to Liverpool.

Distributive Co-operative Textile Establishments and Workers' Co-operative Production.

Immediately after providing for food products, the distributive co-operative organisations set themselves to supply to their members on good terms textiles and articles of clothing. In many countries they already represent a large part of the consumption of these articles and in some countries they have actually undertaken production and appear in the international market of raw materials.

In *Austria* the textiles and clothing department of the co-operative wholesale society has developed very rapidly since the end of the war. Through its mills and the numerous clothing and linen factories which it owns or in which it exercises a preponderant influence by means of a rather complicated system of shareholding, the Austrian Co-operative Wholesale Society is at present engaged in production. For distributing its goods it has a system of 16 large shops in Vienna and the provinces and also gives great attention to organising the exportation of its surplus. It is especially endeavouring to supply the Russian co-operative societies through the "Ratao" ("Russische-Oesterreichische Handels-A.G."), of which it is a member, together with a private society on the Austrian side, the other members being the Russian State and the "Centrosojus".

In *Germany* the Co-operative Wholesale Society operates two mills and two clothing and linen factories, and in 1922 it also founded another clothing factory in which the State of Saxony is a small shareholder. The business done by these establishments together in 1915 amounted to over 5,000,000 marks.

In *Great Britain* the C.W.S. has for forty years engaged in the textile industry and it now produces all articles of clothing for men, women and children. To this end it owns 26 establishments: 3 cotton mills, 7 woollen mills, a hosiery factory, 17 clothing and under-clothing factories, and a corset factory. In 1925 these establishments together employed 6,486 persons and the value of their total production amounted to £2,281,006.

The first producing establishment founded by the S.C.W.S. was a cloth factory established in 1881. At the present time the S.C.W.S. operates about 15 establishments for the production of textiles and clothing (spinning and textile, mills, garment factories, tailoring establishments where clothing is made to measure and sold ready-made, etc.). In 1925 these establishments together employed 2,124 persons and the value of their production amounted to £605,621.

In addition to distributive co-operative societies and nearly always with their two-fold participation as shareholders and clients, there have developed in Great Britain about 60 workers' co-operative production societies. 12 of them belong to the cotton, linen, silk and wool industries. In 1926 they employed 3,623 persons¹ and the value of their production amounted to £1,699,171. The total number of co-operative establishments in Great

¹ In 1923 the membership of these societies comprised 1,923 workers, 1,748 other societies (for the most part distributive co-operative societies), and 1,535 other members including former workers.

Britain belonging to the textile industries, including both the C.W.S. and the workers' co-operative production societies, employed in 1925 12,233 persons, and the value of their production amounted to £4,585,798.

Mention should also be made of the development at Ghent, the principal textile centre of Belgium, of textile establishments which although constituted in the form of limited companies are dependent on the distributive co-operative society known as "Vooruit". In 1925 these establishments comprised 2 cotton mills, 1 linen and oakum mill, 4 factories (cotton, canvas, linen and satin), 3 dye-works, 2 bleaching establishments, and 1 hosiery factory¹. The number of spindles in the cotton mills amounted to 113,600, but with the enlargements under way, including the construction of a third mill, this number will be increased to 171,000 or about one-tenth of the total number of spindles in the whole Belgium cotton industry (1,830,000 in 1925).

The linen and oakum mill (4,004 spindles) employed 383 workers. The number of looms in the three most important factories was 703 (not including 150 looms provided for in the enlargement).

¹ Not including two establishments for which data are not available.