

ECONOMIC AND SOCIAL HISTORY  
OF THE WORLD WAR

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# RURAL SCOTLAND DURING THE WAR

BY

DAVID T. JONES, C.B.E.    JOSEPH F. DUNCAN

H. M. CONACHER            W. R. SCOTT

WITH AN APPENDIX BY

J. P. DAY

AND AN INTRODUCTION BY

W. R. SCOTT

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## EDITOR'S PREFACE

IN the autumn of 1914, when the scientific study of the effects of war upon modern life passed suddenly from theory to history, the Division of Economics and History of the Carnegie Endowment for International Peace proposed to adjust the programme of its researches to the new and altered problems which the War presented. The existing programme, which had been prepared as the result of a conference of economists held at Berne in 1911, and which dealt with the facts then at hand, had just begun to show the quality of its contributions; but for many reasons it could no longer be followed out. A plan was therefore drawn up at the request of the Director of the Division, in which it was proposed, by means of an historical survey, to attempt to measure the economic cost of the War and the displacement which it was causing in the processes of civilization. Such an 'Economic and Social History of the World War', it was felt, if undertaken by men of judicial temper and adequate training, might ultimately, by reason of its scientific obligations to truth, furnish data for the forming of sound public opinion, and thus contribute fundamentally toward the aims of an institution dedicated to the cause of international peace.

The need for such an analysis, conceived and executed in the spirit of historical research, was increasingly obvious as the War developed, releasing complex forces of national life not only for the vast process of destruction but also for the stimulation of new capacities for production. This new economic activity, which under normal conditions of peace might have been a gain to society, and the surprising capacity exhibited by the belligerent nations for enduring long and increasing loss—often while presenting the outward semblance of new prosperity—made necessary a reconsideration of the whole field of war economics. A double obligation was therefore placed upon the Division of Economics and History. It was obliged to concentrate its work upon the

problem thus presented, and to study it as a whole; in other words, to apply to it the tests and disciplines of history. Just as the War itself was a single event, though penetrating by seemingly unconnected ways to the remotest parts of the world, so the analysis of it must be developed according to a plan at once all embracing and yet adjustable to the practical limits of the available data.

During the actual progress of the War, however, the execution of this plan for a scientific and objective study of war economics proved impossible in any large and authoritative way. Incidental studies and surveys of portions of the field could be made and were made under the direction of the Division, but it was impossible to undertake a general history for obvious reasons. In the first place, an authoritative statement of the resources of belligerents bore directly on the conduct of armies in the field. The result was to remove as far as possible from scrutiny those data of the economic life of the countries at war which would ordinarily, in time of peace, be readily available for investigation. In addition to this difficulty of consulting documents, collaborators competent to deal with them were for the most part called into national service in the belligerent countries and so were unavailable for research. The plan for a war history was therefore postponed until conditions should arise which would make possible not only access to essential documents but also the co-operation of economists, historians, and men of affairs in the nations chiefly concerned, whose joint work would not be misunderstood either in purpose or in content.

Upon the termination of the War the Endowment once more took up the original plan, and it was found with but slight modification to be applicable to the situation. Work was begun in the summer and autumn of 1919. In the first place a final conference of the Advisory Board of Economists of the Division of Economics and History was held in Paris, which limited itself to planning a series of short preliminary surveys of special fields. Since, however, the purely preliminary character of such studies was further emphasized by the fact that they were

directed more especially towards those problems which were then fronting Europe as questions of urgency, it was considered best not to treat them as part of the general survey but rather as of contemporary value in the period of war settlement. It was clear that not only could no general programme be laid down *a priori* by this conference as a whole, but that a new and more highly specialized research organization than that already existing would be needed to undertake the Economic and Social History of the War, one based more upon national grounds in the first instance and less upon purely international co-operation. Until the facts of national history could be ascertained, it would be impossible to proceed with comparative analysis ; and the different national histories were themselves of almost baffling intricacy and variety. Consequently the former European Committee of Research was dissolved, and in its place it was decided to erect an Editorial Board in each of the larger countries and to nominate special editors in the smaller ones, who should concentrate, for the present at least, upon their own economic and social war history.

The nomination of these boards by the General Editor was the first step taken in every country where the work has begun. And if any justification was needed for the plan of the Endowment, it at once may be found in the lists of those, distinguished in scholarship or in public affairs, who have accepted the responsibility of editorship. This responsibility is by no means light, involving, as it does, the adaptation of the general editorial plan to the varying demands of national circumstances or methods of work ; and the measure of success attained is due to the generous and earnest co-operation of those in charge in each country.

Once the editorial organization was established there could be little doubt as to the first step which should be taken in each instance toward the actual preparation of the history. Without documents there can be no history. The essential records of the War, local as well as central, have therefore to be preserved and to be made available for research in so far as is compatible with public interest. But this archival task is a very great one, belonging of right to the governments and other owners of historical sources

and not to the historian or economist who proposes to use them. It is an obligation of ownership ; for all such documents are public trust. The collaborators on this section of the war history, therefore, working within their own field as researchers, could only survey the situation as they found it and report their findings in the form of guides or manuals ; and perhaps, by stimulating a comparison of methods, help to further the adoption of those found to be most practical. In every country, therefore, this was the point of departure for actual work ; although special monographs have not been written in every instance.

This first stage of the work upon the war history, dealing with little more than the externals of archives, seemed for a while to exhaust the possibilities of research. And had the plan of the history been limited to research based upon official documents little more could have been done, for once documents have been labelled ' secret ' few government officials can be found with sufficient courage or initiative to break open the seal. Thus vast masses of source material essential for the historian were effectively placed beyond his reach, although much of it was quite harmless from any point of view. While war conditions thus continued to hamper research, and were likely to do so for many years to come, some alternative had to be found.

Fortunately such an alternative was at hand in the narrative, amply supported by documentary evidence, of those who had played some part in the conduct of affairs during the war, or who, as close observers in privileged positions, were able to record from first- or at least second-hand knowledge the economic history of different phases of the Great War, and of its effect upon society. Thus a series of monographs was planned consisting for the most part of unofficial yet authoritative statements, descriptive or historical, which may best be described as about half-way between memoirs and blue-books. These monographs make up the main body of the work assigned so far. They are not limited to contemporary, war-time studies ; for the economic history of the war must deal with a longer period than that of the actual fighting. It must cover the years of ' deflation ' as well, at least sufficiently

to secure some fairer measure of the economic displacement than is possible in purely contemporary judgements.

With this phase of the work, the editorial problems assumed a new aspect. The series of monographs had to be planned primarily with regard to the availability of contributors, rather than of source material as in the case of most histories; for the contributors themselves controlled the sources. This in turn involved a new attitude towards those two ideals which historians have sought to emphasize, consistency and objectivity. In order to bring out the chief contribution of each writer it was impossible to keep within narrowly logical outlines; facts would have to be repeated in different settings and seen from different angles, and sections included which do not lie within the strict limits of history; and absolute objectivity could not be obtained in every part. Under the stress of controversy or apology, partial views would here and there find their expression. But these views are in some instances an intrinsic part of the history itself, contemporary measurements of facts as significant as the facts with which they deal. Moreover, the work as a whole is planned to furnish its own corrective; and where it does not, others will.

In addition to this monographic treatment of source material, a number of studies by specialists is already in preparation, dealing with technical or limited subjects, historical or statistical. These monographs also partake to some extent of the nature of first-hand material, registering as they do the data of history close enough to the source to permit verification in ways impossible later. But they also belong to that constructive process by which history passes from analysis to synthesis. The process is a long and difficult one, however, and work upon it has only just begun. To quote an apt characterization, in the first stages of a history like this one is only 'picking cotton'. The tangled threads of events have still to be woven into the pattern of history; and for this creative and constructive work different plans and organizations may be needed.

In a work which is the product of so complex and varied co-operation as this, it is impossible to indicate in any but



a most general way the apportionment of responsibility of editors and authors for the contents of the different monographs. For the plan of the History as a whole and its effective execution the General Editor is responsible; but the arrangement of the detailed programmes of study has been largely the work of the different Editorial Boards and divisional Editors, who have also read the manuscripts prepared under their direction. The acceptance of a monograph in this series, however, does not commit the editors to the opinions or conclusions of the authors. Like other editors, they are asked to vouch for the scientific merit, the appropriateness and usefulness of the volumes admitted to the series; but the authors are naturally free to make their individual contributions in their own way. In like manner the publication of the monographs does not commit the Endowment to agreement with any specific conclusions which may be expressed therein. The responsibility of the Endowment is to History itself—an obligation not to avoid but to secure and preserve variant narratives and points of view, in so far as they are essential for the understanding of the War as a whole.

J. T. S.

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I  
INTRODUCTION

BY  
W. R. SCOTT





# I

## PLAN OF THE BOOK

THIS volume is intended to be complementary to that already issued on *The Industries of the Clyde Valley during the War*. Both have a unity in so far as they aim at recording aspects of Scottish life and industry since 1914. The book on the Clyde Valley shows a thickly populated industrial district during that time of strain, and details how its special productive facilities were affected, both at the time and afterwards. But the countryside also was influenced by the general upheaval, and this book touches on a number of activities outside the towns, such as fishing and several aspects of agriculture.

While these two volumes are distinctively Scottish, it is not to be concluded that they are intended in any way to exhaust Scotland's part in the economic side of the war. In this respect the relation of the country to England is worthy of consideration. With a united Parliament the administration of Great Britain is partly centralized, partly decentralized as regards Scotland. In many services there is one Government department for the two countries, while in some there is a separate Board for Scotland. During the war the tendency was to create special unified departments for both countries, though, where there was an administrative body in existence in Scotland, the latter was generally employed to carry out the general plan within its own area. Not only so, but in the life and industry of the people there are important differences as between England and Scotland. Historical causes continue to exert their influences, and Scotland had a long and distinguished history before it was united with England. It still maintains its own legal system and a separate judiciary. In many respects its customs and its institutions differ from those of England. Geographically, too, it has distinct characteristics, particularly in its numerous islands, which number about 700. Sea transport

is thus an important feature in the life of many of the people. During the war Scotland was the centre of gravity of naval operations, being the main base of the Grand Fleet and later of the American Navy, with naval harbours at Scapa, Cromarty, and the Firth of Forth. Thus it seems worth collecting some characteristics of Scottish industry, mainly outside the towns, rather emphasizing what is distinctively Scottish, both to provide a record which would otherwise be lost and to complete similar accounts relating to certain selected districts in other parts of Great Britain as well as those of the more centralized activities in England.

The following studies find their main point of departure in the question of food production, partly through the fishing industry, partly in the varied forms of Scottish agricultural operations. Each of these opens up various subsidiary inquiries (and especially the latter) which lead on to the discussion of the position of the agricultural labourer during the war and (partly as supplementing that discussion) the movement towards the arrest of rural depopulation with special reference to the settlement of ex-service men on the land. Lastly, by way of addendum, a study of the jute industry of Dundee is included, on the ground that though this is a trade carried on in factories, it has a peculiarly close relation to agricultural conditions, being intimately related with these in the supply of its raw material and also in the demand for the larger part of its finished product. The main exception to the latter rule is that a war operates somewhat paradoxically, like a good world harvest, in increasing the demand for manufactured jute.

The monograph on Scottish fisheries is by Mr. David T. Jones, C.B.E., who can speak with special knowledge of the administrative side (he is chairman of the Fishery Board for Scotland), and also of the relations between the Navy and the fishing industry, having held a commission as staff paymaster during the war.

The Scottish fishing industry was more in the thick of the war than perhaps any other. We think of the war effort of Great Britain perhaps most in terms of the army, as typified

by that endless procession across the English Channel of men, munitions, and supplies. But there was the other focal point in the silent operations of the Fleet, and in this the fishing population was desperately involved. Unlike men of most other trades, when they joined the forces, they continued to follow a similar occupation, for as a rule they were taken over with their steam trawlers complete, but were employed on naval service, instead of their normal peaceful pursuits. Nor, if others continued to fish, could they escape direct contact with the war in perhaps its most intense form. A glance at the very interesting map at p. 86, will show the extent of the mine-field in the waters round the north of Scotland, and there was the additional risk of German mines, and attacks by German submarines. Thus in 1915, fifteen drifters were sunk off Shetland in a single night. Mr. Jones speaks from full knowledge, with deep appreciation of the Scottish fisherman, as 'a fine type, independent, hardy, intelligent and thrifty. He is somewhat conservative in outlook, but moves quickly in adopting new methods when their value has been demonstrated. . . . The Scottish fishing communities are a model of what such communities should be—with excellent and well-furnished houses owned by their occupiers, modern drainage arrangements, splendid schools, and substantial churches and other public buildings. Many of their sons have become eminent in the professions and have occupied high positions in the Church.'<sup>1</sup>

The total number of persons estimated as being employed in the Scottish fishing industry before the war was about 33,000. More than half were occupied on shore chiefly in the fish-curing industry. According to the census of 1911 there were 14,428 fishermen. The demand for auxiliary naval services met with a prompt response from these men. The best type of steam trawler was excellently fitted for many different kinds of service in the North Sea and round the coasts. About 8,500 fishermen served in this way, or in the Navy, including 2,000 members of the Royal Naval Reserve from Lewis. Their knowledge of local conditions round the coast was valuable.

<sup>1</sup> See below, p. 30.

Trawlers were utilized as patrol boats, and they were largely employed as mine sweepers, often many miles from land and without any kind of protection. Later some were used as decoy ships, and a number of units served at the Dardanelles and in the Straits of Otranto.

The withdrawal of boats and men for naval service caused a great reduction in the fleet available for fishing. Indeed this industry passed from one crisis to another during the war, and its troubles were far from ended with the coming of peace. In 1913 the fish landed in Scotland amounted to nearly 8 million cwt., in addition to which Scottish fishermen captured a further  $2\frac{1}{2}$  million cwt. off the English coast, both of which were valued at £5,000,000. By far the larger part of the catch consisted of herring, and a great part of these were cured and exported. It so happened that almost the whole of this export trade was with Germany and Russia. In 1913 the cured herrings exported came to a total of 1,385,323 barrels, and of this no less than 1,292,381 barrels went to these two countries. In the summer of 1914 the fishing was at its height; and, when war broke out, it suffered very great disorganization. The steps by which the transition was made to the basis on which the industry was carried on during the earlier part of the war are somewhat involved, and are described in detail.<sup>1</sup> Gradually, as shipping became scarcer, the importance of fish as a part of the reduced food supply was more marked, while the strain of the war involved numerous difficulties. The fishing fleet was greatly depleted through the assistance it was rendering to the Navy. In Scottish waters fishing was necessarily subordinated to the exigencies of naval strategy. There were 200 orders and no less than 18,000 permits issued for this industry during the war. Besides the usual perils of the sea, there were exceptional war risks, and during the war 89 boats, engaged in fishing, were sunk by the enemy, and the crews were left to do the best they could for themselves in small boats many miles from land. Sometimes they were taken prisoner by submarines and detained in Germany. On one

<sup>1</sup> See below, pp. 34, 35.

occasion a submarine challenged a Peterhead motor-boat; and, when the crew informed the commander that they had no small boat, he released their craft, warning them not to put to sea again without one.<sup>1</sup> There was, also, the ever present danger of drifting mines; and it is remarkable that the trawlers and drifters kept the sea, in some cases having the gaps in the crews made good by men of eighty and even by women.

The Scottish fishing industry under war conditions suffered not only by scarcity of boats and men, but also through the difficulties of distribution. In the course of years this industry had come to be based on the east coast, where it had excellent railway communications, indeed it is said that the Aberdeen fish express to London was the fastest train run from Scotland to the south. War conditions changed all this. The railways were congested with traffic, much of that sent by rail, as well as the large passenger traffic to and from the Grand Fleet, had to pass over the same railway system. Thus the Highland Railway was the only line communicating with Wick (an important fishing port) and with Scrabster, near Thurso, which was the point of departure for the passage over the Pentland Firth to Scapa. Then, owing to the general war situation, much more fishing was done in western waters, and communications were exceedingly difficult, since the western side of Scotland was ill-supplied with railways; and, in the later stages of the war it was difficult to find shipping to send the fish by sea. There was the further problem of endeavouring to arrange for an equitable division of the available supply over the whole country. The methods by which an attempt was made to solve this problem and the information collected concerning the consumption of fish in various districts and the workings of the retail trade, as well as the policy of fixing prices,<sup>2</sup> are worthy of note as examples of emergency action in war time. Regarding the last—as in similar cases—the people who did the price-fixing were (one gathers) pleased with the result, and hardly any one else.

Closely connected with the supply of fish is that of other

<sup>1</sup> See below, p. 72.

<sup>2</sup> See below, pp. 55, 59.

kinds of food in Scotland, which is described from the agricultural point of view by Mr. H. M. Conacher, Deputy-Commissioner of the Board of Agriculture for Scotland. Naturally it is not possible to isolate the Scottish food position from that of England, since in many respects the two countries, together with Ireland, formed one unit. At the same time it is interesting to observe the extent to which the demand was met during the war from abroad and from home production, respectively. The main ports for imports of food supplies are Leith on the east and Glasgow on the west. War conditions resulted in a contraction of the trade of the former. The chief exporting countries were cut off by the war; while, in any case, access to the eastern ports would have been difficult. On the other hand, the Clyde remained open and was less subject to the interference of submarines than the western seaports of England. Imports of wheat to Scotland declined slightly in 1915 and 1916, but in 1917 the quantity was larger than it had been in 1913. In 1918 there was a serious fall, the imports in that year having been 4.7 million cwt. as compared with 7.4 million cwt. in 1913. Imports of oats were greatly contracted. The quantity imported in 1913 was 1.4 million cwt., and by 1915 it was only one-seventh of that amount, and only one-eighth in 1916. While wheat declined in 1918, imports of oats increased, being more than double the figure of 1916, though still little more than one-third of the pre-war total.<sup>1</sup> These statistics are to be interpreted in relation to the effort to increase the home production of cereal crops. Scotland is not a wheat-growing country, indeed the arable land of all kinds is small in comparison with its total area. To say that the land under wheat was increased in 1918 and 1919 by nearly 50 per cent. is liable to convey a wrong impression, unless at the same time it is remembered that in 1913 the acreage under this crop was no more than 54,784 acres. The increased cultivation was secured at only a small decline in the yield per acre, the average of 1918 and 1919 being 39.6 quarters as against 42.31 quarters in 1913. In oats, on the other hand, there was

<sup>1</sup> See below, pp. 179, 180.

a great increase in cultivation. In 1913 there had been 937,916 acres under this crop, which had grown to 1,243,823 acres in 1918, and the figure for 1919 was 1,109,696. The average for the two later years was 39·5 quarters per acre (the same as for wheat) as compared with 40·18 quarters in 1913.<sup>1</sup>

The Scottish oat crop, again, is intimately related to the feeding of stock. While a part is consumed in the Scottish national food of porridge (in which there has been a revival since the war), much goes in the feeding of cattle. Indeed a material portion of Scotland's war effort in the increase of the national food supply took the form of producing meat and dairy produce. This was the natural outlet under the circumstances. Out of a total area of 19 million acres only 5 millions are under crops and grass, as much as 9 million acres consisting of mountain suitable only for rough grazing. Moreover, the conditions from the agricultural point of view are very diverse, and, as Mr. Conacher shows, there are no less than six distinct regions each with its diverse circumstances and its own problems.<sup>2</sup>

The stock of cattle fell during 1914, but it actually increased in 1915 and 1916. There was a drop in the next year, and in 1918 there was no perceptible change. In 1919 the loss of 1916 was more than recovered, and the total was markedly in advance of that of 1914. The increase in cropping had a double effect. The normal course of the cattle industry is for young beasts to be bought in Ireland or the north of England for fattening. Scarcity of shipping caused a reduction in the quantity of imported feeding-stuffs. On the other hand, as regards Irish store cattle, the increased cropping there resulted in a larger quantity of these being fattened at home. The Scottish pastoral farmers seemed to have reared more of their own calves which they were able to feed by the increased area under crops.

The figures relating to sheep stocks are of special interest. Before the war the number of sheep in Great Britain (as indeed in most countries in Western Europe) had been declining. In

<sup>1</sup> See below, pp. 185, 186.

<sup>2</sup> See below, pp. 125-8.



Scotland the decrease during the five years before the war was 4.1 per cent. During the three years 1914, 1915, 1916, there was a very marked increase in the number of sheep. In 1917 there was a most inclement season in the high country, which was particularly bad for the lambs, and in that year and the next the stock contracted as compared with 1915. Still Scotland came out of the war with more sheep than there had been in 1913.<sup>1</sup>

The Scottish dairying industry is largely concerned with the supply of milk to the towns. Cheese also is made. Scotland is not a butter-producing country to any considerable extent. Dairying is carried on in Ayrshire in a highly intensive manner. The rich grass of the district supplies good summer feeding, but the cows are fed during the winter. During the war the dairy farmer was to a large extent 'between the devil and the deep sea'. He could not break up his grass for cropping, else what he gained in the winter he lost in the summer. The supply of many kinds of feeding stuffs (such as mill offals and maize) was contracting as the war went on. Almost his only resource was to eke out the reduced supplies from such part of the increased home supply of oats as he could secure. All these difficulties had their reactions on the tangle of fixing milk prices. In another direction it is interesting to note that the scarcity of labour gave a decided impetus to co-operative effort in the collection of milk and the conveying of it from the farms to the railway stations.<sup>2</sup>

A consideration of these facts opens up one of the great mysteries of the war. Rural Scotland contributed its men very largely to the army. Yet with a diminished supply of labour there was an increased production of food, and that, too, in a country where the adoption of mechanical devices (as for instance tractor ploughs) was of very limited application. Scottish agricultural labour had been declining before the war, and the difficulty in the new situation was that much of it was highly skilled labour. The Scottish ploughman is a master of his craft, and the Scottish hill shepherd requires skill of

<sup>1</sup> See below, p. 184.

<sup>2</sup> See below, p. 155.

various kinds. When the sheep stock is at its maximum, 9,000 shepherds are in charge of 7 million sheep and lambs, that is on an average each man has the care of nearly 800. How the farmers and their men managed to carry on and to accomplish what they did is immensely to their credit.

One side of this aspect of the national effort is the history of the Scottish agricultural labourer during the war, which is described by Mr. Joseph F. Duncan, the secretary of the Scottish Farm Servants' Union. It is characteristic of these workers that they take a pride in their craft—'a ploughman will not remain in a place where he has not a pair of horses in which he can take a reasonable pride. His drills must stand the criticism of his fellows; his stacks must stand wind and weather without undue props; he must be able to handle his horses yoked to any implement used in farm work.'<sup>1</sup>

The Scottish agricultural labourer had his own problems. Before the war there was the housing question as it affected him. The married man is usually provided by the farmer who employs him with a cottage of the 'but and ben' type consisting of two rooms with a pantry. In other cases, where a family hires together, the cottages supplied are necessarily larger. The arrangements for unmarried men in the east of Scotland between the Forth and the Dee involve what is known as the 'bothy-system'. The older bothies consist of a single large, whitewashed room with a stone, or cemented floor. The farmer provides simple furniture such as beds and a few cooking appliances. Married men usually engage for a year, and unmarried men for six months. The 'Hiring Fair' is an important landmark in the life of the agricultural districts. The long period of engagement was important in estimating the effect of the change in the level of prices upon wages. Naturally readjustments were necessary: but, though the agricultural labourer was to some extent in the position of a monopolist, Dr. Charles Douglas, president of the Highland and Agricultural Society, bore testimony that 'taken as a whole, he did not make unfair demands or seek to derive undue advantage

<sup>1</sup> See below, p. 194.

from a situation which offered him great opportunities'. The method adopted for the reducing of friction in the settling of wages began, rather tentatively, as a result of the report of the second Departmental Committee on Food Production in Scotland which suggested joint committees of farmers and farm servants, and several of these were established before the Spring Hiring Fair of 1917. This procedure was extended and elaborated by the Corn Production Act of the same year, and District Wages Committees were formally established in Scotland with a Central Committee. One of the most striking developments was the introduction of an agreed sliding scale regulating wages in Lothians, which dates from 1920. This was designed to give effect to the larger changes in prices during the period of the yearly or half yearly agreements. When changes were so violent, this was a distinct improvement, and removed a difficulty which would otherwise have caused friction under even the shorter term of six months.<sup>1</sup> The general trend of the period since 1914 has been towards a reduction in working hours and for the amelioration of rural isolation. The improvement in rural housing, which is overdue in many districts, is postponed owing to the position of the building trade. Further, it may be said that the war has left a deep impress on the Scottish farm worker. He was made conscious of his place in the social organism. He felt, more deeply than some other classes of workers, the patriotic appeals made to him. This awakened his sense of citizenship. His social importance was increased, and he ceased to be wholly inarticulate. The formation of the Scottish Farm Servants' Union is the external sign of this awakening, which, however, is a much bigger thing than a class-consciousness in the narrow sense.

In addition to the farmer and the agricultural labourer there was another form of industry on the land in Scotland. This is the crofting system which gives a name to a special type of land-tenure. Crofts and crofters are confined to the Highland district. The ancestors of the crofters had occupied the ground

<sup>1</sup> See below, pp. 210, 211.

in its original unimproved condition, and had provided, at least to a very large extent, their houses and such reclamation as had been done. In the Highlands a typical croft consists of a small portion of arable land in a valley or on the seashore with a right of grazing a certain amount of stock on the neighbouring hills. In the Islands the system is similar, except that the common grazing is not necessarily hill country. Under recent legislation a public authority fixes the crofter's rent. He has reasonable fixity of tenure, and is prevented from subdividing the land he holds. The latter, prior to legislative interference, was a great evil in the Highlands, and associated with it was the Highland cottar, who seems to have come into existence through a crofter permitting a relative or friend to build a house on the land he occupied. The family, which thus became settled, had only a small patch of land, and it had to look to some other means of support in districts where there were scarcely any industries, except fishing. Yet another variant of the system was the 'crofter-fisherman', who, as the name implies, maintained his family partly by his croft and partly by the fishing industry.

This population constituted a serious social problem long before the war. In very many districts there was an urgent demand for an increase in the area of existing crofts which were often too small to maintain a family, and also from the sons of crofters and from cottars for new holdings. From 1897 there had been a movement towards meeting these needs which was under the care of a public authority, first of the Scottish Congested Districts Board and later of the Board of Agriculture for Scotland. The progress of land settlement under these bodies is described in the next study. The position was transformed, when at the end of the war the question of the settlement of ex-service men on small holdings arose. It will be seen that, in Scotland, there was a fully equipped department with experience in this work. From 1897 till the end of 1918 there had been constituted upwards of 1,200 new holdings and over 1,400 existing holdings had been enlarged. The settlement of ex-service men presented a whole series of

problems. Though public opinion was in favour of the scheme, there were numerous difficulties. Many of the men had made application before the war. After their service they were impatient to get possession, but the labour was not available to supply sufficiently quickly the buildings upon land which had been acquired for the purpose. Also from the point of view of the men themselves, small farms which were provided with buildings in 1919-20 would be burdened with high overhead charges, and the implements and stock purchased then would be liable to serious depreciation when the period of monetary and credit deflation had been established. Then, further, there was the case of the man demobilized or on the eve of demobilization who had little capital or perhaps had none. The steps taken, with more or less success, to grapple with these difficulties are described.<sup>1</sup> At the end of December 1922, 1,202 ex-service men had been settled on new holdings and 155 had obtained enlargements of holdings they already occupied; out of the number of applications which had been received at the proper time, this disposed of 1,357. It was expected that in 1923 a further 1,000 men would have been placed in occupation of new holdings or of enlargements, but the number, actually settled, amounted to less than one-third of that anticipated.<sup>2</sup>

The short study by Professor J. P. Day, which is appended, describes an industry which is very closely related to agricultural conditions, but which involves a vastly wider sweep. These conditions are, as regards the raw material, those in Bengal, and as regards the finished product, the harvests of the world. This industry, as far as it exists in Great Britain, is purely Scottish, being localized at Dundee. Further, it is one which is peculiarly susceptible to war conditions, since jute sacks are in great demand as sand-bags. This had the effect of nearly doubling the price of Hessians in the year 1914-15.<sup>3</sup> By 1917 prices had reached a remarkable height, and in that year and in 1918 the Government controlled the trade more and more. After the abolition of control during

<sup>1</sup> See below, pp. 247-59.

<sup>2</sup> See p. 259.

<sup>3</sup> See p. 278.

the period of speculation in 1920 prices went still higher, and they fell in an almost catastrophic manner during the great slump. The following table shows some of these extraordinary variations :

	June 1914	Highest point, 1920	March 1921
Cloth 10½ × 40 hessian per yd. . .	3 6/48	11 30/48	3 36/48
Yarn 8 lb. Common cops per spool . .	2s. 6d.	10s. 9d.	2s. 6d.
Raw jute for shipment per ton . . .	£33½	£67	£32

It is interesting to note that this is one of the very few industries which, as early as 1921, had got back to pre-war prices.

## II

### RURAL LIFE IN SCOTLAND DURING THE WAR

THE various monographs which follow are concerned mainly with different economic activities of that part of the population of Scotland which lives by fishing and by work on the land. In these studies there are a number of side-lights on the life of these people during war time and since. It seems worth bringing these together and supplementing them from various sources, for the countryside is very silent, and changes in its social life leave little trace. No doubt, if the Highland population maintains its customs, many incidents of the war will find their place in those endless Gaelic songs which last from a winter sunset to midnight or longer. But in such folk-songs everything will be transfigured by the poetic touch, and the subjects will be the heroic rather than the common-place. Yet it is the latter which one requires to picture in order to see how the rural population lived and how the war affected it.

As regards the part of Scotland south of the Caledonian Canal, it was a time of intense activity. The patriotic spirit was alive amongst a people whose ancestors had been fated to know more of war than of peace during many generations. It was estimated that in July 1917, 28·2 per cent. of the farm workers of Scotland were in the army and a year later 36·5 per cent.<sup>1</sup> It became apparent that certain classes of agricultural workers were being unduly reduced if the home supply of food was to be maintained, and it was necessary to exercise considerable care to prevent the drain becoming too great. These figures represent a greater draft on the efficiency of farm work than might appear at first sight, for they are made up of the young men, so that the labour which remained included an increasing proportion of those older, who, however experienced, would not be so well adapted to stand the strain

<sup>1</sup> See below, p. 204.

when every one had to do more than before. The way the fishing industry called upon its unexpected reserves has already been mentioned,<sup>1</sup> and the same thing happened on the land. There was the stimulus of public spirit and of hope. The farmer had been fighting bad times for two generations, and now he seemed to have entered into changed conditions. The workers found to their astonishment that they were a most vital part of the social and industrial system. These are intangible things, but they mean just that little more which in the aggregate makes all the difference.

In the daily life of the rural population there were few external changes. Every one had to do more, but they escaped the effects of rationing of farm produce, while, on the other hand, they not infrequently suffered by the break-down of the arrangements for the supply of tea, sugar, and tobacco. In fact there would have been serious hardship in many cases if the country-men (or perhaps rather the country-women) had not exercised the self-protective instinct which is strong amongst them. Possibly one of the most striking developments of the time was the effort to rebuild the rural life which had been long falling into decay. In this movement the Scottish Women's Rural Institutes have made striking progress. By October 1922, there were 242 Institutes at work in Scotland with a membership of about 14,000. This represents rather less than one-eighth of the total persons employed in agriculture in Scotland, but it comes to two-thirds of the women so employed. There appears to be promise of continued progress, for the scheme is being worked in a systematic manner with care and forethought, and intelligent consideration is being given in advance to needs of the movement as a whole and to those of the different districts.

It is when attention is directed to life in the Highlands that the changes caused by the war become much more marked. It is curious and interesting that in the long island of Great Britain the effects of the great struggle were experienced, but in very different ways, chiefly at the south and the north.

<sup>1</sup> See pp. 6, 7.



Those in the South, in the region bordering the English Channel, are sufficiently well known. The others in the North are more obscure and are mainly dependent on the presence of the fleet in these waters. Apart from this, there was another group of circumstances connected with the reaction of the war on communications in this region. The whole area north of the Caledonian Canal comprises part of the mainland of Scotland and a great number of islands. The latter must be reached by sea, and, even on the mainland, conditions are such that the main way of approach to most of the settlements on the west is by the same route. The reason is that the only line of railway, running from the south northwards, is on the east side; and, before the war, an extensive steamer service was in existence all along the west coast and to the Islands, both northwards to Orkney and Shetland and westwards to the Hebrides. The only railway line in this area is one which runs west from Inverness to Kyle of Lochalsh—a port which was used by the American Navy for the supply of its fleet operating in the North Sea. The effect of the development of the submarine campaign and the scarcity of shipping was to make communication very irregular; and, especially in some of the Islands, supplies of food were sometimes very short. Even on the mainland great inconvenience and suffering were experienced in isolated places. For instance, one remembers vividly the picture of local conditions presented by a fine old Highlander who lived at Coiagh in Ross-shire, a small settlement in a bold peninsula between Loch Broom and Enard Bay, off which is a group of islands, poetically named the Summer Isles. This old man was one of those who thought in Gaelic and who expressed himself in English in the sonorous language of the Authorized Version of the Bible. One realized the isolation of the people when he spoke of the small fishing village of Ullapool as ‘a great city’, and it had marked the extent of his wanderings towards what town-dwellers would be inclined to describe as civilization—to him in his picturesque imagery it was as ‘the land of Goshen’. He described the war as a time ‘when the mantle of darkness had descended on the land’, and it turned out that this was no

mere poetic simile but a literal description of what had happened in his township, since all through the previous winter, the people had had no artificial light owing to there having been no calls by steamers to land oil. Still, on the mainland, the people were never so cut off as on most of the Islands. Motor coaches, primarily for the postal service, could always carry really urgent requirements. At the same time this traffic, to which was added that on a number of roads of the timber, which was cut very extensively in this region, meant a strain which these roads were never intended to bear, and their condition is a great post-war problem in the Highlands where the county valuation is very low and the capacity for bearing rates is all but exhausted. Difficulties of transport affected the people more in their domestic, than in their economic life. Their farming was chiefly pastoral, and under war conditions their stock had to make longer journeys by road. The chief difficulty was in the moving of sheep stocks to the south for wintering: but, though great inconvenience resulted, the difficulty was not insuperable. The position in the Islands was different, though even here there were compensations. The presence of the fleet at Scapa brought a large home market to Orkney, which during the war imported instead of exporting food and particularly eggs. The large Island of Skye is so near the mainland that stock was easily carried across the Sound of Sleat. The position of the Outer Hebrides was peculiar. The population was considerable, and communication, though somewhat irregular, was maintained. The patrol boats, based on Stornoway, meant an increased demand for such food products as the Islands could supply, and in addition the consuming power of the people was much increased through the large amount of separation allowances paid there.

Perhaps the greatest hardship was the delay in mails, especially to the more outlying places. There were many women waiting anxiously for letters from their men, and postal communication was inevitably irregular. Even when bad news had to come, there were numerous townships which were far from a telegraph or wireless station, and the telegrams had to

wait for messengers. For the rest the war meant no breach of historical continuity in the Highlands. How many musters have these old hills seen? The great war was only the same old sad story, and there was something that made it fit into its appropriate place in the patchwork of the past. Perhaps an example will make the meaning less obscure. In the early winter of 1914 reservists were joining one of the Highland regiments. The men trickled in at most of the stations in Caithness, and they became more numerous as the train entered Sutherlandshire. As the short winter day closed in, snow began to fall; and, as the train wound through the valleys, all the houses were lit up, and the people stood at the doors waving torches and chanting a high-pitched battle song. Except for the railway, nothing was changed. It was thus all through the ages that the clans had mustered, and it was thus that the women, the grandfathers, and the children had sent their men to war.

Then again strategical conditions had their reactions upon the life of the people. First, on account of the use of Scapa by the fleet, passage by civilians to the Orkneys was discouraged and later the whole country north of the Caledonian Canal was made a military area which could only be entered by means of a special pass. Thenceforward something of the silence and the mystery of the Grand Fleet shrouded the Highlands. In one sense these restrictions had little effect on the lives of the people, for they did not travel. Journeying is expensive, and those who see anything of the outside world gain their experience usually by serving in the forces or by joining the mercantile marine. Still there were some great changes. One of the most important of these was the enforcing of a measure of prohibition in the Highlands during the later stages of the war. Alcohol might not be sold, but a certain amount was sent by parcel post or brought as travellers' luggage.

Then there was an inversion of ordinary experience in so far as the Highlands became more and more an appendage of the sea. The Grand Fleet with its immense body of auxiliaries was the centre of the whole life of the district, as reorganized during

the war. The use of the Caledonian Canal by the American Navy was symbolical of the temporary severance of the Highlands from the social life of the remainder of the country. Supply ships came along the west coast. Patrol boats searched the inlets. Cruisers and destroyers were going and coming on their own proper affairs. Convoys from Europe followed their laneway down the east coast. In a word, the Highlands from being the preserve of deer, became the preserve of the Navy. It was perhaps not unfitting that this connexion should be marked by the self-destruction of the German fleet in these waters. There is one impression that may stand as a final vignette. It so chanced that the writer was in Scapa Flow the day after this fleet had sunk itself. Of the remains of the battleships and cruisers there is little to be said, several had capsized and their bulk was formless and ugly. But the scene, where the destroyers had been, lives in one's memory. They had sunk leaving their masts, carrying the bar for the wireless installation, above the sea. At the state of the tide these stood above the water, just like crosses, in an ordered line stretching into the far distance—a marine graveyard, when the sea itself marked the self-destroyed with a dark cross.



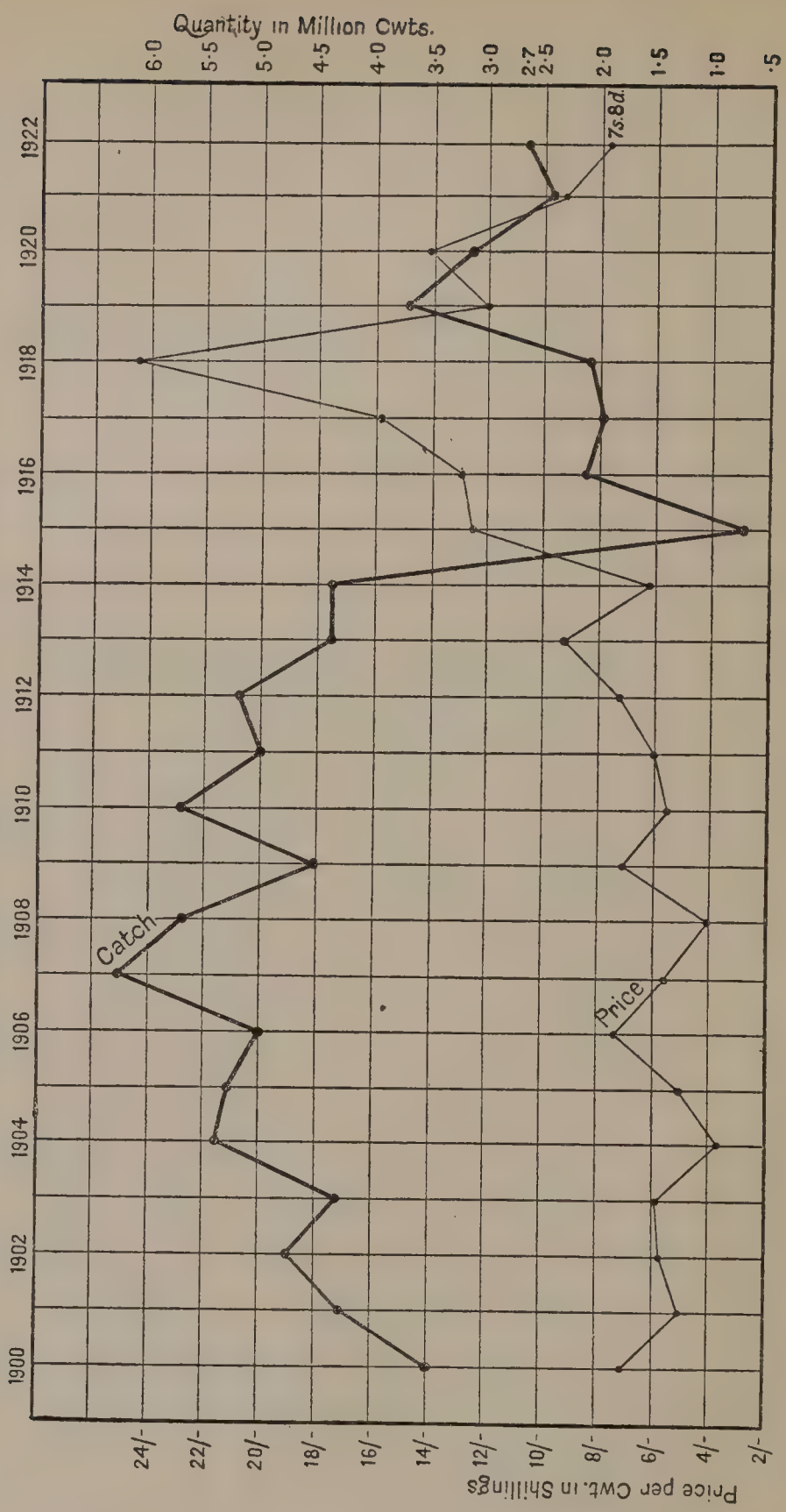
II

SCOTTISH FISHERIES  
DURING THE WAR

BY

DAVID T. JONES, C.B.E., F.R.S.E.

DIAGRAM SHOWING THE RISE AND FALL IN THE CATCH AND PRICE OF HERRINGS  
IN SCOTLAND FROM 1900 TO 1922 INCLUSIVE



## CHAPTER I

### INTRODUCTORY

Introductory : the genesis and rise of the industry : Herring Fishery : Trawl and Line Fisheries.

THE Scottish fishing industry suffered grievous injury from the operation of the great world war, but ' it is an ill wind that blows nobody good ', and in this instance the war was the means of bringing home more closely to the nation the great value of the industry as a national asset both in time of war and in time of peace. It not only provided the country at a time of dire need with a cheap and wholesome food—cheaper than, and as wholesome as any other form of food—but it supplied the State with a splendid body of men inured to the sea and eager to take its part in the first line of defence. The heroic deeds of these fishermen are fully worthy of the high appreciation which was subsequently expressed by the naval authorities, while those of their kith and kin who for good reasons continued fishing and risked their lives daily in the face of the submarine and mine menace are also deserving of commendation.

A brief sketch of the genesis and rise of this important national industry up to the outbreak of war may be of interest. From the earliest times it has been of economic importance, not only as providing food for home consumption—mainly as cured fish, the lack of transport precluding any appreciable development of the trade in fresh fish—but also as producing a large quantity of cured fish for export.

Herring fishing was prosecuted in the Scottish Firths from the early part of the twelfth century (during the reign of David I, 1124–53), and went on practically unchanged down to the beginning of last century. The curing, export, and sale of the fish was in the hands of the Royal Burghs, whose privileges were jealously guarded, and a not inconsiderable part of the revenues of the Crown was for a long period derived from the



export duties on fish. Aberdeen pickled and dried cod and pickled salmon were in demand all over Western Europe—the name ‘Aberdeens’ (haberdines, aberdines, &c.) as applied to dried cod fish being well known in all the markets.

The value of the fisheries, even in the middle of the seventeenth century, was such that it required some temerity on the part of a French gentleman, Hugues L’Amey, to propose to the Scots Parliament that, in return for introducing and supervising the growing of Indian corn in Scotland, he should receive a grant of the whole of the Scottish Fisheries.

About the middle of the eighteenth century a serious effort was made to establish a deep-sea herring fishery on the Dutch system, large vessels called ‘busses’ being built—on board of which the fish were pickled and barrelled. The effort failed completely. It was based on an imperfect bounty system and (as Adam Smith had it) the boats were often fitted out to catch the bounty and not the fish! In 1808, however, the Commissioners of the British White Herring Fishery, who had jurisdiction over the United Kingdom, were appointed, and a new system of bounties was instituted having as its object the improving of the quality of the cure of herrings and cod and ling; and as a result of efficient and close supervision by the fishery officers appointed, the fisheries developed so rapidly that it was found possible in 1830 to dispense with the bounties. The marks placed on the barrels of herrings reaching the requisite standard, and those impressed on the fish themselves in the case of cod and ling, had acquired so much value in the eyes of the foreign dealers as an indication of good quality that the curers petitioned the Government to have them retained in the form of a Crown brand, and their petition was acceded to. A proposal to abolish the brand in 1849 met with so much opposition from the trade (who were now prepared to pay a fee to meet the cost of administration) that the Government consented to its continuance, and the herring brand survives to this day as the only official imprimatur of the quality of goods exported from this country.

Coincidentally with the rise of the fishery an efficient body

of expert officials was created to whom is largely due the pre-eminent position now occupied by the industry.

The real genesis of the fishery took place during the Napoleonic wars, and its most marked and rapid era of progress followed the Crimean war and the Civil War in the United States of America—although the latter caused a temporary but serious check to the flow of exports, the slaves on the cotton plantations having been largely fed upon Scottish cured herrings.

During the course of the last hundred years the industry passed through many phases and vicissitudes. Apart from administrative measures, the industry was dependent mainly for development on three factors or conditions: (1) Preservation, chiefly for export—a factor paramount in earlier times; (2) the provision of transport facilities for carrying fish to the markets in a fresh state; and (3) a combination of conditions involving improved means of propulsion of boats, extension of harbours, and better facilities for distribution in the inland centres.

In Scotland, till well on into the last century, fresh fish was a luxury; it was available only in the neighbourhood of the fishing ports through such picturesque media as 'Maggie Mucklebackit' and the Newhaven and other fishwives, and further afield by means of horses. Owing to the lack of railway and steamer communication the efforts of the administrative body to assist in development were very much cramped. Nevertheless a large number of our fishery piers and harbours were constructed in the first forty years of last century.

The following figures are sufficient to illustrate the growth of the Scottish herring fishery during the period in question, viz.:

1811	.	.	.	.	90,000	barrels	cured
1840	.	.	.	.	500,000	"	"
1874	.	.	.	.	1,000,000	"	"
1907	.	.	.	.	2,500,000	"	"

Throughout the first half of the nineteenth century the Scottish fishing boats were all 'open' or undecked, similar in build and rig to the Shetland 'sixerns', of which a few are

probably still in use; the great majority of them were small boats of about 20 ft. long. Half-decked boats of larger size and stronger build began to take their place all round the coasts, and then, in the '60's and '70's, another change took place—to fully-decked boats of 45 ft., and soon of 60 ft. long, drawing some 5 ft. of water, and costing from £300 to £400, and later as much as £600. In or about the year 1872 their great superiority had become apparent to all; the catch by these decked boats was from four to five times that of the undecked; they could follow the shoals of herrings to a great distance—and it so happened that just about this period the big shoals tended to lie farther off-shore than they had done for some years previously; and as a result boat-builders were soon busy all round the coast building the new type of vessel.

Steam was first applied to fishing vessels other than trawlers in Scotland in the late eighties, and in 1892 there were 44 such vessels. The modern steam drifter, employed solely in the capture of herrings by means of fleets of drift nets—each fleet extending for a distance of over two miles, came into use about 1898, not without much prejudice and opposition on the part of the older men, but its extension was rapid and in 1914 the Scottish fleet consisted of close upon 1,000 vessels, valued at £2,200,000 and manned by over 8,500 men.<sup>1</sup>

Still more recently (with the help and encouragement of the Fishery Board for Scotland) the installation of motor engines in second-hand sail boats proceeded rapidly—though not until their usefulness had been recognized elsewhere for several years, especially in the Scandinavian countries.

Ten years prior to the war not a single vessel was propelled by motor power; with the exception of the small steam drifter fleet all the first class vessels engaged in herring fishing were sailing craft of the 'Zulu' type about 65 feet long and carrying a crew of nine men or eight men and a boy. The 'Zulu' model—so called owing to its introduction at the time of the 'Zulu' war—largely superseded the 'Scaffa' type previously in use. The 'Zulu' was used chiefly by Moray Firth fishermen,

<sup>1</sup> See Appendix XVII, Figure 1.

while in the Firth of Forth the type adopted was the 'Fifie'. The difference between the 'Zulu' and the 'Fifie' is entirely one of design, shape, and build of hull. The 'Zulu' has a straight stem and a long slanting sternpost, while in the 'Fifie' both the stem and sternpost are straight. The former has a greater hold of the water, the deeper heel for beating to windward acting in the same way as the false keel used in yachts and the shorter forefoot and deeper rudder causing her to answer her helm better than the 'Fifie'.

In 1914, however, nearly the whole of the craft employed consisted of steam vessels and vessels fitted with motor auxiliary power, the 'Zulu' sailing craft having been laid aside on the beach as obsolete. These would rapidly have become derelict had the demand by the Admiralty for steam fishing craft for war purposes not created at the same time the need for vessels to replace them, and the fishermen at once set about installing motor power in the discarded vessels. From a beginning in 1906 the Scottish motor fleet now numbers over 1,800 boats, valued at £1,350,000, and manned by 7,500 men.

So recently as 1906 sail boats took 69 per cent. of the whole Scottish herring catch; eight years later, in 1914, they took only 19 per cent.<sup>1</sup> The immense revolution thus effected and the changes it brought about in many ways (not least in regard to the greater harbour accommodation required) need no emphasis.

The Scottish herring fishery may indeed be regarded as a goodly heritage built up on a sound foundation by succeeding generations of persevering and enterprising fishermen and fish-curers, and fostered by the shrewd and untiring efforts of eminent Scottish gentlemen who gave ungrudgingly of their time and energies as Commissioners of the British White Herring Fishery to the end that the country might not only be provided with a valuable nursery for the Navy but also that an important industry might be created and organized on sound lines. As the editor of Baron Cuvier's *Natural History of Fishes* eloquently phrased it, 'the coffee bean, the

<sup>1</sup> The totals are shown in Appendix XVII, Figure 3.

tea leaf, the spices of the Torrid Zone and the silkworm have less influence on the wealth of nations than the herring of the northern seas. . . . It has been named "the Great Fishery". It forms robust men, intrepid mariners, and experienced navigators.' This is still true to-day.

The Scottish herring fisherman is a fine type—independent, hardy, intelligent, and thrifty. He is somewhat conservative in his outlook, but moves quickly when the value of improved methods has been demonstrated, as witness the rapid revolution in the character of the fleet after the application of steam and motor power to fishing craft.

The Scottish fishing communities are a model of what all communities should be—excellent and well-furnished houses owned by their occupiers, and splendid schools, substantial churches and public buildings. Many of their sons have become eminent in the professions and have occupied high positions in the Church, and on the outbreak of war young and old responded nobly to the country's call.

The introduction to Scotland in 1882 of steamers using the beam trawl for the capture of demersal fish (i. e. of fish other than herring) marked a distinct and notable epoch. The beam trawl, in which the mouth of the net was kept open by a horizontal wooden beam, was, however, superseded in 1895 by the more efficient 'otter', in which the beam is replaced by two boards, termed otter boards, measuring some 10 feet by 5 feet, fitted one at each side of the mouth of the net, and so balanced that they move forward on their longest edge at a diverging angle of about 30 degrees, thus keeping the mouth of the net open to its full extent; and, although this method of fishing was viewed with grave apprehension by a large section of the fishing community, the fleet grew until in 1914 it numbered 332 vessels (valued pre-war at £1,440,650), and manned by 3,500 men.<sup>1</sup> In 1889 the fish landed by trawlers in Scotland amounted to 140,000 cwt., and in 1914 to 2,000,000 cwt., while the rise of the great fishing port of Aberdeen (and also that of Granton—the only other important trawling centre in Scot-

<sup>1</sup> Appendix XVII, Figure 1.

land) may be said to be wholly due to trawling. In 1889 Aberdeen landed 13 per cent. of the total catch of demersal fish; in 1914 it landed 60 per cent. or three-fifths of the whole.

As indicating the magnitude of the Scottish fishing industry it may be stated that the quantity of fish landed in 1913 was nearly 8,000,000 cwt., valued at close on £4,000,000, while Scottish fishermen also landed at English ports 2,500,000 cwt. of herrings, valued at £1,000,000, bought chiefly by Scottish firms for cure and export.<sup>1</sup>

<sup>1</sup> Appendix XVII, Figures 3 and 4.

## CHAPTER II

### THE OUTBREAK OF WAR

Dislocation of the industry in 1914 : gradual disposal of fish cured up to August 1914 : insurance of fishing vessels : trawlers and drifters chartered by the Admiralty : Royal Naval Reserve (Trawler Section).

THE Scottish herring fishery is largely seasonal—the main fishings taking place in winter from January to March, in early summer (May and June), and in summer (July to September inclusive). The latter is known as the Great Summer Fishery and is the mainstay of the Scottish herring fisherman, and it was at its height when the war broke out with dramatic suddenness. Fishing operations at once came to a standstill and the large fleet of Scottish steam drifters, motor vessels, and sailing vessels was laid up and the whole fishing community thrown out of employment. Many of the fishermen were at once mobilized either for naval or army service. In the Island of Lewis alone 2,000 fishermen, a large proportion of the manhood of the island, were already enrolled in the Royal Naval Reserve, and of these 1,000 were engaged in the East Coast Summer fishery. Similarly large numbers of curers, coopers, and other workers engaged in the subsidiary industries were at once called up for service either in the Navy or the Army. What this meant to the industry may be gathered when it is stated that the fleet of vessels employed in fishing were valued at £4,146,787, while their fishing gear represented a value of £894,404.

The numerous curing yards, the stock of salt and barrels, and all the material used in the preserving of herrings, cod, haddock, &c., were at the same time rendered unremunerative, and the whole of the men employed in transport and distribution or in the preserving trade were thrown idle, as were also thousands of women from the Islands and Highlands who were at the moment employed at the herring fishery in curing and were looking forward for their year's sustenance

to the earnings from that fishery and the succeeding autumn fishery off the East Anglian Coast. The anxiety felt by those affected by this sudden stoppage of their sole means of support and by those responsible for the administration of such an important industry will be readily appreciated, and if more stress is laid on the plight of the herring industry than on that of the trawling industry it is to be ascribed to the fact that the former is in Scotland in every sense of the term a national industry, followed almost universally along the Scottish coasts, while the latter is conducted chiefly by companies, is confined to a few ports, and is of comparatively recent origin in Scotland.

The situation was one demanding instant attention, and it was fortunate that the Scottish system of administration was so modelled as to make it adaptable and responsive to the sudden call made upon it. The acid test of a world war was to be applied to it, and while it had defects it was not found lacking in intimate knowledge of the industry and a sympathetic appreciation of the crisis which had to be faced, while the officials were men possessing practical knowledge of its many activities and familiar with its personnel and material.

At the suggestion of the Fishery Board for Scotland meetings were called of the fishermen and curers at the chief centres, and after consideration it was resolved to discontinue herring fishing operations.

Trawling for white fish was at the same time brought to an end and the prospect all round was indeed a bleak one. The only ray of comfort appeared in the form of an Admiralty Order to the effect

‘ that trawlers and other fishing vessels in the North Sea may continue operations with the following restrictions :

Trawlers must remain in sight of land and must return to port before nightfall.

Drifters must not attempt to enter ports at night.

Vessels may carry out fishing operations to the westward of the fourth meridian of West longitude without any Admiralty restrictions.

All the foregoing are subject to the proviso that vessels fishing do so at their own risk, and subject to cancellation by any special instruction given by a naval or military authority in any particular locality.’



The effect of this notice was to confine fishery operations in the North Sea to daylight and to permit fishing on the West Coast without restriction.

At the same time an embargo was placed on the export of salted fish, but this was quickly removed in so far as export to countries not at war with Great Britain was concerned.

The Scottish Fishery Board, realizing the urgency of the situation, appointed a Committee to confer with the representatives of different branches of the herring trade and invited them to indicate the lines on which they considered the Government could assist the industry in meeting the crisis. The remedies suggested were more or less of a tentative character and were not in any sense designed to meet the exigencies of a prolonged war. The total cure up to 1st August amounted to 1,384,000 barrels, and as a result of the persistent efforts of the curers and the exporters over 75 per cent. of this had found its way abroad before the close of the year, chiefly to Russia, the routes still available after the closing of the Baltic Ports being (1) the sea passage to Archangel, up to the date when this would be blocked by ice, and from Archangel by a single narrow-gauge railway to Vologda; (2) the sea route to Trondhjem, and thence by railway over Norway and Sweden to Tornea, on the Russian border, where 20 miles of road had to be traversed before goods could be placed on a Russian railway, and (3) the sea passage to Bergen and thence by rail to Gefle, and the railway ferry to Finland. The expenses in respect of freight, railway charges, &c., on the two latter routes were very heavy and militated largely against any prospect of developing trade through these channels, while as regards Archangel, the services of an ice-breaker had to be requisitioned in order to keep the route open as long as possible.

In normal times fully 90 per cent. of the total cure of herrings was disposed of in Russia, Germany, and the Near East, so that the opening up of new markets became of the utmost importance if the existence of the industry was not to be imperilled.

In the circumstances it was felt that as a first step full information should be collected as to the number of men un-

employed in the various districts in Scotland and also as to the financial position of those whose capital was invested in the industry, in order that every possible measure might be taken to maintain their financial stability. Some of the measures adopted by the Government had no bearing on the cured herring trade, but the majority of them affected it directly or indirectly; and, of course, any action taken to secure the financial stability of the country generally affected every trade. The steps actually taken by the Government may perhaps be appropriately classified as (*a*) negative and (*b*) positive; the former being those which had for their object the deferring of the enforcement of financial obligations—in order to prevent bankruptcy and to allow firms and individuals time to make arrangements to meet their difficulties—and the latter those by which provision was made for making advances to traders in order to enable them to obtain capital with which to continue operations. It is not proposed here to go into detail, but briefly it may be mentioned that the ‘negative’ measures embraced (1) the moratorium, and (2) the Courts (Emergency Powers) Act, 1914; while among the ‘positive’ measures were (1) the scheme for discounting Bills of Exchange and for advancing funds to the acceptors to enable them to meet the Bills at maturity, (2) the efforts made to re-establish foreign exchanges, particularly that with Russia, (3) the scheme for making advances on the security of outstanding trade debts which were uncollectable on account of the war, and (4) the scheme for insuring fishing vessels against war risks. The latter was a natural extension of the scheme for insuring merchant vessels against war risks, and the same principles were followed. A Central Association was formed which all owners desiring to take advantage of the Government scheme were required to join, and this Association re-insured the risks to the extent of 80 per cent. with the Government. The premium originally charged was 1 per cent. for a period of three months, and it was intimated that the rate of subsequent premiums would depend upon the extent of the claims which fell to be made under the scheme.

Those fishermen possessing steam craft were greatly relieved when the Admiralty decided to charter both their trawlers and herring drifters for Admiralty service. Every vessel which was in an efficient and seaworthy condition was taken over, in many cases with the whole of the crew, and the fishing gear on board was stored either in the Admiralty stores or returned to the port at which the owner resided. In this connexion assistance was frequently given by the Fishery Board to the Admiralty in ascertaining what suitable vessels still remained available for various branches of naval service, and returns were prepared monthly showing the number of steam vessels and motor boats (as well as the number of men) already in naval service and those still available for such service.<sup>1</sup> The fishermen were enlisted in the Royal Naval Reserve (Trawler Section) and while a considerable proportion of the fishing personnel was absorbed in this way, a large number of men employed in smaller craft remained available for fishing.

A natural and interesting result of the outbreak of war was the cessation of landings at Aberdeen by German trawlers. For some years prior to the war a number of these large and well-equipped trawlers fished the Icelandic waters and made Aberdeen their head-quarters. In 1913 the fleet consisted of 32 vessels, manned by 416 men, and in that year they landed 26,500 tons of fish, valued at £177,000. The catches consisted chiefly of cod, saithe, and haddocks. For the year up to 1st August 1914 the catch was 25,700 tons, valued at £172,000. The sudden stoppage of this prolific source of supply was a serious matter for the British firms of curers of white fish in Aberdeen, and although a few Grimsby trawlers took up the Icelandic fishing in the closing months of 1914 their contribution went only a little way towards meeting the demand.

<sup>1</sup> See Appendices I and II.

## CHAPTER III

### MAN POWER

About two-thirds of the male fishing population joined the Forces : Royal Naval Volunteer Reserve (Section Y): labour in the curing industry.

THE number of fishermen employed in the Scottish fisheries in 1914 was 33,000, and, as stated in Chapter II, the greater proportion of them was thrown out of employment. They formed a most valuable reserve, however, for naval service, as they were thorough seamen and were familiar with all parts of their native shores. They required very little training to form a first-class fighting unit afloat, while they soon accustomed themselves to ways of discipline.

The Royal Naval Reserve had at one time been an attractive branch of the service, but it had latterly become unpopular with Scottish fishermen—the original idea of training the men at shore stations in close proximity to their homes having been departed from in favour of training in distant waters on board naval vessels, and only a comparatively small proportion—mainly from the Outer Islands—was enrolled in 1914. The Trawler Reserve, called up for service with mine-sweeping trawlers (vide Chapter VIII), represented a still smaller body, so that the great bulk of the fishermen found their occupation gone and no suitable alternative to engage their energies. A considerable number of the younger men enlisted in the Army, and others drifted into other civil occupations.

When, however, the Naval Authorities called for fishing vessels, both trawlers and drifters, for mine-sweeping and other auxiliary duties, the fishermen flocked eagerly to man the vessels with which they were associated, regardless of age limit.

About two-thirds of the fishing fraternity joined the forces in one capacity or another, and the majority of these were volunteers.

On the introduction of conscription a special section (Section Y) of the Royal Naval Volunteer Reserve was formed for the enrolment of fishermen. Enrolment in this branch relieved fishermen from liability to service in the Army (for which they were not adapted by their calling) and ensured their retention at fishing until they were required for naval service—an arrangement rendered necessary owing to the large number of fishermen over military age who had voluntarily joined the service. Section Y was in reality the pocket from which the Navy drew men for the trawler section when required, and in order to ensure that the demands upon it should not unduly reduce the food supply it was arranged that withdrawals from this source should be entrusted to the Fishery Board.

To this end it was necessary to ascertain the number of men still fishing and their ages, &c., and a form of census was devised which was based on the fishing permits issued to skippers of boats in terms of the Admiralty Orders regulating fishing (Chapter IV), forms being prepared <sup>1</sup> and issued to each skipper, by whom full particulars of his crew were recorded. These forms were distributed through the Fishery Officers. The information so obtained was classified and the men indexed according to age, rating, whether married or single, and class of vessel in which serving.

Over 14,000 names were recorded in this way, the ages ranging from 15 to nearly 80. To keep the industry alive it became necessary for boys to begin fishing at an earlier age than usual and for men long past the usual age for retirement from arduous work to take up their old positions in the place of younger men who had joined the forces, while in one instance a crew of women 'manned' a deep-sea vessel.

Every fisherman enrolled in Section Y had an opportunity of appealing to the Board for delay in being called up for service, and in dealing with such appeals the Board had the benefit of reports on the individual cases by their local Fishery Officers. The objects which it was sought to attain were: (1) to reserve the 'key' men (for whom no substitutes could be obtained) for the

<sup>1</sup> See Appendix III.

industry ; (2) to ensure that the most efficient boats—as food producers—still available should be able to continue at work ; and (3) to prevent the extinction of any fishing community by the withdrawal of all its fit men.

Lists of men on the roster for service were furnished to the Admiralty as required, and the system worked very smoothly. No efficient fishing vessel left unchartered was laid up for lack of a crew after the system was inaugurated—though that stage had almost been reached when hostilities terminated—while the requirements of the Navy were fully met.

As supplementing the Section Y scheme, the Admiralty created a Special Reserve of fishermen who were over age or did not come up to the high physical standard required by the Navy. This Reserve provided men for the trawlers whose operations were controlled by the naval officials as explained at the end of Chapter IV, and for non-combatant service under the Admiralty.

Concurrently with these steps, a scheme was established by the Board for the registration of fishermen at the smaller ports who were prepared to take the place of members of the crews of the larger vessels when they were later called up for service.

The following is a brief summary of the position at the date of the armistice, viz. :

Number of fishermen tabulated in census . . . . .	14,428
Number enrolled for Y section of R.N.V.R. . . . .	5,733
Number selected from Section Y for service in Navy . . . . .	2,795
Number of applications for delay dealt with (excluding applications for <i>extension</i> of delay). . . . .	2,107

The successful working of Section Y scheme was due to its administration by a central department able to take a comprehensive view of the fishing industry as a whole and to regulate the calling up of men so as to ensure the least adverse effect on the production of fish—a vital consideration when the submarine menace was at its height.

The retention of an adequate staff of shore-workers to deal with the fish when landed was equally important, as many of the operations required skilled labour, but it was not found possible to make an arrangement for such workers on the lines

of Section Y, and great difficulty was experienced by kipperers and others in securing staffs to enable them to carry on.

When the shortage of skilled men first began to be felt it was arranged that the Appeal Tribunals under the Military Service Acts should refer cases of shore-workers to the Fishery Board, and the Fishery Officers attended at the Tribunals to give their advice as independent experts. Later the need for a more comprehensive survey of the man power available in the shore industries became manifest, and a census was taken of these workers, after which cases taken to an Appeal Tribunal were first considered by the Board and the Military Service Department who, after weighing the military and industrial claims, submitted a joint report to the Tribunal concerned.

## CHAPTER IV

### ADMIRALTY ORDERS REGULATING THE MOVEMENTS OF FISHING VESSELS

Variations in the areas open to fishing: Admiralty Orders of August 1914, November 1914, April 1915: local regulations, 1915-18.

As stated in Chapter II the original orders issued by the Admiralty regulating the movements of fishing vessels prohibited fishing in the North Sea except within sight of land. A few weeks' experience showed, however, that greater freedom might safely be permitted, and towards the end of August 1914 revised orders were issued. These provided that fishing vessels could fish in the North Sea west of a line joining Sumburgh Head and the Hook of Holland.

The waters west of the 4th Meridian of West Longitude were, as before, free from restrictions, but the area between the Orkney and Shetland Islands and Longitude 4 West was entirely closed to fishing.

These revised orders remained in force for some months, subject to additional restrictions imposed in November affecting the areas in the vicinity of the Naval bases, such as the Firth of Forth and Moray Firth, but by the beginning of December the mining and other operations pursued by the German naval forces rendered it necessary to impose more stringent regulations, and fresh orders were then issued. So far as Scottish waters were concerned these orders permitted unrestricted fishing only in the area south of the latitude of Kinnaird Head and west of the Sumburgh Head—Hook of Holland line.<sup>1</sup> From Kinnaird Head northwards and on the whole west coast of Scotland fishing was prohibited except by local boats, and it was provided that even local boats could fish only in the areas prescribed in the permits which they were required to obtain.

<sup>1</sup> For map see Appendix IV.



The cordial relations existing between the Admiralty and the Fishery Board were demonstrated by the fact that on the outbreak of war the latter placed at the disposal of the Admiralty the services of their five Fishery Cruisers and their scientific vessel, for the purpose of conducting the Examination Service of all vessels entering the Firth of Forth. In the first year of the war these vessels boarded over 10,000 ships, being on duty day and night and in all kinds of weather, continuing to perform this service until the close of the war and receiving the warm commendation of the Admiralty.

In order to establish a close liaison between the Admiralty and the Scottish fishing industry the Board's Secretary also received a commission as a Staff-Paymaster in the Royal Naval Reserve, and throughout the war was in frequent touch with the Admiral Commanding Coast of Scotland and the Senior Naval Officers at the various Scottish bases. Numerous conferences were also held at the Admiralty and, after the situation had been fully explored, valuable concessions were obtained for the fishermen as the result of the Board's efforts, both as regards the areas in which vessels might fish and the extent to which the Admiralty might fairly draw upon the industry for men.

It is unnecessary to detail the nature of the concessions obtained for different localities. They were dependent on a variety of circumstances, e. g. proximity to a naval base, where freedom of action for naval vessels moving at high speed was essential, the degree of danger to which vessels operating in the area were exposed, and the extent to which protection could be afforded at the time by the Navy.

Local regulations were issued in the form of Orders under the Defence of the Realm Act which were drawn up by the Board, submitted to the appropriate naval authority for approval, and signed by the Secretary of the Board.

As typical of the local regulations adopted the original Order relating to the Moray Firth area is appended.<sup>1</sup> The Firth of Forth regulations were similar in form to those for the Moray Firth, but naturally the greater importance of Rosyth as a base

<sup>1</sup> Appendix V.

and the more restricted waters of the Forth limited the area in which fishing could safely be permitted there. In the Firth of Clyde, on the West Coast, where there was no naval base of importance and where the element of danger was considerably less than in the firths on the east coast, the restrictions on fishing were unimportant.

The local regulations issued at the end of 1914 and the beginning of 1915 remained substantially in force till the conclusion of the armistice in November 1918, subject to variations either by way of increasing the restrictions or relaxing them as conditions from time to time rendered necessary or possible.

The Orders affecting drift net fishing for herrings by the larger classes of boats may be regarded as forming a somewhat special class and, as the catch of herrings normally has a close relation to the areas in which the fishing was from time to time permitted, the matter can be more conveniently dealt with in Chapter V (Herring Fishing).

As regards the North Sea, the unrestricted area off the Scottish Coast was slightly increased in April 1915, but five months later it was found necessary to prohibit fishing in the waters covering the approaches to the Firth of Forth. From 1916 until the termination of hostilities no material alteration was made in the regulations affecting this area, but from 1917 onwards these regulations only nominally affected the Scottish trawling fleet, as early in that year it was found necessary to adopt special measures for the control and protection of trawlers. Under the scheme eventually framed the fleet was placed under naval control, the trawlers being commissioned as naval vessels, and their crews enrolled in a special branch of the naval forces. Fishing operations were regulated by the Senior Naval Officer of the particular port from which the vessels operated, assisted by a Port Fishery Committee, and this combination of confidential naval intelligence and practical fishing knowledge secured the best possible arrangements with the minimum of risk.

During the period of the war close on 200 Orders affecting

fishing in Scottish waters were promulgated. The permissive Orders provided that every skipper of a fishing boat operating in the areas affected by the regulations should receive permits signed on behalf of the Fishery Board and countersigned by the competent naval authorities. The total number of permits issued exceeded 18,000, and these were duly recorded and issued by the Board through their Local Fishery Officers.

Human nature was bound on occasion to assert itself, and it is not therefore surprising that contraventions of the regulations occasionally occurred. The temptation to encroach upon favourite—but prohibited—grounds, the fisherman's natural disregard of danger (or the supposed absence of danger), and the high prices ruling for fish, led him at different times and in different localities to disregard all restrictions, but it was fortunately seldom that rash acts were attended with disaster. Infringements of the regulations were reported to the Board by the naval authorities and communicated by them to the Procurators Fiscal<sup>1</sup> for the institution of legal proceedings. In aggravated cases permits were suspended.

<sup>1</sup> Procurators Fiscal are public prosecutors in criminal offences in Scottish Courts, and they act on the instructions of Scottish Crown Counsel.

## CHAPTER V

### PRODUCTION

#### 1. *Herring Fishing*

Difficulties of the East Anglian herring fishing in 1914 : twenty-five drifters sunk off Shetland in 1915 : small catch in 1915 : revival in 1916 : results in 1917 : the Cured Fish Committee : shifting of fishing from the East to the West coast of Scotland : the curing industry, 1916-18 : line fishing, 1915-19.

As already stated, the outbreak of war brought the Great Summer Herring Fishing of 1914 to a premature close, and for the remainder of the year the majority of the steam and motor drifters were idle.

Under normal conditions a small fleet usually proceeds to the West Coast in the autumn to pursue the herring on their appearance in the lochs ; and the severe restrictions on the East Coast induced a greater number of fishermen than usual to try their fortunes at that fishing.

The chief concern of the drifters during the autumn months of the year is, however, the fishing off the East Anglian coast, centred at Yarmouth and Lowestoft. In the development of this fishing Scottish fishermen and curers have played a conspicuous part, and before the war practically every Scottish drifter proceeded to one of the two ports mentioned for the purpose of sharing in the fishing. Hopes ran high that the shortage in the catch in Scottish waters would be more than met by a successful East Anglian fishing, but as the situation developed it was seen that these hopes would not be realized. It became obvious that curing for export would be a precarious venture, and that the limited home market would therefore be the only one available, and consequently only 125 vessels left Scotland to participate in the fishing, as compared with 1,163 in 1913. Before the season had proceeded very far, however, it

was discovered that the fishing grounds had been strewn with German mines, and six vessels were lost. Early in November, therefore, the bulk of the Scottish fleet returned home, their total catch being 188,000 cwt., as compared with 2,590,000 cwt. in 1913.

The outlook for herring fishing at the opening of the year 1915 was likewise far from promising. Normally a considerable fleet would have been engaged during the first three months of the year in the Minch (which is between the mainland and the Outer Hebrides), but for naval reasons it was necessary to keep this channel free from the obstruction caused by the setting of long fleets of drift nets.

Fishing was at first permitted only in a limited area south of Skye, and it was not until about the end of February, when the season would normally have been on the wane, that Stornoway was opened, and even then the area made available was too small to produce successful results. A few months later further concessions were granted for herring fishing on the West Coast and the bulk of the fleet engaged during 1915 operated in these waters.

On the East Coast, where 2,300,000 cwt. of herrings had been landed during the summer season of 1913, fishing was almost entirely prohibited, only 60,000 cwt. being caught. Peterhead, which was the premier herring port in 1913, with 775,000 cwt. for the year, yielded only 287 cwt. for 1915.

In Shetland waters operations on the northern grounds were developing well on a reduced scale until they were interrupted in June by an enemy submarine. Twenty-five steam drifters were sunk in one night, the crews fortunately managing to escape in their small boats.

The total catch of the Scottish herring fishery for the year 1915 was only 700,000 cwt., valued at £442,000, the price per cwt. having risen from 6s. 1d. in 1914 to 12s. 6d. This catch of 700,000 cwt. in 1915 is to be contrasted with the average of the five years 1909 to 1913, which was 5,000,000 cwt. The comparatively small quantities landed were mainly kippered or consumed fresh at home. Only 60,000 barrels were cured—

the lowest figure for over 100 years, and almost the whole of this went to Russia and America.

In the autumn a limited area was opened to herring fishing off the East Anglian coast, and a small fleet—190 vessels—from Scotland took part in this fishing, with great success from the financial point of view. Steam vessels secured average earnings of £1,900, motor vessels £1,200, and sail boats £560, and these earnings compared exceedingly favourably with the averages for 1913, viz. £794, £365, and £235.

Over 100 motor vessels were added to the herring fleet during the year, these consisting largely of the old first-class sailing boats which had been fitted with motor engines.

In 1916 the herring fishing showed a welcome revival, partly owing to the relaxation of the Admiralty restrictions and partly to the increase in the number of vessels fishing, over 170 vessels having been added to the motor fleet. The total catch amounted to over 2,000,000 cwt., valued at £1,355,000.

Everything possible was done by the naval authorities to secure the safety of the fleet, and every concession consistent with naval considerations was made in the matter of extending the areas in which fishing might be carried on. Fishing was permitted in the waters east of the Shetlands and also in limited areas off the east coast of Scotland. Unfortunately, however, no Scottish boats could be permitted to take part in the East Anglian fishing that year.

As a result of the rising prices of other food-stuffs, the demand for fresh herrings was abnormal, but, even so, only about one-fifth of the catch was disposed of fresh; a somewhat similar quantity was made into kippers or bloaters for the home markets, and a small proportion was tinned. The export of cured herrings to Russia rose to 285,000 barrels, the remainder being absorbed by the American and French markets.

Very similar results were secured in the following year (1917), large catches being obtained on the west coast during the spring months, the activities of the fishermen having been stimulated by the increased demand for fresh herrings in the home market and the greater freedom of movement afforded

to the fishing fleet by the revised Admiralty Orders then in force. In Shetland waters and on the East Coast fishing was permitted in areas similar to those open in 1916, but the fishing was less successful than in that year. The reduction in the catch at Shetland was due to the small fleet engaged there, the closing of the foreign markets for pickled herrings having restricted curing operations, and the authorities having decided to concentrate the fishing fleets at ports from which the home demand for fresh and kippered herrings could be more easily supplied. The remoteness of Shetland from the consuming centres and the very limited transport facilities available practically excluded Shetland from the home market, and it was consequently necessary to confine the issue of permits for Shetland waters to local boats.

The long distances from the fishing ports to the centres of population, transport difficulties due to shortage of rolling stock and men, and, on the West Coast, the sea passage and the long stretches of single railway line, presented serious difficulties in getting the catch to the consumer; but, despite these difficulties, 667,000 cwt. of fresh and 654,000 cwt. of kippered herrings were placed on the market in 1917.

The quantity cured may be regarded as the surplus remaining after meeting the effective demand for fresh and kippered fish, and as there was considerable difficulty in finding a market, and any cessation of operations would have had a serious effect on the fishing as a whole, the Cured Fish Committee, appointed by the Food Controller to acquire, control, and distribute stocks of cured fish, formulated a scheme for the export of half of the winter cure and for the taking over by the Government, at certain fixed prices, of the balance of the winter cure and of the whole of the summer cure. This scheme was accepted by the trade and resulted in a substantial reserve of cured herrings being formed, and as a result of the general food situation and propaganda conducted by the Government Departments and the trade associations and private traders concerned, there was a substantial increase in the home consumption of cured herrings. Part of this consumption represented supplies to prisoners of

war, but undoubtedly the ordinary civilian consumption was much greater than in normal times.

The East Anglian autumn fishing this year (1917) was again in full swing, and a substantial fleet proceeded from Scotland to the fishing, with satisfactory results.

In 1918, the last year of the war, the catch of herrings was very similar to that of the preceding year, being slightly over 2,000,000 cwt., valued at £2,500,000, the price per cwt. having risen to 24s. 7d.—four times that realized in the year 1914.

The West Coast fishing during the spring months was again very successful, while the fleet on the east coast enjoyed greater freedom and secured better results. The transport difficulties in Shetland became, however, more acute, so much so that, although herrings were plentiful on the grounds, it was found unprofitable for even the local fleet to prosecute the fishing to any extent.

One feature of the herring fishery during the war which is worthy of special note is the great impetus which the conditions prevailing gave to the fishing on the north-west coast. Under normal conditions the catch there represents only a comparatively small proportion of the total quantity of herrings landed in Scotland, but in 1917 and 1918 the catch in the three principal north-western districts—Stornoway, Loch Carron, and Skye (the chief port for which is Kyle of Lochalsh), and Fort William (comprising the ports of Mallaig and Oban)—exceeded the total catch of the districts on the east coast. In 1917 the catch in those three districts amounted to 920,000 cwt.—which exceeded any previous record by 200,000 cwt.—and in the following year even this figure was exceeded, 940,000 cwt. being landed.

The measures adopted in 1917 to increase the home supplies of herring by discouraging pickling and increasing the facilities for marketing the fish either fresh, or, if preserved, in a form palatable to British tastes, were reinforced in 1918 by the closure of practically all the remaining channels of export, and by the impetus given to the freshing and kippering trade as a result of the high level at which food prices generally ruled



throughout the year. The cumulative result is shown in the following table :

	Freshed	Kippered	Bloaters or Reds	Tinned	Cured guttled	Cured unguttled
	Cwt.	Cwt.	Cwt.	Cwt.	Barrels	Barrels
1916	442,292	547,795	22,459	79,212	343,582	30,612
1917	666,889	654,598	46,133	59,678	193,081	25,360
1918	1,064,587	899,388	77,130	61,425	31,031	45,649

Practically all the herrings cured unguttled are eventually converted into 'reds' (pickled and then smoked), so that, with a total catch which was practically the same in each of the three years, the quantity disposed of fresh or preserved in other ways suitable for the home market increased by 90 per cent., while the quantity cured guttled fell to the same extent.

So great was the demand for freshing, kippering, &c., that, after the introduction of maximum prices, a system of rationing had to be adopted in order to secure an equitable distribution of the supplies among the traders clamouring to purchase them. The kippering industry in particular had rapidly expanded. New establishments had been erected, existing smoke-houses were improved and extended, and others which had long been idle renovated and again used. Supplies were seldom equal to the demand, and when opportunity offered these were supplemented by herrings sent from East Anglia and Norway.

It would have been impossible to achieve these results but for the whole-hearted co-operation of the railway companies who spared no effort to cope with the abnormal volume of traffic with which they were called upon to deal, and although it was inevitable that breakdowns occurred occasionally, it is a matter for congratulation that the efforts made resulted in providing the country with such a large addition to its food supply at the time of its greatest need.

The naval authorities again found it possible to grant facilities for the prosecution of the East Anglian autumn fishing, and a fleet composed of 103 steam and 237 motor vessels pro-

ceeded from Scottish ports to participate. These vessels enjoyed a highly successful season.

The high prices realized during 1918 were almost entirely due to the shortage of other foods, particularly meat, combined with the general, if illusory, prosperity of the country. On one occasion herrings realized nearly £5 per cwt., while for one week in January the average price per cwt. of fish other than herrings sold in Aberdeen market was £7 9s. 2d. The steps taken to deal with fish prices during the war are narrated in a later chapter.

## 2. *Trawling*

In Scotland the trawling industry is of comparatively recent growth. Introduced only thirty-five years ago it has developed very rapidly, and in 1914 there were 313 steam trawlers fishing from Scottish ports, 233 of these being located at Aberdeen, 49 at Granton, and 31 at Dundee. These vessels employed 3,000 men, and were valued, together with their gear, at £1,500,000.

Prior to 1914 a small number of these vessels had been earmarked for Naval service, and sufficient men to man them had been enrolled in the Royal Naval Trawler Reserve, but on the outbreak of war the remainder of the trawler fleet was laid up pending the adoption of an insurance scheme against war risks.

When it became possible to permit the resumption of trawling operations, the reorganization and control of this branch of the industry presented serious difficulties, although the Admiralty granted every possible concession consistent with naval requirements to enable it to be carried on. Towards the close of 1914, however, a large proportion of the vessels had been absorbed into Naval service, with the result that in the following year the catch had been reduced by more than one-half, though the earnings did not show a corresponding decline, the catch (955,000 cwt.) realizing over £1,000,000, as compared with £1,338,000 in 1914. The vessels now remaining were mostly of an inferior class, but they were utilized to the utmost limit of their capacity, and a strong demand arose for other

small craft, including yachts, which might be fitted out for trawling, and even a few motor herring drifters were experimented with, though without success.

By 1916 over 250 Scottish steam trawlers had been chartered by the Admiralty, and as the majority of their crews also joined the service only about one-fifth of the total number of trawl fishermen were left to prosecute the fishing. The catch landed by trawlers in that year had declined to 730,000 cwt., but the value had increased to £1,117,000. Similarly, in 1917, although the number of trawlers had been further reduced and the catch was only 528,000 cwt., the value remained on the same level as in the preceding year.

During the last year of the war the fleet of trawlers actually fishing numbered only 92 vessels (including yachts and other craft)—67 of these working from Aberdeen and 25 from Granton and Dundee, and while the catch showed a slight decline from that of the previous year its value had increased by more than £400,000.

Whether justified or not, the conviction had been growing in fishery circles prior to the war that the North Sea grounds were being steadily impoverished owing to the ever-increasing intensity of fishing operations. It is, of course, of vital importance that the stock of fish should be conserved, and various measures have from time to time been advocated with that end in view—among others, the compulsory closing of selected areas. In normal circumstances action on these lines might possibly have been adopted, but could have been put into force only after protracted negotiations between the various countries concerned. The war, however, virtually imposed a compulsory closure in large areas of the North Sea over a lengthy period, and the effect is being watched both by ichthyologists and practical fishermen with the keenest interest. Already (in 1919) certain portions formerly regarded as unproductive have been yielding good catches, but further experience is necessary before any definite conclusions on the subject can be arrived at.

### 3. *Line Fishing*

In 1915 small-line fishing vessels engaged in the inshore waters, especially on the East Coast and in Shetland, were remarkably successful, although in many cases they were manned only by old men and boys, the few boats then provided with motor power showing great superiority over the sail boats.

In the following year, with the increase in the motor fleet, line fishing still further revived, and while the catch showed a slight falling off from the previous year its value was £111,000 above the figure for 1915. In 1917, the small-line fishing boats again showed remarkable results, and for the first time on record the landings of motor-boats exceeded those propelled by sails. The catch (369,979 cwt.) showed an increase on the previous year of 16,000 cwt. and the value (£675,509) had risen by £234,000. In this connexion, and as showing the enormously increased price now realized for white fish, it may be noted that in 1908 a catch of 824,700 cwt. realized only £379,000.

During the last year of the war the upward movement continued, a catch of 633,000 cwt. being landed, realizing £1,773,000—or more than double the value of the catch for the preceding year. The great advantage possessed by motor vessels over sail boats had now been so fully demonstrated that by far the largest proportion of the catch was taken by these vessels.<sup>1</sup>

During the later stages of the war the line fishermen experienced great difficulty in securing adequate supplies of mussels for bait, and their operations were in consequence much hampered. The scarcity was due to the fact that owing to the decline in small-line fishing prior to the war, the demand for mussels had fallen off to such an extent as to render mussel culture unremunerative, with the result that a number of beds had temporarily gone out of cultivation. When, therefore, the increased demand arose it was necessary to obtain the additional supplies required from English and Irish sources. The Fishery Board was called upon not only for information as to where supplies could be obtained, but also for assistance in overcoming the transport difficulties involved.

<sup>1</sup> See Appendix VI.

## CHAPTER VI

### TRANSPORT AND DISTRIBUTION

Transport and fishing : distribution of the catch : the ' pull ' of London : organization of the distribution of fish : the retail fish trade : consumption of fish : cold storage : Fish Distribution Order, 1918 : Fish Prices Order, 1918.

EFFICIENT transport organization and an adequate means of distribution and preservation are vital to the successful exploitation of the fishing industry. Even in normal times the problem presented considerable difficulties, and these were intensified during the war owing to the heavy demands for war purposes on all means of transport.

On the east coast of Scotland the general railway system follows the coast-line, thus serving the chief ports of landing, but on the north coast and in the west Highlands and Islands, where few or no railways exist, the fishermen are largely dependent on steamer communication for getting their catches to market. Even when the catches have been landed at the west coast railheads there is serious risk of delay in railway transit over single line systems on which there are steep gradients to negotiate.

It was thus a matter of some moment to make satisfactory arrangements for the transport of large quantities of fish landed by the greatly increased fleets concentrated in the Minch and the waters south of Skye, but with the active co-operation of the railway companies and the trade, the best facilities possible under the circumstances were provided ; while in spite of the great scarcity of shipping the necessary tonnage was always forthcoming, thanks to the co-operation of the Ministry of Shipping and the Ministry of Food, an official of the latter Ministry being stationed at Stornoway to supervise the arrangements.

Apart from the transport problem, however, the question

of securing an equitable distribution of fish throughout the country also presented considerable difficulties. After the war had been in progress for some little time it became apparent that London would receive more than its fair share of the reduced British catch, the keen demand and the greater purchasing power of that great centre being responsible for creating a high standard of prices and attracting the bulk of the supply and the best quality of fish. In normal times between 60 and 70 per cent. of the total Scottish production (apart from herrings) was sent over the Border, the balance being consumed chiefly in Glasgow, Edinburgh, Dundee, and Aberdeen; and it was suggested that the problem might be solved—at least in part—by creating zones or areas of consumption within a certain radius of each of the principal white fish ports so as to save labour in transporting fish over long distances and reduce to a considerable extent the freight charges and, incidentally, the price of fish.

No very definite information was available, however, as to the means which existed in the various towns in Scotland for bringing the fish within reach of the consumer, and a circular and questionnaire on the subject were issued to the Town Clerks of 65 burghs in Scotland. Replies were received from 53 towns, of which 26 were located on the coast and 27 inland. The total populations of these places on the basis of the 1914 returns were 764,000 and nearly 2,000,000 respectively. Of the coast towns only 10 were provided with a central fish market, but as 63 per cent. of the whole population of these towns was served the facilities were better than would appear from the actual number of markets. Except, however, at Montrose and Stranraer, where a small retail trade was done, the markets were for wholesale purposes only. The only inland fish market was located at Glasgow and was owned and managed by the Corporation, but this again was used for wholesale purposes only.

Inquiry as to the retail fish trade revealed the fact that the number of fishmongers, as compared with pre-war times, had fallen 9 per cent. for Scotland generally, while hawkers showed

a very considerable reduction, only about one-third being at work at the beginning of 1918 as compared with 1914. The number of fishmongers and hawkers respectively on a population basis, pre-war and in 1918, was determined, with the following results :

	1 Fishmonger for		1 Hawker for	
	Pre-war	1918	Pre-war	1918
Inland towns (27) . . . .	3,621	3,744	6,903	25,488
Coast towns (26) . . . .	3,058	3,841	2,060	4,577

Speaking broadly, the east coast of Scotland was in a worse position than the west in this respect. Fish hawkers showed a great decline almost everywhere. Only in 10 cases out of 53 had the numbers remained unchanged during the period of the war. In several cases they had completely disappeared, as in Dundee and Stirling, where before the war there were 45 and 17 respectively. A table is appended showing data of the number of people served by one fishmonger or hawker in the towns referred to.<sup>1</sup> From a glance at this table it will be seen how much better served coast towns are than inland centres in means of distribution, more especially in the case of towns of less than 50,000 inhabitants.

Interesting information was also obtained from the local authorities as to the consumption of fish prior to the war, and it was brought out that for 24 places equally divided between coast and inland centres, embracing a total population of 1,800,000, the consumption *per capita* per month was highest in the west, Paisley heading the list with 11½ lb. per month, followed by Port Glasgow, Glasgow, and Troon with 10, 8, and 7 lb. per month respectively. On the east coast the consumption was highest at Inverkeithing with 4.1 lb., Buckie coming second with 4 lb. The outstanding features were the large consumption in the Clyde area and the relatively insignificant

<sup>1</sup> Appendix VII.

extent to which the east coast people partook of a fish diet.<sup>1</sup>

As regards cold storage accommodation—a very important consideration—information was supplied by eight towns, and in no instance was such storage attached to the fish market. Privately-owned stores at Aberdeen covered 11,000, 17,750, and 86,000 cubic feet respectively. In Leith there was cold storage accommodation of 300,000 cubic feet, at Dundee 110,000 cubic feet (but none of this was used for storing fish), and at Edinburgh 50,000 cubic feet, which was occasionally used for storing cured fish.

Herrings presented a problem of their own, largely on account of the fact that this fish is highly perishable and that the fishery is a seasonal one prosecuted only during a limited period of the year. The only method of regulating it was to limit the price of fish intended for curing and thus encourage its distribution either in a fresh state or in the form of kippers—both forms palatable to the British taste. It was impossible, however, to prevent a certain portion of the catch from being cured, as unless the fishermen could dispose of his surplus catch after the ‘freshing’ and kippering markets had been supplied there would be no inducement to go on fishing.

Towards the close of 1916 the export of fish from this country was prohibited except on the issue of Export Licences, which in the case of herrings were severely limited and granted by the War Trade Department only on the recommendation of the Fishery Board. A copy of the form for an application for an Export Licence is appended.<sup>2</sup> A scheme, for which the Board was mainly responsible, was however successfully arranged with the curers early in 1917 under which the fishery officers were enabled to restrict the purchase of any herrings for pickling until every other channel for the absorption of the catch had been supplied to the fullest extent, while at the same time every possible provision was made for conveying the fish to the large centres of population.

<sup>1</sup> Appendix VIII.

<sup>2</sup> Appendix IX.



Another branch of the industry which came into prominence at this time was the fish-frying trade—which was largely in the hands of Italians—there being about 2,000 fish-supper establishments in Scotland, 1,300 of which were in Glasgow and suburbs. The fish principally used are haddock, whiting, cod, and codling, and in 1918 the estimated number of meals supplied each week in these establishments throughout Scotland was from 12 to 15 millions, of the value of £220,000. In addition to the difficulty of securing sufficient supplies of fish to meet the demand, which had greatly increased during the war, the friers were confronted with a considerable reduction in the supply of oil available for frying (this being controlled by the Fats and Oils Committee of the Ministry of Food). They were also handicapped in the matter of heating and lighting by the restrictions laid down by the Board of Trade, but the Fishery Board rendered them every assistance, both in these matters and also in obtaining adequate supplies of fish and potatoes.

As already mentioned London attracted more than its fair share of the reduced catch, and when maximum prices for fish were introduced the free play of competition was further interfered with and it became necessary to secure the equitable division of the catch among the various branches of the fish trade, and its distribution generally throughout the country to the best advantage. In order to accomplish these objects the Fish Distribution Order, 1918, was promulgated by the Ministry of Food after consultation with other departments interested and leading representatives of the industry. This Order empowered the Controller, or any person authorized by him, to issue directions from time to time relating to the allocation and distribution of fish and in particular (1) to fix the proportion of the available supplies to be allocated to or by any dealer, and (2) to fix the proportion which might be retained by a producer for purposes of his wholesale or retail trade, and it also provided that no person could deal in fish unless he was the holder of a permit issued by the Controller, authorizing him to purchase in a prescribed market.

It became necessary to create a special organization to

administer this Order, and in Scotland the Food Controller found in the Fishery Board's ordinary staff, though now greatly depleted by the calls of war (22 out of 29 officials under 41 years of age having joined the forces), an organized and competent executive already to hand. It was accordingly decided that in Scotland the Fishery Officers should act as Fish Distribution Officers, and this arrangement proved both efficient and economical.

Among the duties performed by these officers were the following :

1. Securing that the maximum prices were not exceeded by any section of the trade.
2. Rendering assistance to the trade in overcoming difficulties, such as the shortage of packages, ice, &c., and labour.
3. Advising on applications for certificates of registration as retailers.
4. Issuing permits for fish supplies to wholesale dealers.
5. Arranging, when necessary, for the diversion of supplies to centres in need of fish.
6. Assisting in rationing supplies to buyers.
7. Arranging transport for the distribution of gluts.

The question of prices,<sup>1</sup> as already indicated, bulked very largely in any scheme for securing better distribution, as in the absence of regulations fixing the prices of fish the poorer classes would have been deprived entirely of a fish diet by the high prices then prevailing. The difficulty of fixing prices was, however, accentuated by certain considerations, viz. :

1. The great fluctuation in daily catches owing to weather conditions, restriction of areas, movements of shoals, &c. ; the varying condition and quality of the fish landed, some of which were much scarcer and more palatable than others.
2. The extreme perishability of fish ; the long distances from

<sup>1</sup> See Figures 2, 3, 4, Appendix XVII.

Scottish ports of landing to the consuming centres, and the difficulties of transport; the limited ice storage accommodation and lack of refrigeration; the number of hands through which the fish must pass before reaching the consumer.

3. The wide range in prices for fresh fish during the course of the day—no other commodity responding so quickly to variations in demand or supply; also the fish-mongers counted on recouping their losses, due to delays in transport or other unforeseen cause on certain days, by charging higher prices on succeeding days.
4. The fickle taste of the public; the keen competition of large hotels, clubs, and private establishments, especially in London, who were prepared to pay fancy prices in order to attract the best class of fish.

The question became acute at the end of 1917 when prices soared so high that few buyers were in a position to do business.<sup>1</sup> In the circumstances the Ministry of Food, after discussion with the Fishery Departments and representatives of the industry, came to the conclusion that action should be taken in the direction of fixing maximum prices for different kinds of fish. It was perhaps unfortunate that at the season of the year when this policy was adopted the prices ruling were higher than during the remainder of that year as the natural tendency in the case of a scarce commodity is for the maximum price to become the fixed price.

The Fish (Prices) Order 1918 (copy appended)<sup>2</sup> was made by the Food Controller under the Defence of the Realm Regulations on 16th January of that year, and it provided that no person should directly or indirectly sell or offer or expose for sale or buy or offer to buy any fish at prices exceeding the maximum prices stipulated by the Order. Power was given to local Food Committees to vary from time to time within the areas administered by them maximum prices fixed under

<sup>1</sup> See Figures 2, 3, 4, Appendix XVII.

<sup>2</sup> Appendix XI.

the Order, but such variation was to be subject to the approval of the Controller.

It will be observed that this Order did not affect the prices paid to fishermen by wholesale fish merchants, and after some experience of its working, protests were received from the wholesale dealers and other intermediaries that the result of its operation was to restrict sales to the consumer. Considerable discussion ensued with representatives of the Industry, and a Trade Committee was formed by the Food Controller to advise him as to future action, with the result that a further Order was made in March 1918, providing *inter alia* for maximum prices to be fixed for (1) the producer, (2) the wholesale merchant, and (3) the fishmonger. (Copy of Order appended<sup>1</sup>.) This Committee met frequently and was instrumental in securing the smooth working of the Order until it was eventually suspended on 16th May, 1920.

<sup>1</sup> Appendix XII.

## CHAPTER. VII

### WAR PRIORITY FOR ENGINES AND MATERIAL FOR FISHING

Priority for motor engines for fishing boats : petrol : supply of wood for fish boxes, chips for smoking, tin plate, &c. : improvement of harbours for the fishing fleet : Fishery Research.

THE foregoing chapters depict the main features of the war history of the Scottish fisheries ; in this chapter are gathered together details of the subsidiary activities which, though each might seem unimportant in itself, yet had collectively a material influence on the success or otherwise of the fisherman's efforts and of those who disposed of his catch.

The beneficial effect of the installation of motor engines in the old sailing boats has been demonstrated in the preceding pages and was fully recognized by the fishermen, and an even greater extension of their use was retarded only by the difficulty of obtaining engines. The demand for steel and labour for war purposes at one time threatened to prevent entirely the supply of engines, but as the result of negotiations between the Fishery Board and the Ministry of Munitions it was arranged that certificates under Class B priority would be issued in cases recommended by the Board.

Class B certificates, however, soon proved inadequate to meet the case, and after further negotiations the Ministry of Munitions agreed to raise the classification to ' A ', and a programme of the requirements of the industry was drawn up by the Board and submitted to the Ministry for approval. The certificates under Class A did not by any means result in early deliveries of the engines, but they enabled the industry to ' carry on ' much more efficiently than would otherwise have been the case.

The increase in the number of motor propelled boats led,

however, to another difficulty—that of ensuring supplies of fuel for propelling them. When restrictions on the quantity of petrol issued to consumers were imposed, fishermen in different parts of the country found that the quantities authorized by the licences issued were insufficient to enable them to continue to fish to the fullest extent, and arrangements were accordingly made with the Petrol Control Committee whereby all applications in respect of motor fishing boats were made through the Fishery Board, who, after investigation, recommended the amount of petrol which was required, and as a result, upwards of 1,100 applications were dealt with.

Difficulty was also experienced by motor-boats in obtaining supplies of petroleum or paraffin, and it was arranged with the Petroleum Pool Board that the Fishery Board should prepare estimates in advance of the quantity required by the Scottish fishing fleet. This was done with the result shown in Appendix XIII, and by co-operation between the Board and the Scottish Oil Companies the situation was satisfactorily met.

Troubles arose also in other directions, and were due to the world-wide ramifications involved in the production of material for the fishing industry. A few of the items required and the sources of supply (which, incidentally, demonstrate the difficult transport arrangements necessary)—are the cotton for making nets which comes from the United States, hemp for ropes and lines from Manilla and Russia, cutch for tanning the herring nets from Burma and Borneo, wood for making barrels and boxes from Scandinavia and the Baltic, willows for baskets from Holland and France, &c. When, therefore, the general rationing of materials among industries was instituted it fell to the Fishery Board to ensure that the industry under their charge received its fair share of such supplies as were available. Arrangements were accordingly made with the Departments, such as the Board of Trade and sections of the Ministry of Munitions, primarily responsible for regulating production and distribution, whereby applications were dealt with on the basis of recommendations by the Board. The principal materials covered by these arrangements were wood for fish

boxes, barrels, &c., chips for smoking, tin-plate for fish canning, calcium carbide, tar, creosote, linseed oil, thread and twine (for fishing lines).

The great development of the kippering industry was hindered by a shortage of wood chips for kippering purposes, the normal supply—consisting of the residue obtained from the manufacture at Dundee of bobbins for jute spinning—being now utilized for the extraction of acetone for explosives. The Ministry of Munitions was approached for a portion of the output and fresh sources of supply were also tapped, and the industry was enabled in this way to supply the market with kippers. The use of peat in conjunction with chips and sawdust was also tried, but, while it served a useful purpose temporarily, it was not regarded as altogether satisfactory.

Licences were also required for supplies of tin-plate for the canning of fish, but it was with the utmost difficulty that British canners could secure the necessary supplies owing to the restricted quantity available for private traders and to the fact that Government contracts with Norwegian canners provided that the latter should receive priority in obtaining tin-plate from this country.

Owing to the restrictions on imports some trouble was experienced in securing supplies of willows for the manufacture of the quarter-cran baskets used as the legal measure for the sale of fresh herrings. All possible home sources of supply were explored and a conference of basket manufacturers and others interested was called with a view to devising measures for extending the cultivation in Scotland of osiers suitable for basket making, and so making the trade independent of foreign supplies.

In the two years preceding the war the Board had impressed upon the Government the vital importance of meeting the growing need of better and increased harbour accommodation for fishing craft owing to the transition in the character of the fleet from sailing boats to steam and motor vessels. Harbours which were adequate in the circumstances existing at the time of their construction were becoming year and year less capable

of meeting the growing demand for greater docking space and depth of water. Fishermen were compelled to lay up their herring vessels during the winter months at considerable distances from their home ports, and the necessary overhaul and repairs required could be carried out only at great inconvenience and expense. The prosperous fishing communities which clustered so thickly on the east coast of Scotland depended for their existence on the herring fishing; and, if they were to be preserved from extinction it was absolutely necessary that harbour accommodation should be extended. As the result of representations to the Development Commission a substantial sum consisting of grants and loans was eventually provided towards meeting the needs of the industry in this respect, and in 1914 twenty-four harbours had been selected as deserving of financial support, the total amount involved being over £220,000. Of this sum £107,000 was to be contributed by the Government in the shape of grants, and £113,000 in the form of loans—repayable over a period of years.

The majority of the works were in course of construction in 1914 but their progress was greatly retarded by the conditions existing during the period of the war. The scarcity of labour, the necessity for reducing expenditure to the lowest possible limit, the increased cost and difficulty of obtaining materials, the reduced revenues of the harbours, and the severe restrictions on fishing imposed by the Admiralty affected adversely the whole of the schemes in hand and in many cases prevented the inauguration of additional works of the greatest importance.

In spite of these difficulties, however, many of the schemes were completed by the end of June 1921, or nearly so, and there is every prospect that they will prove of great benefit and assist largely in the future development of this important industry. A statement is appended showing the places assisted and the expenditure in each case.<sup>1</sup>

The labours of the department of the Fishery Board responsible for the conduct of fishery research were largely suspended during the war. The vessel employed in the investigations was

<sup>1</sup> Appendix XIV.



engaged on Naval service, and could not, therefore, provide the material necessary for research purposes. It was possible, however, to utilize the interregnum in working up material which had been collected in previous years, and certain members of the staff were engaged in work connected with the war, notably the recruiting of fishermen for the Navy.

Measures are now under consideration which will enable the Fishery Board to extend its activities very largely in the direction of applied or economic research which is one of the crying needs of the fishing industry, and in the furtherance of this important branch of public administration the English, Scottish, and Irish fishery departments are working in close co-operation.

## CHAPTER VIII

### THE SCOTTISH FISHERMAN IN WAR

Scottish fishermen on service at the Dardanelles, 1915, at Straits of Otranto, 1917: Trawler Minesweeper Division: trawlers as mark-boats, gate ships, as directing and examining sea traffic, decoy ships, service with convoys, indicator nets, &c.: Lord Jellicoe on the work of trawlers: special risks of fishing during the war.

#### 1. *Active Service*

THE compilation of a complete and separate record of the deeds of Scottish fishing vessels and fishermen on active service during the war is hardly possible, and might be regarded as invidious, as all British fishermen vied with one another in their keen desire to serve the country in one way or another. When the Official History of the War is written, however, the detailed work of the fishermen serving in H.M. Fleet will receive full recognition, but a general description of the various branches of warfare in which ex-fishing vessels were engaged may be of interest.

Brief reference must, however, be made to the more outstanding incidents in which Scottish fishermen were concerned, such as the conspicuous gallantry displayed by the men of the drifter barrage in the Straits of Otranto when attacked by Austrian Light Cruisers in May 1917, the services of the trawlers at the Dardanelles engaged in minesweeping and landing operations in 1915, and the equally fine exploits of the Auxiliary Patrol in home waters. The spirit displayed was ever the same, whether the duty performed was minesweeping, patrolling, or submarine-hunting.

For some few years prior to the war the Admiralty had been gradually forming around the coasts of the United Kingdom a small reserve of fishing trawlers and crews, which were to be available immediately for minesweeping service on the outbreak of hostilities. The vessels were to be taken up, by

previous agreement with the owners, on a system of voluntary hiring, and the men were paid a regular retainer after enrolment in the Royal Naval Trawler Reserve, being thereafter liable to mobilization when the necessity arose. Admiralty trawlers visited the principal fishing ports in order that the Reserve crews might undergo periodical training in minesweeping and other naval duties. Mines were not then considered likely to be extensively employed in modern naval warfare, except, perhaps, for purely defensive purposes, and consequently the strength of fishing trawlers and crews on the pre-war Admiralty list was insignificant. Their employment other than on minesweeping had not been contemplated at all, and no arrangements had been made for utilizing for war purposes the services of steam or motor herring drifters or any fishing craft other than trawlers. So useful, however, did these vessels prove that when the war was at its height all the craft found satisfactory had been taken up for Naval service, leaving only the older and slower boats to continue fishing operations—thus reducing appreciably a valuable contribution to the food supply of the country.

The crews of the Scottish fishing vessels consisted at first mainly of Scottish fishermen, the skippers and men being employed on Naval service in the type of craft in which they had previously plied their ordinary vocation and of which they were in many instances the owners or part-owners. Volunteers came forward in very great numbers, men who were already fine seamen, hardy and daring. They quickly proved their aptitude for the work, and thus dispelled once and for all the attitude of good humoured tolerance at first shown towards them by the Navy. In this way was established a strong brotherhood between fishermen and the Navy, each having learnt to appreciate to the full the good qualities of the other. The fishermen's knowledge of weather and tide conditions and soundings around the coasts and in the North Sea and their general local knowledge proved invaluable, and on many occasions the skippers were lent for special duty in cruiser and other squadrons when these were engaged on scouting expeditions in these waters.

At the outbreak of war the fishermen already enrolled for service were, as stated in Chapter II, at once mobilized and drafted to the various ships and stations for which they had been previously detailed, and all fishing trawlers which had been commissioned by their Reserve crews were quickly fitted out for minesweeping and the guarding of local channels and approaches.

By the end of 1914 small craft were in great demand, as being less vulnerable than regular fighting ships, and trawlers as well as drifters were taken up in large numbers—at first by voluntary hiring and subsequently by requisition. The existing units were considerably reinforced and armed trawler patrols were formed all round the coasts.

The Trawler Minesweeping Divisions on the Scottish coast were often employed during the early weeks of the war many miles from land and without protection of any kind (excepting two rifles in each trawler, with a few rounds of special rifle ammunition for sinking mines), with no wireless installation and usually out of visual or signalling distance from patrol craft. Their crews were in this way continually risking their lives, not only from the deadly mine but also from attack by enemy submarines or raiders to whom the trawlers were at that time an easy prey by reason of their slower speed. In due time guns and mountings were available for them, and protection was also forthcoming from the yacht, trawler, and other patrols allotted to the coastal areas, but 'H.M. Trawler', as seen in the latter years of the war, equipped with guns, depth charges, bomb throwers, mine and anti-submarine sweeps, wireless telegraphy hydrophones, and every tried device of war and manned with a highly-trained crew, was a very different craft from that which in 1914 made her *début* as a Sweeper, and the great courage and determination shown by these pioneers must take a worthy place alongside the more spectacular and therefore better known deeds of their fellow fishermen.

In days of peace the trawler was regarded as a fine type of sea-boat, and in war time it proved equal to any and every duty allotted to it. Troops and stores were carried and landed

by them, and on occasion they acted as tugs, salvage vessels, and life-boats, while they were especially suitable for duty as mark-boats or lightships, or for the warning and direction of traffic. Some of the older boats were utilized as gate ships and boom defence vessels for the protection of important harbours, both at home and abroad; others were stationed in the outer anchorages in order to carry out the examination service of the ports. Some of the faster and more powerful boats were disguised in various ways, heavily armed with well-concealed guns, torpedoes, and depth charges, and thus acted as decoy ships in the anti-submarine warfare which was prosecuted with such vigour during the latter years of the war. These disguised trawlers accounted for several enemy submarines as did also the special trawler flotillas, which were fitted with hydrophones and worked in conjunction in hunting these deadly underwater craft. As the war developed the convoy system was generally introduced for the protection of merchant shipping, and this certainly proved one of the most valuable functions of the Armed Trawlers which were included in the Escorting Force.

The war story of H.M. drifters developed much on the same lines as that of the trawlers. As guns became available the drifters were armed, provided with trained gun crews and sent on patrol work in the inner waters or employed in watching channels where their shallow draught gave them an advantage. Trawlers were in this way released for heavier or more distant work, and the armed drifters gradually took over additional duties. Nets, however, were the principal weapon with which the drifters were equipped, a weapon both of offence and defence, and throughout the war the development of nets and their fittings, as an anti-submarine measure, was unceasing; the presence of mines was also on several occasions detected through their fouling the fleets of herring nets.

A brief description of the net, which was finally introduced as the result of innumerable experiments, is perhaps interesting as showing how the original herring drift net was transformed for war purposes. The nets were made of galvanized steel wire, supported by hollow glass balls which were slung in bags of twine

netting and acted as floats. Each net was 300 feet long and 30 feet or more in depth, according to circumstances, the mesh being from ten to twelve feet. A drifter usually carried ten nets and could therefore cover 1,000 yards, the nets being secured at intervals to one another by metal clips. Indicator buoys were attached to the nets so as to give the watching craft instant warning of the nets being fouled. The operation of these nets was at first the principal function of the drifter fleets, improvements being gradually introduced, notably a combination of electrically fired mines with the nets. The continual danger and hardships to which the drifter men were exposed in the course of laying, mending, and watching the nets in all weathers can hardly be realized, and their work undoubtedly entitles them to a prominent place in the war annals of the British Navy.

Motor drifters also deserve honourable mention for the part which they took in indicator-net, minesweeping, and hydrophone work, where the conditions allowed.

Both steam and motor drifters and sailing fishing vessels were disguised as decoy ships and earned considerable distinction, especially in the earlier stages of the anti-submarine warfare when the limited armament which they were able to carry had not been completely outranged by the guns mounted in the later types of enemy submarines. In this way all classes of fishing vessels took their part in fighting the enemy and their crews earned a reputation of which they have every reason to be proud.

It is worthy of note that these auxiliary craft were repeatedly honoured by the King on his visits of inspection and the lively interest which he always took in their work, indicates the value which he, a sailor himself, attached to their services. On more than one occasion during the war, and also subsequently, high tributes have been paid to the fishermen by both Houses of Parliament, more especially when adopting their votes of thanks to the Navy and Army for their devoted services. In the words of Admiral of the Fleet Lord Jellicoe—‘The Grand Fleet could not have existed without the ‘Trawlers’, and it is no idle boast to say that the war would probably not have been won without the fishing fleets and their crews.

## 2. *Fishing Operations*

The older fishermen and those of military age who for various reasons were not called up for service fished assiduously in the smaller and less efficient vessels remaining after the Admiralty's requirements had been met, and contributed materially to the national food supply. Excellent results were obtained but not without incurring grave risk not only from enemy action but also from the swift and sudden movements of our own naval craft, although the Admiralty Orders affecting fishing were so devised as to eliminate as far as possible any danger from the latter source. The fact that the bases of the Grand Fleet and their attendant squadrons were in Scottish waters was both an advantage and a disadvantage to the Scottish fishing industry, as, while on the one hand they were instrumental in crippling the activities of the enemy and so minimizing the dangers to be faced by fishing craft, they also restricted very considerably the areas in which such craft could operate.

Vessels were often challenged by enemy submarines and the crews warned to get into their small boats before their vessels were sunk, and on one or two occasions the crews of motor-boats who did not possess a small boat were taken on board the submarines and conveyed to Germany as prisoners. The feelings of their relatives may be imagined when the days passed and there was no news as to the fate of their missing ones. The Commanders of the enemy craft occasionally displayed some sense of decency and humour as witness the challenge to a Peterhead motor-boat the crew of which was commanded to launch their small boat and abandon the craft which was to be sunk. Whereupon the crew replied that they had no small boat, and they were warned not to contravene the regulations by going to sea again without one.

Moored and drifting mines added to the serious dangers run by the fishermen and in all 89 Scottish vessels engaged in fishing operations of an aggregate tonnage of 10,500 were sunk.

## CHAPTER IX

### DEMOBILIZATION AND RE-ESTABLISHMENT

Scheme for demobilization of men and boats : grants towards replacement of damaged boats and gear : loans for young fishermen : disposal of Admiralty trawlers and drifters : the position and prospects of the industry.

THE demobilization of 1,140 steam and 100 motor fishing vessels and of about 25,000 fishermen was a task of some magnitude, especially as a large number of the men were not serving on board their own vessels and were scattered far and wide in foreign waters and in distant lands.

An inter-departmental committee was accordingly set up to prepare a scheme, and their action was governed largely by the rate at which fishing vessels could be demobilized, it being recognized that the return of the vessels on Admiralty service to their home ports was an essential preliminary in the general scheme of demobilization, particularly in the case of Scotland, where the one was absolutely complementary to the other, the steam drifters there being almost invariably owned by the crews themselves.

Negotiations were accordingly opened with the Admiralty and arrangements were made whereby vessels were to be (1) released simultaneously with or a little earlier than their owners, (2) returned to their owners at certain specified ports in the neighbourhood of their home port, and (3) reconditioned there by the Admiralty, or alternatively by their owners for a lump sum to be agreed upon.

Lists were forwarded periodically by the Fishery Board to the Admiralty of men who it was recommended should be released first, and similar lists were furnished by that Department of the men who were being released and also of the vessels, the Board having agreed to act as the Central Authority in



Scotland for the purpose.<sup>1</sup> The fishermen were divided into two groups for this purpose :

1. Priority A—part-owners and share-men whose return was desired by the owners.
2. Priority B—share fishermen with definite employment in view.

As regards shore-workers, it was arranged that 1,000 of these should in the first instance be classed as 'pivotal', and this number was later (January 1919) increased to 2,500. Demobilization was conducted in such a way that little difficulty was experienced in finding employment for the men as they were released.

Measures were also adopted to deal with the cases of men whose boats and gear had become useless or had deteriorated during their absence on service. Applications for grants were invited from such men, and arrangements were made with the Military Service (Civil Liabilities) Department whereby the purchase of fishing gear out of grants made by that Department on the recommendation of the Fishery Board would be carried out under the supervision of the Board's outdoor staff of officers. The number of such applications referred to the Board was 1,417, and up to the end of October 1920, 653 grants had been made, involving a total expenditure of £19,620.

To provide for the replacement of small fishing craft and for the retention of younger men in the industry who were unable to acquire boats it was arranged that a system of loans should be instituted, a sum of £30,000 being placed at the disposal of the Board by the Development Commissioners for the purpose of enabling fishermen desirous of acquiring motor-boats to do so.

As regards the provision of the larger types of vessels—steam trawlers and drifters—the Admiralty had found it necessary to replace those lost during the course of the war by building a large number of these vessels for their own use, and these were now available for fishing purposes. Various

<sup>1</sup> For forms of application for demobilization see Appendices XV XVI.

proposals were put forward for their disposal to ex-service men, and in so far as steam herring drifters were concerned the recommendation of the Fishery Board that they should be sold at a reasonable price to individual crews who had served during the war, and that the purchase price should be repaid in instalments was adopted.

### *Conclusion*

On the conclusion of hostilities the future of the industry was regarded with optimism in fishing circles, but the experience of only a few months unfortunately dispelled this feeling. Indeed in the case of the herring fishery, dependent as it had always been on foreign markets, the outlook could not have been worse. These markets were now to all intents and purposes closed owing to the chaotic conditions existing in Russia, Germany, and the Baltic States, and in Russia dealers through whom the sale of cured herrings had been conducted in normal times were scattered far and wide, while those who remained were precluded from conducting private trading.

Factors which affected prejudicially all branches of production were the abnormal prices of coal, fishing gear, oil, and stores, the higher rates of wages prevailing, the increased transport charges, and the reduced means of transport, all of which combined to make the running costs exceedingly heavy.

The extensive building of fishing craft by the Admiralty to replace the war losses and to keep abreast of growing requirements added materially to the fishing power available, while the evanescent boom during the period immediately after the war resulted in high prices being paid for the greatly increased catch of marketable white fish landed, and thus attracted people who had no practical knowledge of the industry to embark in it, with disastrous results to all concerned. Inflated prices were paid for trawlers, and the high running costs, following increased demand for stores, &c., were artificially maintained.

For 2,000 (or 50 per cent.) more vessels fishing in 1919 in Scottish waters than in 1918 of an estimated value three times greater, the value of the catch remained practically stationary.

In the trawling section of the industry the year 1919 began with great promise, a reduced fleet landing excellent catches which realized good prices, but with the rapid release of vessels from Naval service the supply soon exceeded the demand and prices fell appreciably, while labour troubles at Aberdeen resulted in the fleet there being laid up for a period of ten weeks. A settlement had barely been reached at Aberdeen when a similar dispute arose at Granton. These disputes gave a serious set-back to the industry, coming as they did when it was beginning to find its feet, and the effects were felt for some time afterwards. In order to maintain their trade connexions the local fish merchants and curers were compelled to obtain their supplies from other ports—mainly English—a process which was both costly and inconvenient. The year closed in an atmosphere of perplexity and disquietude.

The herring industry was in a still worse plight, as its markets on the Continent were closed to private trading and there was no other market open, and, as the result of urgent representations from the fishermen and curers, the Government agreed to come to their assistance. The scheme approved provided that the Government should take over the stocks of cured herrings unsold at 15th September up to a maximum of 400,000 barrels at prices which it was calculated would enable curers to pay the fishermen 40s. per cran and leave them with a fair margin of profit. Unfortunately, these expectations were not fulfilled, and the average prices paid during the season were appreciably below the figure aimed at, with the result that the fishermen protested and finally ceased operations. The number of barrels of cured herrings taken over by the Government was 250,000 at a cost of £620,251, and these were eventually sold on the Continent for £1,014,168, the net profit realized by the transaction being £276,465, of which £233,905 went to the Government and the balance was divided *pro rata* among the curers.

This timely action of the Government, which involved considerable risk, undoubtedly saved the industry from disaster and enabled it to face the future with greater equanimity.

The promise of an improvement in fishery results in 1920 was not fulfilled, and in the case of the herring industry the prospect was, if anything, darker than ever, notwithstanding the fact that the stocks remaining over from 1919 had been cleared off. Chaotic conditions still prevailed on the Continent, and private trading was reduced almost to the vanishing point, with the result that the herring fishermen and curers again approached the Government for aid. After prolonged negotiations the Government sanctioned a guarantee scheme for England and Scotland involving an expenditure of £3,000,000, of which not more than £1,800,000 was allocated to Scotland and Northumberland. The form of the guarantee differed essentially from that of the previous year, as it provided for the taking over *at the time of cure* of the fish which met the conditions laid down, and minimum prices were fixed for all fresh herrings purchased for curing by curers desiring to come within the scheme. The interests of both the fishermen and the curers were secured in this way, the former being assured of a fair price and the latter being financed as the season progressed, instead of at its close. The minimum price for the fresh fish was fixed at 45s. per cran (about  $3\frac{1}{2}$  cwt., or 1,000 fish), and the price for cured at 62s. 6d. a barrel f.o.b.

The Scottish season, however, proved a failure owing to the scarcity of herrings, which was attributed to abnormal hydrographical conditions, as indicated by the presence on the fishing grounds of immense quantities of low forms of marine life known as salps (*salpa fusiformis*), which were so abundant as to clog the meshes of the nets and so prevent the herrings from being 'gilled'. These organisms are Atlantic forms, seldom found in any quantity in the North Sea, and are usually an indication of an incursion of masses of the warmer Atlantic water into the North Sea. In the main line of the invasion it was ascertained by the Board's scientific staff that the area in which the salps were present was flooded by them almost to the entire exclusion of all other marine forms, and there was a marked absence of the crustacea on which herring very largely feed, a fact which probably accounted for the poor

condition of the fish taken by the drift nets in the vicinity of the area affected.

As a result the produce of the summer fishery showed a decline from 1919 of 145,000 crans, but in view of the great difficulty experienced in disposing of the cure this was not altogether to be deplored. On the other hand, the home consumption of herrings, as in 1919, showed a gratifying improvement, 22 per cent. of the catch being disposed of for consumption fresh, as compared with 6 per cent. in pre-war years, and 28 per cent. as kippers, compared with 12 or 13 per cent. normally.

The quantity of cured herrings purchased by the Government in Scotland was 409,237 barrels, for which they paid the curers £1,281,562, and of these 267,394 remained unsold at the end of the year. In the final result the Government purchases in Scotland were sold for £753,172, and a total loss of £641,137 was incurred. The Government now intimated in definite terms that under no circumstances would they again undertake to finance the industry on the trading side, and since that time the industry has had to conduct the trade through normal channels, although with indifferent success and considerable difficulty, owing to the continued dislocation of the Continental markets.

Similarly in the trawling industry the results in 1920 were most discouraging. With the catching power now greatly increased, the means of distribution still dislocated, and the cost of production remaining high, there was little or no profit realized, while the recurrence of disputes in all industries tended to intensify the difficulties.

In the subsequent post-war years there has been no improvement in the conditions. The cost of production remains high in both branches of the industry: the markets for cured herrings are still restricted, and owing to the depression and unemployment at home trawling continues to be unremunerative.

A graph showing the trend of prices for white fish ruling at Aberdeen for the years 1913, 1918, 1919, and 1920 appears on



p. 79, as is also another showing the rise and fall in the catch and price of herrings in Scotland from 1900 to 1922 inclusive.<sup>1</sup>

While the crisis through which the fishing industry is at present passing is due mainly to the state of the markets and the high cost of production, a survey of its economic position suggests that over-capitalization is a contributory cause.

In the herring industry there was, as indicated in Chapter I, a strikingly rapid change in pre-war years in the type of vessel employed in drifting for herrings.

So recently as 1897 all the vessels engaged in this fishery were propelled by sails. A drifter of the Zulu type could be built and fitted for sea at a cost of from £700 to £800, and the running expenses were small as compared with those of a steam drifter. The propelling power cost nothing, engineers and firemen were not required, and probably a sum of £100 would cover all running expenses for the year. Against economical working there fell to be placed the disadvantages arising out of dependence on the elements, uncertainty of reaching port with the catch in prime condition, and the greater amount of manual labour in working the vessel.

In less than twenty years all this was changed. By 1913 the sailing drifters had been almost entirely discarded, and the bulk of the fleet consisted of steamers and motor-boats, the former costing from £3,000 to £4,000 (a good deal of which was borrowed), and involving an annual expenditure on running costs and maintenance of about £600 a year. The capital invested in vessels and gear had risen from £1,337,000 in 1900 to £3,128,000 in 1913, but the value of the catch in the same period did not show a proportionate increase, rising only from £1,243,000 to £2,087,754.

There were those who feared even before the war that this branch of the industry was over-capitalized and that, in the not improbable event of the fishing in two or three successive years proving a failure, they would be faced with a serious crisis. It is unnecessary to discuss the point here, but the present conditions would certainly appear to indicate that,

<sup>1</sup> See Appendices XVII and XVIII.

even if the lost markets are recovered, running costs must be appreciably reduced before the industry can hope to resume its former prosperity.

Similarly in the trawling industry it would appear that the Scottish trawling fleet is now greater than the stock of fish available can profitably support, at least so long as the present industrial conditions prevail. The promise of larger catches of good size and quality held out by the results of 1919 has not been fulfilled. The marked scarcity of flat fish has doubtless been due largely to overfishing, and while the closure of arbitrary areas may not be the ideal form of protection this policy has undoubtedly had a beneficial effect in preserving our valuable fishing communities. It has been demonstrated that in the open waters of the North Sea certain fisheries, and particularly that for the plaice, had in pre-war years shown signs of depletion of the stock of mature fish, while the standard size of these fish had fallen appreciably.<sup>1</sup> The compulsory close time imposed by war operations was followed by a striking improvement in both these respects, but these conditions very soon disappeared on the resumption of intensive fishing operations, and there has been a reversion to the previous condition of things, plaice having again become scarce and the standard size of the mature fish having fallen. Various measures have been suggested for remedying these evils, and the one which now holds the field is the closure of certain areas which are known to be the principal breeding grounds and nurseries of the species affected. The trawling industry are aware of the facts, but in the present depressed state of matters they are disinclined to agree to a policy of restriction. It is difficult to see what other measures can so effectively produce the desired improvement, except possibly the proposal to transplant young flat fish from the small fish grounds to other contiguous grounds where with greater freedom of movement and larger supplies of food their rate of growth is more rapid and their quality is improved.

This and other cognate problems which are vital to the prosperity of the industry can be solved only by scientific

<sup>1</sup> See *Rapports et Procès-Verbaux*, vol. xxvi, Copenhagen, 1920.



inquiry and the systematic collection of commercial statistics, and it is gratifying that the departments responsible for administration of the fisheries are now more fully and efficiently equipped than formerly for the task, and that they are conducting the investigations in close co-operation with one another and with the industry.

Proper organization of the industry itself must, however, play a prominent part in restoring its prosperity, and the formation of the Association of British Fisheries, which is gradually absorbing all the various organizations now having a separate existence, augurs well for the future. This organization, with its competent staff and representative executive, is undoubtedly well fitted to explore the situation more fully, and, in conjunction with the fishery departments, to devise such measures as will conduce to improve existing means of capture and the methods of preservation, and to effect better and more economical distribution.

The industry has emerged successfully and with fresh vigour from periods of depression in the past, and with the initiative and resource displayed on those occasions still as much in evidence as ever, there should be no real ground for pessimism as to its future.

## APPENDICES

## APPENDIX I

SCOTTISH FISHING VESSELS IN ADMIRALTY SERVICE ON 16TH APRIL,  
1917A. *Statement by Districts to which Vessels belong*

District	Steam trawlers	Steam drifters or liners	Motor boats	Total
Eyemouth . . . . .	—	19	12	31
Leith . . . . .	33	10	—	43
Anstruther . . . . .	—	53	—	53
Montrose . . . . .	—	8	—	8
Aberdeen . . . . .	226	21	—	247
Peterhead . . . . .	7	102	6	115
Fraserburgh . . . . .	—	85	17	102
Banff . . . . .	—	89	2	91
Buckie . . . . .	—	269	2	271
Findhorn . . . . .	—	129	6	135
Helmsdale . . . . .	—	3	—	3
Wick and Lybster . . . . .	—	15	9	24
Shetland . . . . .	—	6	—	6
Stornoway . . . . .	—	1	—	1
Greenock . . . . .	12	—	—	12
Ballantrae . . . . .	1	—	—	1
<b>TOTAL . . . . .</b>	<b>279</b>	<b>810</b>	<b>54</b>	<b>1,143</b>

B. *Statement by Duties on which Vessels engaged*

Duty	Steam trawlers	Steam drifters or liners	Motor boats	Total
Mine sweeping . . . . .	185	82	—	267
Patrol . . . . .	62	377	23	462
Boom defence . . . . .	11	48	4	63
Other duties or unknown . . . . .	21	303	27	351
<b>TOTALS IN SERVICE . . . . .</b>	<b>279</b>	<b>810</b>	<b>54</b>	<b>1,143</b>
<b>Add :</b>				
1. Taken over but subsequently returned . . . . .	6	14	16	36
2. Lost while in service . . . . .	17	22	2	41
<b>TOTAL TAKEN OVER . . . . .</b>	<b>302</b>	<b>846</b>	<b>72</b>	<b>1,220</b>

APPENDIX II

FISHERY BOARD FOR SCOTLAND  
ALL SCOTLAND DISTRICT

RETURN OF PERSONS CONNECTED WITH THE FISHING INDUSTRY, SHOWING THE NUMBERS IN THE NAVAL OR MILITARY FORCES, OR IN OTHER EMPLOYMENTS OR IDLE OWING TO THE WAR, AS AT 31ST MARCH, 1917

Occupation prior to war	In Naval or Military Forces or in other Employments										Total	Idle	Engaged in usual occupations	Additional persons employed as result of war conditions		
	Total engaged in normal circumstances	Army	Navy	On mine sweepers or patrol or other vessels	Admiralty service	Mercantile marine	General labouring	Shipbuilding yards	Making army rations	Dredging operations					Making munitions	Various
Fishermen (resident and non-resident)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fishmongers . . . . .	33,073	1,645	6,253	10,292	985	896	641	399	1	53	33	509	21,707	146	11,220	1,456
Hawkers . . . . .	1,898	141	5	2	20	—	32	6	—	—	—	23	171	—	1,727	—
Fishcurers . . . . .	1,698	290	2	13	1	—	21	—	—	—	3	146	512	50	1,136	2
Coopers . . . . .	713	53	3	29	1	—	197	167	28	4	7	65	179	10	524	—
Clerks . . . . .	2,818	891	169	314	163	23	197	167	2	2	10	380	2,346	4	468	3
Carters & Labourers	837	210	14	19	2	2	7	2	2	—	1	51	310	—	527	12
Bait Gatherers . . . . .	4,665	988	167	138	173	30	217	76	6	—	19	256	2,070	8	2,587	37
Boxmakers . . . . .	803	73	—	4	—	—	—	—	—	—	—	42	119	—	684	—
Boat Builders . . . . .	217	38	—	4	2	—	8	—	2	—	—	2	56	—	161	—
Basket Makers . . . . .	2,652	302	54	21	—	—	6	183	—	—	—	45	611	—	2,041	14
Barrel Stave Makers	69	31	—	2	1	—	4	—	—	—	—	5	43	—	26	3
Other occupations . . . . .	182	37	3	—	—	—	6	—	5	—	—	71	122	—	60	—
	998	193	8	27	2	10	35	—	5	—	—	82	362	17	619	—
TOTAL . . . . .	50,623	4,892	6,678	10,865	1,349	961	1,174	833	49	57	73	1,677	28,608	235	21,780	1,527
Totals at Dec. 1916	50,623	4,761	6,526	10,726	1,320	975	1,246	856	63	69	85	1,698	28,325	338	21,960	1,423

All women workers are excluded from this return, and also persons engaged in the carrying trade, since, as a rule, members of these two classes find only intermittent or partial employment in connexion with the fisheries.

EDINBURGH, 19th April, 1917.

### APPENDIX III

#### FISHERY BOARD FOR SCOTLAND

\_\_\_\_\_ PERMIT—DISTRICT No.  
 (Letters and No.)

LIST OF CREW OF FISHING VESSEL (Name) \_\_\_\_\_

Name	Address	Age	Rating	If enrolled for Naval Service, indicate Branch of Service by R.N.R. (T.), or R.N.V.R. (Y.), as the case may be	If Certificate of Exemption from Military Service held, state period or condition attached thereto

Signature of Skipper \_\_\_\_\_

Date \_\_\_\_\_

Place \_\_\_\_\_

APPENDIX IV

60°

55°

50°



Caution must be exercised in this area.

**BRITISH FISHING VESSELS  
ARE FORBIDDEN BY  
ADMIRALTY ORDERS TO FISH  
IN THE AREAS SHADED.**

NOTE:— TRACKS TO BE FOLLOWED BY BRITISH FISHING VESSELS WHEN CROSSING PROHIBITED AREAS ARE SHOWN BY HEAVY BLACK LINES.

15° 10° 5° 0°



## FISHERY BOARD FOR SCOTLAND

## FISHING IN THE MORAY FIRTH

ORDERS MADE BY THE ADMIRAL COMMANDING, COAST OF SCOTLAND, UNDER CLAUSE 5 OF THE GENERAL ADMIRALTY ORDERS FOR FISHING VESSELS, DATED 1ST DECEMBER, 1914, AND THE DEFENCE OF THE REALM (CONSOLIDATION) REGULATIONS, DATED 28TH NOVEMBER, 1914.

THE Fishery Board for Scotland have been desired by the Admiral Commanding, Coast of Scotland, to publish the following Orders with regard to fishing in the Moray Firth inside a line from Noss Head to Kinnaird Head, made by him in terms of the general Admiralty Orders and the Regulations referred to above.

1. Permission to fish will be given only to sail and motor boats registered at Moray Firth ports.
  2. Fishing is permitted only within eight miles of low water mark. Dredging for bait is also permitted within this area.
  3. Fishing vessels must return to port by 10 p.m., and must not leave port before daylight.
  4. Fishing is wholly prohibited in the area between a line drawn from Tarbet Ness to Findhorn and a line drawn from South Sutor to Nairn Lighthouse.
  5. In case of fog, fishing vessels must at once return to port.
  6. Fishing will be entirely at the fishermen's own risk, and no compensation claims whatever will be entertained for damage to or loss of boats or fishing gear, or for personal injury or loss of life.
- It must be understood that Torpedo craft, &c., are constantly patrolling the waters of the Moray Firth, running at high speed. Fishing boats will incur considerable risk, and damage or destruction of fishing gear may result.
7. Every vessel or boat fishing in the above area must be provided with a permit issued by the Fishery Board for Scotland and countersigned by or on behalf of the Rear Admiral, Invergordon.
  8. Fishermen failing to comply with the above regulations are liable to have their fish confiscated by any patrol vessel, and are also liable to severe legal penalties under the provisions of the Defence of the Realm (Consolidation) Act, 1914.
  9. It is hoped that all fishermen will co-operate with the Naval Authorities in seeing that these rules are complied with; if they are abused, all fishing will again have to be stopped.
  10. Nothing contained in these orders shall be deemed to authorize fishing in any place where it is forbidden by Law or by Local Regulations.

DAVID T. JONES,

*Secretary.*

EDINBURGH, 15th February, 1915.



LINE FISHING BY MOTOR AND SAIL BOATS DURING  
WAR

QUANTITY AND VALUE AND AVERAGE PRICE PER CWT. OF FISH TAKEN  
BY MOTOR AND SAIL LINERS AND LANDED IN SCOTLAND DURING  
THE YEARS 1914 TO 1918.

Year	Motor			Sail		
	Quantity	Value	Average price per cwt.	Quantity	Value	Average price per cwt.
	Cwt.	£	s. d.	Cwt.	£	s. d.
1914 . .	82,868	54,439	14 1	225,792	124,251	11 0
1915 . .	145,045	162,116	22 4	225,344	183,528	16 3
1916 . .	160,450	234,013	29 2	193,189	207,173	21 5
1917 . .	200,814	413,561	41 2	169,165	261,948	30 11
1918 . .	325,462	954,479	58 7	170,867	366,815	42 11

APPENDIX VII

STATEMENT SHOWING NUMBER OF PERSONS SERVED BY ONE RETAIL  
FISHMONGER OR HAWKER BEFORE THE WAR AND IN MARCH 1918  
FOR TOWNS OF VARIOUS SIZES.

	Number of Towns	Popula- tion	No. of Persons served by			
			Retail Fishmonger		Fish Hawker	
			Before war	March 1918	Before war	March 1918
Coast towns						
Population :						
Under 10,000 .	12	84,837	2,070	2,357	908	1,626
10,000 to 50,000 .	10	182,034	3,085	3,139	1,754	2,865
Above 50,000 .	4	497,511	3,311	4,738	1,742	5,660
Inland towns						
Population :						
Under 10,000 .	5	34,536	3,140	3,140	5,243	13,107
10,000 to 50,000 .	19	488,398	4,037	4,247	4,303	14,881
Above 50,000 .	3	1,465,137	3,353	3,618	5,703	22,810

## APPENDIX VIII

STATEMENT SHOWING THE MONTHLY CONSUMPTION OF FISH IN VARIOUS DISTRICTS IN SCOTLAND PRIOR TO THE WAR.

Place	Location	Population	Monthly consumption of fish	
			Total lbs.	In lbs. per inhabitant
Paisley . . .	Inland	86,593	999,000	11.5
Port Glasgow . . .	"	17,180	177,600	10.3
Glasgow . . .	"	1,053,926	8,252,180	7.8
Troon . . .	Coast	6,890	47,588	7.2
Inverkeithing . . .	"	3,545	14,560	4.1
Buckie . . .	"	8,911	35,740	4.0
Clydebank . . .	Inland	43,538	167,900	3.8
Perth . . .	"	35,087	112,000	3.2
Falkirk . . .	"	34,066	100,800	3.0
Motherwell . . .	"	41,337	122,100	3.0
Greenock . . .	Coast	77,642	180,000	2.3
Musselburgh . . .	"	16,439	33,600	2.0
Campbeltown . . .	"	7,057	12,600	1.8
Wishaw . . .	Inland	25,420	44,800	1.8
Ayr . . .	Coast	33,471	55,900	1.7
Airdrie . . .	Inland	23,878	40,320	1.7
Coatbridge . . .	"	43,658	61,179	1.4
Galston (Ayr) . . .	"	5,173	7,000	1.2
Denny . . .	"	4,880	5,040	1.0
Dundee . . .	Coast	176,584	182,215	1.0
Leven . . .	"	6,552	53,760	0.8
Arbroath . . .	"	19,122	13,320	0.7
Brechin . . .	Inland	7,882	3,360	0.4
Johnstone . . .	"	11,747	2,912	0.2
Total . . .		1,790,578	10,725,474	Av. 6.0

THIS FORM SHOULD ONLY BE USED IN RESPECT OF GOODS WHICH ARE TO BE SHIPPED, IF POSSIBLE, IN ONE CONSIGNMENT.

		WAR TRADE DEPARTMENT	Schedule No. _____
This column is for official use only.	<b>APPLICATION FOR ORDINARY LICENCE.</b>		
Licence Drafted by _____	<p>Attention is drawn to the Notice and the Instructions appearing on pages 93-5. Delay will be caused if these instructions are not followed, if any of the questions on this or the following page are not answered, or if the declaration on page 91 is not signed. (See Direction 12.) It is requested that the form be filled in legibly.</p>		
Checked by _____			
Issued _____			
Papers for annexation.	Applicant's Reference No. _____ Date _____ (See Direction 4, page 93.)		
	(i) NAME and ADDRESS of CONSIGNOR by or on behalf of whom application is made.		
	(ii) NAME and ADDRESS of PERSON (or Company) to whom Licence is to be sent.		
	(iii) Brief description of GOODS.		
	(iv) Full Name and Postal Address of CONSIGNEE ABROAD.		
	(v) Full Name and Postal Address of ULTIMATE CONSUMER ABROAD, if other than consignee named above.		
	*†(vi) Name and Address of FORWARDING AGENT at port of discharge.	Number and Description of Enclosures forwarded with this application. (See Direction 6, page 94.)	
	*(vii) Full Name and Postal Address of AGENT through whom the order was secured.		
	(viii) If all or any part of the consignment now applied for has been included in any previous application, please quote War Trade Department reference number here <input type="text"/> and state :—		
	(1) Was a licence granted ? (2) What quantity of the goods has been exported ? (3) What is the reason for the present application ?		
THIS SPACE IS FOR OFFICIAL USE ONLY.			
* It is not essential that the questions marked with an asterisk should be answered in respect of goods destined for British Possessions and Protectorates. † It is not essential that these details shall be filled in for parcel post goods. ‡ This question need only be answered where Brass, Copper, Iron, Jute and Steel Goods are concerned.			

## APPENDIX IX

91

**EACH QUESTION ON THIS PAGE AND PAGE 90 MUST BE ANSWERED.**

(a) Full name and address of CONSIGNOR		
(b) * 1 Description of Consignor's business	1	
* 2 How long established ?	2	
(c) Name and address of person or company to whom the licence is to be sent.		
(d) Proposed date of dispatch of goods.		If the goods are to go by Parcel Post, state here HEAD Post Office of dispatch (in London a Branch Office may be given, see Direction 8).
(e) Port of intended shipment in this country.		
(f) Prospective port and country to which the goods are to be exported.		
(g) † Route by which the goods are to be forwarded to ultimate destination.		
(h) FULL NAME and POSTAL ADDRESS of CONSIGNEE ABROAD.		
*(i) Nature of consignee's business.		
(j) FULL NAME and POSTAL ADDRESS of ULTIMATE CONSUMER of the goods abroad, if other than consignee named above.		
*(k) Nature of purchaser's business.		

The Rules in paragraph 5 on page 93 should be carefully observed when completing this table.

(l) Quantity (see In- struction No. 5)	Weight		Full Description of the Goods	Total F.O.B. Value.	Number and Description of Packages and the Shipping Marks
	Gross	Net		If more than one commodity, state values separately	
				£	
Total ..			Total ..		

(m) Purpose for which the goods are to be used.	
(n) Are they manufactured and ready for shipment ? If not, how long will it take to manufacture them ?	State nature of Packing Material which is to be employed.
‡(o) Give the name of the manufacturers of the goods. (See foot-note, page 90.)	
(p) Have you a firm order for the goods ?	
(q) Were you engaged in exporting this description of goods to the proposed country of destination previous to August 1914 ?	
*(r) Do you hold any guarantee attested by the British Consul against re-export of the goods in any form ? If so, it should be annexed.	
*(s) (1) What proof have you that these goods are for <i>bona fide</i> neutral consumption ? (2) state the period during which you have maintained regular business relations with the Consignees ; and (3) whether the present order is a normal one from these Consignees to your firm.	
(t) As the exportation of these goods is prohibited, any special reasons in support of your request for a licence to export them, other than those affecting ordinary business, should be stated.	

I hereby declare that to the best of my knowledge and belief the foregoing particulars are correctly stated, and I undertake that if this licence is granted to me, it shall be used solely for the export of goods which are either my own property or the property of a person, firm, or company for whom I act in this transaction as the sole responsible representative.

*Signature of Applicant.*

N.B.—This Form must bear the signature of the applicant (see Direction 12).  
If the signatory has been specially approved to sign applications on behalf of his firm, quote here W.T.D. No.  of the letter approving him for the purpose.

(This page is for official use only.)

Schedule No. \_\_\_\_\_

Decision

Send W.T.D. No.

Schedule No. \_\_\_\_\_

Decision

Send W.T.D. No.

## DIRECTIONS FOR FILLING UP THIS FORM.

1. Applicants for exportation licences are requested in their own interests to fill up the form fully and correctly, and to give as long notice as possible of their desire to export. Applications should not, however, be made more than two months before the proposed date of shipment. Should it not be possible for the goods to be manufactured within this period, exporters should apply for a provisional permission to manufacture, stating full particulars as to the quantity and kind of goods, the name of the consignee, the name of the person or firm by whom the goods are intended to be used or consumed in the ordinary course of business, and the name of any foreign agent concerned in the transaction. As regards Iron and Steel goods see Instruction 6.

2. All the requisite particulars as to the goods to which the application relates should be given on the form itself and not on a covering letter; and separate applications should be made for specific licences to export different classes of goods (*e.g.*, food-stuffs should not be applied for on the same form as lubricating oil).

3. FORMS TO BE USED.—Special forms are provided for certain commodities and care should be taken to make application on the proper form, otherwise delay may result.

- Application Form, 'A,' to be used when making application to export a specific consignment for prohibited and restricted goods in general (except goods for which special forms are provided as indicated below).
- „ „ 'B,' for general licence to export such goods over a period not exceeding three months.
- „ „ 'C,' for ordinary licence to export coal and coke, or manufactured fuel.
- „ „ 'D,' for general licence to export coal and coke, or manufactured fuel, over a period not exceeding three months.
- „ „ 'E,' for ordinary licence to export a consignment of raw cotton, cotton yarn or cotton waste.
- „ „ 'F,' for general licence to export raw cotton, cotton yarn or cotton waste over a period not exceeding three months.
- „ „ 'G,' for ordinary licence to export a consignment of cotton piece goods.
- „ „ 'H,' for general licence to export cotton piece goods over a period not exceeding three months.

4. REFERENCE NUMBERS.—For convenience of reference, applicants are recommended to date and number their applications on the lines provided, and to quote this date and number in any further communication (as well as the War Trade Department reference number, if known). Further communications will be dealt with more expeditiously if they relate to one application only.

5. RULES TO BE OBSERVED AS REGARDS PARAGRAPH (l), Page 91.—In order to avoid delay the following rules should be carefully observed:—

- (a) Not more than one item should appear on each line provided opposite question (l).
- (b) Where the number of items exceeds eight, six copies of a schedule

- giving the requisite particulars should be furnished instead of including them in the table. An extra copy should be furnished for each port of shipment (if more than one).
- (c) The information required under each heading should be given as accurately as possible.
  - (d) Quantities and values must be given in British denominations. It is not enough to indicate quantities by vague terms such as 'cases,' 'barrels,' 'bags,' &c.
  - (e) Where the goods to be exported contain copper or brass or any compounds of copper, the approximate net weight of copper in the whole consignment must be furnished.
  - (f) In the case of compound articles the exact composition and proportion of the constituents MUST be stated. This information will be treated as confidential.

6. DOCUMENTS TO BE FURNISHED WITH APPLICATION.—Applications for a licence to export to Switzerland goods which are consignable to the Société Suisse de Surveillance Economique (see the list in the Board of Trade Journal of the 21st September, 1916, and as amended by subsequent issues) should be accompanied by a certificate from that Society. Applications for Denmark should be accompanied by a guarantee from the Danish Merchants' Guild, or from the Danish Industriraadet. Applications for Norway should be accompanied by an ordinary undertaking to be given by the consignees in consultation with the local British Consul. Applications for Greece should be accompanied by a certificate from H.M. Legation at Athens.

Applications to export Iron and Steel goods must be accompanied by a classification certificate from the Priority Committee of the Ministry of Munitions.

7. GOODS IN PROHIBITED LIST.—The goods included in the prohibited list are divided into three classes, 'A,' 'B,' and 'C.' It is not necessary to apply for licences for the export to British Possessions of goods marked 'B,' unless they will be transhipped at foreign ports. It is similarly only necessary to apply for licences for goods marked 'C' to the following countries:—Norway, Sweden, Denmark, Holland, Russia (Baltic and Black Sea ports, or via Scandinavia), Switzerland, Greece, Roumania, Morocco (except French Morocco), Iceland, Faroe Islands, and Persia (via Scandinavia).

8. PARCEL POST.—Where the goods are to be dispatched by Parcel Post from the provinces they must be forwarded from the nearest Head Post Office. In London a Branch Post Office or a District Office may be inserted. (The Branch Offices are indicated on pages 613 to 633 in the postal guide by the letters B.O.).

9. GOODS FOR ALLIED GOVERNMENTS.—Where the goods are destined for Russia, France, Italy, Belgium, Serbia, Roumania, Portugal or Japan, for use of the Governments of those countries, application should be made to the Secretary, Commission Internationale de Ravitaillement, India House, Kingsway, W.C., and not to the War Trade Department.

#### 10. NON-COMPLIANCE WITH THESE DIRECTIONS MAY INVOLVE DELAY.

11. RESPONSIBILITY OF EXPORTER, &c.—Attention is called to the fact that where a licence is granted for the export of prohibited or restricted goods the licence does not relieve the owner of the goods or the consignor or other person to whom the licence is granted from any responsibility to which he may be liable for any breach of law or regulations, *e.g.*, the Law relating to Trading with the Enemy. It is therefore incumbent on persons before applying for licences or exporting goods to take all reasonable steps to satisfy themselves that the ultimate destination and intended use of the goods are unobjectionable. Failure to do so may

involve serious consequences and will certainly entail most careful consideration of any further applications for export licences.

12. SIGNATURE OF FORM.—The declaration on page 90 must be signed by a person domiciled in the United Kingdom, otherwise the application cannot be accepted. Subject as hereinafter mentioned, applications will not in future be considered unless they bear the signature of the applicant; or, in the case of a firm, the signature of a partner, or, in the case of a company, the signature of a director or the secretary; the status of the signatory should be stated.

In exceptional circumstances applications may be otherwise signed if reasons which are regarded as adequate are submitted to the War Trade Department in writing, and full responsibility is accepted for the person whose signature is allowed. In such cases the War Trade Department number of the approval must be quoted in the space provided on page 90.

13. The attention of exporters is particularly drawn to the following Board of Trade announcement:—

The Board of Trade direct the particular attention of all manufacturers and traders concerned in the export trade to the need for scrupulous care in the transaction of their business abroad, in view of the fact that some traders in some neutral countries are making themselves agents for the supply of goods to and from enemy countries.

Especial care should be taken in opening new accounts in neutral countries, and in relation to any orders or inquiries of an abnormal character. In any case of doubt as to particular firms abroad, business should be suspended pending reference, as regards firms in foreign countries *outside Europe*, to the Controller, Foreign Trade Department, Lancaster House, St. James, London, S.W., and as regards firms *in Europe*, to the Chairman, War Trade Intelligence Department, Broadway House, Tothill Street, Westminster, S.W. It is inadvisable that any new accounts should be opened by any British trader in neutral countries during the war without the fullest inquiries as to the character of the business proposed to him.

The proclamations relating to trading with the enemy cover indirect trading with the enemy through neutral agents, and carelessness in transacting neutral business may involve the traders in severe penalties attaching to trading with the enemy.

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All applications should be addressed to :

THE SECRETARY, War Trade Department,  
4, Central Buildings, Westminster, S.W.



APPENDIX X  
 STATUTORY RULES AND ORDERS,  
 1918, No. 879.

DEFENCE OF THE REALM.

Ministry of Food.

THE FISH (DISTRIBUTION) ORDER, 1918, DATED THE 16TH JULY,  
 1918, MADE BY THE FOOD CONTROLLER UNDER THE DEFENCE  
 OF THE REALM REGULATIONS.

In exercise of the powers conferred upon him by the Defence of the Realm Regulations and of all other powers enabling him in that behalf the Food Controller hereby orders that, except under the authority of the Food Controller, the following regulations shall be observed by all persons concerned :—

PART I.

*Directions relating to Fish.*

Directions  
relating to  
fish.

1. (a) The Food Controller or any person authorized by him in that behalf may from time to time issue directions relating to the allocation and distribution of fish, and in particular may :—

- (i) Fix the proportion or quota of the available supplies of fish to be allocated to or by any dealer in fish ;
- (ii) Fix the proportion or quota of fish which may be retained by a producer for the purposes of his wholesale or retail trade ;
- (iii) Fix the maximum quantity of fish or of any class of fish which may be bought by any person in any period ;
- (iv) Order that fish shall not be sold until the same shall have been landed.

(b) Directions given under this clause may be given so as to apply generally or so as to apply to any special locality or so as to apply to all or any fish or to any special class or selection or catch of fish or to any special producer or dealer or class of producers or dealers.

Where any such directions have been given it shall be the duty of all persons concerned to comply therewith and a person shall not sell or dispose of any fish to which such directions apply except in accordance with such directions.

## PART II.

2. (a) For the purposes of this part of this Order :—

Definitions.

‘ A prescribed port ’ shall mean a port to which this Order for the time being applies.

‘ A prescribed market ’ in connection with a prescribed port shall mean a place prescribed as a market in respect of that port.

‘ Specified fish ’ in connection with a prescribed port shall mean the fish specified in respect of that port.

3. (a) Until further notice under this Order, the prescribed ports shall be the ports mentioned in the first column of the schedule, and the prescribed market and the specified fish for any port shall be the market and fish set opposite that port in the second and third columns of the schedule.

Prescribed ports and markets.

(b) The Food Controller may at any time by notice under this Order prescribe other ports and markets for prescribed ports and specify fish in respect of prescribed ports.

4. (a) Where any specified fish are landed in a prescribed port, such fish shall not be sold or offered for sale by or on behalf of the person who is the owner thereof at the time of landing except in a prescribed market.

Specified fish only to be sold in a prescribed market.

(b) The Food Controller or any person authorized by him in that behalf may from time to time except any fish from the provisions of this clause on such conditions as he shall think fit.

5. (a) A person shall not in a prescribed market :—

(i) buy any specified fish unless he is the holder of a permit given by or under the authority of the Food Controller authorising him to buy such fish in such market or otherwise than in accordance with the provisions and conditions of this permit ; or

(ii) sell or dispose of any specified fish bought under a permit except in compliance with the provisions and conditions of such permit.

Specified fish only to be bought under permit.

(b) The Food Controller or any person authorised by him in that behalf may suspend the operation of this clause as respects

such persons, markets or fish, and for such period as he may think fit.

6. This part of this Order shall come into force on the 1st August, 1918.

PART III.

*General.*

Penalty.

7. Infringements of this Order are summary offences against the Defence of the Realm Regulations.

Title.

8. (a) This Order may be cited as the Fish (Distribution) Order, 1918.

(b) This Order shall not apply to Ireland.

By Order of the Food Controller.

*W. H. Beveridge,*

Second Secretary to the Ministry of Food.

16th July, 1918.

*The Schedule.*

Column 1	Column 2	Column 3
Aberdeen . .	Aberdeen Wholesale Fish Market	{ All fish except Herrings, Pilchards, Mackerel, Sprats, Salmon, Grilse, Trout, Freshwater Fish (including Freshwater Eels) Crustacea and Shell Fish of all kinds.
Fleetwood . .	Fleetwood „ „	
Grimsby . .	Grimsby „ „	
Hull . . . .	Hull „ „	
Milford Haven	Milford Haven „ „	
North Shields .	North Shields „ „	

**APPENDIX XI**  
**STATUTORY RULES AND ORDERS,**  
**1918, No. 39.**

**DEFENCE OF THE REALM.**

Ministry of Food.

**THE FISH (PRICES) ORDER, 1918, DATED 16TH JANUARY, 1918,**  
**MADE BY THE FOOD CONTROLLER UNDER THE DEFENCE OF**  
**THE REALM REGULATIONS.**

In exercise of the powers conferred upon him by the Defence of the Realm Regulations and of all other powers enabling him in that behalf, the Food Controller hereby orders that except under the authority of the Food Controller the following regulations shall be observed by all persons concerned :—

1. (a) No person shall after the 23rd January, 1918, directly or indirectly sell or offer or expose for sale or buy or offer to buy any fish at prices exceeding the maximum prices provided by or in pursuance of this Order.

Maximum  
price on sales  
of fish.

(b) Until further notice, the maximum price for the fish specified in the first schedule hereto shall be at the rate mentioned in relation thereto in such schedule.

(c) The Food Controller may from time to time by notice prescribe further or other prices for fish, whether or not specified in the first schedule.

2. A Food Committee may from time to time by resolution vary for fish sold by retail within their area the maximum prices under this Order as fixed for the time being by the Food Controller, but

Power of a  
Food  
Committee.

(a) every such resolution shall be reported to the Food Controller within 7 days, and, in the case of a resolution increasing the maximum price, shall not take effect until the same has been sanctioned by the Food Controller, and

(b) every resolution made by the Food Committee under this Clause shall be subject at any time to review by the Food Controller and shall be withdrawn or varied as he may direct.

Terms of  
sale.

3. Subject to any directions to the contrary in any notice issued by the Food Controller under this Order and subject also as respects the area of a Food Committee to any directions contained in any resolution of a Food Committee varying a maximum price, the following provisions shall have effect for the purposes of this Order :—

- (a) Where a maximum price is for the time being prescribed for a cut, such price shall apply only to the sale of a portion of the fish not exceeding half of the whole fish and not including any part of the head.
- (b) Where a maximum price is for the time being prescribed for a headed fish, such price shall apply only to the sale of a headed and gutted fish.
- (c) The maximum price for the time being prescribed for a whole fish shall apply to all sales of the fish, headed or not, gutted or ungutted, or any part of the fish except sales to which a maximum price for a cut or for a headed fish applies.
- (d) In calculating the price on the sale of a fish or a portion of a fish any broken halfpenny shall count as a half penny.
- (e) A person may sell fish at a price per fish or per piece so long as the maximum price therefor is not exceeded and provided he weighs the fish or piece if so required by the buyer.
- (f) No additional charge may be made for bags or other packages or for giving credit or making delivery.

Contracts.

4. Where the Food Controller is of opinion that the price payable under any contract for the sale of fish subsisting at the date of this Order or any notice under this Order is such that the same cannot at the price for the time being permitted under this Order be sold by retail at a reasonable profit, the Food Controller may if he think fit cancel such contract or modify the terms thereof in such manner as shall appear to him to be just.

Exhibits.

5. (a) Every person selling fish by retail in any shop shall keep posted in a conspicuous position so as to be clearly visible to all customers throughout the whole time during which fish are being sold or exposed for sale a notice showing in plain words and figures the maximum price for the time being in force under this Order as to sales in such shop and also the actual prices at which such fish are at such time being sold by him.

(b) This clause shall not apply to a sale by a fisherman selling otherwise than at a shop.

Exceptions.

6. This Order shall not apply to sales of live fish for other

purposes than human consumption or to sales by retail of cooked fish by a person in the ordinary way of his trade.

7. For the purposes of this Order, the expression ' Food Committee ' shall mean a Committee appointed in pursuance of the Food Control Committees (Constitution) Order, 1917, and the Food Control Committee for Ireland. Interpretation.

8. Infringements of this Order are summary offences against the Defence of the Realm Regulations. Penalty.

9. This Order may be cited as the Fish (Prices) Order, 1918. Title.

By Order of the Food Controller.

*W. H. Beveridge,*

Second Secretary to the Ministry of Food.

16th January, 1918.

*First Schedule.*

PART I.—FRESH FISH.

	Whole fish	Headed	Cuts
	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>
1. Bream (fresh and salt water)	1 0	—	—
2. Brill	2 6	—	3 3
3. Carp	1 4	—	1 10
4. Catfish (skinned and headed)	1 3	—	1 6
5. Coal or Saithe	1 0	1 3	1 6
6. Cod	1 3	1 7	1 10
7. Char	1 4	—	—
8. Chub	1 3	—	—
9. Dabs	1 3	—	—
10. Dace	0 10	—	—
11. Dogfish (skinned or filleted)	1 0	—	—
12. John Dory	1 3	—	—
13. Eels (freshwater)	2 0	—	—
14. Eels (conger)	1 0	1 2	1 4
15. Flounders	1 3	—	—
16. Grayling	1 4	—	—
17. Gurnards	1 0	1 6 (skinned)	—
18. Haddock	1 3	1 7	1 10
19. Hake	1 3	1 6	1 9
20. Halibut	2 6	—	3 3
21. Herrings (fresh)	0 8	—	—
22. Ling	1 2	1 5	1 8
23. Mackerel	0 8	—	—
24. Megrin	1 6	—	—
25. Monk or Angler (headed and skinned).	1 0	—	1 2
26. Mullet (red)	3 0	—	—
27. Mullet (grey)	1 6	—	—

PART I.—FRESH FISH (*continued*).

	Whole fish	Headed	Cuts
	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>
28. Perch . . . . .	1 0	—	—
29. Pike or Jack . . . . .	1 4	—	1 10
30. Pilchards . . . . .	0 8	—	—
31. Plaice . . . . .	1 10	—	—
32. Pollack or Lythe . . . . .	1 0	1 3	1 6
33. Roach . . . . .	0 9	—	—
34. Roker (wings) . . . . .	1 4	—	1 6
35. Salmon (including Grilse after 2nd February) . . . . .	3 0	—	4 0
36. Skate (wings) . . . . .	1 4	—	1 6
37. Soles and Slips . . . . .	3 6	—	—
38. Soles (Lemon) . . . . .	2 0	—	—
39. Sprats . . . . .	0 6	—	—
40. Tench . . . . .	1 4	—	—
41. Trout (fresh and salt water, after 2nd February) . . . . .	3 0	—	4 0
42. Turbot . . . . .	2 6	—	3 3
43. Whiting . . . . .	1 3	1 6	—
44. Witches . . . . .	2 0	—	—
45. All other fish not already specified . . . . .	0 8	—	—

## PART II.—SMOKED AND CURED FISH.

	Whole fish	Cuts
	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>
1. Smoked Cod . . . . .	2 0	—
2. Smoked Haddock . . . . .	2 0	—
3. Kippered Herrings . . . . .	1 0	—
4. Bloatered Herrings . . . . .	0 10	—
5. Herrings, filleted (smoked or pickled) . . . . .	1 0	—
6. Pickled, cured or spiced Herrings . . . . .	0 6	—
7. Red Herrings and smoked Herrings other than those already mentioned . . . . .	0 8	—
8. Smoked Mackerel . . . . .	0 8	—
9. Mackerel, filleted (smoked and pickled) . . . . .	1 0	—
10. Pickled, cured or spiced Mackerel . . . . .	0 6	—
11. Smoked Pilchards . . . . .	0 8	—
12. Pickled, cured or spiced Pilchards . . . . .	0 6	—
13. Smoked Sprats . . . . .	0 8	—
14. Pickled, cured or spiced Sprats . . . . .	0 6	—
15. Dry salted fish other than those specified above . . . . .	1 3	1 6
16. Wet salted fish of all descriptions . . . . .	0 10	1 0
17. Smoked fish fillets of all kinds other than those specified above . . . . .	1 10	—
18. All smoked fish not specified above or in Schedule II . . . . .	1 6	—

## PART III.—FROZEN FISH.

	Whole fish	Cuts
	Per lb. <i>s. d.</i>	Per lb. <i>s. d.</i>
1. Halibut (headed and trimmed) . . . . .	1 8	2 0
2. Salmon, including Grilse . . . . .	2 2	2 9
3. Salmon, including Grilse (headed) . . . . .	2 4	2 9
4. Trout . . . . .	2 2	2 9
5. Trout (headed) . . . . .	2 4	2 9

*Second Schedule.*

## UNCONTROLLED.

## PART I.—FRESH FISH.

1. Crustacea of all kinds.
2. Fresh Fish Roes.
3. Salmon, up to and including February 2nd, 1918.
4. Trout, do. do.
5. Shell fish of all kinds.
6. Whitebait.
7. Smelts.

## PART II.—SMOKED AND CURED FISH.

1. Smoked or Pickled Fish Roes.
2. Smoked, Kipperd or Pickled Salmon and Grilse.
3. do. do. Trout.

## PART III.—PRESERVED FISH.

1. Canned fish of all descriptions.
2. Fish Pastes.



## APPENDIX XII

## STATUTORY RULES AND ORDERS,

1918, No. 323 *as amended by* No. 529.

## DEFENCE OF THE REALM.

Ministry of Food.

THE FISH (PRICES) ORDER, No. 2, 1918, DATED THE 14TH MARCH, 1918, AS AMENDED BY AN ORDER OF THE FOOD CONTROLLER, No. 529, DATED 14TH MAY, 1918, MADE BY THE FOOD CONTROLLER UNDER THE DEFENCE OF THE REALM REGULATIONS.

In exercise of the powers conferred upon him by the Defence of the Realm Regulations and of all other powers enabling him in that behalf, the Food Controller hereby orders that except under the authority of the Food Controller, the following regulations shall be observed by all persons concerned :—

General  
restrictions.

1. (a) A person shall not on or after the 27th May, 1918, sell or offer or expose for sale, or buy or offer to buy any fish at prices exceeding the maximum prices for the time being applicable under this Order.

(b) Until further notice the maximum price for the fish specified in the first three schedules to this Order shall be at the rates applicable according to such schedules, and the subsequent provisions of this Order.

(c) The Food Controller may from time to time by notice prescribe further or other prices for fish whether or not specified in the first three schedules to this Order.

Wholesale  
sale by  
producers.

2. On a sale (other than a sale by retail) by or on behalf of the producer of his own fish of a kind specified in the first schedule, the maximum price

(a) shall, where the fish are sold packed in boxes and upon the terms that the price includes costs of packing and all charges incidental thereto and incidental to delivery to the buyer's nearest railway station, be at the rates applicable under the provisions of clauses 3, 4, 6 and 7 of this Order, and so that Clause 4 shall apply as if the producer were a person who had bought fish direct from the producer ; and

(b) shall, in all other cases, be at the rates mentioned in the first column of the first schedule.

3. On a sale (other than a sale by retail) by or on behalf of any person other than the producer of fish of a kind specified in the first schedule the maximum prices shall, subject to the provisions of clauses 4, 6 and 7 of this Order, be at the rates mentioned in the second column of such schedule.

Other sales  
by wholesale.

4. Where a dealer who has bought any fish of a kind specified in the first schedule direct from the producer is selling the same to another dealer (not being a dealer in the same market) who declares that he is purchasing with a view to reselling to a retail dealer or retail dealers, and, if required by the seller, undertakes to make the further payment prescribed by this clause in case he otherwise deals with the same, then and in every such case the maximum prices shall be reduced from the rates specified in the second column of the first schedule by the following amounts :—

First  
wholesaler's  
reduced price  
on sales to  
second  
wholesaler  
of fish  
mentioned  
in first  
schedule.

- (i) 1s. per stone in the case of fish for which the maximum price, without any of the additions applicable under clause 7, exceeds 20s. per stone.
- (ii) 9d. per stone in the case of fish for which such maximum price exceeds 7s. 6d. per stone and does not exceed 20s. per stone.
- (iii) 4d. per stone in the case of fish for which such maximum price is 7s. 6d. or less per stone ; but if the second dealer, having made such declaration, deals with any such fish otherwise than by resale to a retail dealer or retail dealers he shall within 14 days so inform the first dealer in writing and shall pay to the first dealer a further sum equal to the amount of the reduction.

5. On a sale (other than a sale by retail) of any fish of a kind specified in the second and third schedules the maximum prices shall subject to the provisions of clauses 6 and 7 of this Order be at the rates mentioned in the first columns of such schedules.

Wholesale  
sales of fish  
mentioned  
in second  
and third  
schedules.

6. The maximum price applicable under clause 3 or clause 5 shall include all cost of packing and all charges incidental thereto and to delivery to the buyer's nearest railway station, and if the fish is sold carriage forward the maximum price shall be diminished by a sum equal to the cost of such carriage.

Packing and  
transport.

7. The following additions where applicable may be made to the maximum price permitted by clauses 3 and 5 of this Order :

Permitted  
additions.

- (a) A sum not exceeding the cost of the boxes in which the fish is packed, provided that such sum is repaid to the purchaser on the return of the boxes ; and

(b) Where a wholesale dealer in fish purchases or receives for sale on commission fish from a wholesale dealer and sells to a retail dealer, a sum equal to the cost of carriage (if any) of the fish from his premises or railway station to the retail dealer's nearest railway station.

Sales by  
retail.

8. (a) On a sale by retail of any fish of a kind specified in the first three schedules to this Order, the maximum price shall be at the rate mentioned in the third column of the first schedule and the second column of the second and third schedules.

(b) On such sale no additional charge may be made for packing, packages, credit or delivery except that any moneys actually payable by the seller for transport from his premises may be added.

Powers of a  
Food  
Committee.

9. A Food Committee may from time to time by resolution vary the maximum retail prices for fish sold fixed for the time being by the Food Controller, but

(a) Every such resolution shall be reported to the Food Controller within seven days, and in the case of a resolution increasing the maximum price shall not take effect until the same has been sanctioned by the Food Controller ; and

(b) Every resolution made by the Food Committee under this clause shall be subject at any time to review by the Food Controller and shall be withdrawn or varied as he shall direct.

Rules as to  
sales.

10. (a) Except on a sale by retail no fish shall be sold in cuts.

(b) On sales by retail the following provisions shall have effect :

(i) Where a maximum price is for the time being prescribed for a cut, such price shall apply only to the sale of a portion of the fish not exceeding one half of the whole fish and not including any part of the head.

(ii) Where a maximum price is for the time being prescribed for a headed fish, such price shall apply only to the sale of a headed and gutted fish.

(iii) The maximum price for the time being prescribed for a whole fish shall apply to all sales of the fish headed or not, gutted or ungutted, or any part of the fish except sales to which a maximum price for a cut or for a headed fish applies.

(iv) In calculating the price on the sale of a fish or a portion of a fish any broken halfpenny shall count as a half-penny.

(c) In the case of any sale a person may sell fish otherwise than by weight provided that the maximum price is not exceeded and provided he weighs the fish if so required by the buyer.

11. (a) Where a person makes a declaration in writing to a producer that he is desirous of buying any fish for the purposes of bait, the producer shall, against payment in cash of the maximum price, fill any order placed with him by such person before selling any such fish in favour of any other person.

Priority of purchases for bait.

(b) A person shall not make or knowingly connive at the making of any false statement in any such declaration, or use any fish supplied thereunder except as bait.

12. Every person selling fish by retail shall keep posted in a conspicuous position, so as to be visible to all customers throughout the whole time during which fish are being sold or exposed for sale, a notice showing in plain words and figures the maximum price for such fish for the time being in force under this Order, and also the actual price at which fish are at such times being sold by him.

Notices.

(b) This clause shall not apply to a fisherman selling his own fish to consumers otherwise than at a shop.

13. Where the Food Controller is of opinion that under any contract subsisting on the 25th March, 1918, fish cannot be sold at a reasonable profit by reason of the maximum prices fixed by this Order, the Food Controller may, if he thinks fit, cancel such contract or modify the terms thereof in such manner as shall appear to him to be just.

Contracts.

14. No person shall, in connexion with the sale or proposed sale or disposition of fish, enter or offer to enter into any unreasonable or artificial transaction.

Fictitious transactions.

15. For the purposes of this Order the expression 'Producer' means—

Definitions.

(i) The catcher or his employer ;

(ii) The owner or tenant of the fishery on which the fish was caught.

The expression 'his own fish', with reference to a producer, means fish caught by him or his employer or caught in the fishery of which he is the owner or tenant.

The expression 'Food Committee' means a Food Control Committee established in pursuance of the Food Control Committees (Constitution) Order, 1917, and the Food Control Committee appointed for Ireland by the Food Controller.

16. This Order shall not apply to sales of cooked fish by a person in the ordinary course of his trade.

Exceptions.

Revocation  
S.R. & O.,  
No. 39 of  
1918.

17. The Fish (Prices) Order, 1918, is hereby revoked as on the 25th March, 1918, without prejudice to any proceedings in respect of any contravention thereof.

Penalty.

18. Infringements of this Order are summary offences against the Defence of the Realm Regulations.

Title and  
commence-  
ment.

19. This Order may be cited as the Fish (Prices) Order, No. 2, 1918.

By Order of the Food Controller.

*W. H. Beveridge,*

Second Secretary to the Ministry of Food.

14th March, 1918.

*First Schedule.*

MAXIMUM PRICES.

FRESH FISH.

	First column.		Second column.		Third column.		
	Whole fish per stone.	Headed fish per stone.	Whole fish per stone.	Headed fish per stone.	Whole fish per lb.	Headed fish per lb.	Cuts per lb.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1. Bass . . . . .	12 6	—	14 9	—	1 4	—	—
2. Bream, fresh and salt water . . . . .	8 6	—	11 3	—	1 0	—	—
3. Brill . . . . .	23 6	—	27 0	—	2 4	—	3 0
4. Carp . . . . .	12 3	—	15 0	—	1 4	—	—
5. Cats . . . . .	4 9	—	6 0	—	—	—	—
5a. Cats skinned . . . . .	—	10 6	—	12 9	—	1 2	1 4
6. Coal or Saithe gutted . . . . .	7 6	9 0	9 9	12 0	0 11	1 1	1 4
6a. Coal or Saithe ungutted . . . . .	6 9	—	8 9	—	0 10	—	—
7. Cod gutted . . . . .	9 9	12 3	12 0	15 3	1 1	1 5	1 8
7a. Cod ungutted . . . . .	8 9	—	10 9	—	1 0	—	—
8. Char . . . . .	20 0	—	23 6	—	2 0	—	—
9. Chub . . . . .	11 3	—	14 0	—	1 3	—	—
10. Dabs . . . . .	9 9	—	12 0	—	1 1	—	—
11. Dace . . . . .	7 6	—	9 6	—	0 10	—	—
12. Dogfish . . . . .	4 0	—	5 6	—	—	—	—
12a. Dogfish skinned . . . . .	—	10 0	—	12 6	—	1 0	—
13. John Dory . . . . .	9 9	—	12 0	—	1 1	—	—
14. Eels, freshwater . . . . .	20 0	—	23 6	—	2 0	—	—
15. Eels, Conger . . . . .	7 6	—	9 9	11 9	0 11	1 1	1 3
16. Flounders . . . . .	9 9	—	12 0	—	1 1	—	—
17. Grayling . . . . .	12 3	—	15 0	—	1 4	—	—
18. Red Gurnards or Lat- chets . . . . .	6 9	—	9 0	—	0 11	—	—
18a. Gurnards . . . . .	5 0	—	7 3	—	0 9	—	—
18b. Gurnards skinned . . . . .	—	—	—	15 0	—	1 4	—
19. Haddocks gutted . . . . .	9 9	12 3	12 0	15 3	1 1	1 5	1 8
19a. Haddocks ungutted . . . . .	8 9	—	10 9	—	1 1	1 5	1 8
20. Hake gutted . . . . .	9 9	11 6	12 0	14 6	1 1	1 4	1 7

## First Schedule—continued.

	First column.		Second column.		Third column.		
	Whole fish per stone.	Headed fish per stone.	Whole fish per stone.	Headed fish per stone.	Whole fish per lb.	Headed fish per lb.	Cuts per lb.
20a. Hake, ungutted . . . . .	<i>s. d.</i> 8 9	<i>s. d.</i> —	<i>s. d.</i> 10 9	<i>s. d.</i> —	<i>s. d.</i> 1 0	<i>s. d.</i> —	<i>s. d.</i> —
21. Halibut . . . . .	23 6	—	27 0	—	2 4	—	3 0
22. Herrings, freshsprinkled or roused . . . . .	4 6	—	6 3	—	0 7	—	—
23. Ling, gutted . . . . .	8 6	10 6	10 9	13 0	1 0	1 3	1 6
23a. Ling, ungutted . . . . .	7 9	—	10 0	—	0 11	—	—
24. Mackerel . . . . .	5 6	—	7 6	—	0 8	—	—
25. Megrim . . . . .	12 0	—	14 6	—	1 4	—	—
26. Monk or Angler . . . . .	2 6	—	3 0	—	—	—	—
26a. Monk or Angler, skinned . . . . .	—	8 6	—	10 9	—	0 11	1 2
27. Mullet (Red) . . . . .	27 6	—	31 6	—	2 9	—	—
28. Mullet (Grey) . . . . .	12 3	—	14 6	—	1 3	—	—
29. Perch . . . . .	8 6	—	11 3	—	1 0	—	—
30. Pike or Jack . . . . .	12 3	—	15 0	—	1 4	—	1 10
31. Pilchards . . . . .	4 6	—	6 3	—	0 7	—	—
32. Plaice . . . . .	16 0	—	19 0	—	1 8	—	2 2
33. Pollen, Powen, or Ven- dace . . . . .	12 3	—	15 0	—	1 4	—	—
34. Pollack or Lythe gutted . . . . .	7 6	9 0	9 9	12 0	0 11	1 1	1 4
34a. Pollock or Lythe un- gutted . . . . .	6 9	—	8 9	—	0 10	—	—
35. Roach . . . . .	6 6	—	8 6	—	0 9	—	—
36. Roker . . . . .	5 9	—	8 0	—	—	—	—
36a. Roker (Wings) . . . . .	—	11 9	—	14 0	—	1 3	1 5
37. Salmon, including Grilse . . . . .	35 0	—	37 6	—	3 0	—	4 0
38. Skate . . . . .	5 9	—	8 0	—	—	—	—
38a. Skate (Wings) . . . . .	—	11 9	—	14 0	—	1 3	1 5
39. Soles and Slips . . . . .	34 0	—	38 0	—	3 2	—	—
40. Soles (Lemon) . . . . .	19 0	—	22 0	—	1 11	—	—
41. Sprats . . . . .	3 9	—	5 3	—	0 6	—	—
42. Sturgeon . . . . .	21 0	—	24 6	—	2 0	—	3 6
43. Shad . . . . .	14 0	—	17 0	—	1 6	—	—
44. Tench . . . . .	12 3	—	15 0	—	1 4	—	—
45. Trout, fresh and salt- water . . . . .	35 0	—	37 6	—	3 0	—	4 0
46. Turbot . . . . .	23 6	—	27 0	—	2 4	—	3 0
47. Tusk (gutted) . . . . .	8 6	10 6	10 9	13 0	1 0	1 3	1 6
47a. Tusk (ungutted) . . . . .	7 9	—	10 0	—	0 11	—	—
48. Whiting & Pout (gutted) . . . . .	9 9	12 3	12 0	15 0	1 1	1 5	1 8
48a. Whiting and Pout (un- gutted) . . . . .	8 9	—	10 9	—	1 0	—	—
49. Witches . . . . .	19 0	—	22 0	—	1 11	—	—
50. All other fresh fish not specified above or in Fourth Schedule . . . . .	6 0	—	7 6	—	0 8	—	—

## Second Schedule.

## SMOKED AND CURED FISH.

	First column.	Second column.	
	Per stone.	Whole fish per lb.	Cuts per lb.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1. Smoked Cod . . . . .	20 0	1 9	—
2. Smoked Haddock . . . . .	20 0	1 9	—
3. Kippered Herring . . . . .	10 9	0 11	—
4. Bloatered Herring . . . . .	8 6	0 9	—
5. Herrings filleted (smoked or pickled) . . . . .	11 6	1 0	—
6. Pickled, cured, or spiced Herrings . . . . .	Fixed by Pickled Herrings Order.	0 6	—
7. Red Herrings and smoked Herrings other than those already mentioned . . . . .	7 0	0 8	—
8. Smoked Mackerel . . . . .	7 0	0 8	—
9. Mackerel filleted (smoked or pickled) . . . . .	11 6	1 0	—
10. Pickled, cured, or spiced Mackerel . . . . .	5 0	0 6	—
11. Smoked Pilchards . . . . .	7 0	0 8	—
12. Pickled, cured, or spiced Pilchards . . . . .	5 0	0 6	—
13. Smoked Sprats . . . . .	7 0	0 8	—
14. Pickled, cured, or spiced Sprats . . . . .	5 0	0 6	—
15. Dry salted fish, other than those specified above . . . . .	15 0	1 3	1 6
16. Wet salted fish of all descriptions. . . . .	11 3	0 11	1 1
17. Smoked fish fillets of all kinds, other than those specified above . . . . .	19 6	1 6	—
18. All smoked fish not specified above or in the Fourth Schedule . . . . .	16 0	1 4	—

## Third Schedule.

## FROZEN FISH.

	First column.	Second column.	
	Per stone.	Whole fish per lb.	Cuts per lb.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1. Halibut (headed and trimmed) . . . . .	21 0	1 8	2 0
2. Salmon, including Grilse . . . . .	25 6	2 2	2 9
3. Salmon, including Grilse (headed). . . . .	28 0	2 4	2 9
4. Trout . . . . .	25 6	2 2	2 9
5. Trout (headed) . . . . .	28 0	2 4	2 9
6. Cod (headed) . . . . .	9 6	0 11	1 1
7. Haddock (headed) . . . . .	9 6	0 11	1 1
8. Herring . . . . .	7 6	0 8	—
9. Flat fish other than Halibut (headed) . . . . .	11 0	1 0	1 2
10. All frozen fish not specified above . . . . .	9 6	0 11	1 1

*Fourth Schedule.*

## UNCONTROLLED.

## PART 1.—FRESH FISH.

1. Crustacea of all kinds.
2. Fresh fish roes.
3. Shell fish of all kinds.
4. Whitebait.
5. Smelts.

## PART 2.—SMOKED AND CURED FISH.

1. Smoked or pickled fish roes.
2. Smoked, kippered or pickled Salmon and Grilse.
3. Smoked, kippered or pickled Trout.

## PART 3.

1. Fish paste.
2. Preserved fish not mentioned in any of the foregoing Schedules, and Canned Fish.







## APPENDIX XIV

## SCOTTISH FISHERY HARBOURS

STATEMENT SHOWING AMOUNT OF ADVANCES MADE FROM THE DEVELOPMENT FUND IN AID OF HARBOUR IMPROVEMENT SCHEMES

Harbours.	Grants and loans made.
	£
Berwick-on-Tweed . . . . .	11,000
Buckie . . . . .	98,500
Cromarty . . . . .	2,250
Cullen . . . . .	4,600
Eyemouth . . . . .	10,900
Findochty . . . . .	3,000
Fraserburgh . . . . .	40,000
Gardenstown . . . . .	8,000
Lerwick . . . . .	7,500
Lossiemouth . . . . .	12,000
Macduff . . . . .	33,000
Portknockie . . . . .	6,000
Port Seton . . . . .	1,250
Stonehaven . . . . .	13,500
Ullapool . . . . .	3,850
Whitehall (Stronsay) . . . . .	10,000
Wick . . . . .	36,260

## APPENDIX XV

FISHERY BOARD FOR SCOTLANDDEMOBILIZATION

Drifter ' .—Part Owners now on Service.

---

Surname Christian Names  
 Official Number Rating  
 Branch of Service—  
 (R.N., R.N.R., R.N.R. (T.), &c., &c.)  
 Ship or Establishment where serving  
 Rating in vessel when fishing  
 Home Address  
 Year of Birth Whether married or single  
 Number of children under 16  
 Date of joining Service  
 Names of any other Part Owners of  
 drifter referred to who are—  
 (a) On Service  
 (b) Now fishing

Date \_\_\_\_\_

## APPENDIX XVI

## FISHERY BOARD FOR SCOTLAND

## PIVOTAL MEN

APPLICATION FOR RELEASE FROM FORCES IN ADVANCE OF GENERAL  
DEMOBILIZATIONSurname Christian Names  
(in full)

Official or Regimental Number

Rank or Rating

If in Army or R.A.F.

Unit

Expeditionary Force  
or CommandIf in Navy.

Branch of Service (R.N., R.N.R., R.N.V.R., &amp;c.)

Ship or Establishment where serving

Name and Address of Employer

Precise statement of work for which man is required, special qualifications of man for such work, and grounds for claim that man is 'pivotal'.

Is post for which man is desired at present occupied, and, if so, by whom?

(Signed) \_\_\_\_\_

Date \_\_\_\_\_

APPENDIX XVII

FIG 1. SHOWING NUMBERS OF SAIL, STEAM, AND MOTOR VESSELS EMPLOYED IN THE SCOTTISH FISHERIES DURING EACH OF THE YEARS 1905 TO 1919

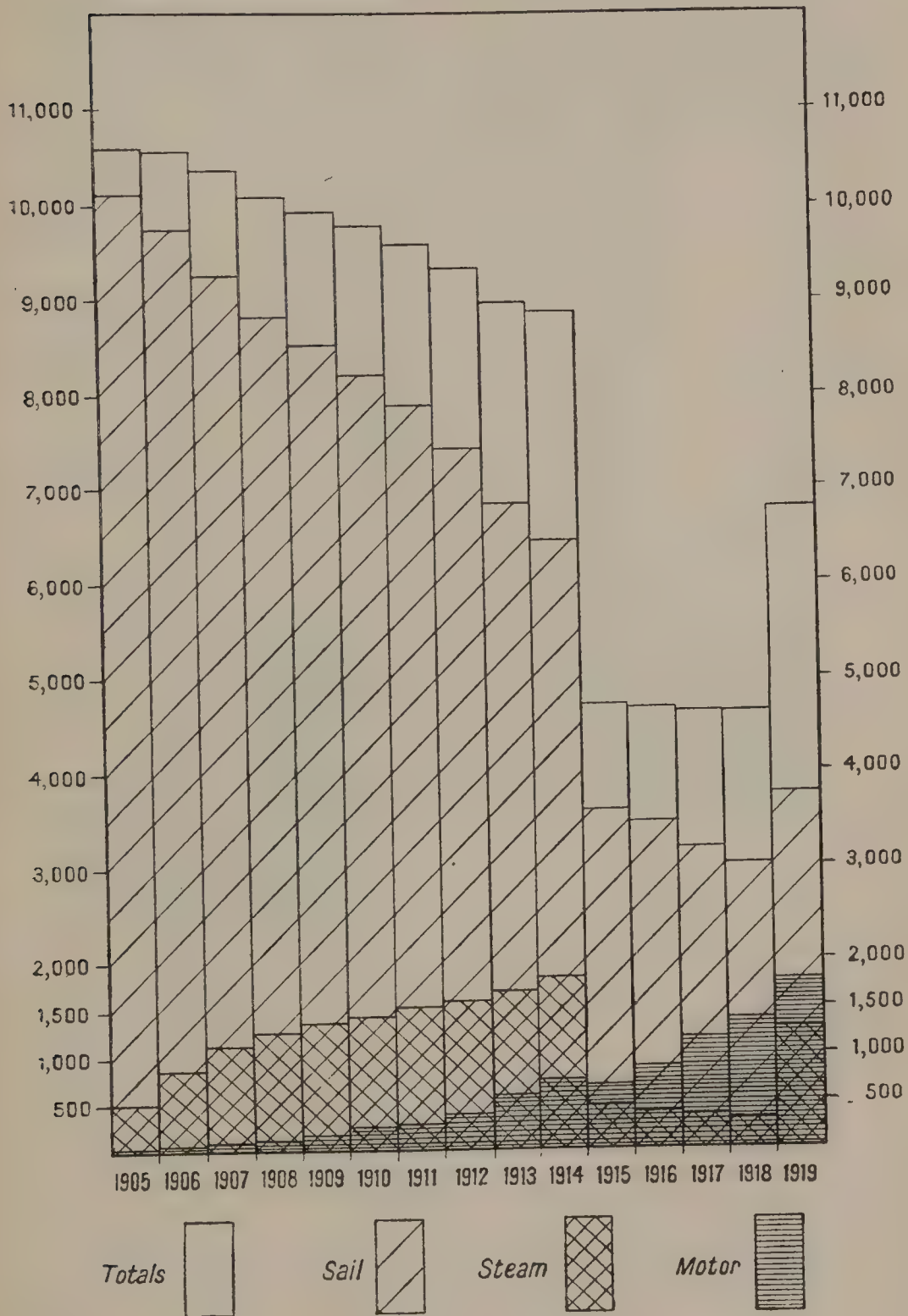
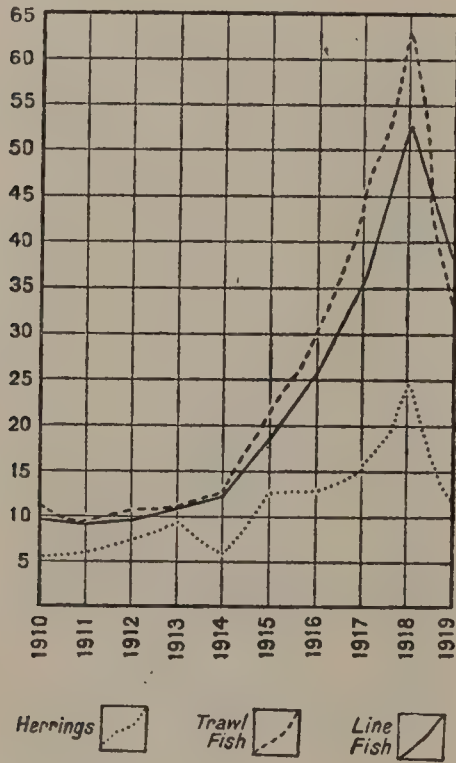
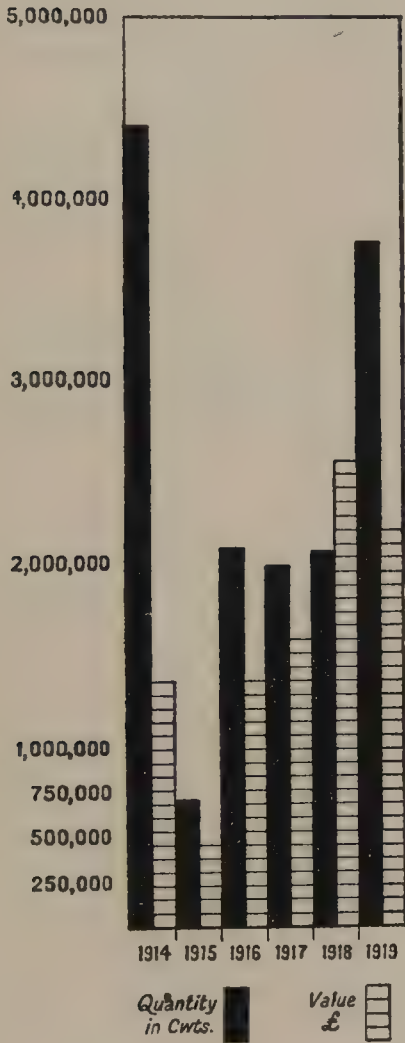


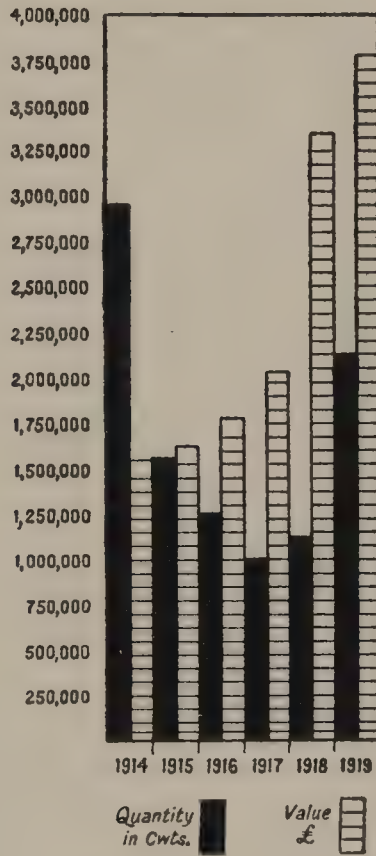
FIG. 2. SHOWING VALUE IN SHILLINGS PER CWT. OF HERRINGS, TRAWL FISH, AND LINE FISH FOR EACH OF THE YEARS 1910 TO 1919



**FIG 3. SHOWING QUANTITIES AND VALUES OF HERRINGS LANDED IN SCOTLAND DURING EACH OF THE YEARS 1914 TO 1919**



**FIG. 4. SHOWING QUANTITIES AND VALUES OF WHITE FISH LANDED IN SCOTLAND DURING EACH OF THE YEARS 1914 TO 1919 (EXCLUDING HERRINGS, SPRATS, SPARLING, AND MACKEREL)**







**III**

**AGRICULTURE**

**WITH SPECIAL REFERENCE TO**

**FOOD PRODUCTION**

**BY**

**H. M. CONACHER**

## CHAPTER I

### PHYSICAL CONDITIONS OF SCOTLAND IN RELATION TO AGRICULTURE

Physical features of Scotland : geological formation : the Cairngorms : effect of soil and climate on agriculture : principal agricultural districts.

FROM the point of view of the agriculturist it might almost be said that Scotland is not one country but several countries. In an area of 19 million acres it is unusual to find such diverse conditions of soil, altitude, and climate. Ultimately this variety depends upon physical and geological conditions, and it is the purpose of the present chapter to sketch these as a preparation for the discussion of Scottish food production as it was before the war and in relation to the changes in it since 1914.

The physical structure of Scotland is complicated, but capable of being described by selecting its leading features. There are two 'massifs' running from south-west to north-east across the country, more or less parallel, at a mean distance of sixty miles, the northern 'massif' being called the Grampians, and the southern, the Southern Uplands. The latter stretches roughly from the south-west of Ayrshire to St. Abbs Head in Berwickshire, and the former from the north of the lower Clyde (near Greenock), nearly to Aberdeen. Between these two 'massifs' lies the midland valley which itself contains several ranges of hills, mainly composed of igneous rocks.

The midland valley is the populous, industrial part of Scotland. Its main formations are carboniferous limestone and coal measures, with a long band of old red sandstone lying between these and the Grampian escarpment. The midland valley contains such relatively extensive lowland areas, all having an agricultural value, as the Lothians, lying between the east part of the Southern Uplands and the Firth of Forth ;

Fife, lying between the Firths of Forth and Tay; Stirling; the greater part of Perthshire; and Forfar, lying south of the Grampians and mainly between them and the Firth of Tay and the east coast; the Lower Clyde Valley forming the counties of Lanark and Renfrew, and the long crescent-shaped plain of Ayrshire based on the west coast of the mainland south of the Clyde. South of the Southern Uplands are two lowland areas:

1. On the east the basin of the Tweed lying between them and the Cheviots.
2. On the west a long stretch of country between the Uplands and the Solway, parcelled out into several river valleys and fading away to the south-westward in the moors of Galloway.

The northern part of Scotland is different in character—the Grampians cover a much broader area than the Southern Uplands; they are in fact a great plateau which sinks down in a north-westerly direction and is divided from the more northern plateau of Scotland by the Great Glen, which again is one of the great features of the country. It is not quite parallel to the Midland Valley, as it lies more north and south. At its south end it meets Loch Linnhe, a long sea loch, covering the submerged continuation of the Great Glen, and extending about thirty miles from Oban to Fort William. The northern end of the Great Glen is part of the basin of the Ness—the long inland Loch Ness covering the floor of the Glen for more than twenty miles—and ends in the inner Moray Firth. The northern and north-western part of Scotland is thus a peninsula, with a plateau running north and south and having the watershed generally near the west coast. The eastern side of the plateau is dissected by a number of rather short rivers.

It will thus be seen that the main lowland areas in Scotland are in the midland valley and along the east coast. There is little plain country in Scotland; the greater part of the larger river valleys is usually relatively narrow. Except the Clyde, the important river basins are on the east coast, e. g. the Tweed, Forth, Tay, Dee and Don, Spey and Ness. In estimating

the various agricultural districts of Scotland it is important not to lose sight of the northern lowlands, as they may be called, i. e. Aberdeenshire and the stretch of coast land on the south side of the Moray Firth and again on the north-west side of the inner Moray Firth, the latter area containing the Black Isle and Easter Ross districts of Ross-shire and the Inverness district of Inverness-shire, and the county of Nairn is one of the best agricultural districts of the country. The soil is good, and the Moray Firth gives a very equable climate; the area is also sheltered from all but north-east winds. Further north again Caithness and Orkney are lowland counties, where farming is good. The sea tempers the climate, but the districts are much exposed to wind.

Apart from actual structure as determined by geological forces, the composition of the different kinds of rocks goes some way to determine the fertility of different districts. Geologically, Scotland is a complicated area or group of areas.

1. The long northern plateau west of the Great Glen and the greater part of the Grampian plateau, which meets it, are composed of the metamorphic rock of the Highlands, Schistose rock, predominantly Gneissose. In both areas, especially in the Grampian area, great masses of granite occur. The whole of the Dee basin, including in its northern part the Cairngorms, the highest range of mountains in Scotland, is of this formation. Another mass occurs in West Perth and North Argyll, including the moor of Rannoch and the mountains south of Glencoe to Ben Cruachan.
2. The Southern Uplands are composed mainly of Silurian and Ordovician rocks.
3. The midland valley is composed mainly of carboniferous limestone, coal measures, a long stretch of old red sandstone lying immediately under the Grampian escarpment, and a number of ranges of hills of various kinds of igneous rocks—certain areas of old red sandstone also occur.

4. The Moray Firth area, apart from the Highland metamorphic rocks, which come fairly near the coast line at places, has a long stretch of red sandstone from Caithness to the Ness basin (Orkney also being composed of this formation), and a similar but narrower one along the south side of the Firth.
5. South of the Southern Uplands :
  - (a) The Tweed basin has a good deal of the carboniferous limestone, which 'overflows' from the north of England, and of old red sandstone.
  - (b) Near the inner Solway the carboniferous limestone with some Permian and Trias strata occupy limited areas.
6. The Outer Hebrides and the west coast of the mainland from the point nearest Skye to Cape Wrath contain :
  1. Gneiss in the Outer Hebrides and on the mainland, and in Coll and Tiree.
  2. Torridonian sandstone on the mainland, south-east of Skye and Islay.
  3. Igneous rocks in Skye, Rum, and Mull.

The best agricultural land in Scotland is to be found mainly on the old red sandstone and on the carboniferous limestone, and particularly on the former. Conspicuous instances are the large valley, called Strathmore, parallel with the Grampian escarpment, and stretching through a great part of Perthshire and Forfarshire to the sea, the Black Isle and Easter Ross, Orkney, parts of Lanarkshire and Ayrshire, a section of the middle Tweed basin cutting over to the sea-shore of East Lothian, all good agricultural areas on the 'old red'.

The carboniferous limestone is prominent in the Lothians, Fife, Lanark, and Berwickshire, all areas of good arable cultivation, the Lothians in particular being commonly regarded as a district which has few equals for high farming in Great Britain.

From the existence of the two great mountain regions in the north and south of Scotland it will be obvious that a great part of the country, so far as available at all for agricultural purposes, must be used for pastoral farming. This is borne

out by official statistics. Out of a total area of 19 million acres (about three-fifths of the area of England and Wales), rather less than 5 million acres are under crops and grass; about 9 million acres are mountain and heath land used for rough grazing; the other 5 millions, apart from urban land, being the rest of the mountain area, of which no productive use apart from plantations is made.

The million acres of mountain grazings take the form of large hill sheep runs, mainly of unenclosed land, having attached to them some low ground to provide wintering for such parts of the flocks as are kept all the year round, part of the low ground near the farm-house being reclaimed and enclosed for hay meadows and a little cultivation.

During the past generation a considerable mountain area in the Highlands was cleared of sheep and converted into deer forests, about  $1\frac{1}{4}$  million acres being thus dealt with in the northern counties of Argyll, Inverness, Ross and Cromarty, Sutherland and Caithness, between the years 1883 and 1908. Altogether about  $3\frac{1}{2}$  million acres of land in Scotland, according to a Parliamentary Return made in 1912, were diverted to sport. It will be noticed that this area covers the greater part of the unproductive mountain area. They do not, however, coincide; for within the sporting area is included a considerable number of grouse moors, on which sheep are also grazed, as is commonly done in the south of Scotland.

In this relatively high latitude the existence of great Highland areas in a northern country would seem to give little prospect of much agricultural production. The climate, however, is warmer than it otherwise would be through the influence of the Atlantic drift, which at the same time makes the west coast damp, especially as the neighbourhood of mountains to the west coast (anywhere north of the Clyde and again in the south-west) causes the moisture-laden clouds from the Atlantic to break in heavy rainfall. It is noteworthy that the Ayrshire coast being the one place along the whole of the west coast which has a fairly broad stretch of plain country, has a lower rainfall than any other part of the west coast.

As the prevailing winds over the year are west (the east wind showing itself mainly in the spring and being a dry wind), and as the moisture of the clouds is more or less exhausted during their passage over the high ground, the east coast of Scotland has a dry climate, which combines with other factors to favour arable farming.

The west of Scotland accordingly is given over more to grass farming. This fact has been turned to good use; the milk required by the large industrial population of the Clyde valley is supplied by the dairying industry, which has grown up on the good grass lands of Ayr, Lanark, and Stirling. Hence the existence of a great market has confirmed the agricultural community in the use of a large area of land, for which it is fitted by nature.

Another natural condition, which has combined with those aforementioned to make stock raising and dairying the main features of Scottish agriculture, is that the main cereal crop—oats—(wheat and barley not being extensively grown) is not one that is now used mainly for human consumption. As the standard of living has gone up the Scots people have taken to substitute wheat flour for oatmeal—just as other mountaineers have done who formerly lived more on the cereal which they could grow in their own neighbourhood. To-day, then, a considerable part of the oats grown in Scotland is used for feeding stock.

The main arable districts are in the basins of the east coast rivers, the Tweed, Forth, and Tay; in the north-east, i. e. Aberdeenshire and the strip of coast round the Moray Firth, in the lower Clyde valley, the Ayrshire plain, and the lowlands on the Solway. Except in a few districts such as the Lothians, arable farming is combined with stock raising, and the crops raised for direct human consumption are limited, the chief being potatoes, of which in a good year one million tons are produced, and oats reaching about three-fourths of a million tons; barley and wheat between them will not come to much more than a quarter of a million tons, but this is probably more than the actual amount of oats eaten by human beings.



The country might be divided into six main agricultural districts or regions :

1. *South-east*—Lowland areas between the English border and the Tay—arable farming in which the growth of crops for human consumption is the prominent feature.
2. *North-east*—Lowland areas north of the Tay, including the similar areas round the Moray Firth and Orkney—arable farming associated with stock breeding and feeding. In some of these areas the growth of food-stuffs is important, as in Forfarshire, where wheat, barley, and potatoes are grown, wheat in East Perthshire, oats in Aberdeen and Banff, barley in Banff and Moray, oats and potatoes in Easter Ross and Black Isle. Easter Ross is the most northerly district where wheat is grown, about 2,000 acres having been sown in 1918.
3. *West*—Lanark, Ayrshire, Renfrew, parts of Argyll and Stirling—dairying and cropping.
4. *South-west*—the lowland area along the Solway from the English border to Wigtown—arable farming, especially in the Nith valley ; cattle grazing and dairying.
5. Pastoral farming in the Southern Uplands.
6. Pastoral farming in the Highlands and Hebrides, and cattle grazing mainly by 'crofters'.

## CHAPTER II

### GENERAL ECONOMICS OF SCOTTISH AGRICULTURE (WITH SPECIAL REFERENCE TO CONDITIONS CREATED BY THE WAR)

Nature largely determines the character of Scottish agriculture : the unit of organization : size of farms : tenure of farms : smaller shrinkage of cultivated area in Scotland than in England during the time of agricultural depression : emigration of farm workers.

NATURE has done so much to determine the character of Scottish agriculture that the social factors of Scottish rural economy are less important than they would otherwise be. Scotland having always been a thinly populated country, the unit of her rural economy is the farm rather than the village. The 'estate' may be regarded as a more incidental unit ; in fact the joint occupation by a single tenant of several linked farms, including both hill farms and low ground farms, constitutes more of an economic organism than the ordinary estate. Occupying owners are few, and large tracts of country, especially in the Southern Uplands and Grampians, belong to single owners. In the crofting counties lying west and north of the Grampians the estate system has not the same implication as in England and the rest of Scotland. On the smaller holdings in these counties, which are found in groups or townships with common grazings, the permanent improvements are provided by the tenants, who are known as crofters, and a system of dual ownership accordingly prevails. In these counties the other agricultural subjects are hill sheep farms or sheep runs, which require very little outlay for equipment, and the rest of the land is in deer forests. Elsewhere the proprietor provides the 'fixed capital' much as in England, and a good deal of equipment is maintained, except that north of the Tay the accommodation for the workers on the farm is of poor quality.

In the south-east of Scotland there are larger arable farms than elsewhere. Thus in Berwick and Roxburgh and East Lothian farms above 300 acres are more numerous than those between 150 and 300, but in Midlothian, West Lothian, Fife, Perth, Forfar, the latter class is twice or three times as numerous as the former. Further north in Aberdeen, Kincardine, and Banff farms above 300 acres are rare, and the great majority are under 150 acres. The same is fairly true of the arable districts round the Moray Firth. In the western counties again, Lanark, Renfrew, Ayr, Dumbarton, the largest class of farms is made up of those between 100 and 300 acres. In the south-west the large farm is rather more common than in most other districts. Hill sheep farms in districts five and six usually having very little enclosed land, and that chiefly in hay meadows and other permanent grass 'parks', run to thousands of acres—sometimes 30,000 acres—and are usually valued according to the 'carry' of sheep, which is usually one to every two acres in the fifth district, and may be as low as one to five acres in the sixth district. It is not unusual for a number of such farms to be in the occupation of a single farmer.

The majority of farms in Scotland are occupied by tenants, and are let on leases varying from fourteen to nineteen years in duration. The ploughmen, cattlemen, and shepherds live on the farm either in cottages, or, if they are single men, being boarded with the farmer in the smaller farms, or housed in a 'bothy' or joint dormitory and living room of a rather uncomfortable character near the farm-house on the larger farms in the districts north of the Tay. As the chief arable districts in Scotland are near industrial areas, the wages of farm labourers have usually been high in these districts, and the Scottish farm 'servant', as he is called, is a skilled and competent workman. In the more remote districts, however, and in the north-east and south-west, wages were low before the war.

Small farms are most numerous in the part of Scotland north of the Tay, Aberdeenshire having a great number. In

the so-called crofting counties, i. e. the Highland counties of Argyll, Inverness, Ross and Cromarty, Sutherland and the northern counties of Caithness, Orkney and Shetland, the smallholders, as already stated, are called crofters, and since 1886 have enjoyed a statutory tenure similar to that conferred upon the Irish farm tenants by the Irish Land Act, 1881.<sup>1</sup> On the west coast of the mainland in these counties and in the Hebrides and Shetland the crofters live in 'townships' composed of a number of grouped holdings, of which the arable land is held in severalty, having attached to them a common hill grazing. Thus a highland glen and the hill attached to it may be either a crofter township, a large sheep farm, or a deer forest. The physical unit may be the same for any one of three. On the Moray Firth side of the crofting area the holdings have more arable land and are more individual (common hill grazings being comparatively rare), and resembling rather the small holdings common in Aberdeen, Kincardine, and Banff. Since 1911 all agricultural holdings under 50 acres in extent, or not rented at more than £50, have been placed under a statutory tenure resembling the crofter tenure. Their occupiers at May 1912, and their statutory successors have a general right, subject to their compliance with certain conditions, to a renewal of their leases—any dispute as to the terms of the fresh lease being settled by the Scottish Land Court set up in that year. Provision was also made to check the absorption of such holdings in larger holdings.

The foregoing sketch is intended to show that Scottish agriculture has its own character and history, and accordingly that it might be expected that it would be affected in its own way by war conditions, and that the consequent readjustment would be different in Scotland from that in England. Scotland, in fact, is for these purposes more like the north of England with Wales than the east and south of England.

As one of the most important events in British agriculture during the war was the concerted attempt in the latter half

<sup>1</sup> They are holders from year to year with practical fixity of tenure subject to compliance with statutory conditions, hereditary succession, judicial rents, and right to compensation by the landowner for permanent improvements upon renunciation.

thereof to increase food production by increased cropping, and as the standard set was described as a ratio to the area under arable cultivation in 1888, it is useful to recall that the area under arable cultivation had in the interval shrunk much less in Scotland than in England and Wales, i. e. 10 per cent. as against 25 per cent. In 1888 the area of arable land in Scotland was 3,687,000 acres, and in 1913 3,300,000 acres. This is due to the fact that in Scotland the growth of cereal crops had played a smaller part in arable cultivation than in England. Little wheat was grown and only a limited amount of barley. The actual length of the rotation is longer in Scotland, averaging about  $5\frac{1}{2}$  years, or, in an important northern area like Aberdeenshire, six years. In other words, in Scotland there was a greater equality between the different elements of the rotation. Rotation grasses have always played a greater part in the rotation in Scotland than in England, and they have been more used to feed stock than in England. At the same time an English farmer having half his land under permanent grass and the rest under crop will often work the latter under a four-course rotation.

The Scottish east coast farmer will have very little permanent grass, but two-fifths or three-sixths of this farm may be under rotation grasses. Hence the decline in the area under cereal crops, especially wheat (which marked the generation before the war), less affected this style of farming than the English style.

Further, the restriction of the area under cereal crops was accompanied by a high yield of the crops, 40 bushels of wheat per acre, 38 of barley, and 40 of oats, the latter being an average between 56 or 60 bushels on the best lands and a low yield on the poor uplands. Nor did foreign competition particularly affect stock raising in Scotland. A great deal of Scots beef goes to the English markets, and its good quality would always assure it a good price. In this connexion it should be remembered that if two-fifths of the British meat supply is imported, this amount does not represent much more than would be required to feed the increase of the population during the

generation in which the fall in agricultural prices has taken place; if we take into account also the greater consumption per head of meat, the British farmer of our day has a home market equal to that which his predecessor of a generation back enjoyed when the import of foreign and colonial meat was less.

Generally, then, Scottish agriculture had less to recover than English. At the same time it would not be right to leave out of sight the diminution in the number of farm workers which was going on in Scotland before the war, especially in the years immediately preceding it, when there was a great emigration of this class every spring from the Clyde. This movement involved serious loss to Scottish agriculture, which is founded on a skilful application of capital and skilled labour. Among the Scots farm servants nearly every individual is a valuable agent of production. It was less customary to fasten on this loss than on foreign imports as harming Scots agriculture, being a more purely economic and less political factor; but undoubtedly the growing scarcity of labour was leading farms in good arable districts to be laid down in grass.

On the other hand it should be kept in view that food production in Scotland in one branch was always carried on with a minimum of labour, i. e. hill sheep farming. There are normally about 7,000,000 sheep in Scotland just after the lambing season, and according to the 1911 census about 9,000 shepherds as compared with 6,000 gamekeepers. There can be few cases in Western Europe of as much stock being raised by the labour of so small a number of men. Accordingly it became a matter of importance during the war to keep hill shepherds as much as possible at their calling, and not send them into the Army.

## CHAPTER III

### IMPORTS OF AGRICULTURAL PRODUCTS INTO SCOTLAND AND EXPORTS THEREFROM BEFORE AND DURING THE WAR

Wheat : barley : oats : other products : exports.

IN order to gauge the full effect of the war upon Scottish agriculture one needs to know something of the food-stuffs imported into the country. The tables of imports printed as Appendix I to this account, furnished by the kindness of the Commissioners of Customs and Excise, give the facts as regards the more important articles. Glasgow and Leith are the chief ports; the imports at the others are negligible. Wheat and wheat flour are the most important. As cereals are too bulky to be carried by rail, Scotland obtains the greater part of her imported food-stuffs directly and not through English ports. Hence the figures of imports at the chief Scottish ports will account almost entirely for the imports into Scotland.

It will be seen that the imports of wheat and wheat flour were well kept up during the war and at the end of it, the greater part of these coming from North America, and that in 1917 a greater quantity of wheat and wheat flour came into Glasgow than in any of the years 1913 to 1919. In any case the amount of wheat grown in Scotland is small, and no effort in 1917 or 1918 could have added materially to that amount. Hence the maintenance of the imports was of vital importance.

The imports of barley, on the other hand, fell off after 1916. Barley which was formerly imported mainly from the countries of Eastern and Central Europe, as is indicated by the relatively higher imports into Leith than into Glasgow, was used for brewing, distilling, and the coarser kinds for feeding stock. With the lapse of these imports came the slack times in the brewing and distilling industries, to a certain extent the consequence of national policy. Hence no great

effort was made to grow more barley until at the end of the war, when the farmer was more of a free agent in choosing the crops which he would grow; and the high price of barley led to an increase in this crop.

The case of oats was different. The imports into Glasgow were fairly well maintained, but those into Leith (i. e. coming from the continent of Europe) fell off. In 1915 and 1916 the total imports into Scotland fell to 200,000 cwt. as against 1,421,400 cwt. imported in 1913. The oat is the chief cereal grown in Scotland. Hence when increased production in agriculture was aimed at, this increase was sought mainly in the oat crop. In modern times the Scots oat is not grown mainly for human consumption. Scotland, like other countries which earlier had lived on an 'inferior' cereal, such as rye in many continental countries, had come to live much more on wheaten bread, as the standard of living among the multitude rose. And wheaten bread had displaced oatmeal, oat cakes, and barley cakes among the rural population—the modern industrial classes had probably never lived much on any other cereal but wheat. This displacement of oatmeal has suggested many a sentimental regret over the degeneration shown in giving up oatmeal porridge for bread and butter—but it is the kind of change which cannot be reversed, and could not have been during the war.

Maize is an important feeding stuff, the import of which was tolerably well kept up until 1918. It began to recover in 1919, but the amount imported in that year was less than half of the import in 1913. The table also includes eggs and butter, which as coming mainly from Denmark and the Baltic countries, including Russia, reached Scotland by the port of Leith. Both fell off remarkably. A large increase in the home production of these commodities could hardly be improvised during the war. This especially is true of butter, which in Scotland is never made in any but small quantities, as is natural in a country where the strong demand for fresh milk determines the relative values of the kinds of dairy produce. Under such conditions, butter is only made of surplus milk,



and it was not likely that at a time when the cost of fresh milk was going up, owing to increased difficulty in production, milk could be used in greater quantities for butter.

The exports of Scottish agricultural products (otherwise than into England and Wales) in the past have been mainly composed of pure-bred stock for breeding—and especially cattle stock. The most important breed exported was the shorthorn, and most of them went to Argentine, a smaller number to North America, and to British colonies elsewhere, viz. South Africa, Australia, and New Zealand. A small export of the Aberdeen-Angus breed was also made to Argentine before the war. Pedigree shorthorn stock is bred by a small number of big breeders in Perthshire and Aberdeenshire, and they get no little *réclame* by the high fancy prices often obtained for their bulls. This trade naturally was interrupted during the war, but it has been resumed since then. Ayrshire dairy cattle are also exported in considerable numbers to some of the northern European countries and British dominions.

## CHAPTER IV

### GENERAL STATEMENT OF THE MODIFICATIONS OF THE CONDITIONS OF SCOTTISH AGRICULTURE DURING THE WAR

Demands of the new armies for agricultural products : interruption of foreign trade : later developments : control of certain branches of agriculture.

THE influence of the war upon agriculture may be said to have shown itself in several distinct forms, and new fashions at definite stages.

1. A new consuming body (the new Army) giving effect to its demand by an additional purchasing agency to those with which the agricultural producer was familiar, and one that purchased under conditions novel to the seller, came into being. The agricultural commodities for which this body showed its demand were :

(1) horses, (2) hay, (3) food-stuffs, such as meat and potatoes, and milk, (4) wool.

In regard to (1) and (2) the agricultural community was at once a producer and a consumer, and as consumer it felt the new purchasing agency as a competitor tending to drive up prices, which tendency for the agricultural community as a whole more than compensated for the profit made out of the rise in the market price received by the favoured agricultural producers. Even for the latter the power of 'requisitioning' possessed by the new purchasing agency removed some of the features of a free market.

As regards (3) the new demand represented to a considerable extent a net addition to the effective demand for such agricultural produce, since though the members of the new armies were already members of the community, man for man they were now drawing a higher ration of the food-stuffs produced in or imported into the country.

On the whole then the formation of the new Army brought about an increased demand for agricultural produce, and tended to raise the price of agricultural produce.

2. Quite early the agricultural community, like all other groups of producers, began to feel a shrinkage of labour, through recruiting for the Army. When compulsory military service was introduced, care was taken to reserve as far as possible a sufficient number of managers and labourers for agricultural holdings.

3. The interruption of traffic with enemy countries and Russia and the diminution of foreign trade through loss and diversion of merchant shipping led to a great decrease in the import of agricultural (1) commodities and (2) requisites. In the case of (1) this process tended to raise the price of agricultural commodities produced in the country of similar character to those imported or capable of replacing goods formerly imported. In the case of (2) an increase in the cost of producing stock and crops ensued. Under (2) the principal kinds of goods affected were feeding stuffs and fertilizers. On the other hand certain by-products of industrial processes carried on in Britain, previously exported, to be used as fertilizers, to enemy countries, were now available for use in this country, as e. g. sulphate of ammonia produced in gas-making establishments. In the latter part of the war the export of such products was forbidden.

4. The aforesaid disturbances of the ordinary course of the production and sale of agricultural produce began to show themselves in the first two years of the war, and continued to occur during the latter half. Together they contributed to bring about a state of things in which the farmer realized the sale of his produce at scarcity values. It is true that the cost of production, including the wages of labour, was also rising at the same time, but this rise did not overtake the general rise in value. Probably hill sheep farmers and arable farmers were the two groups of agriculturists who in Scotland had the greatest shares in this unearned increment.

5. The wages of agricultural labourers began to rise at first

owing to the scarcity of labour and later as a necessary result of the higher cost of living.

Two further effects of a state of war were attained in the second half of the war :

1. A general effort was made to increase the production of food-stuffs, not induced simply by the attraction of high prices, but in response to an appeal by the Government of the day. Early in the war there had been a certain increase in cultivation induced apparently by the ordinary appeal which the probability of greater profits makes to the producer, but apparently owing to the shortage of labour this movement was soon spent.

2. The maximum price at which the farmer could sell certain articles of production<sup>1</sup> was fixed by an Act of State, and by similar machinery a minimum price was guaranteed him for certain products.<sup>2</sup> Further he was restrained in certain directions from acting so as to hold back produce under the discouraging effect of 'control' prices, and again assisted to overcome the increased difficulty and expense of production due to war conditions.

Generally in his dealings with the civilian consuming community he was placed during the latter part of the war in much the same position as that in which he had found himself in his dealings with purchasers for the wants of the Army from the early days. The case of wool marks the transition. The control of the trade in wool was first imposed in the course of purchases of wool for army clothing, but it was soon extended to cover the trade in wool required for the needs of the rest of the community.

The rest of this survey will be taken up mainly with considering the effect of different forms of State intervention upon different branches of agriculture in Scotland. The principal topics to be discussed are the following :

The rise in the wages of labour and the introduction of statutory minimum rates of wages (Chapter V).

<sup>1</sup> Cereals, potatoes, meat, milk.

<sup>2</sup> Wheat, oats, potatoes.

Sheep farming and the purchase of wool by the Government  
(Chapter VI).

Dairy farming and the control prices of milk (Chapter VII).

The maintenance of live stock and the control prices of  
meat (Chapter VIII).

Organized attempts to increase the amount of cereal and  
other crops (Chapter IX).

## CHAPTER V

### RISES IN THE WAGES OF SCOTTISH FARM WORKERS DURING THE WAR

Scottish farm workers and the statutory minimum rate : statutory machinery : growth of Trade Unionism : details of the rises in wages during and after the war. -

THE wages of Scottish farm workers began to rise fairly early in the war. As already noted the wages of these workers were higher in the better farming districts in Scotland than in England. This was partly because these districts in Scotland were near to industrial districts ; not that in the Lothians there has ever been much come and go between the farm workers and the miners, for the two classes keep themselves aloof. The efficiency of a Scots farm worker is nearer to that of a skilled artisan. In the north and north-east of Scotland, where the farms are smaller, the wages are lower. When the Corn Production Act, 1917, was passed, one part of it set up machinery for securing a minimum rate of wage for farm workers to induce them, as it was said, to do their part in the work of increased production. Language was used in Parliament which was meant to make the farm workers believe that their chances of higher wages (for which even apart from the war there had been some initial stirrings of opinion among the English labourers) rested on the maintenance of prices of cereals at the guaranteed levels. This was an attempt to create a feeling of solidarity of interests among the several classes engaged in agriculture. On the whole this view of things did not appeal to the leaders of opinion among the Scottish farm workers. They were more disposed to connect their clients with the general labour movement. Nor did they think that any statutory machinery for a minimum wage was wanted for Scotland. It was not so much higher wages as better housing and social conditions that were wanted in Scotland. They

pointed to the incessant movement of unmarried farm workers every year or every six months, especially in the districts north of the Tay, as evidence of restlessness and dissatisfaction among the class. They eventually secured for Scotland different machinery for fixing minimum rates of wages than that proposed by the Bill. Instead of a nominated central board, district committees were to be set up, jointly representative of farmers and workmen, with a neutral chairman, in the hope that minimum rates might as far as possible be fixed by agreement. A central wages committee, similarly composed, and elected by the district committees, was to act in cases where the district committees failed to do so. It could also disallow the findings of the district committees. Allowances in kind enter largely into the way of paying Scots farm workers. This arises from the workers living usually on the farm, and not in villages where they might buy things from shops. The farm is thus the centre of distribution for milk, potatoes, oatmeal, and coals. Hill shepherds also have the right to graze a cow or two. The committees were to fix money values on these rights and allowances according to principles laid down by the central committee. It can be imagined by anybody knowing the Scottish love of detail and hair-splitting with what zest the committees did this part of the work. The fixing of minimum rates of wages was guided largely by increases in the cost of living. Differences, so far as they survived, between the statutory minima and standard rates represented degrees of efficiency. The farmers naturally tried to get allowances of food-stuffs supplied by them fixed at market value, while the other side contended that the cost of production was the proper basis. Wholesale prices were finally taken as the measure of money value.

Whatever other effect the creation of this machinery had, certainly it stimulated Trade Unionism among farm workers in Scotland. The rising cost of living might have done this in any case. The Scottish Board of Agriculture, however, in recognizing duly formed District Wages Committees, found themselves in default of local electorates bound to deal with

central organizations of employers and workmen. Hence the newly formed Scottish Farm Servants' Union was led to form branches all over the country and not merely in the districts where it had begun its work. Between the years 1916 and 1919 its membership had grown from 6,000 to nearly 23,000, more than one-twelfth being women.

An inquiry was made by the Scottish Board of Agriculture in 1919 into agricultural wages and employment. The information was derived from a limited number of selected farms in different districts, but the results are believed to be valid generally. They have been worked up into a report<sup>1</sup> by Sir James Wilson, K.C.S.I., chairman of the Scottish Central Agricultural Wages Committee, from which the following particulars are taken. He gives a comparison of Scottish farm workers' wages at intervals in the present century by index numbers as follows :

Year	Index numbers		
	Yearly rates of cash wages	Extra earnings including allowances in kind	Total earnings
1900 . . .	100.0	100.0	100.0
1907 . . .	107.3	102.3	104.3
1914 . . .	122.4	106.8	114.2

It will be seen that a rise in wages had set in before the war. The inquiry brought out that in 1919 the average weekly wages of nearly 2,000 ploughmen taken from all over Scotland was 49s. 2d., as against a rate, which Sir J. Wilson reckons to have been 21s. 6d. in 1914 and 19s. 8d. in 1907. This rise just about covered the rise in the cost of living so far as it had gone up to the end of 1919.

It also appears that the variations between different parts of the country are less marked than previously—thus the south-west, which, like the north, was an area of low wages,

<sup>1</sup> Report to the Board of Agriculture for Scotland on Farm Workers in Scotland in 1919-20.



has come nearer to the level reached in the districts east and north of it. That the average has been exceeded in certain districts is clear from the table of rates of wages for ploughmen in the years 1916 to 1920 for the whole of Scotland, printed as Appendix No. 2. It may be assumed that the rates for ploughmen in the counties where they are highest will somewhat exceed those paid for cattlemen, but not for shepherds. Shepherds will be working at all ages, but cattlemen, on the whole, are older than ploughmen.

## CHAPTER VI

### THE SCOTTISH SHEEP FARMER AND GOVERNMENT DEALINGS IN WOOL

Conditions leading to control of wool supply : Scottish sheep farming : attitude of sheep farmers to control : extent of increase in cost of production : decline in sheep stock : low price of black-faced wool after the war.

THOUGH this is a survey chiefly of food production, it is difficult to pass over the dealings of the sheep farmers and the Government in wool during the war. The Scottish hill sheep farmer is an important element in Scottish agriculture. The wool and the mutton have always gone together as joint sources of profit. Though the Highland farmer no longer is able to keep his slowly maturing widders for four years before selling them to the butcher, on the whole for a generation past the mutton has been the more valuable product alike in the case of Cheviots and Black-faced sheep. During the war, however, the value of wool went up more quickly than the value of mutton, and the sheep farmer naturally began to feel a strong interest in the price of the clip. For this reason it has been thought fit to give some account of the State control of the wool trade.

A brief statement of the steps taken to control wool is contained in a memorandum handed in to the Committee of Public Accounts by Mr. U. F. Wintour, director of army contracts, dated the 7th of June 1917 (Cd. 8447).

Mr. Wintour states :

‘ The world shortage of wool which made itself felt at the beginning of 1915 made some measure of control necessary to ensure not only reasonable prices but also the satisfaction of the heavy military requirements for clothing. The home wool clip of 1916 was therefore purchased, the collection being undertaken by expert wool buyers serving for the purpose in the Department. The prices were fixed after careful

consideration at 35 per cent. above those ruling in June and July 1914. The success of this scheme, together with the fact that neutral and American demands for wool were particularly heavy, led to proposals in November 1916, for the purchase of the Australian clip. This operation, which involved an expenditure of about £35,000,000, as against £65,000,000 for the home clip, was carried out through the Australian and New Zealand Governments, which arranged a purchase price at rather less than 10 per cent. below the market price ruling at the time. There is no doubt that this control of British and Colonial wool has resulted in great economies to the State. Not only has the effect of war conditions on the market prices of raw material been largely eliminated, but the fixed price of raw material has enabled the Department to control the costs of production at every stage.'

Mr. Wintour in an appendix explains that owing to the growing needs of the new armies the contracts department of the War Office were soon forced to abandon the pre-war practice of competitive tendering for a new method of purchase, since the rise of price caused by the extensive buyings for the Army 'was further accentuated by the augmented civil demand due to increased prosperity of the working classes'. Accordingly the department were authorized

'to requisition the output of any factory on terms based on the cost of production plus a reasonable profit, and to require manufacturers to furnish, with a view to assessment of price on this basis, any information as to output, cost of production, and rate of profit earned. . . . It was impossible, however, in the excited state of the raw wool market to devise a satisfactory system of costings, since in practice, owing to the varying prices at which manufacturers had purchased their raw material, the market prices of the day had to be taken on the basis of costings.'

The department had then to take control of the raw material from this source not only with a view to regulating the price, but from the necessity of assuring supplies.

There had been no lack of wool in 1915, and stocks were carried over into 1916. In that year, however, relatively low supplies arrived in this country. Mr. Wintour cites the following as the main factors contributing to the wool shortage in 1916:

1. Reduction in world wool production by 20 per cent., or

300 million lb. The serious drought in Australia during 1914–15 reduced sheep flocks from 82 millions to 69 millions, and cattle raising and wheat growing were successfully competing with wool production in South America.

2. An unprecedented wool demand from America, resulting from the removal shortly before the war of import duties on wool and augmented by the increased purchasing power due to war prosperity.

The American operations in the colonial wool markets had in the 1915–16 season increased by almost ten times compared with the three years preceding the war, and amounted in total to almost 20 per cent. of the world's clip. Hence by the end of 1915 prices had advanced from 40 per cent. to 100 per cent., according to the quality of the wool.

The 1917 clip was bought at prices 50 per cent., and the 1918 at prices 60 per cent. above the 1914 level, these increases being designed to cover the increased cost of production.

Private dealings in wool were restored in 1919.

For some time before the war the number of sheep in Scotland, as ascertained by the annual return made to the Board of Agriculture on the 4th of June, i. e. shortly after the lambing season, was about 7,000,000 as against 17,000,000 in England and Wales. The Scotch sheep are nearly all hill sheep, and almost all of them belong to one or other of two breeds, the Cheviot and the Black-face.

There is a third breed called the Border Leicester, which is kept mainly for the breeding of rams for crossing with one or other of the two main breeds; very few flocks of this breed exist. A cross between a Cheviot ewe and a Border Leicester ram is called a half-bred, and in the lower Tweed valley and other districts in the south of Scotland this cross has become the basis of a new breed, raised mostly for its mutton. The Black-face is the more common of the two main Scottish breeds; it is difficult to say how many there are of each, but figures taken at the first census of production, 1907, seem to show that there were then about  $4\frac{1}{2}$  million Black-faces and 2 million Cheviots, the latter being found mainly in Roxburgh,

Dumfries, Peebles, Selkirk, and the northern counties of Sutherland and Caithness, while the Black-face predominate in the Highland counties of Perth, Argyll, Inverness, and Ross, and are also found in considerable numbers in the southern upland counties. Their respective numbers are of interest, as the wool of the Cheviot is much finer than that of the Black-face. Before the war the wool of the latter breed was sent mainly to the United States for making into carpets. This trade was interrupted by the war, and the Black-face flockmaster would have been hard put to it to dispose of his wool, if it had not been found possible to make use of it for various military purposes.

The Scottish flockmasters seem on the whole to have accepted the conditions, under which the War Office bought up the home clip, with tolerable good humour until 1918, when they joined in a loud protest against the price being fixed at 60 per cent. above the 1914 price, as being too low a rate. It is difficult to see on what grounds any such contention could be based except a confused feeling that 'the Government' was making a profit to which the sheep farmers were entitled, seeing that the cost of production had gone up but little on the Scottish hill sheep farm. At all times this industry is carried on at a low cost. Rents are fairly low, the sheep keep themselves on the hill grazings all through the summer, and for the rest of the year they are on the low ground or on the hill, if it is tolerably free from snow. Hay should be grown on the enclosed meadows in order to tide over winter storms, but normally the sheep farmer hardly grows enough hay for a bad winter, with such storms as occurred early in 1917. He may, therefore, have to buy hay rather dear—as it was during the war—if he is caught in bad weather towards the end of winter, but this is due to the rather improvident way in which he carries on his business. In any case his methods involve little labour, except that of tending the sheep; so that the rise in shepherds' wages was the main increase in the cost of production. They doubled during the war, i. e. roughly from 20s. to 40s. a week—but a single shepherd will look after 600 or

700 sheep. The other cause of increased cost arose from a practice, common in the Highland sheep farms and resorted to in some southern districts, i. e. of wintering such of the lambs, as have not been sold off in the autumn sales, in the low country away from the sheep farms. The wintered hogs, as they are called, are brought back again in April. The cost of 'wintering' went up during the war from 5s. to 8s. a head.

In striking the balance it must be kept in view that the price of mutton went up early in the war and remained high to the end. Altogether, the sheep farmer 'did well' out of the war.

Yet the sheep stock in Scotland had gone down in 1919 to 6,400,000 as against 7,000,000 at or round which they had stood for a number of years. This was partly due to bad winters and to severe snowstorms in spring occurring near or at the lambing season on hill farms. A very heavy snowstorm took place in the spring of 1917, and a similar one again, as late as the last week of April in 1919. In 1920 there was a distinct increase in the 'crop' of lambs, but the ewe stock had not recovered, and the figure was no higher than that of 1919. Apart from heavy winters, the loss of sheep stock is due to the sale of ewes for slaughter during the war, especially in the autumn of 1917; farmers in fact reduced their breeding stocks, being tempted by the high price of meat. The change in the disposal of black-faced wool during the war naturally raised the question whether something could not be done to improve permanently the quality of the wool.

Certainly in 1919 the prices paid for black-faced wool were much lower than those paid for most other crops of that year. The writer is indebted to a leading firm of wool brokers for the following particulars. From July until October the price varied from 15*d.* to 17*d.* a pound. For a short time in August, American buying put the price up somewhat. Up till October the demand came mainly from carpet spinners, but 'about the end of October a new demand suddenly came on the market from low woollen manufacturers. These found that they could use medium black-faced wool for warps, and that they would come in much cheaper than what they had formerly been using, i. e. strong colonial cross-breds. A few

firms bought largely, and prices firmed and quickly advanced. The larger carpet spinners then found that stocks were so reduced that they would require to cover their wants up till next clip time in order to ensure that they would have sufficient wools to run on. They had to pay advancing prices, and by the end of the year the price was over 19*d.* By June of the present year <sup>1</sup> there was practically nothing left in the market, and the price had advanced to 22*d.*'

In 1920, however, the demand for black-faced wool had been but slight, and little of it came from America. Owing to the United States Government having sold large quantities of South American wools, which they were holding, to the carpet trade, which alone were willing to take them up, this trade had on hand all the stocks that they wanted, and 'stocks on the spot for sale were very large and sufficient to carry the trade for many months'. Nor was the home demand in 1920 very brisk. The farmers, having had their hopes raised by the reports of wool brokers' canvassers early in the year, were holding out for good prices. Home users 'have been blending into their spinning more of the better skin wools and tops made from South American wools which are both finer and cheaper than can be produced from Black-faced'. Hence the prices paid during August and September were irregular, and varied from 10 $\frac{3}{4}$ *d.* to 12*d.*

This authority expresses the opinion that 'Black-faced is practically only a carpet wool. While under some circumstances some portion of the medium grown wools can be used in connexion with the lower woollen industries, this is only on occasions when strong colonial cross-breds are scarce and Black-faced happens to come in cheaper. There are also occasions when the shortest and finest grown is wanted for the tweed trade, but this demand is irregular'. Apparently even the carpet makers complain of the strong, rough, fibred wools grown so promiscuously through the breed. It is clear then that the sheep farmers would be well advised to turn their attention to the improvement of the wool of the Black-faced sheep.

<sup>1</sup> i. e. 1919.

## CHAPTER VII

### SCOTTISH DAIRY FARMING AND CONTROLLED PRICES

Dairy farming in the south-west of Scotland for milk : dairying in other parts of Scotland : details of controlled prices : rise in cost of production : decline in yield of milk : changes in organization of dairying industry in the south-west of Scotland : future control of distribution.

THE chief dairying district in Scotland is a zone near Glasgow on the south side including the county of Renfrew, North Ayrshire, and a great part of Lanarkshire. The dairy farms in this area are worked almost entirely for the production of fresh milk from herds of Ayrshire cows—the Ayrshire being the one definite milking breed in Great Britain and of little use for fattening to make beef. The soil and the climate tend to produce a good grazing land, and the great Glasgow market is near at hand. The farms are small, ranging from 60 to 120 acres. Bulls are nearly always kept and the farmers generally breed their own herds, selling off the male calves. The greater part of the farm is in permanent or long temporary pasture and a slow rotation travels gradually round all the land that is not in permanent grass. The hay crop is the chief concern of the farmer and on Ayrshire farms fields are sown with ‘ Timothy ’ grass of which a good crop is taken off the same field for several years running. Even so, considerable quantities of feeding stuffs have to be bought in to tide over the winter. The size of the farms enables them to be worked mainly by the members of the farmer’s family, so that much hired labour is not required. This class of farmer is equally industrious and skilful ; theoretical knowledge of the best kind of feeding for dairy cows is well spread among them, and stock of high quality is often found on comparatively small farms. The practice of keeping milk records has gone farther here than in most districts. As the full advantage of physical nearness to the Clyde Valley is



assured by a good system of railways, most of the milk is sold fresh and though the best-known Scottish cheese—the Dunlop—is named from the Ayrshire parish in which it was first made, the manufacture is now carried on more in parishes farther from the Clyde Valley. In this way the other branches of dairying—cheese and butter making—are more carried on in Argyllshire and Dumfries and Galloway, the Ayrshire cow being common all over the west and south-west of Scotland. A fair number of herds are kept for their milk in Dumfriesshire, the two chief valleys of that county, the Nith and Annan, lying on the main lines of the Glasgow and South-Western and Caledonian sections of the London, Midland, and Scottish Railway between Glasgow and Carlisle. Elsewhere in Scotland dairying is mainly carried on for the sake of supplying fresh milk to the populous districts, i. e. the Lothians, Fife, Dundee, and the other Forfarshire towns, and the city of Aberdeen. The milk is produced partly on suburban farms, and partly in town dairies.

Apart from Ayr and Castle Douglas in Dumfriesshire, where Ayrshire cows are the chief dairy cattle sold, the other principal markets for dairying cattle are Aberdeen, Edinburgh, Perth, Stirling, Dundee, and Dingwall. Except in Ayr the supplies of dairy cattle seem to have been well kept up at these markets during the greater part of the war.

Thus the burghs of Edinburgh, Leith,<sup>1</sup> and Dundee rely mostly on town dairies. There is much to be said against this method. The cows are in their stalls all the time, the food is all brought in; calving cows are bought and sold at the end of the lactation to the butcher, so that a continuous drain on dairy stocks is involved. The practice is thus unhealthy, costly, and wasteful. In Edinburgh Cumbrian shorthorns are bought in by the town dairymen. Aberdeen gets its milk from country farms. The mining districts of Fife and Stirling get their milk from the neighbourhood. The dairying districts in these counties are marked by a distribution of permanent grass and land under rotation similar to that in Ayrshire and

<sup>1</sup> Now incorporated with Edinburgh [1925].

quite unlike that of the east coast agricultural districts in Scotland.

The application of a system of controlled prices was more difficult for the dairying industry than for most of the others so dealt with. Apart from the necessity of adjusting prices according to the differences between the summer season when cows are out on the grass and winter when they are mainly fed indoors, it soon became plain that the differences in the conditions of dairying in different parts of the country made a uniform scale of prices impossible to impose.

The first important order dealing with the sale of milk was issued by the Ministry of Food on the 7th of September 1917; it prescribed (1) maximum retail prices of *2s. 4d.* a gallon in rural districts and *2s. 8d.* in burghal areas from the 31st of October 1917 to the 31st of March 1918, the prices during October being *4d.* a gallon less; (2) maximum wholesale prices, in the case of sales by the producer at rates varying from *1s. 5d.* to *1s. 9d.* a gallon during the season between the beginning of October 1917 and the end of March 1918; and (3) maximum wholesale prices for other sales at *1s. 8d.* a gallon during October 1917, and *2s.* a gallon from the end of October until the end of March 1918.

Later the maximum retail price was fixed at *2s. 8d.* a gallon during April 1918, *2s.* during May, June, and July, and *2s. 4d.* in August and September. The maximum prices per gallon for the two types of wholesale sales were fixed in Scotland at rates varying from *1s. 8d.* to *1s.* for the former class and from *2s. 0½d.* to *1s. 4½d.* for the latter during the time from April to September. Retail prices moved up to *3s.* a gallon for the winter of 1918-19, No. 1 wholesale prices to *2s. 3d.*, and No. 2 prices to rates varying from *2s. 6d.* to *2s. 8d.* For the summer of 1919 retail prices varied between *2s. 4d.* and *3s.* a gallon, No. 1 wholesale prices between *1s. 4d.* and *1s. 10d.*, No. 2 between *1s. 8d.* and *2s. 4d.* all according to the month. In the winter of 1919, three scales of retail prices were prescribed for Scotland, the first varying from *3s. 4d.* to *3s. 8d.* a gallon at different periods of the winter and applying to a number of burghs mostly in the

Clyde area and including Aberdeen, and several counties, including Lanark, Renfrew, Dumbarton, the second varying from 3s. 8d. to 4s. and applying to Edinburgh, Glasgow, Dundee, and Leith, and some suburban parishes in Midlothian and Forfar as well as the remote districts of Lewis and Shetland, the third (which applied to the rest of Scotland) varying from 3s. to 3s. 8d. as the winter went on, with a drop to 2s. 8d. in April.

Thus, as finally adjusted, the system of controlled prices does not seem to have worked unfairly for the Scottish dairy farmers. The process of fixing prices served to register the conditions under which dairying was carried on during the war. The increase in the cost of feeding stuffs was the chief cause of the rise in the cost of production. The Scottish dairy farmers in Ayrshire and Lanarkshire grew as much of the food for their cows as most dairy farmers, who do not practise arable dairying. The town dairymen in the east coast burghs, it is true, depend entirely on bought in foods; but in Edinburgh they get a good deal of these from local 'suburban' farmers, who keep no stock and have their farms all under crop, including intensive grain crops, and in turn take the manure from the dairies. As there is mutual interdependence between the two groups neither can make too much out of the other. The Travelling Commission of Inquiry into the cost of production of milk was appointed in October 1918 by the Ministry of Food to make inquiries into the cost of production in different districts with a view to enabling the Ministry to fix different rates and to avoid the injustice to the dairy farmers of a uniform flat rate. This Commission did not seriously question the farmers' calculations of the cost of feeding stuffs, though they pointed out that they were reckoning produce grown on their farms at market value and thus importing an element of profit into the cost of production.<sup>1</sup> Generally the Commission recommended higher prices for Scotland in certain months in order to make allowance for the later growth of grass in Scotland.

The scarcity of feeding stuffs caused a diminution in the

<sup>1</sup> Cmd. (233) 1919, paragraphs 10 and 13.

yield of milk per cow though the actual number of cows was kept up. The Travelling Commission noted that

‘in the case of Scotland the yield fell from 15 gallons per cow per week in June to 8·1 gallons in December, and the actual output of milk from 4,471,000 gallons to 1,831,000, a decline of 60 per cent. as compared with a decrease of 14·7 per cent. in the number of cows in milk in the later period. . . . The shortage of feeding stuffs, beginning with the gradual reduction in May 1917, no doubt considerably affected the yield of milk, which was also reduced by the bad quality of the purchased food.’

The increase in the area under tillage in 1917 and 1918 caused an encroachment on the seasonal grazings, called in Scotland ‘grass parks’, which are let by private treaty or public auction. Efforts were made to secure enough of this accommodation for dairy farmers whose claims were put before those of other graziers.

War conditions caused some changes in the collection and distribution of milk, as the scarcity of labour caused by recruiting made it impossible for farmers to persist in the old fashion, by which the milk from each farm was driven separately to the nearest station. It so happened that during the years before the war several co-operative dairy associations were formed in Ayrshire for the purpose of collecting the milk of their members, taking it to a depot, and sending it to the Clyde Valley. Plant for cheese-making was usually set up in the building in order to dispose of the surplus milk. In the holiday months the milk for the Glasgow customer follows him all the way from its usual source of supply down to the seaside resorts on the coast. Several more of these associations were formed during and at the end of the war in Ayr and Lanark. It is clear that this method of collecting milk tends to relieve dairy farming of one of its difficulties, i. e. the requirement that the dairyman or dairymaid shall rise at three a.m. to get the morning’s milk into the city for breakfast. Whether he is aware of it or not, the townsman now more rarely gets milk as fresh from the cow as he has always been accustomed to expect it.

Of all agricultural operations milk dairying is the one in

which the farmer has to interest himself most in the actual machinery for selling his product to the consumer. With increased cost of production and controlled prices the farmer was led during the war to devise schemes for getting rid of the middleman. Equally the middleman reacted to the stress of the situation.

The Committee on the Production and Distribution of Milk noted that in London a big milk 'trust' had been formed during the war.<sup>1</sup> Nothing of this sort has happened in Glasgow. It seems likely that the formation of co-operative dairy associations will go on in Ayrshire and Lanarkshire. The Scottish Agricultural Organization Society, which has done good work in this direction, will certainly try to quicken the movement. It may be, of course, that groups of consumers will try to acquire dairy farms. The co-operative movement among consumers is strong in the populous midland parts of Scotland, and the active and enterprising Co-operative Wholesale Society, which supplies local co-operative societies, is always on the look out for fresh productive undertakings which it can take up. It has already acquired a certain number of farms in different parts of Scotland. At the same time dairy farming does not lend itself to being done on a big scale by a company. Experience shows that the small farm of about 100 acres is the best unit for dairying. In no branch of agriculture is it more necessary that the bulk of the work should be done by the working farmer and his family. This being so, economic handling of milk for collection and distribution will best be secured by co-operation among producers. The town dairyman of course normally deals directly with the consumer. Most authorities are agreed that the system of town dairies prevalent in Edinburgh, Leith, and Dundee should be abandoned; but there are no obvious signs that the war has done anything to hasten their end; and at least they do without the middleman, but any economy here tends to be lost by the uneconomic methods imposed on the dairyman in his effort to combine production and distribution.

<sup>1</sup> Report (Cmd. 483) 1919, paragraph 79.

## CHAPTER VIII

### THE MAINTENANCE OF LIVE STOCK AND THE RATIONING OF MEAT

Maintenance of live stock in Scotland secured apart from Government control : general decline in British sheep stock before the war : variations in Scottish sheep stock during and after the war : control of home-killed meat : live stock of Scotland after the war : prices of meat.

APART from the decreases in sheep and pigs, British live stock was well kept up through the war—better, in fact, than among the other European allies and much better than in the enemy countries. In Scotland sheep have decreased less than in England and pigs have always been a negligible form of stock in Scotland. This maintenance is sometimes regarded as a good test of the way in which agriculture has fared through the war and justly so regarded in northern countries. For in them live stock and grazing land represent capital in agriculture. Farther south, where cropping is more important, a drop in the yield per acre of crops during or since the war is a sign of serious loss, which must be reckoned with even if stock are kept up.

The control and rationing of meat was a case of State intervention which came late in the war ; and the maintenance of live stock during the greater part of the war was assured without any such measures. The matter was considered by the Government quite early ; for in 1914 an Act was passed, authorizing the Departments of Agriculture to forbid the slaughter of in-calf cows and pregnant sows and of calves, the intention of which was obviously to safeguard our breeding stocks. The chief incentive to the farmer to sell to the butcher was offered by the high prices for home-fed beasts owing to the diminution in foreign supplies available for the British people and the greater efficient demand for meat caused by the enrolment of great numbers of the adult male population in the

Army. The lack of feeding-stuffs strengthened this motive in the farmer's mind. The latter cause affected pig-feeding seriously—not less relatively in Scotland than in England; but it mattered less in Scotland as only in a few districts is pig feeding common; and in the case of cattle such influences are not likely to diminish the breeding stock beyond a certain point, as cow beef is commonly thought inferior to bullock beef. At the same time an unusual number of heifers appear to have found their way to the slaughter-house in 1917. In Scotland minced beef is a common meat dish, and this is made largely from cow beef. The fact however that the Ayrshire breed, which is the chief dairy breed in Scotland, is not of much use for its beef helped the maintenance of the dairy stock in Scotland. To maintain this stock was especially needful in a country like Scotland where dairy cows are kept primarily for fresh milk. It is obviously less important to do so in a country where a greater amount of the milk is churned into butter. A large part of the cattle fattened in Scotland are Irish stores and the supply of these began to run short during the war, partly because under increased tillage the Irish farmers had more stuff to fatten up their own beasts with. There were greater possibilities of a diminution of the breeding stocks of sheep being induced by the high prices of meat. Ewe hogs might be slaughtered in greater numbers instead of being kept as breeding ewes. The reader of a paper before the Royal Statistical Society (July 1920) on 'Variations in the numbers of live stock and in the production of meat during the war', commenting on the decrease in sheep stocks during the war, says—

'As a matter of fact, the flocks of the United Kingdom increased during the year 1914-15 (1.2 per cent.) and further during 1915-16 (2.1 per cent.), and the net decrease for the five years 1914 to 1919, viz. 10.2 per cent., was less than the decrease during the five years preceding the War, viz. 12.1 per cent. What renders the War time loss in our flocks significant is that it fell upon flocks already reduced, and secondly, that it involved a reduction of breeding, &c., ewes (10.9 per cent.) heavier than the reduction in the total flocks and heavier than the corresponding reduction in the preceding five years (9.8 per cent.)'

Flockmasters tend to attribute the drop largely to the bad

lambing season of July 1917. In 1919 again a bad snowstorm happened as late as the 25th of April in Scotland, doing great harm to the hill flocks. The writer of the paper thinks that apart from such causes the decrease in flocks took place in districts, where sheep feeding is associated with arable farming, as in such districts when labour was scarce and special efforts were being made to increase arable farming, it was easier to drop sheep than cattle. The general fall in sheep stocks over Europe in the last twenty years seems due partly to the increase of intensive farming, and partly to the competition of wool from the southern hemisphere. At the same time there has been for many years a gradual decline in the sheep stock in England especially in the eastern districts, where sheep for feeding go with lowland arable farming and in the down counties, where so-called 'sheep and corn' farms are found. Sheep have maintained themselves in the northern hill districts of England and in the similar Scottish districts where most of the Scottish sheep are bred. 'In Scotland in the five years before the war the decrease of sheep amounted only to 4.1 per cent., and during the five war years to 8.8 per cent., or a total decrease of 12.9 per cent. in the ten years.'

The price of home-killed meat was only controlled in the beginning of 1918. This step, which had been considered by the Ministry of Food for a year before, was taken in view of the shortage of supplies in the latter part of the winter of 1917-18 caused by excessive marketing in the autumn of 1917. It may be argued that the grazing farmers, knowing that control was being discussed, rushed their beasts into the markets in abnormal numbers in the autumn (a season when normally most of the animals fed on the summer's grass are slaughtered) in the hope of getting higher prices than the control prices, under which they expected to be selling next spring; and that the expectation of control being imposed had consequences, which led to the necessity of that step being taken. It is often suggested that the maintenance of our own stock was the chief object of the control; and if it was imposed so to speak in a hurry because of the shortness of supplies early in 1918, such might



seem to be a fair statement of the immediate object. It is however equally important to keep in view that all such control was imposed during the war very largely to correct the effect which, with a general shortage of supplies, the ordinary play of supply and demand would have had—i. e. an ‘unfair’ distribution leading to ‘queues’, discontent, and demands for higher wages. If the intervention of the Government be looked at in this light, the maintenance of our home stocks is seen to be as it were a ‘by-product’ of the process.

Appendix 3 shows the fluctuations in the live stock of the country during the years 1913 to 1919 inclusive.

The most reassuring feature of it is the comparatively little difference between the figures for 1913 and 1919. Sheep show the greatest drop; but this happened mostly between 1918 and 1919. In fact during the first two years of the war sheep, cattle, and pigs all showed a slight increase. Horses not unnaturally showed the effect of purchases for the Army at a quite early date—but after 1915 the number of agricultural horses recovers, and goes on increasing up to 1919. The figures for 1917, 1918, 1919 are all higher than the figure for 1913 (agricultural horses). ‘Cows in milk’ go down from 363,619 in 1914 to 345,821 in 1918, but get back to 361,782 in 1919. Breeding ewes go up from 2,913,998 in 1913 to 3,027,001 in 1917, but fall to 3,014,702 in 1918 and 2,820,718 in 1919. Even pigs, which had gone up in 1914 and 1915 and fell in the next three years, recovered in 1919 when they reached a greater number than in 1913.

It must be kept in view, however, that as the war wore on there was a fall in the weight of a carcass, mainly in the case of bullocks, sheep being less affected. This will help to account for the considerable drop in the numbers of cattle of ‘two years and less’ between 1916 and 1918, i. e. from 239,254 to 218,833 head. Similarly in the case of ‘other sheep one year and above’ there is a fall in the same two years from 1,253,733 to 1,067,255. The whole truth therefore cannot be got from the mere tale of head of cattle and sheep alive in June of each year.

From the Agricultural Statistics 1916, Part III, Prices and Supplies of Grain, Live Stock, and other Agricultural Produce,

published by the Board of Agriculture for Scotland, it appears that in 1916 the prices (at the principal markets) of cattle, sheep, and pigs were beginning to show a marked rise. Thus among cattle, Aberdeen Angus were selling at 66*s.* 11*d.*, cross-breeds at 64*s.* 8*d.* per cwt., among sheep, Cheviots 13 $\frac{3}{4}$ *d.* per lb., Black-faces 12 $\frac{3}{8}$ *d.* per lb. and grey-faces 13 $\frac{3}{4}$ *d.* per lb., Bacon pigs 11*s.* 8*d.* per stone, porkers at 12*s.* 6*d.* per stone. Cattle prices in fact showed an increase of 14 per cent., sheep prices of 19 per cent., and pigs of 36 per cent. over those for 1915, and all three from 56 to 62 per cent. over the average prices for the years 1909-13. In 1917 the prices of cattle showed an increase over 1916 of 29 per cent., those of sheep 25 per cent., and those of pigs 29 per cent.

From Appendix No. 3 some facts will be gathered as to the supplies of live stock at markets.

It is curious that up to 1917, in spite of the drop in 'store cattle', i. e. (young cattle kept for fattening) from the level of 1913 in the succeeding years the number of fat cattle was well kept up. The fall in store cattle is due to a decline in the supplies of Irish 'stores', which normally are bought to be fed up by the feeders on the east coast of Scotland north of the Forth. It looks as if the Scotch farmer reared more of his own beasts and fattened them. The increased cropping would of course make this easier. On the other hand among sheep the fall in stores is accompanied by a fall in fat stock. This is natural because in Scotland sheep are born and bred on the hill farms and fattened on the lowland farms. Normally all lambs not required to keep up the breeding stock are fattened, so there is no 'margin' to fall back on, and there is no other source of supply for fat stock than the lambs bred in the country.

It will be noted that there is a great drop in fat cattle in 1918; this was the effect of hurrying to the markets an abnormal number in the autumn of 1917, many of which would normally have been kept until the next year. 1919 gave a still greater shrinkage; the stores bought in 1918 and still more in 1919 considerably exceeded the fat cattle. The fall in fat sheep

is still more remarkable in 1918 and 1919, and the fact that the number of fat sheep sold in 1919 was only about one-third of the stores sold in 1918 may be interpreted as meaning that these stores were being kept longer before being sold. The same tendency is seen in the case of pigs. Under the control system the prices of live stock continued to advance in 1919. On the whole the 1919 figures may be held to show that the control system, which was in force during that year helped to ensure an eventual recovery in fat stock. By the year 1923 there had been a considerable recovery ; thus cattle were 1,190,333, sheep 6,762,798, and pigs 184,925, the latter being the largest number for 50 years.

## CHAPTER IX

### INCREASED PRODUCTION OF FOOD

A. Increased production of cereals through local agricultural committees: the 'Wason' Committee of 1915: institution of local agricultural committees: the 'Wason' Committee of 1916: progress in 1917: Corn Production Act, 1917: increase of area under oats in 1918: the position in 1919. B. Other measures to increase the production of food: potatoes: use of deer forests: more hay from sheep farms.

#### *A. Increased Production of Cereals through local Agricultural Committees.*

QUITE early in the war it became apparent that more food would have to be produced in the country as it would be difficult to keep up the import of food-stuffs from without at a peace level. In June 1915 the Secretary for Scotland appointed a departmental committee, known as the Wason Committee, under Mr. Eugene Wason, the senior Scottish M.P., to consider and report what steps should be taken by legislation or otherwise for the sole purpose of maintaining and if possible increasing the present production of food in Scotland, on the assumption that the war might be prolonged beyond the harvest of 1916.

The Committee dealt with suggestions made to them under three heads: <sup>1</sup>

(a) Increased Production.

(b) Avoidance of waste.

(c) Using sources of supply not at present available.

Under (a) they recommended certain technical improvements for increasing the productiveness of land under crops and grass, that certain land under grass should be broken up, that motor tillage should be practised to a greater extent, more liberal feeding of cattle should be practised, pig and poultry

<sup>1</sup> First Report of Scottish Departmental Committee on Food Production, published in 1915, page 1.

keeping should be extended, the export of feeding-stuffs and manures forbidden, and allotments provided near towns and villages.

Under (*b*) they suggested using straw generally as fodder and not as litter, that certain farm pests should be exterminated, that grazing land in deer forests, golf courses, and moors, cleared of stock, should be used, that the artificial rearing of game should be discouraged or prohibited, and the slaughter of in-calf cows and heifers, and of any calves which might with advantage be reared should be forbidden.

Under (*c*) their important recommendation was that the importation of store cattle from Canada should be permitted.

These recommendations covered most of the matters in which, as the war went on, the Government of the day sought sooner or later to facilitate or increase British agriculture. Some of the suggestions, of course, had reference mainly to Scottish conditions, especially those relating to the use for grazing of lands devoted to sport. In some respects the recommendations of the Committee differed from the policy afterwards adopted by the Government; for they were more concerned with the increase of productivity by intensive methods rather than the increase of the area under crops, and especially cereal crops, which was the object of the Corn Production Act, 1917. It is curious to see that they argued against the proposal of a guaranteed minimum price for cereals, holding that in Scotland the main contribution in agriculture must be meat and dairy produce, and that a guaranteed price for wheat might tempt farmers to sow wheat on land which might be better used for other purposes.

Nor were they much in favour of the application of compulsion in order to make farmers break up land to grow more grain. They said rather pertinently that the real object in view is not the cultivation of more land but the production of more food.

The arguments used by the Committee were later overruled—not unnaturally in the temper which was produced by the results of the German unrestricted submarine warfare. In

any case the reasoning of the Committee applied more to the case of Scotland with its longer rotation and greater proportion of rotation grasses than of England, where a four-course rotation is common in many districts, and the grass on the farm is permanent grass. Under such conditions breaking up permanent grass is necessary in order to get an increase of cropping. In Scotland such a procedure would be less called for, and it would more often be a case of breaking up more lea, i. e. encroaching on the area under rotation grasses on land worked under a five, six, or seven years' rotation.

One recommendation of the Wason Committee related to the setting up of fresh administrative machinery; they proposed local agricultural committees for encouraging additional production within their areas. Such committees were set up for nearly every county in Scotland by the Scottish Board of Agriculture by the autumn of 1915. They were not formed on a uniform plan, representatives of County Councils, Secondary Education Committees, Agricultural Societies, and Farm Workers' Unions being included among the members. These committees were already at work in 1916, and were found useful by the Board of Agriculture in various directions, whether for consultative or for administrative action.

In view of the threat of unrestricted submarine warfare, the Government, towards the end of 1916, decided that efforts must be made to increase the home production of cereals on a large scale and the Wason Committee was called together again and asked to make a further report. In considering what could be done in Scotland with a view to the greater production of crops they reported<sup>1</sup> that 'the following factors call for consideration: (1) Land, (2) the labour available, (3) manure, (4) implements'.

With regard to the land available they put the position shortly in the following terms:

'There seem to be about 1½ million acres of permanent pasture in Scotland, and 1½ million acres in temporary pasture. Much of the permanent pasture is only suited for grazing stock, and may meantime

<sup>1</sup> Second Report of Scottish Departmental Committee on Food Production (1917).

be left aside, and certain areas also of grazing land are unsuitable to break up, but in the hands of both farmers and occupying owners there are many acres which in the present circumstances should be brought under the plough. Of the land said to be in temporary pasture, including second, third, and fourth year's rotation grasses, much could with advantage be ploughed for grain growing. Before the War many farmers allowed their rotations to become longer and longer, and since the War, owing to scarcity of labour, many fields have been left unploughed that would under ordinary circumstances have been cultivated. The land which previous to 1914 had been laid down to grass was for the most part of inferior quality, and the situation in Scotland is scarcely comparable to that in England, where tens of thousands of acres of good wheat land have gone out of cultivation.'

They looked round for new sources of labour supply in view of the scarcity of labour, affirming that this was the great difficulty felt by farmers in responding to the appeal of the Government for increased cropping. No very promising substitutes for the ordinary farm worker seemed available. This made the provision of labour-saving machinery more indispensable. They said :

' We understand that the demand at present for all classes of agricultural implements is keen, and motor ploughs and ploughs drawn by tractors seem to have come to stay. . . . The Board of Agriculture supplied four ploughs to District Agricultural Executive Committees last season and they have offered to make at least ten more available this present year.'

They added :

' The most hopeful direction in which to look for increased production is to farms on which there is or threatens to be an excess of grass land in proportion to the cultivated area. Attention in this respect should be directed specially to the best agricultural districts, as from these the largest amount of food for the nation in proportion to the labour employed can be obtained. Every effort should be made, not only to maintain the present supply of labour in such districts, but to restore labour where it has already been too much depleted.'

They thought that local committees should be set up over the country in each local government district in Scotland (this area having been found by experience to be a better unit for administrative purposes than the county, as in Scotland many

of the rural counties are fairly large in area but thinly populated and communications are not good) and that such committees should ascertain the present and proposed cropping on each farm and report to the Board of Agriculture :

1. What additional area on each particular farm in their district could readily be brought under cultivation with or without additional labour.
2. What additional labour, if any, is required.
3. How much additional and total Sulphate of Ammonia and other artificial manures should be used on the farm for 1917.

These recommendations, which were made at the end of 1916, were carried out. At the same time the Government passed a number of Defence of the Realm Regulations authorizing the Board of Agriculture to prescribe the use of agricultural land, if necessary to determine the tenancies of occupiers, and either make suitable arrangements or enter on land themselves.

In April 1917 the Committee reviewed the progress made in the following terms :<sup>1</sup>

‘ A Local Agricultural Committee has been constituted in every county on the mainland of Scotland, and in several there are more than one.

‘ The Committees have all appointed Executive Officers, of whom fourteen are Officers of the Agricultural Colleges (at Edinburgh, Glasgow, and Aberdeen). The powers conferred on the Committees are wide, but the Board have reserved to themselves the right to issue on the advice and recommendation of the Committees any Compulsory Orders which may be necessary. The Committees and their Executive Officers have for the most part been exceedingly energetic, and, having made fairly complete surveys of their areas, report that 44,116 additional acres will be put under crop this season, of which the great proportion will be oats. The total acreage reported as being brought under the plough by the efforts of the Committees, though in itself considerable, is not large as compared with the one and a half million acres of permanent pasture and one and a half million acres of temporary pasture, but we cannot refrain from expressing our satisfaction at the result that has been secured in the very short time available, and in view of the fact that there has been a serious shortage of skilled labour. The

<sup>1</sup> Third Report of Scottish Departmental Committee on Food Production (1917).



great majority of farmers and others, who had control of the land showed a readiness to do all they could, and only in fourteen cases have the Board had to exercise their compulsory powers.'

The additional land was gained largely by tightening up the rotation, i. e. ploughing more 'lea' than would have been ploughed in the ordinary course.

The Committee continued :

'Renewed attention must be given in the coming Autumn to all ploughable land now under grass. . . . The fact that Committees have not pressed the ploughing of old grass land this season must not be held to imply that that land will be exempt from cultivation next season.'

The Board, through their own officers, arranged for special drafts of labour, the supply of tractors, and artificial manure. Nor—as already noticed—did they transfer their compulsory powers under the new Defence of the Realm Regulations to the committees, as was done in England, where the County Agricultural Committee was a more important and influential body than the normal Scottish District Committee. In actual practice, however, it appears that unwilling farmers were induced to do what was expected of them under the feeling that the committees were in a position to force them.

The Board did not create a separate Food Production Department, as was done in England, but worked through their existing administrative staff. During the first few months of 1917 the Board lent 36 tractor ploughs to 21 counties.

During the session of 1917 Parliament passed the Corn Production Act, which gave the farmer a guaranteed price for wheat and oats, provided that the landowner should not get an increase of rent in respect of the increased prices of agricultural produce secured to the farmer by the guarantee, set up machinery for assuring farm workers minimum rates of wages, and contained provisions, similar to those in the Defence of the Realm Regulations, for enforcing cultivation on the part of bad and unwilling farmers. Preparations were made accordingly for the season of 1918 under these conditions. From Appendix 4 it will be seen that about 200,000 more acres were

under oats in 1918 than in 1917, nearly 12,000 more acres under potatoes (in 1917 a relatively small area having been put under this crop), 18,000 more acres under wheat, while permanent grass showed a drop of 108,000 acres, and rotation grass of 133,660 acres—so that even in 1918 the extra land was taken rather from land in the rotation than from permanent pasture. The Board had no little trouble in dealing with one form of permanent pasture—common in Scotland—viz. ‘grass parks’ or accommodation land, which is mainly found near towns and villages. Such land is not attached to agricultural holdings, but is let for the season and in many districts put up to auction or ‘roup’. Farmers, who want more grazing than their holdings afford, either for dairy cattle or feeding stock, and butchers and other graziers, compete for this land. As the amount of other pasture available was encroached upon for cultivation, grass parks became more sought after, and care had to be taken not to allow too much of such land to be broken up. The relative claims of the different classes desiring it had to be scrutinized, and steps were taken in the public interest to give a preference to dairy farmers. In order to enforce this policy the Board had to take possession of great areas of grass land, and, as this action could only be said to have been taken as an indirect means of promoting cultivation, it was doubtful whether this exercise of emergency powers was duly covered by the provisions of the Defence of the Realm Regulations.

As the result of the increased cropped area, the greater part of which in Scotland was devoted to the oat crop,

‘the estimated total produce of oats, 6,457,000 quarters, is over a million quarters more than that of 1917, and is by far the greatest recorded since the statistics of the produce of crops were first collected in 1885. The area under the crop was greater by 202,480 acres, and also constitutes a record, but the yield per acre, 41.5 bushels, was slightly less than that of 1917, although 2.6 bushels above the average for the preceding ten years.’<sup>1</sup>

The fact that the most striking local increases in the yield were mainly in counties where arable farming is good goes to

<sup>1</sup> Board of Agriculture for Scotland Agricultural Statistics, 1918. Returns of Produce of Crops in Scotland.

show that a mere indiscriminate extension of area under grain is not a very sagacious policy even in such times as the last two years of the war. A generation back a larger area was under oats; but in a country like Scotland with a damp, uncertain climate that area must have included a great deal of land from which it was doubtful whether in any but an unusually favourable season ripe grain would be cut and stacked.

This effort must be judged in relation to the other measures taken by the Allies to counteract the effect of the unrestricted submarine warfare in 1917 and 1918. The people of the United States were growing enormous quantities of wheat to feed their European Allies and building merchant ships at a great pace (their tonnage being raised to 2,000,000 in a year or thereabouts). All this implied that the Allies, particularly the British and Americans, had every intention of meeting the German submarine 'offensive' by direct methods as well as by growing more food in the United Kingdom. Indeed it was vital to the interests of Britain to do so, for she would be worse off in the future, unless she emerged from the war having shown that she was able to assure herself liberty to keep at a constant level those imports of food-stuffs and raw material, on which depends the maintenance of a population of 45,000,000 in these islands. The underwater 'offensive' of the Germans in 1917 was not unlike their offensives on land in 1914, 1915 (Russia), 1916 (Verdun), 1918 (Northern France), conducted with great aggressive power in its early stages, but gradually held. Even in 1917 the British Government were able to import very great quantities of grain into the country.

In 1919 the Government did not repeat the systematic attempt of the year before in order to keep the 1918 level of cultivation—and in Scotland there was a noticeable drop in the area under cultivation, the area under oats showing a fall of nearly 11 per cent., potatoes nearly 9 per cent., while turnips and rotation grasses had gone up a little, and barley (but for different reasons) nearly 14 per cent. It may now be said, so far as 'oats' are concerned, to have settled down to the level that will have to be maintained unless and until

oats are again imported in the same quantities as before the war.

On the whole it may be claimed that the movement for increased production in Scotland was directed with judgement and intelligence, and that the results were achieved without disproportionate loss to the taxpayer either in liabilities for compensation or in improvising the necessary machinery on an extravagant scale.

As some prominence has been given in these pages to the distinction between increased production and a mere extension of area under cultivation, this seems a suitable place for referring to the statistical information which enables us to judge how far the level of production in the various crops was kept up throughout the war.

Appendix No. 5 gives the yield per acre for oats, barley, wheat, potatoes, turnips, and hay. These amounts are of course affected by the character of the weather in the successive seasons—and fluctuations due to this cause are shown in their present form by the changes in the yield of the hay crop for permanent grass, which varied from 25·8 tons to the acre in 1919 to 34·54 tons in 1916. Apart from such fluctuations there seems to be a tendency for the yield per acre to fall in the three cereal crops from 1914 to 1916, with a rise in 1917 and 1918. The failure of the potato crop in 1916 is a special case and was largely due to bad weather. On the other hand 1919 was a year which showed a relatively low yield per acre for nearly all crops, and may perhaps be taken as the measure of the loss of productive power due to the war.

#### *B. Other Measures to increase the Production of Food.*

It has been mentioned that the potato crop in Scotland and in England had been a failure in 1916, a yield of only four tons an acre being quite common. Accordingly special attempts were made to induce farmers to grow potatoes as well as oats in greater quantities next year, and a guaranteed price was offered by the Government. As might have been anticipated the working of ordinary motives and a good season caused

a great crop of potatoes to be grown, and farmers who had part of the crop left on their hands complained that the Government were not very punctual in carrying out the terms of the guarantee. The main potato crop in Scotland is grown along the east coast, in the Lothians, Fife, Forfar, and in some of the Moray Firth districts; early potatoes are grown in Ayrshire. In all of these districts the normal concentration on potatoes tends to make the rotation more intensive. Hence a great expansion of potato growing in the best potato districts is not to be looked for. The ordinary town householder was exhorted to grow potatoes and other produce in his private garden or on any land that might be allotted for the purpose. This gave an impulse to the movement for providing allotment gardens by the action of local authorities. In England there had long been a great demand for allotments mainly by labourers living in villages and artisans in towns, which had been satisfied to a certain extent by the action of town and parish councils. Little, however, had been done and not too much asked for in Scotland, where there are fewer villagers, and where most of the towns have been built too much upon the system of tenement blocks to give the inhabitants a chance of cultivating a taste for gardening. Moreover the Scots are acquainted with and appreciate a fewer number of vegetables than the English, potatoes and cabbages being their chief 'stand-by'. The high price of vegetables during the war, however, did move the Scots town dweller to think about growing his own—and citizens of the middle class as well as artisans gladly took up plots of land about 1/10th of an acre made available in city parks and other land rented from private owners. The Board of Agriculture for Scotland was authorized to take land, if necessary, for these purposes, and otherwise facilitate the movement. These powers, as in England, were generally delegated to town councils. The taste thus created among the *bourgeoisie* does not seem to have passed away with the war; its justification will have led to a new element in the life of city communities.

While the arable farmer was being pressed to produce more food it was felt by those who kept in view that the cultivated

acreage of Scotland was only about a fourth of the area of the country, that the rest of the land should be put to as productive a use as its conditions allowed. The formation of 'deer forests' had gone on steadily in the Highland counties during the previous generation by clearing sheep from hill sheep farms and throwing the land open to deer, of which there had often been a stock on the high ground all the time—for the slopes of mountains over 3,000 feet high had been used as the summer grazing of the sheep farms. The Board of Agriculture accordingly pressed owners of deer forests either to graze sheep and cattle at least during the summer on the forest land or let the grazings to farmers and crofters. The majority of forest owners did so—the more readily as those of them who were in the habit of letting their forests to sporting tenants were not making any income in that way during the war. In some cases where owners of suitable land refused to make it available, the Scottish Board of Agriculture took possession under the Defence of the Realm Act and let the land to tenants for a short term of years, but hardly long enough to enable them to build up a new breeding stock—a process desired by many, who saw in the clearing of sheep farms for exclusive use as sporting areas an anti-social practice. A great deal of grazing was provided in this way, as is shown by the statistics of land under hill grazings, the area of which rose from 9,170,000 in 1916 to 9,540,000 acres in 1918, or about 10 per cent. of the land under deer forests. There has been a considerable conflict between agriculture and sport in Scotland, partly because owing to the configuration of the country sporting land comes fairly near to agricultural land—and in fact grazing and sporting rights are often held over the same stretch of moorland. Hence during the war a number of regulations were passed safeguarding the interests of agricultural occupiers. They were allowed to destroy deer, rabbits, and later, winged game, damaging their holdings; while in compliance with the general feeling that no food-stuff should be wasted, the artificial feeding of deer and pheasants was prohibited. Occupiers of hill sheep farms were also given greater freedom to burn heather on their farms—

a practice in regard to which the interests of the grazing tenant and the person interested in keeping up the bag of grouse had often—but mistakenly—supposed to be at variance.

The Board of Agriculture also thought that a little more might be asked of the hill sheep farmer in the south of Scotland. It is a kind of farming which entails no great labour on the farmer ; he is often a pluralist who has his ' capital ' invested in a number of farms, any one of which he only visits at certain seasons of the year. The shepherd is a highly skilled workman (and as such he was being kept on the farm and out of the Army during the war) and his wages are as high as those of a ploughman, but his is specialized work, and of other labour there is hardly any on these farms. The greater part of their area is unenclosed hill grazing ; the limited area of enclosed land on the low ground is in meadows, on which the sheep are allowed to graze in winter if the weather is stormy and after the lambing time, and from which a certain amount of hay is taken. In some dales a certain number of cattle are grazed also. The Board pressed the farmers, especially those in the valleys of the Tweed basin, to improve, and if possible extend, their hay meadows and keep more cattle. It is doubtful, however, whether the meetings and discussions which took place on this subject had a very great effect.

## CHAPTER X

### PERMANENT EFFECTS OF WAR CONDITIONS ON SCOTTISH AGRICULTURE

Discussion as to the future of the increased area under oats : comparison of the effect of the Napoleonic wars and the late war on agriculture : future of the dairying industry : supply of store cattle : future of the hill farms : purchase of farms by tenants and higher prices make more capital necessary : possible difficulties with labour regarding housing.

ONE may be well disposed to doubt whether the war has made any great difference to the future of Scottish agriculture. Probably the excess of area under oats—the chief cereal—in 1920 over 1914 will be kept up for some years to come, since there will be a smaller quantity of oats to import from Europe than before the war. But oats will not be grown in such quantities as would be required if the present generation of Scotsmen were to eat as much oatmeal and oatcake as their forefathers did in the days before wheaten bread was eaten as generally as it is to-day. Populations having reached the standard of wheat bread do not go back to the less palatable cereals as oats or rye. Barley is not likely to be much affected. The area has been declining all the present century, and since the war has been smaller than just before 1914 ; in the chief distilling district of Scotland (the north-eastern area) the distilleries take their grain almost entirely from local farms, where the growth of barley for this particular purpose has been long practised and is well understood. In the south-west perhaps more imported barley is used. Generally speaking it may be said that Great Britain since the war has been getting as much barley as is wanted from America, while the producing areas in eastern Europe have been recovering.

But as affecting agriculture the late war is not to be compared with the revolutionary and Napoleonic wars. It is



a little hard to disentangle their influence from that of other great forces working at the time. They followed the earlier stages of the Industrial Revolution and were followed by the great improvements in means of communication associated with better roads, steamships, and railways. But there was in 1793 far more land in Great Britain waiting to be enclosed than in 1914, and great areas were enclosed during and after the French War. In Scotland agricultural rents went up from £2,000,000 in 1795 to £5,250,000 in 1815. In the times of greatest scarcity corn was selling at 104 shillings a quarter or sixteen times as high as the average for the previous century. The movement towards increased growth of corn in the arable parts of Great Britain was paralleled by the increase of sheep farms in the Highlands of Scotland.

This group of conditions had not been reproduced to-day. Moreover wheat is not the only food-stuff which the mass of the population wants from the farmer at the present time. The rise in the standard of living among the industrial classes common to ourselves and other countries has created a strong demand for meat and milk, which will divide the efforts and interests of farmers and make it impossible to get from them as a united class a demand for 'protection' for cereal growing such as was in force after the last great war up to 1846. And in Scotland the production of meat and milk will always be favoured by the soil and climate. Scottish beef will always be sought in England and eaten at home and Scottish mutton consumed in Scotland. Scottish sheep farming, however, will tend to profit under the set of conditions, which will favour all kinds of farming, in which the cost of production can be reduced to the lowest level. At the other end of the scale the east coast arable farmer will be able to hold his own because he has great reserves of capital, to which his war profits will have contributed. Possibly there may be some concentration of farms in the hands of the wealthier farmers as the times will be such as to force the weaker to the wall.

The increase in the population of the Clyde Valley and Midland Scotland will tend to develop the dairying industry of

Lanark, Renfrew, Ayr, Stirling. It may stimulate dairying in the most favourably situated of the Highland counties—Argyllshire.

The difficulty of getting stores from Ireland may lead to the production of more stores in Scotland—and this, like the need of a greater dairying area, may force the development of parts of the Highlands for stock raising on more intensive lines than are followed at present.

The future of the hill farm is a little difficult to forecast. In the north the area under sheep farms has been decreasing during the last generation as land has been cleared of sheep to make way for deer. In various parts of the country the complaints of the steady tale of loss from disease come from the flock-masters who rarely seem to suspect that there may be something wrong with the whole hill sheep farming industry. The home 'clip' in the recent past has been so small a part of the total wool used by the woollen industry of the country that a resumption of imports from the great wool-producing areas of the southern hemisphere at their old level will be earnestly desired by the trade, and the home sheep farmer can hardly hope for monopoly prices here. In any case the wool of the most common Scots breed, the Black-face, is of little value. So far as Highland sheep farms are taken in any numbers for land settlement, they will hereafter support fewer sheep and more cattle than heretofore.

The likelihood of new departures and experiments being made in the near future is lessened by the fact that for some time to come it will be difficult for new men to come into farming. The high prices of stock and equipments have given the men in possession a great pull—and in Scotland the farmer has always had to be a man with considerable capital. This enthronement of the existing farmer—who is often a pluralist farmer—on the land will only be made firmer by the purchase of holdings by their tenant occupiers such as has become common in the last few years. The effects of this change will not be visible for some time. It is doubtful how far the new owners realize the responsibility and cost of the upkeep of

buildings. The factor of a large estate in the south of Scotland told the writer that not one of the farmers who had bought their holdings on that estate in the last year or two had asked him any questions on this subject. As in Scotland the farm worker himself lives in a house attached to the farm, the new occupying owner will also own the labourers' cottages on the farm and will thus be the labourers' landlord in a fuller sense than before as well as his employer. If the new owners are slow to realize the general necessity of upkeep, the labourers' cottages are likely to be that part of the buildings which will receive attention last. This will not suit the temper of the modern Scottish farm worker, lately become a trade unionist, and trade disputes are likely to be more frequent in Scottish agriculture than before, or, as agriculture is an occupation out of which discontented labourers drift rather easily, there may be a resumption of the emigration of farm workers that went on in the years before the war—in which case the land will go into grass or be used for small holdings. In any case a considerable number of these will be formed in order to settle ex-service men on the land. On the large farms in the east and south-east of Scotland there will be a greater use—even apart from a falling supply of labour—of motor tractors and other labour-saving machinery. The interest shown by the large arable farmers in the proposed plant-breeding station shows that they are alive to the need of sowing the best varieties of cereal and other plants.

## APPENDIX I

RETURN SHOWING THE REGISTERED QUANTITIES OF THE UNDERMENTIONED ARTICLES IMPORTED INTO THE  
SEVERAL SCOTCH PORTS DURING EACH OF THE YEARS 1913 TO 1919 INCLUSIVE

Articles	Ports	1913	1914	1915	1916	1917	1918	1919	
WHEAT	Leith	Cwt. 2,529,600	Cwt. 2,856,300	Cwt. 2,625,300	Cwt. 2,008,900	Cwt. 1,573,800	Cwt. 547,100	Cwt. 1,765,300	
	Glasgow	4,814,300	3,790,650	3,766,200	4,708,000	6,121,500	4,163,300	4,370,400	
	Ardrossan	—	—	—	—	113,600	—	—	
	Dundee	8,800	11,600	5,800	42,500	—	—	—	
	Kirkwall	—	—	—	—	9,300	—	—	
	Greenock	—	16,800	—	—	—	—	—	
	Montrose	—	8,800	—	—	—	—	—	
	TOTAL	7,352,700	6,684,150	6,397,300	6,759,400	7,818,200	4,710,400	6,135,700	
	BARLEY	Leith	2,495,700	1,111,900	1,302,800	1,836,700	590,200	5,900	1,266,600
		Glasgow	1,080,100	863,800	654,500	1,807,300	972,100	699,300	1,539,800
Aberdeen		144,700	59,700	—	—	—	—	—	
Dundee		200	200	—	9,900	200	—	—	
Campbeltown		140,900	—	—	—	—	—	—	
Grangemouth		18,400	800	—	—	—	—	—	
Greenock		59,200	49,000	—	—	—	—	—	
Inverness		179,500	26,700	—	—	—	—	—	
Kirkwall		5,800	—	—	—	—	—	—	
TOTAL		4,124,500	2,112,100	1,957,300	3,653,900	1,562,500	705,200	2,806,400	

## APPENDIX I (continued)

Articles	Ports	1913	1914	1915	1916	1917	1918	1919
OATS	Leith . . .	632,400	280,300	107,600	1,600	36,500	20,200	62,800
	Glasgow . . .	740,300	533,100	99,600	193,400	504,200	479,600	275,700
	Aberdeen . . .	27,000	16,700	—	—	—	—	—
	Dundee . . .	17,300	7,100	—	—	—	—	—
	Granton . . .	—	—	—	—	—	—	—
Greenock . . .	4,400	—	—	—	—	—	—	—
	TOTAL . . .	1,421,400	837,200	207,200	195,000	540,700	499,800	338,500
MAIZE	Leith . . .	1,884,900	1,457,800	1,784,200	985,400	392,900	—	134,700
	Glasgow . . .	2,167,200	1,802,000	2,276,900	2,075,600	1,568,300	606,700	1,608,900
	Aberdeen . . .	106,400	14,300	73,700	—	—	—	—
	Greenock . . .	221,300	84,600	76,100	112,100	—	—	—
	TOTAL . . .	4,379,800	3,358,700	4,210,900	3,173,100	1,961,200	606,700	1,743,600
WHEATMEAL AND FLOUR	Leith . . .	1,222,220	728,700	682,100	727,900	426,700	119,300	1,040,700
	Glasgow . . .	2,366,100	2,005,807	2,334,400	3,187,900	2,459,600	3,950,000	4,119,700
	Aberdeen . . .	16,800	4,500	—	600	47,600	—	—
	Dundee . . .	20,300	8,900	5,900	169,300	147,000	—	120,200
	Grangemouth . . .	70,600	31,300	—	—	—	—	—
	Greenock . . .	—	—	—	9,300	1,600	—	—
	Lerwick . . .	—	—	—	—	—	—	—
	TOTAL . . .	3,695,020	2,779,207	3,022,400	4,095,000	3,082,500	4,069,300	5,286,600
OATMEAL . . .	Leith . . .	16,906	2,879	1,370	5,625	7,737	—	4,999
	Glasgow . . .	93,302	22,005	36,586	72,801	141,377	100,681	69,107
	Aberdeen . . .	2,036	3,412	—	—	—	—	—
	TOTAL . . .	112,244	28,296	37,956	78,426	149,114	100,681	74,106

MAIZE MEAL	Leith . . . . .	133,955	86,410	47,519	5,700	26,138	—	590
	Glasgow . . . . .	5,150	60	2,460	49,779	183,524	141,339	250,203
	TOTAL	139,105	86,470	49,979	55,479	208,662	141,339	250,793
EGGS	Leith . . . . .	Gt. Hunds.	Gt. Hunds.	Gt. Hunds.	Gt. Hunds.	Gt. Hunds.	Gt. Hunds.	Gt. Hunds.
	Glasgow . . . . .	3,358,796	2,549,263	1,182,375	497,325	16,456	—	159,298
	Aberdeen . . . . .	7,414	381,971	588,034	865,123	356,656	73,200	731,654
	Dundee . . . . .	17,716	2,425	2,400	—	—	—	—
	Granton . . . . .	189,583	39,855	—	—	—	—	—
	Grangemouth . . . . .	37,590	39,096	4,030	—	—	—	—
Montrose . . . . .	37,236	4,456	—	—	—	—	—	
	TOTAL	3,648,335	3,017,066	1,779,527	1,362,448	373,112	73,200	890,952
BUTTER	Leith . . . . .	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
	Glasgow . . . . .	421,196	463,025	312,194	220,842	32,457	—	9,944
	Aberdeen . . . . .	59	35,926	25,036	10,611	17,138	13,420	14,981
	Ardrossan . . . . .	123	—	—	—	—	—	—
	Dundee . . . . .	—	—	19	—	—	—	—
	Grangemouth . . . . .	612	347	—	—	—	—	—
	Granton . . . . .	1,039	248	—	—	—	—	—
	Greenock . . . . .	22,810	21,395	4,100	—	—	—	—
Lerwick . . . . .	—	—	—	323	—	—	—	
	TOTAL	445,839	520,953	341,657	231,776	49,595	13,420	24,925



Berwick . . . . .	—	37 0	43 9	48 7	54
Roxburgh . . . . .	—	36 9	43 9	47 1	53
Selkirk . . . . .	—	35 6	43 9	47 10	52
Peebles . . . . .	24 7	37 2	43 0	50 0	56
Dumfries . . . . .	22 2	36 0	41 0	47 5	52
Kirkeudbright . . . . .	18 4	30 6	39 3	46 6	51
Wigtown . . . . .	—	28 0	39 3	46 3	53
Ayr . . . . .	—	43 0	46 0	52 11	58
Lanark . . . . .	26 4	43 0	48 0	54 7	61s. (Lower Clyde Valley)
	(Upper ward)	(Glasgow area)	(Glasgow area)	—	57s. (South-east)
		38 10	—	—	
Renfrew . . . . .	—	40 0	46 0	56 1	61
Dumbarton . . . . .	—	39 0	45 0	55 10	61s. (Lower Clyde Valley)
Stirling . . . . .	—	34 0	46 0	52 5	57
Clackmannan . . . . .	—	42 0	47 0	58 1	58
Argyll . . . . .	17s. 8d. (Islay)	32 0	36 0	48 2	52s. (Kintyre)
Bute and Arran . . . . .	—	—	—	53 10	52



# APPENDIX III

## RETURN OF LIVE STOCK. COMPARATIVE STATEMENT

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	1913	1914	1915	1916	1917	1918	1919 <sup>1</sup>
<b>HOUSES</b>							
Horses used for agricultural purposes . . . . .	183,301	182,217	174,668	182,878	186,122	186,773	189,287
Other horses . . . . .	21,140	27,143	24,036	24,412	23,926	23,251	23,962
<b>TOTAL OF HOUSES . . . . .</b>	<b>204,441</b>	<b>209,360</b>	<b>198,704</b>	<b>207,290</b>	<b>210,048</b>	<b>210,024</b>	<b>213,249</b>
<b>CATTLE</b>							
Cows in milk . . . . .	363,448	363,619	361,077	354,408	346,728	345,821	361,782
Cows in calf, but not in milk . . . . .	67,540	44,200	43,337	41,056	45,143	52,802	44,952
Heifers in calf . . . . .	—	45,884	44,779	45,312	49,931	53,666	48,541
Bulls used for service } . . . . .	273,161	242,070	229,602	239,254	230,878	218,833	19,208
Other cattle } . . . . .	301,451	271,442	293,802	297,620	292,453	293,516	229,118
Two years and above } . . . . .	241,301	247,759	251,336	248,724	244,726	245,204	283,119
One year and under two } . . . . .	1,246,901	1,214,974	1,223,933	1,226,374	1,209,859	1,209,842	1,228,839
<b>TOTAL OF CATTLE . . . . .</b>	<b>2,913,998</b>	<b>2,975,008</b>	<b>3,004,908</b>	<b>3,018,780</b>	<b>3,027,001</b>	<b>3,014,702</b>	<b>2,820,718</b>
<b>SHEEP</b>							
Ewes kept for breeding . . . . .	1,214,457	1,166,983	1,219,490	1,253,733	1,212,040	1,067,255	80,773
Rams to be used for service } . . . . .	2,672,671	2,883,829	2,851,400	2,783,351	2,634,193	2,796,241	1,068,709
Other sheep 1 year and above } . . . . .	6,801,126	7,025,820	7,075,798	7,055,864	6,873,234	6,878,198	2,425,494
Under one year } . . . . .	14,713	19,409	17,652	17,588	14,794	16,082	15,178
<b>TOTAL OF SHEEP . . . . .</b>	<b>117,040</b>	<b>133,359</b>	<b>141,405</b>	<b>128,802</b>	<b>118,151</b>	<b>111,925</b>	<b>1,712</b>
<b>PIGS</b>							
Sows kept for breeding . . . . .	131,753	152,768	159,057	146,390	132,045	128,007	137,629
Boars being used for service } . . . . .							
Other pigs } . . . . .							

<sup>1</sup> Approximate.

## APPENDIX IV

## ACREAGE UNDER CROPS AND GRASS IN SCOTLAND FOR THE YEARS 1913-19 INCLUSIVE

	1913	1914	1915	1916	1917	1918	1919
Total acreage under crops and grass . . . . .	4,797,919	4,786,181	4,781,397	4,775,506	4,776,323	4,761,101	4,751,569
Arable land . . . . .	3,301,954	3,295,487	3,289,902	3,303,741	3,360,562	3,453,495	3,406,148
Permanent grass . . . . .	1,495,965	1,490,694	1,491,495	1,471,765	1,415,761	1,307,606	1,345,421
Wheat . . . . .	54,784	60,521	76,654	63,083	60,931	79,062	79,596
Barley . . . . .	198,248	194,109	149,346	169,739	159,135	152,835	173,948
Oats . . . . .	937,916	919,580	982,601	990,589	1,041,343	1,243,823	1,109,696
Potatoes . . . . .	149,080	152,318	144,393	130,119	147,717	169,497	154,550
Turnips and swedes . . . . .	432,139	430,608	420,995	414,320	414,305	396,689	426,343
Rotation grasses . . . . .	1,474,052	1,481,909	1,463,986	1,480,329	1,487,950	1,354,290	1,399,619

## APPENDIX V

## RETURNS OF PRODUCE OF CROPS IN SCOTLAND

	1914	1915	1916	1917	1918	1919
Yield per acre in Quarters :						
Oats . . . . .	40·18	39·77	36·56	41·85	41·5	38·2
Barley . . . . .	38·04	33·65	30·50	35·43	35·4	35·2
Wheat . . . . .	42·31	38·61	35·90	39·94	40·6	38·5
Tons :						
Potatoes . . . . .	7·07	6·73	4·08	7·51	6·8	5·4
Turnips and swedes . . . . .	14·66	17·89	14·23	19·44	13·9	16·8
Cwt. :						
Hay—from rotation grasses . . . . .	30·82	27·84	36·18	31·19	30·5	26·4
Hay—from permanent grass . . . . .	30·68	27·74	34·54	30·51	30·1	25·8

IV

THE SCOTTISH AGRICULTURAL  
LABOURER

BY

JOSEPH F. DUNCAN



## CHAPTER I

### ORGANIZATION OF FARM LABOUR AND CONDITIONS OF EMPLOYMENT BEFORE THE WAR

Housing : ' double-hinding ' : specialization in farm work : ploughmen : shepherds : earnings of the workers : numbers of agricultural workers, 1871-1911 : women workers : the small-holder's wife : the Scottish Farm Servants' Union.

THE organization of labour on Scottish farms has some features peculiar to the country. A regular staff of workers is employed throughout the year, and the amount of casual labour employed is relatively small. The workmen are engaged for six months or twelve months at a time, six-monthly engagements being usual in the case of unmarried men, boarded and lodged by the farmer, or housed in bothies, while married men are usually engaged by the year. All engagements run from the terms at Whit-Sunday and Martinmas. If a man seeks employment on a farm, he has little chance of getting regular employment unless he engages for six months or a year at one of the terms, and as a general rule workmen cannot leave farm work to take up any other occupation except at these terms. All these workmen live in houses on the farms. Married men are provided with cottages. On the larger farms there may be eight or ten such cottages built in a row. Large farms, however, are the exception in Scotland, and two or three cottages on each farm are more frequently to be seen, so that the married farm worker has often to live isolated from his fellows. The unmarried workers may live at home with their parents in the farm cottages or may be lodged with other young men in a bothy, which is generally a room of one apartment, in which the young men sleep and do their own cooking.

The effect of this is to mark the farm workers off distinctly from the industrial workers. The long engagement prevents coming and going from other occupations to and from agri-

culture. The farm worker in Scotland lives even more remote from other workers than in most other countries. There is little community even among farm workers, because of the isolation of their dwellings. Every time they change their employer, and changes are frequent at the terms, they have to change their houses, and thus they do not often become attached to any particular community or district. They are much more migratory than other workers. Their working conditions and the fact that they work longer hours than most other workers also act as barriers to their entering into the social life of the community.

Farm workers are almost entirely recruited from the sons and daughters of farm workers or of small farmers and crofters, with a small sprinkling of sons and daughters of rural craftsmen. Workers seeking employment attend the hiring fairs which are held a month or two before the terms in the county towns throughout Scotland. Before the war no attempt had been made at anything in the nature of collective bargaining to settle the wages and conditions of employment. Each worker entered into an individual contract of service with a farmer, or in the south-eastern counties and in the counties north of Inverness hired on a family contract. Such contracts were rarely reduced to writing. The terms were adjusted usually after considerable haggling between the employer and workman, and the bargain clinched by the farmer giving the worker a small sum of money, usually 1s. to 5s., which was called 'arles', and which was held to confirm the bargain. In spite of this rather loose way of making engagements, disputes as to the terms of engagement were very rare, and bargains so made were generally observed by the parties without demur. When the period of engagement was drawing to a close and a few days before the hiring fairs fell due, the farmer generally approached such of the workmen as he wished to retain and endeavoured to renew engagements. Where re-engagements could not be adjusted, the parties went to the hiring fairs and sought other workmen or employers. If a worker was not asked to re-engage at 'speaking time' as it is called, he knew

that he was not to be re-employed, and he began to look for another situation. It was not usual for a farmer to give definite notice to a workman that he was not to be re-engaged. He simply passed him over when the others were asked. The workman, on the other hand, rarely gave notice to the farmer that he was not to re-engage until he was asked to do so.

Farm workers change employers more frequently than any other class of worker. Where single men are employed, boarded, and lodged by the farmer, or living in the bothy, it is not surprising to find that changes are frequent. They are mostly young men, and if they are to secure employment where there is more scope for their growing strength and experience, they have usually to make a change. Where there are a few of them on a farm and any changes are to take place at the term, the other young men become unsettled and they decide to have what they call a 'clean toon'—that is, every man decides to leave. That married men should change so frequently is more surprising since every change of employer means a change of house and very often means that the children have to change from one school to another. Yet it is estimated that on the average a married man changes his employment about once in three years.<sup>1</sup> Various reasons are given, dissatisfaction with housing accommodation being that perhaps most commonly ascribed. The workmen blame the long engagement, and assert that if it were abolished and they held their employment from week to week like other workers, changes would be less frequent. Quite frequently the workers have no option. A boy or girl may be leaving school for whom employment must be found. If the parents wish to keep the boy or girl at home they have to find a place where the farmer is willing to give the necessary situation, or must remove to a district where the boy or girl has an opportunity of securing work outside farm service. It may be that some other workers on the farm are removing, and the farmer may not be able to get all the workers he requires in one family, so that he has to let another family on the farm go, to give him a better opportunity of securing the

<sup>1</sup> *Farm Workers in Scotland 1919-20*, p. 6.



workers required by having both places open. Whatever the reason may be, the fact remains that the farm workers in Scotland are much more migratory than other workers, and the unsettling effect cannot be good either for the workers or their families or for the employers.

The housing of the workers forms part of the equipment of the farm and is let by the proprietor to the farmer along with the farm. On most farms one or more cottages are provided for married men, but on the smaller farms in the north-east of Scotland and in the south-west there may be no cottages. The cottages usually consist of two apartments, only a small minority having more accommodation than this. A few extracts from the Report of the Royal Commission on Housing in Scotland will indicate the kind of housing provided.

‘The common type of cottage to be found in Scotland to-day is the old “but-and-ben” with the room and kitchen entering right and left from the door and a small closet or pantry let in between the two rooms. The site has too often been selected not for its suitability as a site but for economy of land and the convenience of the farm worker. The result is that the site is often a contributing factor in the prevailing dampness of the houses, and aggravates the difficulties of water supply and drainage. The kitchen is generally large enough to hold two beds. Such conveniences as are required to make rooms habitable have to be found by the occupants themselves who have also to do all the papering and painting of the walls. They must provide the storage for clothes and often for food and household utensils. In the rural cottage there is seldom to be found any of the conveniences that are necessary for the ordinary carrying on of family life such as water supply, scullery, wash-house, coal shed, bath, or water closet.’<sup>1</sup>

In the south-eastern counties, where it is usual for the whole family to hire on a joint contract, the houses are rather more commodious. It is not unusual to find a father and a son and one or two daughters engaged on a joint contract to work for a farmer for twelve months. In some instances as many as five or six members of the family will be engaged on a joint contract. This is known as the ‘double-hinding’ system. It has the advantage that the family is kept together until the young people marry and set up house for themselves. In other

<sup>1</sup> Royal Commission Housing (Cd. 8731), par. 1052 et seq.

parts of Scotland it is usual for the young people to make a separate contract. The young men leave home and are boarded and lodged by the farmer. The lodging may be in a separate building of one apartment, or may be a part of the steading, or, more infrequently, a room in the farm-house. The workers get their meals in the farm kitchen, but except on the very smallest farms the old practice no longer obtains of the hired servant sitting at the same table as the farmer and his family. The young women may go out as domestic servants, in which case they are lodged in the farm-house. In the dairy-ing counties they may engage as byrewomen and be lodged in the farm-house or in some room about the steading. In the eastern counties between the Forth and the Dee, and in Moray and Nairn, most farms have a bothy in which the unmarried men are lodged and in which they do their own cooking. The description of the bothy given in the Report of the Royal Commission on Housing may be taken as applicable to the great majority of bothies in these areas.

‘ The older bothies consist of a single room with floor of stone flags or cement, the interior walls of which are finished and white-washed in a manner similar to the byres. It provides bare shelter and no more. The furnishings provided by the farmer are of the very rudest and simplest character ; beds and bedding, towels, a basin, a kettle, and a pot, a few simple articles of crockery, a form or bench, and sometimes a few chairs. The men usually have two chests each, one for clothing and one for food, and these complete the furnishings. Anything more bare and cheerless than the ordinary bothy can hardly be imagined. It combines a maximum of discomfort with a minimum of civilized conditions.’<sup>1</sup>

The work on Scottish farms is specialized. A man may be a grieve, a ploughman, a cattleman, a shepherd, a dairyman, or an orraman. The grieve or steward is found on larger farms only. He is in charge of the other workers and superintends their work. An ‘ orraman ’ is generally a highly skilled man capable of taking the place of any of the other men on the farm. On the larger farms a few men may be engaged as labourers, without charge of any animals and not expected to

<sup>1</sup> Cd. 8731, par. 1118.

do the heavier and more skilled work. By far the largest proportion of the men are in charge of animals and engaged in specialized and skilled work. Each ploughman attends to his own pair of horses, and his day's work includes the grooming, feeding, and stable work of his horses. The cattleman on a farm where bullocks are being fed for the market must be capable of bringing out animals in good condition to enter the sale ring. The shepherd has practically sole charge of his flock and is a highly skilled workman. Each man must be able to undertake the duties in his own department. If a man is to remain at farm work in Scotland, he must make himself proficient in handling animals and in working the modern implements with which practically all farms are equipped.

Unlike the industrial worker from whom the subdivision of labour has taken away much of the pride of craft, reducing their labour to monotonous repetitive processes, the Scots farm worker is still a craftsman with a real pride in his craft. A ploughman will not remain in a place where he has not a pair of horses in which he can take a reasonable pride. His drills must stand the criticism of his fellows; his stacks must stand wind and weather, without undue props; he must be able to handle his horses yoked to any implement used in farm work. On his ability to perform all different kinds of work depends his chances of becoming a first ploughman, a foreman, or a grieve, and the competition for these places is severe. The cattleman must be able to bring out his stock in 'bloom' so as to secure the price for prime stock. The shepherd is keen to put his lambs through the sale ring in such condition that he does not fall 6*d.* a head behind his fellows. The work of all classes of farm workers has to be performed where it is open to the criticisms of competitors. To be first to get the harvest to the stack-yard is often a matter of pride, and the best men will not stay in a place where the work is always behind.

Not infrequently they are very sensitive about their rights and distinctions. A Lothian ploughman would feel insulted if asked to pull turnips; any ploughman would refuse to allow another ploughman to work his pair of horse; most plough-

men would refuse to do any byre work ; most cattlemen would refuse to allow ploughmen to handle their cattle, and so on. On the larger farms, when a number of ploughmen turn out to plough together or to do any other work as a team, they are very punctilious to keep their due order from the first ploughman who leads to the halfin or callant who has been promoted to his first pair, who brings up the rear. Each man has his place and keeps it.

Before the war the conditions of employment on Scottish farms had been stabilized for many years with very little change. The working day began at six o'clock in the morning and finished at six o'clock at night, with two hours' interval in the middle of the day. In the winter time it was usual to work from daylight to dark, so that for three months of the year an eight-hours' day was all that was possible. Before the ploughman could leave the stable at six o'clock in the morning, however, he had to have his horses groomed and fed, which meant that he entered the stable about five o'clock or perhaps a little earlier, attended to his horse, and then returned to his house or bothy for breakfast. He had to be back at the stable in time to yoke the horse at six o'clock. He left the field, as a rule, at eleven o'clock in the morning ; returned to the stable, attended to his horse, and then went to have his dinner ; he was back at the stable in time to yoke again at one o'clock. He left the field at night at six o'clock, and after attending to his horses was free from work.

The hill shepherds had no such regular hours. Left very largely to themselves, they undertook the management of a flock known as a ' hirsel ', which term is also applied to the ground occupied by the flock. A usual hirsel was twenty to thirty score of ewes. During the lambing season the shepherd has to be afoot most hours of the day and night, then when the clipping season commences he is at work from daylight to dark gathering together from neighbouring hirsels to get the work carried through expeditiously. The same practice was followed when the sheep were being dipped or when ' gatherings ' were taking place for selecting the stock to be sent to

the market. The shepherd has usually to provide his own firing, and so he and his wife are kept busy in spring casting peats for the winter's fuel. Later on hay has to be made for the winter's keep, if required by the flock, and always for the shepherd's own cows. In the winter he has rather an easier time unless it is stormy and he has to struggle to save his flock from the snow. As the shepherd says, he 'has no hours except all hours at certain seasons'. The shepherd's wife must be as industrious, because there are cows to tend, butter to make, the pig to feed, and usually a number of hens to manage in addition to the house work. A highly skilled class of workman is the hill shepherd, son following father and marrying shepherd's daughter. Living far apart from one another and remote from the centres of population, they are probably as reflective and intelligent a class of workmen as there is in the country.

The methods of payment of farm workers varied in the different districts in Scotland. All farm workers were paid partly in kind and partly in cash. From the north of Scotland to the Forth a considerable proportion of the wages was paid in kind. In the industrial belt in the centre of Scotland and in the south-eastern counties most of the wage was paid in cash. In the south-west payments in kind formed a considerable proportion. In the counties north of the Forth the usual perquisites were definite quantities of meal, milk, potatoes, coal, and firewood, and the same perquisites obtained in Galloway. In the centre of Scotland and in the south-east perquisites were generally confined to fixed quantities of potatoes, but occasionally meal and milk might be bargained for in these counties. To take two typical counties: in Ross-shire a ploughman was paid before the war an annual fee of about £30 in cash with 80 stones of oatmeal a year, half a gallon of milk a day, one ton of potatoes, 200 yds. of potatoes in the drill, three tons of coal, two loads of firewood, and was allowed to keep hens; in East Lothian a ploughman was paid 18s. a week with 16 cwt. of potatoes a year, £1 for harvest money, and generally kept a pig. The methods of paying hill shepherds varied greatly, but most were paid a cash wage, were allowed to keep and graze two cows and their followers, 60 stones of oatmeal,

ground for planting potatoes, and were allowed to keep six ewes on the hill. The old method of paying shepherds which was known as the 'pack wage' was to allow the shepherd to graze a pack of his own, usually three to four score of sheep, along with the farmer's hirsell. The produce of this pack was his remuneration. Odd instances of the pack wage may still be found but they are quite exceptional.

Single men boarded by the farmer might be paid anything from £15 to £25 in the six months according to age and experience, with board and lodgings. A competent ploughman in the eastern counties lodged in a bothy might be paid £25 to £30 in cash in the half year with 10 lb. of meal weekly, three pints of milk a day, and what potatoes he required.

The number of workers engaged in agriculture in Scotland as returned at each census from 1871 to 1911 was as follows :

1871	1881	1891	1901	1911
254,842	240,131	213,060	204,183	199,083

NOTE.—The figures for 1871 include 'retired'.

The above figures include all persons included in the census group 'Agriculture' except female relatives of farmers engaged in work on the farm and farmers' sons under fifteen years of age.

The number of male shepherds and farm labourers in Scotland as returned at each census 1871–1911 was as follows :

1871	1881	1891	1901	1911
119,391	102,075	95,470	83,441	80,582

NOTE.—The figures for 1871 include 'retired'.

These figures are exclusive of sons and other relatives of farmers, foremen, bailiffs, and grieves. Interesting figures are given in the Agricultural Statistics, 1921, of the Board of Agriculture for Scotland. Statistics obtained in 1913 show the following distribution of workers :

Regular workers		Casual workers		Total
Males	Women and girls	Males	Women and girls	
102,000	53,000	7,000	5,000	167,000

It is stated that 78,000 of these workers were members of the occupiers' families while 77,000 were employees. From these figures it is clear that there was a steady decrease in the number of persons employed in agriculture. For ten years prior to the outbreak of war there was a steady stream of migration to the colonies, particularly Canada, and to other countries. The figures for the three years, 1909, 1910, 1911, were 33,366, 58,384, and 61,321 respectively. Not all these were farm workers, but a very large proportion of the emigrants were drawn from workers on the land. In spite of the fact that the changing methods in agriculture steadily lessened the number of workers required, farmers were always complaining that workers could not be had during the ten years before the outbreak of war. It is notable that the largest number of emigrants were drawn from the north-eastern and eastern counties where a larger number of unmarried workers were employed, and where there were fewer cottages on the farms than in the other counties. Probably, too, the fact that young men in these counties were earning relatively high wages compared with other farm workers made it easier for them to face the cost of the long journeys to the colonies or other countries. It has to be remembered, however, that agriculture in Scotland cannot provide employment for all the young people who start their working life on the farms, and that there must always be a drift away from agriculture to other industries and, when other industries cannot absorb the surplus labour, to countries abroad.

In 1913 there were 51,614 agricultural holdings of less than 50 acres (Agric. Statistics, 1921). More than a third of these were less than five acres in extent, and two-thirds were less than fifteen acres. We have no means of knowing how many holdings were substantial agricultural undertakings providing the principal source of income for a family, but obviously a very large number could not be so classed. The number of small-holders was steadily decreasing before the war in spite of all efforts to encourage and subsidize them. Unless in favourable situations, or on specially favourable sites, small-holders worked longer hours and worked harder than farm workers, and their

standard of living was very little better than that of the wage earners. By the unremitting work of the holder, his wife, and children it was occasionally possible for a farm worker to use the small holding as a step towards a larger farm, but the price which had to be paid did not appeal to the large mass of farm workers. It was a hard life, and the necessity for a much larger capital in modern farming made the small holding a less likely stepping-stone to the larger farm.

Women are still largely employed in agriculture in Scotland. On the crofts and smaller farms the success of the holding depends as much upon the skill and industry of the housewife as upon that of the holder. In addition to her household duties, and the rearing of a family which is seldom small, the wife of a small-holder attends to the stock and takes her share of field work at busy seasons. Probably no one is harder worked than the wife of a small-holder. It is an unremitting round with few opportunities for relaxation or social intercourse.

There are four principal classes of women workers in agriculture—the ‘in-and-out’ girl, the byrewoman and dairymaid, the regular out-worker, and the casual worker. The ‘in-and-out’ girl is employed on the smaller farms. Her work is similar to that of the small-holder’s wife. She does house work, milks cows, helps in the field work, and generally turns her hand to anything there is to do. She has no regular hours. She has to be astir in the morning in time to prepare breakfast for the young men, and she is generally at work long after they have finished at night. For many years before the war farmers were complaining that it was impossible to get women to undertake this work, and in many districts they had disappeared altogether.

The byrewomen employed in the south-west of Scotland are usually boarded and lodged by the farmers. On many farms the whole dairy work is done by these women, including the feeding and milking of the cattle, cleaning of the byres, and so on. It was not unusual in the dairying districts near Glasgow to find these women at work at three o’clock in the morning, and



farms could be found on which an even earlier start was made to milk. After the morning milking was over the milkers might return to bed for an hour or two, but, as they continued at work until after the afternoon milking, their working day was spread over a long period, and, allowing for intervals for meals, they worked at least ten hours a day. But this was true of all classes of dairy work. Long hours and hard work were the lot of all engaged in the dairying industry. A certain number of women were employed as dairymaids, and were competent butter and cheese makers.

Women outworkers regularly employed from one year's end to the other are chiefly to be found in the Lothians and Border counties, although some are to be found in every county. As a rule they are daughters of farm workers and live at home with their parents. Instances are not infrequent of an unmarried woman being the householder, engaging to the farmer so as to secure a house for aged parents. Widows of farm workers may be found employed as outworkers and occupying one of the farm cottages. Women outworkers are employed at all kinds of field work such as potato planting and lifting, weeding, hoeing, spreading manure, and filling carts, haymaking, harvesting, lifting turnips, and so on. They do much of the same work as men, except that they do not work horses, although when required they will drive carts. The demand for such workers has always exceeded the supply.

When the rush of spring work is on or during hoeing of turnips, haymaking, grain harvest, or potato lifting, women are casually employed on most Scottish farms. In some cases they are drawn from the wives of farm workers or are brought from the villages and small towns. A regular feature of the early potato growing districts in the south-west and the centre of Scotland is the large numbers of workers brought from Ireland, most of whom are women who work in gangs, lodge on the farms, and move from farm to farm as the work requires. These workers are generally employed from June to November.<sup>1</sup>

<sup>1</sup> *Women in Agriculture in Scotland*, Board of Agriculture in Scotland 1920, pp. 13 et seq.

There were signs in the two years immediately preceding the war of a movement amongst the farm workers to improve their conditions. Spasmodic attempts had been made during the last quarter of the century. In 1912 'The Scottish Farm Servants' Union' was formed, and efforts were made to secure shorter working hours and a weekly half-holiday. A conference was held in 1913 between representatives of the Scottish Chamber of Agriculture and representatives of the Scottish Farm Servants' Union and proposals for a regular weekly half-holiday discussed. No practical result accrued; but in certain of the counties, notably in the Lothians, a beginning was made with a weekly half-holiday, while in Roxburgh on a large number of the farms the working day was reduced to nine hours instead of ten. Two Bills were introduced into Parliament by private Members for establishing a weekly half-holiday for farm workers in Scotland, and a good deal of agitation and discussion was taking place throughout the country on the question of shorter hours and holidays. Wages, too, showed a tendency to rise at the Hiring Fairs in 1913 and at Whit-Sunday in 1914.

## CHAPTER II

### EARNINGS, 1914 TO 1922

Effect of the war on agricultural labour in 1914-15 : the position, 1916-18 : decrease in the number of women workers, 1914-18 : decrease in labour, increase in area under cultivation : the war record of the agricultural labourer : changes in wages, 1914-20 : variations in wages as between married men and single men : District Agricultural Committees and wages : varying rates of wages in different districts : effect of the Corn Production Act, 1917 : wages of women workers, 1914-20 : comparison of agricultural earnings in 1907 and 1920 : slight gain in standard of living : real earnings, 1921, 1922.

THE outbreak of war did not bring many changes in the conditions of farm work for the first two years. In the northern counties a large number of the young men were Territorials and were called up at once. When the recruiting campaigns commenced, the younger men joined in large numbers, but the shortage of labour was not seriously felt until towards the end of 1915. The cessation of emigration meant that there was a larger number of young men in the country, so that both the needs of the Army and of agriculture were met during 1915 without any serious shortage arising. In the north-eastern counties wages rose at the May term, 1915, about £5, or 25 per cent. for young men, which indicates that the demand was greater than the supply. In November 1915 wages rose about another £5, a sign that the shortage was growing more acute. The Departmental Committee on the Production of Food in Scotland, in its report dated July 1915, states that :

‘Any development of the agricultural resources of the country would be absolutely impossible should further enlistment of farm workers take place.’

At that time the Board of Agriculture for Scotland estimated that the decrease in the number of males employed in agriculture was 8·2 per cent., and in the number of females 1·6 per cent. A year later the decrease was 14·7 per cent. for males and

8.6 per cent. for females. The recruiting of farm workers to the Army went on steadily although the occupation was a 'starred' occupation and exemptions under the Military Service Acts were very largely given to farm workers. The second Report of the Departmental Committee on Production of Food in Scotland, published in December 1916, makes a more definite recommendation :

'That no man at present working on a farm should be called up for exemption or for Military Service without the sanction of the Board of Agriculture for Scotland.'

Suggestions are also made that more soldier labour should be available; that an effort should be made to employ more women; and that temporary exemptions should be given to school children over thirteen years of age for such seasonal work as potato planting and potato gathering. Efforts had been made to replace the men called to the Army by substituting men unfit for military service from other occupations, but in the opinion of the Committee the substitution scheme 'can have no appreciable effect unless more efficient substitutes than those now offered are made available'.

During 1917 the supply of labour steadily diminished, but it was only during 1918 that the shortage became acute, in spite of the fact that substitute labour was increased and soldiers unfit for military service were released for farm work. 'Estimates prepared by the Board of Agriculture for Scotland give the following figures for civilian workers employed in agriculture at the different dates.

	July 1914	Oct. 1914	Oct. 1915	Oct. 1916	Oct. 1917	Nov. 1918	Nov. 1919
Males . . .	107,000	104,000	97,000	90,000	91,000	89,000	100,000
Females . . .	23,000	22,000	22,000	20,000	22,000	22,000	21,000

These figures do not include soldiers who were released for farm work. Separate figures are not available for Scotland, but as the total number of soldiers released for work in the United Kingdom did not exceed 70,000 at the highest point, the

number employed in Scotland went a very little way to make up for the reduction of the ordinary farm staffs.

Perhaps the most remarkable fact shown by these figures is the decrease in the number of women employed. Efforts were made to recruit women for agricultural work, representative committees were appointed to supervise the work, and wages and conditions much in advance of what the regular women farm workers received were offered. The number of women recruited from outside the usual sources of supply was negligible. A considerable number left farm work for the higher wages offered in other industries. If it had not been for the long engagement which limited the opportunities of other employers to compete with the farmers for the labour of the women, the position would have been much more serious for the industry. As it was the wages for women workers had to be increased more proportionately than those of the men before the drift was stemmed.

It is interesting to set alongside the figures for workers employed the changes in cultivation during these years. The Agricultural Statistics, 1921, of the Board of Agriculture for Scotland give the acreage of arable land as follows :

1914	1915	1916	1917	1918	1919
3,295,487	3,299,902	3,303,741	3,360,562	3,453,495	3,408,479

It will be seen by a comparison of these figures that an increased area of land was kept under cultivation with a decreased labour supply. It has to be kept in mind, too, that the figures of the number of farm workers employed do not disclose the whole change which took place during these years. It is estimated by the Board of Agriculture that in July 1917, 28.2 of the farm workers were enlisted in the Army, and that in July 1918, 36.5 were enlisted.

This means that one-third of the regular farm workers had entered the Army, but the actual reduction in the number of males employed was 15.9 per cent. in July 1917, and 17.6 per cent. in July 1918. The places of the regular farm workers who had gone to the Army had been taken to the extent of 50 per cent. by young lads under military age and by

substitute labour, less experienced and efficient than the workers who had gone. One-third of farm workers recruited for the Army means that more than half of the men in the prime of life were taken from the industry, so that the increased cultivation had to be carried on by a staff of workers lessened in numbers, but even more reduced in strength and experience than the numbers disclose.

The increased cultivation in Scotland did not make any new departure in the methods of farming, nor did it bring any serious change in the everyday life of the farm workers. It was accomplished by the breaking up of grass land and by shortening the rotations where temporary grass formed a considerable part of the ordinary routine. It meant more work for the ploughmen, larger areas to sow and reap, and more work in handling the crop afterwards. The work was overtaken by the lessened farm staffs with the ordinary equipment of the farm. A beginning was made in the later years of the war to introduce motor tractors, but they did not play any considerable part in enabling the increased cultivation to be undertaken. Towards the end of 1917 and during 1918 farm workers who had received exemptions because they were indispensable for farm work were required to drill four hours a week with volunteers. During the winter months this obligation was undertaken without demur, but when the rush of spring work came on both farmers and workers protested vigorously against this obligation, as the men had already a heavy enough demand upon them to carry through the increased work with the diminished numbers. When the Government made the suggestion in the spring of 1918 that farm workers should work an hour extra per day, both farmers and farm workers declined to accept the proposal, and the Food Production Committees which had been formed supported them, and pointed out that to require men who were already working 10 hours a day on the field to add another hour to their daily labour was not the way to increase production. It was evident to all who were in touch with the facts that the workers were doing their part faithfully and working up to the limit of their ability.

The tribute to the farm workers made by Dr. Chas. Douglas, President of the Highland and Agricultural Society during the war years, in an article on 'Scottish Agriculture During the War' in the *Transactions of the Highland and Agricultural Society of Scotland*, 1919, was thoroughly deserved.

'No class perhaps in all the nation emerged with a cleaner record from the trial by battle than the Scottish farm servant. They gave their full proportion—perhaps more than their proportion—to the fighting services. But it is to their work on the farms that I refer here. It will be generally agreed that, taken as a whole, they did not make unfair demands or seek to derive undue advantage from a situation which offered them great opportunities. It will not be disputed that their willing and reliable work was a most essential factor in the success of Scottish war agriculture, and that, in their case, improved conditions of service were a stimulus and not a check to industry and that they showed themselves worthy of the trust that was reposed in them.'

The principal change during the war years in the position of the farm servant was due to the increase of wages. In considering these changes it has to be borne in mind that the effect of the long engagement under which wages for married men were fixed by the year and those of single men by the six months' limited changes in wages to those taking place at the respective terms. The long engagement limits the mobility of labour, and even if the farm workers had endeavoured to take advantage of the growing scarcity of labour, the fact that they could only change their situations and alter their bargains at the fixed periods prevented rapid increases in their wages. Single men having two opportunities in the year, as against one opportunity for the married men, were able to secure increases more rapidly and more frequently than the married men. The fact, too, that the shortage of single men was more acute placed them in a much more favourable position. Their wages rose steadily from the May term, 1915, and reached their highest point at the November term, 1920. A single ploughman in Aberdeenshire might have been earning £20 to £25 in the half year with board and lodgings before the war, and in 1920 a similar workman would have been paid £50 in the six months

with board and lodgings. In the central counties, where the bothy system prevails, a ploughman in a bothy might have been earning £25 to £30 in the half year before the war, and a similar workman would have been paid £90 in the half year in 1920. Including the value of his allowances, a single man in the central counties could earn from £4 to £4 15s. per week when wages were at their highest. The allowances are valued at the producer's wholesale price. This was the highest figure earned by ordinary farm workers in Scotland during the war years, and these wages were earned by a relatively small number of workers. Single men in other counties might be set down as earning £3 a week including the value of board and lodgings.

The position of the single men was exceptional, and the wages they secured reflected the scarcity value of their labour. A truer index of the position of the farm workers can be gained from the position of the ordinary married ploughmen. Their wages followed the increase in the cost of living during the war years. At first wages rose very slowly. The index figure published by the *Labour Gazette* showed that at June 1915 the average percentage increase in retail prices since July 1914 was 25. The increase in wages secured by the married workers at the May term, 1915, was about 10 per cent. above the rates secured at May, 1914, and in the more outlying counties even this increase was not secured. The cost of living rose steadily during the succeeding months, and an effort was made to get the farmers to agree voluntarily to increase the wages at the November term, 1915. In a few counties the farmers agreed, and gave another increase of about 10 per cent. for the second half of the engagement. In June 1916 the *Labour Gazette* figure showed an increase of 45 per cent. over July 1914, and married men who hired at the May term that year received an increase of about 35 per cent. over the 1914 wage. In the central counties of Scotland the married men's engagements run from the November term, and at that term in 1916 the *Labour Gazette* figure showed 60 per cent. increase in the cost of living. The growing scarcity of labour helped these men to make better terms and they were able to secure an increase in



cash wages of 60 per cent. over the 1914 rates while still receiving the same perquisites.

The Departmental Committee on the Production of Food in Scotland, in its second report, December 1916, made the following proposal :

‘The Local Agricultural Committees shall arrange for meetings of farmers and of farm servants for the purpose of electing representatives who would form a joint committee to discuss from time to time the necessary adjustments of wages and conditions of service. It is hoped that this procedure would tend to reduce the amount of migration which takes place at the Whitsunday and Martinmas terms. The joint committee would issue recommendations which it is hoped both masters and servants would loyally accept. It would further take such other action as might be thought desirable to promote harmonious relations on the farm and so secure increased production.’

The District Agricultural Committees which were set up as recommended by that Committee were in working order in several of the counties before the Hiring Fairs in the spring of 1917, and in the Lothians a beginning was made to carry out the recommendation of the Committee regarding wages. The object aimed at was to reduce friction in the adjustment of wages with a view to lessening the amount of shifting that usually took place at term times. In East Lothian a standard wage for ordinary ploughmen of 31s. a week with 16 bolls potatoes, £1 in harvest, and house rent free was agreed to. In Mid and West Lothian it was agreed to increase wages by 5s. per week, which brought the cash wage there from 32s. to 34s. per week. The recommendations were generally acted upon, and during the succeeding three years this method of collective bargaining was extended, until in one half of the counties in Scotland wages were fixed by agreement between representatives of the farmers and of the farm workers. After the first year the farmers’ representatives were appointed by the National Farmers’ Union of Scotland, which had been formed in 1913, and the workers’ representatives were appointed by the Scottish Farm Servants’ Union, which had been formed in 1912. The practice generally followed was to endeavour to adjust wages to meet the rise in the cost of living as shown by

the *Labour Gazette* figures. In the other counties where no collective agreements were made wages were fixed at the Hiring Fairs, but the workmen were generally successful in securing advances approaching the increased cost of living except in the Highland counties and in Galloway, where the increases secured were less than the increase in the cost of living would have justified. Wages of hill shepherds did not increase in the same proportion as the wages of workmen on arable farms until the year 1918, when they were able to secure increases which brought them level with other farm workers.

In the autumn of 1917 the Corn Production Act was passed. When the Bill was in Parliament efforts were made to get Scotland exempted from the provisions of the Act relating to the establishment of Wages Boards for fixing minimum rates for workmen in agriculture. Neither farm workers nor farmers in Scotland desired to have Wages Boards established. During that year a Scottish Agricultural Council had been formed representative of the farmers' organizations and the Scottish Farm Servants' Union, and that Council discussed the provisions of the Bill and issued the following recommendation :

'They further believe that the arrangements proposed for Wages Boards in Part II could not usefully be applied to the conditions of farm service prevailing in Scotland. They suggest that, so far as Scotland is concerned, the object in view would be better obtained by the establishment of local Committees representing employers and employed to adjust conditions of employment, and to report their findings, when they so desired, to an authority which should be constituted by the Board of Agriculture to represent them, and empowered to give binding effect to their agreements.'

The efforts to secure the exclusion of Scotland from the provisions of the Act were not successful, but instead of Wages Boards for Scotland the country was divided into twelve districts, and in each of these districts a Wages Committee was formed composed of an equal number of representatives of farmers and farm workers with an independent chairman. The farmers' representatives were elected by the farmers' organizations and the workers' representatives were elected by the members of the Scottish Farm Servants' Union. A Central Committee was

formed composed of five employers' representatives and five workers' representatives elected by the District Committees, with a Chairman appointed by the Board of Agriculture. The District Committees were empowered to fix minimum rates which had to be reported to the Central Wages Committee, and the Central Wages Committee had power to disallow these rates and to fix other rates if the District Committees failed to fix rates which were not disallowed.

The District Committees were formed in the end of 1917 and the beginning of 1918 and began to fix minimum rates of wages in the summer of 1918. They continued in operation until the Repeal of the Corn Production Acts in 1921. Except for the counties of Orkney, Shetland, Caithness, Sutherland, Dumfries, Kirkcudbright, and Wigtown, and the Western Districts of Ross, Inverness, and Argyll, the minimum rates had little effect on the wages or working conditions of farm workers in Scotland. In the counties named the minimum rates tended to become the actual rates of wages paid, although in Dumfries, Kirkcudbright, and Wigtown many of the workers were able to secure higher rates than those fixed by the Committees. In the other counties the workmen were able to secure by collective bargaining or by the ordinary haggling at Hiring Fairs wages 5s. to 10s. a week above the minimum rates fixed by the Committees. Where the minimum rates became the actual rates paid, the increases in wages secured by the workers in these counties were actually and relatively less than those secured by the workmen where the minimum rates were inoperative. Taking the country as a whole, it is the fact that the fixing of minimum rates did not serve any useful purpose for the workmen in agriculture in Scotland. The method was in operation during the period of rising wages only, and the Committees were abolished before wages began to fall.

The only other notable development in the fixing of wages was the introduction of a sliding-scale principle based on the cost of living. In the Lothians in 1920 agreements were made between the National Farmers' Union and the Scottish Farm Servants' Union under which an increase in wages was to be

granted in the middle of the term if the increase in the cost of living justified an alteration. Under that agreement wages were increased by 3s. per week at the November term, 1920. In the following year a similar agreement was entered into, and in November 1921, as the cost of living had fallen, a reduction in wages took place.

It is difficult to give any clear idea of the effect of the war years on the wages of women employed in agriculture. No reliable data exists to show the wages of the 'in-and-out' workers or byrewomen, but it is probably true to say that their wages followed a similar course to those of single men boarded and lodged by the farmers, and it appears that their wages doubled during the war years. The wages of women outworkers in the south-eastern counties were subject to agreement between the respective Unions from 1917 onwards. At the outbreak of war, women outworkers were paid 10s. to 12s. a week with an allowance of potatoes, which was usually half that given to the ploughman and £1 harvest money. In May 1917 they secured 18s. a week; May 1918, 24s. a week; May 1919, 26s. a week; May 1920, 29s. a week. Rates for casual workers rose from 2s. 6d. a day pre-war to 5s. to 7s. a day in 1920. The minimum rates fixed by the Wages Committees for women more nearly approached the actual rates paid than they did in the case of men.

Unfortunately there are no reliable data from which an effective comparison could be drawn between the wages paid to the farm workers before the war and the wages paid during the war years. The Board of Trade published a Report in 1910 (Cd. 5460) of an *Enquiry into the Earnings and Hours of Labour of Work People in Agriculture in 1907*. In 1921 the Board of Agriculture for Scotland published a *Report on Farm Workers in Scotland in 1919 and 1920*. Both the 1910 and the 1921 reports give estimates based on a number of schedules issued to farmers in the different counties. In both instances the number of reports received by the investigators was insufficient to enable any reliable statistical data to be secured. The same methods were not adopted in estimating wages or the value of allowances in both reports, and hence the tables are not strictly

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comparable. The figures are not presented here as accurate statistics of wages paid, but they are the only official figures available and taken generally do indicate the change in position brought about by the war years. The figures for 1907 are for 'able-bodied horsemen', for 1920 'married ploughmen'. If a comparison between the summer of 1914 and 1920 is desired, 10 per cent. may be added to the 1907 figures.

	1907			1920		
	Average rates of cash wages per week	Extra cash earnings (if any) and estimated value of allowances in kind per week	Average earnings per week	Average cash wages per week	Average value of allowances per week	Average earnings per week
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
Shetland . . . . .	8 0	7 2	15 2	28 0	18 0	46 0
Orkney . . . . .	8 0	7 2	15 2	21 0	20 0	41 0
Caithness . . . . .	7 4	6 8	14 0	24 0	17 0	41 0
Sutherland . . . . .	11 11	5 7	17 6	25 0	20 0	45 0
Ross and Cromarty . . . . .	10 7	7 2	17 9	30 0	23 0	53 0
Inverness . . . . .	11 11	6 1	18 0	34 0	16 0	50 0
Nairn . . . . .	11 11	6 3	18 2	35 0	16 0	51 0
Elgin . . . . .	12 2	6 9	18 11	36 0	16 0	52 0
Banff . . . . .	11 10	6 11	18 9	33 0	17 0	50 0
Aberdeen . . . . .	11 9	7 5	19 2	33 0	18 0	51 0
Kincardine . . . . .	12 8	6 4	19 0	37 0	19 0	56 0
Forfar . . . . .	15 0	5 8	20 8	44 0	19 0	63 0
Perth . . . . .	14 7	5 9	20 4	44 0	19 0	63 0
Fife . . . . .	15 6	5 8	21 2	43 0	17 0	60 0
Kinross . . . . .	13 11	6 5	20 4	41 0	17 0	58 0
Clackmannan . . . . .	16 11	4 7	21 6	52 0	6 0	58 0
Stirling . . . . .	17 6	4 2	21 8	52 0	5 0	57 0
Dumbarton . . . . .	18 1	4 2	22 3	55 0	6 0	61 0
Argyll & Bute . . . . .	13 11	5 2	19 1	38 0	14 0	52 0
Renfrew . . . . .	16 4	5 0	21 4	55 0	6 0	61 0
Lanark . . . . .	17 3	4 6	21 9	55 0	6 0	61 0
Ayr . . . . .	15 10	4 8	20 6	52 0	6 0	58 0
Linlithgow . . . . .	18 0	3 5	21 5	50 0	5 0	55 0
Edinburgh . . . . .	18 2	2 7	20 9	48 0	5 0	53 0
Haddington . . . . .	17 2	2 3	19 5	46 0	4 0	50 0
Berwick . . . . .	16 7	3 0	19 7	45 0	9 0	54 0
Peebles . . . . .	17 3	3 9	21 0	49 0	7 0	56 0
Selkirk . . . . .	16 8	3 1	19 9	44 0	8 0	52 0
Roxburgh . . . . .	16 6	3 4	19 10	44 0	9 0	53 0
Dumfries . . . . .	14 4	4 5	18 9	46 0	6 0	52 0
Kirkcudbright . . . . .	15 6	3 6	19 0	43 0	8 0	51 0
Wigtown . . . . .	12 3	5 11	18 2	35 0	18 0	53 0

It would be a fair deduction to make from these figures, that the wages of farm workers rose 150 per cent. between the summer of 1914 and the summer of 1920. According to the *Labour Gazette* figure the cost of living in June 1920 was 150 per cent. above July 1914. It has to be noted, however, that the values of allowances are reckoned at the producers' wholesale price while the *Labour Gazette* figures are based on retail prices. On the balance the Scots farm workers gained an actual, if slight, improvement in their standard of living in 1920.

Wages reached their highest level during 1920. During 1921 they remained stationary for the most part. Single men's wages began to fall at the May term and continued to fall at the November term, the effect of the reductions being to reduce rates about 25 per cent. At the November term the married men in the central counties suffered a reduction varying from 15 to 25 per cent. There was a general reduction at the May term of 1922 varying from 15 to 25 per cent. The cost of living as shown by the *Labour Gazette* figures had fallen from the highest point reached in November 1920, namely 176 per cent. above July 1914, to 81 per cent. at May 1922. The effect of the reductions, therefore, has not been to lower the standard of living of the farm workers below what it was before the war. On the balance there has been a slight gain. During the war years wages followed rising prices, and it was only towards the end that the workmen were able to secure rates which enabled them to maintain their pre-war standard of living. In the end they improved their position, and up to the present (August 1922) have maintained a slight improvement.

## CHAPTER III

### HOURS AND SOCIAL CONDITIONS, 1914 TO 1922

Hours, 1914-18 : agreement of 1919 for a 54-hour week : partial failure of the agreement : tendency towards increase in working hours, 1920 : estimated reduction of ten working hours per week as compared with pre-war conditions : social isolation of the farm worker : women's Rural Institutes : general summary.

THE movement which had been set on foot in the years immediately preceding the outbreak of war to secure a shorter working day and more holidays for farm workers had been suspended during the war. Where any reduction in hours had been secured, or the half-holiday had been in operation before the war, these improvements were maintained during the war years, but the great majority of the farm workers continued to work ten hours a day six days a week. The working day was always spoken of as a ten-hours' day, but ploughmen had their stable work to do in addition to the work on the field, which meant on the average throughout the year an extra seven hours a week. The methods of reckoning time also varied. On some farms the hours were reckoned from the time the ploughmen left the stable to the time they returned again to the stable door. On most farms, however, the hours were reckoned from the time of leaving the stable door to the time of ceasing work on the field, and fifteen minutes on the average may be allowed for the journey back to the stable. In some districts in Scotland it was still customary for the men to begin work in the winter months at the same hour as in the summer months. It was not possible, of course, to do any out work until daylight, but the workers were engaged in work in the barn with artificial light. The districts in which this custom prevailed were steadily diminishing, and the usual practice was to shorten the working day in winter.

On the 13th of February 1919 a conference was held between

representatives of the National Farmers' Union of Scotland and of the Scottish Farm Servants' Union to discuss the hours of work in agriculture. The workmen's representatives put forward a claim for a 50-hours' working week based on a 9-hours' day for 5 days of the week and 5 hours on Saturday, the time to be reckoned from stable to stable and not to include attendance on horses or meal hours. After a prolonged discussion, the following recommendation was agreed to :

' That it be recommended to the farmers and workmen that the working hours from Whitsunday term 1919 be based on an average of 9 hours from stable to stable, and not to include stable-work or meal hours ;

' That this be adjusted so as to secure an average working week of 54 hours ;

' That there be 21 days' holidays, or 42 half-days in each year, as may be arranged by local conferences ;

' That the working week of 54 hours should be subject to the deduction of the holidays specified ;

' That, in addition, there be allowed (1) the usual New Year's Day holiday, (2) in the case of yearly engagements one hiring fair day, and in the case of half-yearly engagements two hiring fair days ;

' That in arranging for holidays and half-holidays employers should have the right to require workmen to work overtime during the periods of seed-time and harvest-time on payment of overtime rates ; and

' That it be remitted to the County Executive Committees of the two bodies to adjust the working hours locally on this basis.'

This was the first attempt to make a National Agreement for working conditions in agriculture. Although it appeared from the report of the conference that the effort had been successful, it was soon apparent that there was a good deal of opposition to overcome before the recommendation would be generally accepted. A dispute also arose as to whether the agreement applied to ploughmen only or was to be extended to other farm workers. In the end the Scottish Farm Servants' Union sent the following announcement to the National Farmers' Union :

' In view of the fact that the Central Executive Committee of the Farmers' Union insist that the Perth Agreement be limited to ploughmen, without any guarantee that the working hours of other workers



on farms will be considered, and in view of the fact that in at least seven counties the Farmers' Union is not prepared to accept the agreement even for ploughmen, they (the Farm Servants' Union) are not to be bound by the terms of the agreement, but leave themselves free to take whatever action they deem advisable to secure a shorter working day and weekly half-holiday.'

In several of the counties agreements were made between the local branches of the respective Unions for a shorter working day. In a number of counties the Perth agreement was taken as a basis. In other counties working hours more favourable to the workers than those proposed under the Perth agreement were adopted.

In a number of counties no agreement could be arrived at, and at the Hiring Fairs in the spring of 1919 a tussle ensued between the workers and the farmers as to the working hours for which engagements were to be made. In most of the counties the workers refused to hire unless the farmers agreed to reduce the working hours. In Aberdeen and Banff, and in Dumfries and Kirkcudbright, the working hours have not been shortened to the same extent as in the other counties. Speaking generally, however, it may be said that the normal working day is 9 hours reckoned from stable to stable in the case of ploughmen with a half-holiday on Saturday. In certain counties the working day is extended to 10 hours during harvest. In practically all the counties an eight-hours' day is worked during winter. The agreement in Midlothian and Linlithgow, for instance, was to work 38 weeks of 50 hours, 6 weeks of 60 hours, and 8 weeks of  $44\frac{1}{2}$  hours. In Forfarshire the working hours adopted were 50 hours a week for 9 months of the year and  $44\frac{1}{2}$  hours for 3 months of the year.

On milk-producing farms the conditions of labour were probably more directly affected by war measures than in any other department of agriculture. The control of milk prices did much to enable producers to organize their industry and to limit the fierce competition that had prevailed to secure markets. It was this competition which led to the very early-morning milking and entailed so harassing conditions of labour upon

those employed at the work. The restricted railway service also had its share in changing conditions. Before the end of the war the practice of commencing milking before four o'clock in the morning was given up, and it became common to arrange the two milkings a day, with an interval of eleven hours between. This meant that the workers did not have their labour spread over so many hours in the day, and led to a reduction in the actual hours worked, a sorely required and very welcome improvement in the conditions of employment of those engaged in the industry, without any inconvenience to the consumers.

A good deal of opposition was encountered from many of the employers to the reduction in the working hours. Throughout the country there was a general movement for an eight-hours' day amongst industrial workers, and the introduction of an eight-hours' day on the railways by the Government had its effect in strengthening the demand amongst the farm workers and in bringing opponents amongst the employers reluctantly into line. The political situation likewise had its effect. The Industrial Council had been formed and the Government had agreed to introduce an Eight-Hours' Bill. The Bill when first drafted included agricultural workers, but later on the Bill was amended so as to exclude agricultural workers. The Government desired the matter referred to the Royal Commission on Agriculture which had been recently appointed, but the Royal Commission declined to discuss the question. The farm workers in Scotland took the matter up and after a vigorous campaign secured the support of most of the Members of Parliament for the inclusion of agriculture. After a good deal of negotiation the Government agreed to include agriculture in the Bill on certain conditions. The Bill never reached the House and the following year was dropped by the Government.

So long as it appeared probable that there would be limitation by law of the working hours, no open opposition was expressed towards the shorter working hours adopted on farms, but towards the end of 1920 and the beginning of 1921, when it was clear that there was no immediate danger of the legal limitation of the working day, a movement commenced amongst

certain of the farmers to secure the withdrawal of some of the improvements in working hours secured during 1919. In most of the counties the workmen were able to resist any alterations, but in some of the counties the working day was lengthened by altering the method of reckoning the time from stable to stable back to stable to land end, which meant an extra half-hour a day and in some cases by increasing the number of weeks during the year in which the ten-hours' day had to be worked. On the whole, however, in spite of these partial reversions to the old working hours, it is generally true to say that farm workers are working at least ten hours a week less on the average than was the case at the outbreak of war.

The greatest defect in Scottish rural life, considered from the standpoint of the working population, has been the almost complete absence of community and social life. With the gradual disappearance of the small farms, and the concentration of industry in the towns, and the consequent decay of the villages, society tended to become stratified horizontally. The gulf between the farm workers and the farmers broadened, until both were moving in different social circles. The dispersion of the workers over the farms in groups of cottages too small to permit of an active social life, and the long and arduous working hours meant that the workers were practically excluded from any community, and social life was restricted to infrequent gatherings on the occasions of fairs or agricultural shows. The frequent migrations, too, had their influence in disintegrating social life. The frequent complaint that rural life was dull and monotonous was due to this failure to achieve any community life.

This isolation and lack of social life told most severely on the women. The men at least had their work-mates whom they met daily, but to women, living in isolated cottages with perhaps one neighbour or two or three at the most, the conditions were most irksome. A considerable amount of rural depopulation could be traced to the desire of the women to reach centres where there would be more opportunities for social life. It was from the women that the first movement came towards an effort to build up a social life in rural areas. In 1917 a national

conference was held in Edinburgh to promote a movement for Women's Rural Institutes, and the Board of Agriculture gave its assistance, and appointed an organizer to assist the movement, and funds were placed at the disposal of the organizer to enable institutes to be opened. The movement was remarkably successful from the beginning, and institutes were opened in most of the counties within the next four years. These institutes hold regular meetings at which lectures are delivered, demonstrations of housecraft given, and opportunities of social intercourse provided. Federations of Institutes have been formed in many counties, and home industries have been fostered. Exhibitions are held from time to time, and the whole movement has been very successful in interesting all classes of women living in rural areas. They have brought a new interest into rural life, and have great possibilities of future development.

No such striking a change can be said to have taken place in the social life of the general rural community, but the necessity of the war years has produced several organizations which have done much to provide centres of interest for the rural population. The National Farmers' Union of Scotland has now branches in all counties, and the members meet regularly. The number of Associations for specific purposes, co-operative and otherwise, increased during the war. The workers have their Trade Union with branches in all the counties, and the members meet regularly. In many of the counties they now organize their own social events, sports meetings, ploughing matches, and so on. Altogether the war years have brought to rural Scotland a welcome increase in associated effort, which cannot be without effect in building up the much-needed community and social interest.

It is not easy to sum up the effect of the war years on the farm workers of Scotland. There were distinct signs in the year or two preceding the outbreak of war that the customary way of life which had proceeded practically unchanged for more than a generation previously would have to be changed. The labour unrest which was passing over all countries was being felt amongst farm workers. The beginnings of trade-union

organization and the insistent demand for more leisure were signs that the old order was passing. The industry had recovered from the deep depression of the last quarter of the nineteenth century, and was in a sound condition. The outbreak of war diverted the energies of the workers from pursuing their own interests, and they worked loyally to serve the national needs. Directly it did not bring any changes of condition to them as farm workers, although they suffered the common lot of the people of the nation. But indirectly it increased the sense of their own value to the community. Their industry became one of the most essential in the nation, and the appeals made to them were couched in language that brought a new idea to them of their value to the community. It increased their self-respect. The efforts they had to put forth to prevent their standard of living from falling through the steadily increasing cost of living increased their self-reliance. When public authorities were improvised to administer the various war measures they were given representation on these authorities. Their representatives were appointed to Departmental Committees and Royal Commissions. They sat on local committees, on equal terms with their employers. They met their employers in representative conferences to discuss their working conditions and to make regulations for the industry.

From an inarticulate class they progressed rapidly until they had a voice in communal affairs. It was with a new outlook and spirit that they faced the questions which most directly concerned them when the first stress of the war years had passed, and the increased leisure they gained was the first fruits of the new outlook and spirit the war years had brought to them. The improvement in their standard of living may not have been all they would like, but following on the long years in which their conditions were practically unchanged, it has proved that conditions are not static and has left the door open to hopes of progressive improvement.

V

**SCOTTISH LAND SETTLEMENT**

BY

**W. R. SCOTT**



## CHAPTER I

### SCOTTISH LAND PROBLEMS

Diversity of land problems in Scotland : distribution of land in the Highlands : sheep farms : deer forests : lateness of enclosure : the Highlander opposed to economic laws and being broken in the process : growth of the small-holding movement—its opponents : the problem considered not only as an economic, but as a social question : rural depopulation : the Highlands and Islands Commission : the function of the crofter as a reserve of vital force : land settlement by the Congested Districts Board : controversies regarding small holdings, 1906–11 : Act of 1911 : Board of Agriculture for Scotland and small holdings : summary of the position in 1911.

ONE of the most significant aspects of the liquidation of the effort of Scotland during the war is the settlement of ex-service men on the land. This movement was linked up with a former one for the provision of small holdings, and the two together constitute a somewhat striking economic and social development, which in Scotland has special characteristics depending on the side upon the psychology and outlook of the people and on the other upon a variety of local conditions. It is important, also, to recognize that while the consequences of the war gave an immense impulse to the movement, an organization had already been formed by the State and so was available when the question of small holdings for ex-service men became an urgent matter.

There were few agricultural questions concerning which controversy was more rife at the beginning of this century than that of Scottish small holdings. The issues were confused, partly because (as has already been pointed out)<sup>1</sup> Scotland from the agricultural point of view is not one country but several, and the needs of distinct districts varied. Thus when people spoke of 'Scotland' in this connexion they had before their minds one particular section of the country from which they

<sup>1</sup> See above, p. 122.



generalized, often quite inaccurately. Conditions in the arable country in the Lothians were quite different from those in the dairying district in the south-west and both these were totally distinct from those in the Highlands. It was from the latter that the most insistent claim for small holdings came. Yet here again the conditions were far from being uniform. In the Outer Hebrides, and more especially in the Island of Lewis, there was a population which was comparatively dense in relation to the available resources, consisting partly of agriculture, almost altogether pastoral, partly of fishing, partly of accessory occupations. Here the claim was for land to make more of the existing holdings capable of supporting a family, and likewise for additional holdings. On the mainland in Sutherlandshire, Ross-shire, and Inverness-shire the circumstances were altogether different. By far the larger parts of these counties, consisting of almost all the interior, had been given up to deer forests and sheep farms, and the people urged that a part of such lands should be made available for settlement. For about a century this plea had been urged, sometimes with pain and often with passion. Historical and psychological influences were blended together, and a brief summary of these is necessary for the understanding of the post-war position. The tale really goes back to some of the consequences of the Rebellion of 1745, which, in spite of its glamour in devotion to a falling cause, was a more important epoch in economic than in political history. The final failure of the Stuarts resulted in the breaking up of the clan system, and this changed the whole life of the people. The Highlands were projected suddenly from a rude medieval economy into many of the consequences of the industrial revolution upon rural life. The first effect extended up to 1770 and resulted in widespread emigration. An outward and visible sign of the transformation was the gradual elimination of the person known as 'the tacksman'. The Highland chief had long let his land at low rents to relatives or adherents, who were responsible for providing a part of the muster of the clan, and who again often sub-let. As their military function became obsolete, the landowners began to let directly to the

people. Many of the former tacksmen emigrated. They, however, were the leaders to whom the people looked for guidance and they took numbers of the clansmen with them. A contemporary estimate of the emigration between 1763 and 1773 places the total at 20,000 and other writers of the period give higher figures.<sup>1</sup> This change in the management of Highland estates left the landowner in a position to deal directly with the tenants, and they stood to benefit by the change at least for a time, since they were no longer tenants at will as they had been under the tacksmen and they escaped from the obligation of personal service which had previously been exacted from them. Towards the end of the eighteenth century most of the Highland glens had their quota of tenants generally subsisting in a somewhat precarious fashion by grazing sheep and cattle on the hills. Highland valleys are usually narrow so that there is very little arable ground, and thus there were small possibilities of cultivation. Much as many might wish it, the process of change could not end here. It was the era of agricultural 'improvers' and there were superadded all the consequences of the French Wars. The fluctuations in the price of wool were remarkable. From 1782 to 1790 wool (Spanish Leonese) sold at 2s. 9d. to 3s. 10d. a lb., in 1809 it went to 26s. The interruption of imports made it the patriotic course to increase the home supply, and everything that was urged during the late war as an incentive to increased food production was anticipated in the earlier struggle in favour of sheep-farming.

It seems almost an anachronism to find the process of enclosure which had been practised in England in favour of sheep-farming at the end of the fifteenth century being repeated in Scotland four hundred years later, and the words of Sir Thomas More in the *Utopia*, describing the former, applied also to the latter. 'They throw down houses, they pluck down towns (or in Scotland 'townships') and leave nothing standing.' The Highland 'clearances' were caused by the impossibility, which was believed to exist, of allowing the crofters' stock to run with that of the new sheep-farmers.

<sup>1</sup> *Scottish Historical Review*, xvi, pp. 280-93.

This resulted in clearing the inhabitants out of the valleys. In some cases they emigrated, in others accommodation was found for them at the mouth of the valley on the sea coast, unfortunate examples of which are Tongue and Port Skerras in Sutherlandshire. They were supposed to help out their subsistence by fishing, but the change in the methods of capture of fish were against them<sup>1</sup> and in any case they were remote from markets.

From the strictly economic standpoint the change appeared at the time to be justified. Contemporary evidence shows that the standard of life in these Highland settlements was distressingly low. The labour employed upon them could be put to better use elsewhere, and many of those who emigrated improved their condition materially by so doing. It is here that the outlook of the Highlander is important and becomes a determining factor in the land agitation, and a grasp of it is necessary for the understanding of what followed. If he emigrated, he frequently lost his position of independence which he prized very greatly: if he remained, he saw himself excluded from the place where his forefathers lived, and it was natural that he pictured their state as very much more prosperous than it had been and assigned all the ills from which he suffered to his family having been cleared from its former home. To some extent all this was sentiment, but the feeling is extraordinarily deep-seated, and not infrequently the action of a people is determined more by feeling than by a process of conscious reasoning. At the present day there is a society which has traced the site of every Highland settlement in the past and has marked it by notice-boards, not unlike those bearing the name of railway stations. Then, too, the clansmen felt they they were their chief's men, and that, in removing them to conditions they described as distinctly worse, he had been untrue to his trust.

Yet another cause at a later date intensified all these feelings. The formation of Highland sheep farms, like other kinds of war economy before and since, was not permanent.

<sup>1</sup> See above, p. 27.

Foreign competition lessened their value, but, instead of returning them to the occupation of crofters, the owners found a new profitable use for them by turning them into 'deer forests'.<sup>1</sup> The Highlander kept sheep himself and in the earlier movement he had been outbidden and ousted by a specialist who kept sheep only. It was in fact a phase of the competition of the larger and more efficient producer as against the smaller and less efficient. If the latter cannot recover and make good his position, he has to go down. But there was a great difference between being supplanted by a similar industry, which had claims to be an important national one, as contrasted with another which was mere commercialized sport.

The Highlander in the somewhat rigid view of the first half of the nineteenth century was setting economic laws at defiance and was being slowly broken in the process, but he still held on tenaciously to his native mountains. His passionate feeling was outside the calculus of the economist. He refused to become an 'economic man', and remained essentially human, if sometimes a little perverse. The owner of a sheep farm or a deer forest looked upon him as a merely troublesome person who wanted land at less than its market value and in addition tended to depreciate adjoining property. The farmer held very similar views, especially if the creation of more holdings meant that there was any chance of his land being required for the purpose. Lastly, though this came later, when agricultural labour became self-conscious, it was opposed to the crofter, or small-holder. It held that the small-holder occupied an anomalous position. He made less than the farm servant and worked harder. This, however, was to forget that the former preserved his independence and his individuality, and there will always be some to whom these apparently intangible gains will outweigh material advantages. The material earnings of the crofter may be less than those of the farm hand, but to men of a certain temperament the total advantages, both material<sup>2</sup> and immaterial, were vastly greater.

<sup>1</sup> These places were once covered with trees. The forests have long disappeared but the name remains.

<sup>2</sup> Particulars of income and expenditure in the working of a number of small

In spite of a mass of condemnation from many sides the Highland agitation continued. In the land question in the third quarter of the nineteenth century there was a tacit assumption at the root of the accepted attitude, namely that it was altogether an economic matter and hence that economic considerations alone determined the issue. Slowly in the next twenty-five years it began to be recognized that questions of a social nature and of general policy were also involved, and the problem began to emerge as to how these are to be reconciled. Even though a competent body expressed the reasoned judgement in 1884 that 'on the whole, we cannot entertain a doubt that the small occupiers of the Highlands and Islands have participated in no small degree in the benefits which modern legislation and commerce, and the prevalence of philanthropic principles in government and individual action, have conferred on other classes of their countrymen',<sup>1</sup> it was felt that they were the step-children of the era of progress. Other factors which affected the situation were also changing. The agricultural depression was resulting in rural depopulation, and in the minds of those who considered broad social tendencies disquieting questions were beginning to suggest themselves as to how the physique of a large urban population was to be maintained if the numbers and efficiency of the people on the land were seriously reduced. Necessarily these questions had not emerged with the sharpness and in the decisive form which they assumed as a result of medical reports on the health of those who volunteered or were called up for military service during the war, but already they were beginning to exert a certain influence. Then, as a result, the question began to broaden. The depression in agriculture was felt by the small farmer with particular severity. The acreage that went out of cultivation was no sure guide to the decay of the rural population, indeed the latter might decline without a diminution of the acreage cultivated, if the land was maintained in cultivation by the merging of a number of small farms into a few

holdings in Scotland are printed in *Interim Report to Board of Agriculture for Scotland on the Economics of Small Holdings in Scotland*, 1919, pp. 49-67.

<sup>1</sup> *Highlands and Islands Commission Report*, 1884, p. 9.

larger ones. Hence the question of small holdings was beginning to become a wider problem than the special form in which it had long been a burning question in the Highlands and the Islands.

After a period of long and somewhat confused, if vehement, argument, clearer issues were beginning to stand out. While the northern coasts of Scotland had great wealth in their fishings, the agricultural prospects of the Highlands and Islands were inferior. However much sentiment and rich historical associations might bind the people to the soil, their position was becoming relatively more and more unfavourable in view of the prospects that were open through emigration. It is true that under such conditions Great Britain would lose a valuable stock, but with a certain amount of organization the shifting of population would have gone, in large measure, to Canada, and there would have been a definite Imperial gain, since the labour and experience would have been much more productive. As long as Great Britain had an adequate rural population this view (which was that of the greater part of the nineteenth century) might be maintained; but if, as it was believed towards the end of that century, there was an undue decline in the rural population and if, further, it was essential that fresh blood should be supplied at frequent intervals from the country to the towns, then the situation was changed. The tenacity of the Highlander in clinging to unfavourable surroundings may have had in it an element of deeper political intuition. He had a function in the highly composite organization of the body politic in so far as he represented a reserve of vital power. When, to some extent as a reflex of the Irish land agitation but to a larger degree as the result of much older influences, there were somewhat serious agrarian disturbances at Glendale in the Island of Skye and in other districts, the Commission which reported not long afterwards was influenced by ideas such as those described when it was stated in the subsequent *Report* that 'the crofting and other population of the Highlands and Islands, small though it be, is a nursery of good workers and good citizens for the whole Empire. In this respect the stock

is exceptionally valuable. By sound physical constitution, native intelligence, and good moral training, it is particularly fitted to recruit the people of our industrial centres, who without such help from wholesome sources in rural districts would degenerate under the influences of bad lodging, unhealthy occupation, and enervating habits. It cannot be indifferent to the whole nation, constituted as the nation now is, to possess within its borders a people, hardy, skilful, intelligent, and prolific, as an ever-flowing fountain of prolific life.'<sup>1</sup>

It followed that if, in the picturesque phrase of the Commission, the people of the Highlands and Islands had their function as 'an ever-flowing fountain of prolific life' to renew the devitalized population of towns, the country as a whole had a duty towards them in the circumstances as they then existed, namely to make the surroundings of these people such that they could thrive, and to ameliorate their surroundings to an extent that would be at least sufficient to prevent them from being ill nourished and in such depressed circumstances that the stock would suffer. This line of thought was recognized eventually by the constitution of the Scottish Congested Districts Board in 1897. In the formation of that body the term 'congested' was obviously not used in the sense in which it is commonly applied as relating to urban life. The congestion applied to the means of livelihood of the people. The Board was invested with powers to enlarge holdings, to create new holdings, to assist crofter fishermen, to improve harbours and provide piers in congested districts, to improve communication, and to foster rural industries. It is with the two first operations that we are more immediately concerned; and by the time this Board was dissolved, in 1911 when the Board of Agriculture for Scotland was formed, it had enlarged 1,000 holdings and created 600 new holdings.

Even at the cost of a slight digression, it is desirable to allude briefly to the efforts of the Congested Districts Board (which have been continued when it came to an end) to improve the houses of crofters. Mention has already been made of the

<sup>1</sup> *Highlands and Islands Commission Report, 1884, p. 110.*

fact that their class had provided their own dwellings, and thirty years ago in many places they were pitiable. Rough walls, appearing in imminent danger of collapse, enclosing a single room with an earthen floor, and roofed with thatch. It has been said that even misery has its ranks and degrees, and it was so amongst these houses. Lowest in the scale was that without windows or chimney, where the smoke from the peat fire found its way out through the open door. In the next stage the house had a built fire-place, with a small barrel, peering through the thatch, to serve as a chimney. There was an obvious advance when the house had an ordinary stone chimney and also windows. By judicious loans and help in other ways the people have been gradually able to supply themselves with simple, but very much improved houses. These are small, but they are generally solidly constructed with two stories (or the equivalent amount of space on one floor) and a slated roof. The change has come slowly and it is not yet complete. It is, however, unnecessary to labour the gain in health and decency through the gradual elimination of the old, bad, 'black houses', as they were called.

The Congested Districts Board was in a sense an experiment in Scotland. In so far as it succeeded it supplied valuable experience as to what was possible, and also as to what was impossible. At the same time the intervention of the State whetted the appetite of enthusiasts for land settlement for more. During the existence of the Board, not infrequent raiding of land by the landless took place in the Hebrides. The claim for state action, in providing land, had not been met except in districts scheduled as 'congested'. Even in these the Board had only limited powers, so that it was not long before there was pressure for more far-reaching measures, and a Bill was introduced in 1906 which was the first of a series that gave rise to a great amount of controversy extending up to 1911. As already shown the issues were exceedingly involved, and they varied in importance during five years of keen dispute. Finally, in 1911, a partial settlement was reached, and the Small Landholders' (Scotland) Act was passed. This measure



aimed at three distinct things. First, it was a land tenure Act as regards small holdings. It provided for the formation of a Land Court by which fair rents and a degree of fixity of tenure would be established for all small holdings in Scotland, that is for those outside the crofting areas, as well as inside these areas as had been done previously by the Crofters' Commission. Second, it provided for the creation of new small holdings in Scotland, in which respect it was important that the Board was given powers for the compulsory acquisition of land for the purpose. Third, it established a Board of Agriculture to promote agriculture in Scotland, also forestry and rural industries.

It is possible, even probable, that this Act represented the greatest common measure of agreement amongst a variety of opposed opinions that was obtainable at the time. But it was the tension of contending forces and represented a highly unstable equilibrium. This is important in the consideration of the course of events during, and since the war in relation to land settlement. The matter that was least doubtful was the formation of a Board to attend to Scottish agriculture. There was a substantial volume of opinion in favour of this development. The whole position as regards Great Britain had been anomalous. The Board of Agriculture and Fisheries had responsibilities as regards Scottish agriculture and it was the only public body for this purpose except that since 1897 the Congested Districts Board had exercised powers in the crofter districts. But in Scotland, as regards fisheries, there had been the Fishery Board for Scotland which had been in existence for thirty years. Besides, Scottish agricultural conditions differed in many respects from those in England, and, theoretically, a Scottish Board should be both more efficient and more economical than one with its head-quarters in London. Local patriotism, too, and local knowledge ought to count for much towards the success of the new organization. This would have been the case if the Board had been purely agricultural, but it was also an agency with compulsory powers for creating small holdings throughout the country and the Act which established it also created a Land Court. These latter aspects were not

likely to commend it either to landowners or the larger farmers. While in the debates in the House of Lords several of the former professed themselves favourable in principle to the extension of small holdings, they protested against the Land Court which in their view meant the crofterization of Scotland.<sup>1</sup> Accordingly the beginning of the activities of the Board of Agriculture were unlikely to be welcomed by two of the three classes with which it would have to work, and, if compulsion had to be universal, much friction and little real progress would result.

Before tracing the further development of land settlement in Scotland, this is a convenient opportunity to endeavour to estimate some of the currents and cross-currents of opinion, as it existed just before the war, in order to attempt some judgement as to the degree of substance they contained. The Highlands and Islands Commission just touched the fringe of an important truth, or at least a point of view, in the passage from their report just quoted,<sup>2</sup> but they failed to see the logical implication and so the general drift of their recommendation is distorted. If the Highlands and Islands are to be regarded as a species of *fons perennis* of human vitality several questions arise. Is the devitalizing quality of urban life permanent? If it is not, it follows that it would not be the highest wisdom to pledge permanently the resources of the State to remedy a passing defect of social organization. If, on the other hand, it was held that, as far as could be foreseen, a counterpoise to the division of urban life is required, was a small holdings movement in the Highlands and Islands the best counteractive? It seems an extreme application of the idea *per ardua ad alta* to maintain a population in the most unfavourable circumstances in Great Britain in order to recruit the urban population. There is another aspect of this problem which required more serious consideration than the question had received, namely whether the best use of a part of the Scottish rural population might not be in contributing to fill up the exceedingly productive lands of Canada and other Dominions which were in urgent need of people. From the point of view of the Empire

<sup>1</sup> Hansard, *Lords Debates*, 1911, x, pp. 293-355.

<sup>2</sup> See above, pp. 229, 230.

there can be little doubt that such redistribution of population, with proper organization and the necessary safeguards, would be highly beneficial. The labour of a family on rich prairie land would be much more productive than on the unkindly soil or the almost barren hills of the Highlands. This again only opens up a new problem. The flow of population to the Dominions is like the lion's den to which many paths lead but do not come back. No one has suggested any feasible scheme by which the children of settlers in the Dominions might be induced to recruit the city population in Great Britain. Accordingly, whatever may happen in the future, at the end of the nineteenth century a certain want of balance had shown itself in the distribution of the population. It had become too much urban and too little rural. The countryside was subject to a double drain through immigration to the towns and by emigration. The stress of the overseas competition with British agriculture tended towards economizing in agricultural labour and the numbers of workers on the farms were contracting. Denmark, which is about half the size of Scotland, had 230,000 farms against 90,000 in Scotland. In the latter country there were four counties in which the population was smaller than it was in 1801 and fifteen counties in which it was less than in 1861. If the situation required to be righted, it would not right itself. There was little prospect that arable, sheep- or dairy-farming would keep more people on the land. Indeed the indications at the beginning of the present century were that these industries would employ less rather than more. At the same time there was a large demand for small holdings, certainly in the Highlands and Islands and, it was believed, in the remainder of Scotland. Therefore in view of all the possibilities, as far as these could be estimated, there seemed a case, though not an overwhelming one, from the social point of view for the assistance of the State towards the constitution of small holdings. If this was to be done, it could be accomplished in no other way, for in many of the districts, where the demand was greatest, the owners were not in a position to do it, and the people could not get the land nor, in many cases, even if they had it could they have worked it efficiently.

If, then, on these and similar grounds it be held that there was a case for State intervention, they indicate its extent and limits. The State might subsidize the movement by meeting the expense of the administration involved on economical lines. But it should not commit itself too deeply. The special justification of the movement might pass away. There was the danger that, if new holdings outside the crofting counties did not succeed, they would be helped with concealed subsidies in one form or another. Suppose, for instance, when 1,000 holdings had been established outside the crofting counties, there came a run of bad seasons, and the landholders could not meet their engagements, the Board of Agriculture would be in a worse position than the ordinary landlord who could resume his land and re-let it in such sized farms as its quality was fitted for. A Government office never owns to a mistake. The question of public policy would loom larger and larger, and the economic aspect would become smaller and smaller. The inevitable tendency would be to make concession after concession to the embarrassed small-holders, till the scheme involved a very heavy drain, certainly much heavier than anticipated, and quite possibly much greater than the value of the benefit to be derived from it. These considerations would not apply to the creation of crofter holdings, or at least not in the same form. The crofter is more at the mercy of the weather than other small-holders. His geographical situation is such that climatic conditions are exceedingly unfavourable to him. A financial reserve is very rare indeed. Yet he manages to maintain himself. One explanation is the remarkable family affection. Large families are the rule, and the unmarried members who go to work in the towns contribute to the necessities of the family home, and in frequent emergencies they can be counted on up to the full extent of their capacity. And this results in the paradox that economically the Highland croft is usually in a precarious condition, yet through the closely knit family tie of the Highlands it is probably as permanent as any kind of agricultural enterprise in this country, more permanent even than the peasant properties in France.

## CHAPTER II

### LAND SETTLEMENT, 1912 TO 1918

Applications for small holdings before the war : larger proportion from the Highlands : many for accommodation land : provision of land : the complications of conditions in Scotland : dissatisfaction with the 'law's delays' : holdings constituted in two years before the war : amount of land in process of acquisition for further holdings : curtailment of land settlement during the war : effect of the change in prices : the post-war position : policy of the Board of Agriculture : attitude of the men affected : land raids : the Board of Agriculture in the Law Courts.

THE Small Landholders' (Scotland) Act came into force on the 1st of April 1912. Thereupon the Board of Agriculture for Scotland was constituted ; and, as one of its functions, it began to devise schemes for land settlement. The first step was to obtain some statistical measure of the demand for small holdings ; and, as soon as possible thereafter, to secure the necessary land to satisfy such of the applications as had been approved within the resources at the disposal of the Board. In the Highland counties there was a fairly long experience of land settlement under the operations of the Congested Districts Board, and many applications had been sent to the Scottish Office in anticipation of the formal inauguration of the new body. From the remainder of the country applications were relatively few. In the first Report of the Board of Agriculture the view was expressed that 'there is reason to believe that when the benefits conferred by the Act are, through experience of its operation, fully understood in the southern counties, there will be an increasing and steady demand from them'.<sup>1</sup> In the period under consideration at present it can scarcely be said that this expectation was fulfilled. By the 31st of December 1912 the Board had received 5,352 applications for enlargements of existing holdings and for new holdings. The

<sup>1</sup> *First Report of Board of Agriculture for Scotland, 1913, p. xii.*

distributions of these applications is interesting. If one divides Scotland into the area north of the Caledonian Canal and adds to that Argyllshire (as consisting generally of similar country), no less than 4,692 applications came from this area, leaving 660 from the remaining twenty-six counties. The 660 applications represented 550 for new holdings and 110 for enlargements. The 4,692 from the Highlands and Islands were divided into 2,820 for new holdings and 1,872 for enlargements. In Caithness, Orkney, and Sutherland more enlargements of holdings already in existence were required than new holdings to be constituted. It is very significant that of the applications for new holdings in the Highland region no less than about 1,300 of the total of 2,820 came from the Outer Hebrides.

It was difficult at the time to say how many of all these applications would ultimately rank as approved. They had all to be sifted, and there would be cases in which the applicant had not sufficient capital or adequate experience to work a holding. There was another element which does not appear in the statistics, namely that an appreciable proportion of the applications were conditional, in the sense that they were not for a holding, should such be available, but for one in a particular district or even on a particular farm,<sup>1</sup> and it might not be economical, or it might even not be possible, to obtain the land. Then, in considering these applications, an initial question of policy arises. Out of the total applications for new holdings 1,045 were for holdings not exceeding 25 acres and half of these for holdings of 10 acres or less. The majority came from the northern counties, where the land is so poor that a relatively large average is required to enable people to subsist. Therefore the great majority of these applications represented cases where the land was intended as accessory to some other occupation, as for instance in the case of the fisherman whose land is a minor source of income in comparison with that of his fishing. It was stated by the late Lord Pentland, then Secretary for Scotland, expressing the intention of the Government in introducing the Small Landholders' Bill, that the small holdings were to be 'small

<sup>1</sup> *First Report of Board of Agriculture for Scotland, 1913, p. viii.*

farms on which a man and his wife could make a living'.<sup>1</sup> The applications for a holding 'round about 10 acres' (which at one time the Board was disposed to approve and indeed created holdings of this type) 'by those who have some regular employment and only require "a home" with sufficient land to keep one or two cows and some pigs or poultry and by others who wish to use the ground for market gardening'<sup>2</sup> were not consistent with the declared intention of the Government. What is more important this procedure was directly opposed to the grounds on which the whole movement was founded. It was no answer to the case for the arrest of rural depopulation to provide land for town-workers to an extent which resulted in making 'the worst of both worlds'. To provide a town-worker with a garden or even an allotment, which he can work in his spare time, is excellent both for his health and comfort. But to increase the amount of land up to 10 acres is good neither for his main occupation nor for the accessory agricultural operations. If the man becomes interested in the latter, he is liable to grow irregular and less efficient at his main occupation by which he must live. On the other hand, if he works regularly at his proper job, the working of his holding degenerates into 'a spare-time job', and that is fatal to success in agriculture or pastoral farming. The case of market gardening, to which may be added fruit-farming, poultry-farming, or the growing of tomatoes, stands on a different footing. For the efficient conduct of these the amount of capital required per acre is high, as well as the total capital, in comparison with that for the agricultural or pastoral small holding. The man who is prepared to venture in any of the former enterprises and has sufficient capital and skill is able to look after himself, and his case does not appear to be one for which the aid of the State should be invoked.

The other side of the question was the provision of land, and this had two aspects, the one the legal position to which some incidental references will be made later, and the other

<sup>1</sup> Hansard, *House of Lords Debates*, 1911, x, p. 298.

<sup>2</sup> *First Report of Board of Agriculture for Scotland*, 1913, p. xiii.

the amount of land required. The real need was to make existing holdings as nearly as possible capable of supporting a family where that family was prepared to devote itself to work on the land, and secondly to constitute new holdings of this type. In Scotland there can be no uniform formula for the acreage required. Not only so, but local conditions vary so much that the divergence between the amount of land required is quite remarkable. In the south of Scotland the most suitable district for small holdings is the south-west, where these are of two kinds, the dairy farms, which flourish chiefly in Ayrshire, and the mixed stock-raising holding in Dumfriesshire, Kintyre, and Arran. The unit of the dairy farm is the amount of stock, usually amounting to about 20 cows, that can conveniently be worked by a married pair, and this determines the land necessary to carry the stock, which is commonly in Ayrshire from 50 acres to 70 acres. The mixed stock-raising farm in the south-west is one in which the cultivation is almost all for the feeding of the stock. The unit is that which gives full employment to a pair of horses. In such farms about 40 acres will be in rotation and some land in permanent grass is usually added. The total acreage is somewhat less than that of the dairy farm just discussed. Going northwards, in Aberdeenshire and Banffshire, there is a somewhat similar type of farm, except that the climate is more favourable to oats and less to permanent pasture. The unit again is the 'pair-horse farm' averaging 50 acres or rather more. In some of the glens opening off the Tay Valley there are again mixed stock farms. The configuration of the country limits the amount of arable land; and, if sheep are kept, the unit of acreage is correspondingly increased, each acre subtracted from the arable land requiring compensation in many of rough grazing. Going still farther north, local conditions change, the glens get narrower and there is much rough grazing. According to position, the ratio of available arable land to rough grazing varies, and where the proportion of the latter is high the acreage required to support a man and his wife will be considerable, sometimes as much as 200 acres. The unit



here is the combined arable land and grazing which will suffice to support a couple of Highland ponies, four to six cows, and their calves and about 25 sheep. If the arable land is from 15 acres to 30 acres, the grazing would be about 100 acres.<sup>1</sup> The Outer Hebrides, and in particular Lewis, constituted a special problem. There, even if all the land in the islands had been obtained and used for new or enlarged holdings, it would not nearly have sufficed to meet the applications on the basis of affording places which would have been very small indeed. Therefore it became a question of migrating part of the population to districts where the land was available, but it turned out that a substantial proportion of the applicants were unable or unwilling to leave Lewis. This case afforded a reversal of the tendency which has been in operation for more than half a century for the needs of the towns to dominate the wishes of the rural population. After the late Lord Leverhulme purchased Lewis, he formed a number of schemes for its development, chiefly in the more vigorous prosecution of fishing and some other more or less allied rural industries. In these were included the improvement of the only town, Stornoway, and amongst them was a plan for using the neighbouring farms to provide a better milk supply. The applicants for small holdings demanded that these farms should be subdivided to accommodate some of their number ; and, at a later stage much trouble resulted.

It will thus be seen how exceedingly complicated was the Scottish project for increased small holdings. Local conditions were extremely diverse. In many respects the communities in parts of the Highlands were isolated and the township was a complete entity. Thus it was not a matter of getting land even in the same country, but in close proximity to the township. For instance, Lewis is in Ross-shire—the county the name of which is said to have provided one of the hundreds of variants of the great Russian myth at the beginning of the war.<sup>2</sup> Ross-

<sup>1</sup> *Report on Economics of Small Farms*, 1919, pp. 6–28.

<sup>2</sup> This form of the tale is that a train or trains carrying wild-looking soldiers were seen in the South of England. It was gathered that the men said they came from Russia, this being how the northern pronunciation of Ross-shire sounded to English ears.

shire stretches from the Outer Hebrides to the North Sea, and an attempt to move a part of the redundant population of Lewis to the eastern part of the county on the mainland would call forth comments from the Lewis people in comparison with which the Highland condemnation of the clearances, already described, would be almost complimentary.

One of the greatest difficulties lay in the want of experience of general affairs amongst very many of the applicants. They could not understand that, apart from avoidable delays, the rate of progress made by a public body would inevitably be slower than if circumstances had been such that new holdings were created by an individual in the ordinary course of business. Few crofters had any conception of the 'law's delay'. And this was added to by the phraseology of the Act of 1911. It was found that in the Hebrides and on the west coast of the mainland of Inverness-shire a number of proprietors were willing that their land should be used for small holdings,<sup>1</sup> but it turned out that, such are the mysteries of Parliamentary drafting, in certain cases the landowner who facilitated the formation of small holdings was liable to suffer pecuniarily in comparison with another who opposed it by every legal means.<sup>2</sup> So the net result was that the man, who co-operated in carrying out what Parliament had determined was in the national interest, was in effect liable to a conditional fine for doing so. This curious result arose in the following way. It was provided that, if in the event of a particular scheme proving a failure, the landowner might claim compensation for such damage as he could show he had sustained; but, if he and the Board did not agree as to the amount, he was not entitled to have it settled by arbitration if the holdings in question had been constituted by agreement. Of course the consequence was an increase in the amount of legal proceedings, adding to the cost for both parties, and, what was in some ways more important in the initial stages, delaying progress. In view of these and other difficulties and the Board's own mistakes it is not to be

<sup>1</sup> *First Report of the Board of Agriculture for Scotland*, 1913, p. xiv.

<sup>2</sup> *Third Report of the Board of Agriculture for Scotland*, 1915, p. viii.

wondered at that on many occasions it was one of the least popular institutions in Scotland.

Considering the date at which the Board of Agriculture was constituted it had about two years actual working time towards the development of land settlement up till the date that the progress of the war resulted in a serious contraction of its operations in this direction. In 1913 it had settled 116 men on new small holdings and 318 in the following year. This made a total of 434 up to the end of 1914, in addition to which at the same time it had enlarged 239 holdings. Of the new holdings almost 300 were in what has been described as the Highland area. Schemes had been drawn up and reported on providing in all for 1,194 new holdings requiring 167,140 acres. Of this amount of land 6,925 acres had been secured by voluntary agreement with the owners, and applications had been made to the Land Court for compulsory orders affecting an area of 130,636 acres.

In the circumstances of the war land settlement was an activity which was necessarily curtailed. A large proportion of the applicants were men in the prime of life and they were soon on war service, and would not have been available to take up holdings had it been possible to have them ready for occupation. The war, too, reacted both on the external activities of the Board and on its internal administration. As regards the latter one of the three commissioners was in the Army and another was for a time on the staff of the British Forestry Directorate in France. Of the whole staff which was 205 at the outbreak of war 113 had served in the forces up to the date of the armistice. As the war entered on various stages new and important duties of a most urgent nature were assigned to the Board, and it often became a question of how to use the depleted staff to most advantage. Thus it was inevitable that land settlement should recede into the background in favour of other tasks, most of which were exceedingly pressing. The conditions governing the provision of new holdings became more and more adverse. When the land was available, the main work, in transforming it into a holding ready for occupa-

tion, consisted in the adaptation of old buildings or the provision of new ones. Building labour and materials became exceedingly scarce, and in the exigencies of the later stages of the war it would have been bad economy to employ the former in comparatively remote places. This applied less to the Highlands than the rest of the country, since in the former region building labour is less specialized. The mason who builds a crofter's house is often a part-time worker spending the rest in some other occupation, and the crofter himself and his family supply almost all the unskilled labour. Stone is usually obtainable in the immediate vicinity, but most other materials have to be imported. Transport arrangements for the mainland north of the Caledonian Canal and most of the islands were exceedingly difficult during the war. For most of this area the normal and convenient means of access was by sea, and sailings were greatly reduced. The one main line of railway was strained to its fullest capacity, if not beyond, by serving the needs of the Grand Fleet. Under these circumstances it was not to be expected that much could be accomplished in equipping land for settlement; and, such progress as there was, consisted mainly in proceeding with work already begun. In 1915, 70 men entered on new holdings; in 1916, 52; in 1917, 29; and in 1918, 11. This gave a total from the commencement of the Board's operations in 1912 down to the end of 1918 of 596 new holdings actually occupied, in addition to which 433 holdings had been enlarged.

During the war the position of land settlement was involved in yet other difficulties in addition to the absence of land-owners, their factors and most of the applicants themselves on war service and the depletion of the staff of the Board. There was the general question of policy. Costs were advancing rapidly. In 1917, as compared with 1913, timber had increased in price by 250 per cent. to 300 per cent., cement by 100 per cent., iron and wire by 400 per cent., lime by 100 per cent., and labour by 80 per cent. The effect was that the annuity representing the charge for buildings on holdings would be higher, while the increase in the prices of stock and farm implements meant that those who entered on holdings at these prices would

require more capital if they were to have a given amount of stock. Probably, apart from other obstacles, the tendency was towards delay on the expectation which was common at the time, that prices would establish themselves not long after the armistice on a level which, if higher than that prevailing before the war, would be considerably lower than that of 1917. This expectation was not borne out by events, but it was one which was supported by a considerable amount of authority. There was no special reason in 1917 to anticipate the extent of inflation which prevailed for a considerable period in the post-war period.

There was, however, another side of the question which affected, or might have been expected to have affected, the policy of a body charged with land settlement. That was its relation to ex-service men. In 1916 the Board was instructed to consider schemes for settlements for discharged soldiers and sailors, and in the same year the Duke of Sutherland made a free gift of 12,000 acres of land in Sutherlandshire for the same purpose. Thus early there were straws which showed the way the wind would blow later. It was obvious that many of the previous applications would be renewed and reinforced by the claims of war service. The Board had settled 11 men on new holdings in 1918, but up to the armistice there were over 600,000 men enlisted from Scotland in the Army in addition to which were other service men and a considerable proportion of the total of these would be applicants. This, obviously, should have suggested active steps taken in advance to make some provision, otherwise there would be a vast number of urgent applications and dissatisfaction would result when there were not holdings on which to settle them. It would certainly have been wise if steps had been taken to have a certain number of holdings ready as soon as possible after demobilization; but it is necessary to take into account the uncertainties of 1917 and the greater part of 1918, as well as the unfortunate slowness of the normal action of a public department. Much criticism is ill directed in so far as it views a past situation in the light of fuller later knowledge. While this is undoubtedly so, it is a matter for regret that demobilization found Scottish land

settlement but little advanced. Thus, while there were several explanations of the want of preparedness, it is only when the position is viewed, not with the calm detachment of a public office, but from the very human one of the men who were about to be demobilized that it can readily be realized how very tense the situation was likely to become. A great number of these men had been applicants for holdings before the war. Those who survived had experienced all the dangers and all the miseries of two to nearly four years of active service. After the suffering they would expect that the promises made to them would be fulfilled. And this disposition was encouraged by the gorgeous, and even poetic expectations that had been scattered broadcast in aid of recruiting and by other forms of propaganda. Amongst the Highlanders the effect was specially marked. Their imagination is so vivid that, in the case of any future benefit, it is necessary to be exceedingly reticent. If one means to pay a man £1 in the future, it is not safe to promise him more than 5s. The latter sum will grow in his mind to such an extent that when he receives his £1 he will be somewhat disappointed, but not bitterly so. A number of the men expected they would have holdings waiting ready for them. They were not asking them as a gift. They had applied for them under statutory conditions. It was not unnatural that they should say 'we have been doing our duty for the country, and it seems not too much to ask that the country should have remembered its promises to us'. Also the Board ran the danger of falling a victim to its own propaganda. Presumably, in order to justify its applications for compulsory orders to take land, it kept a cumulative register of all applications, whether those applying were dead or had emigrated. Thus at the end of the year of the armistice the total, as compiled, amounted to 6,471 for new holdings and 4,254 for enlargements. Deducting the schemes completed, this left nearly 10,000 still to be satisfied. To this were to be added new applications from ex-service men, and it was very easy to calculate that it would take years to meet the apparent demand, and that there was a long period of further waiting in prospect. Views such as these became

intensified by other less legitimate considerations. As early as the spring of 1918 forcible seizures of land took place in Barra and in North and South Uist and in the Outer Hebrides also in Tiree and at Garty in Sutherland. There was serious unrest in Orkney, Shetland, Lewis, Harris, Coll, and Mull.

During the war the acquisition of land for settlement had not proceeded smoothly. No doubt the Board first acquired land in suitable districts which the owners were disposed to provide voluntarily, and, as more was required, recourse had to be had to other owners who, either were opposed to the whole policy of small holdings or who wanted an excessive price. With most of the proprietors away on war service dealings had to be carried on with law agents in Edinburgh, whose business and disposition it is to exhaust all the resources of the law. Also for a time at least the Board showed some signs of impatience and was bent on using its compulsory powers to the full. Arbitration yielded divergent results which did not satisfy the Board, and there were frequent cases in which the award was contested, but the success of the Board in the Courts was not striking. Finally there was what is known as the 'Lindean case', where the Board traversed the arbiter's award. Whereupon appeal was made to the Court of Session where a verdict was obtained, this was reversed by the Inner House, the highest Scottish court. The Board then appealed to the House of Lords and lost their case. Needless to say a legal quest to the House of Lords in London *via* the Scottish courts is very costly, and the money expended could have been put to much better uses.

## CHAPTER III

### THE SETTLEMENT OF EX-SERVICE MEN

Impetus to land settlement after the war: effect of the rise in prices: priority to ex-service men: financial assistance to them: statistics of the increase in rural population through small holdings: co-operation—'club sheep stocks': 18,000 applications in 1921: distribution of applications between the Highlands and the Lowlands: new holdings established 1912 to 1922: slowness of settlement: agrarian unrest: relation between agrarian unrest and industrial depression: emigration: position in 1922: number of corrected applications of ex-service men: ex-service men in sight of settlement: position of civilians: land available: position in 1923 and the governing conditions regarding the future.

THE coming of peace gave a new impetus and a new direction to Scottish land settlement. As already shown, opinion amongst the owners of land was not very favourable to the extensive creation of small holdings up to the outbreak of war. The comradeship of the years of strain tended towards a change in the point of view. Landowners or their relatives were prominent amongst the officers of Scottish regiments and in the naval services. Gradually there was reason to expect that, instead of being lukewarm or hostile to the movement, many would assist it in the form of the settlement of ex-service men. An earnest of the changed atmosphere showed itself in the gift of the lands of Borgie for this purpose, and that was followed by another by Mr. John Brown of Redhall, Kincardineshire, of Gariochsford in Banffshire. Meanwhile, the Government had not been idle. In the schemes for rebuilding the national life land settlement had an important place. Apart from afforestation, improved transport and land reclamation, it was the chief contribution towards reconstruction in rural districts. In addition, the reports on the national physique during the progress of recruiting had been disquieting, and land settlement seemed one method ready to hand by which the deterioration



could be arrested and a steady improvement effected. The Small Holding Colonies Acts of 1916 and 1918 were passed. Under the first of these measures the Board of Agriculture for Scotland was authorized to acquire land up to 2,000 acres for the purpose, and under the second to enlarge the area up to 20,000 acres, the addition being held under lease or a rent charge. Then followed the Land Settlement (Scotland) Act, 1919, which removed a number of limitations in the Acts of 1916 and 1918, and simplified the legal procedure in the acquisition of land. In these ways the preliminary steps were taken for meeting the demand for holdings from ex-service men, and in the same class were placed merchant seamen.

Then there was the reaction of the change in the level of prices. This had several sides. First, as affecting the demand for land, the rise had the effect of bringing an unexpected, though temporary, benefit to small-holders who had been in possession of land before that rise began. Their stock appreciated. Also many of them were more favourably situated as regards rates and taxes than the large farmer. The rise in the price of food only affected them to a limited degree, as they grew a part of what they consumed. Altogether during this period they were in an exceedingly favourable position. Broadly speaking, the same circumstances which brought gain to established small-holders produced a very serious situation for all those who had not yet entered on new holdings. The equipment was at an extravagant price, stock and implements would cost very much more. Therefore there was the problem, which became increasingly difficult, of the finance of incoming small-holders. There were two sides to this. The man, who before the war was just able to enter on a holding and had joined the forces, found his original funds quite inadequate, and he had few means of adding to the amount during the period of his service. Any army gratuities he may have received would not go very far. The position of the applicant who had been kept at home was less unfavourable. If he had had enough before the war, he would have had chances of increasing that amount, though doubtless not up to the full measure of the advance in

prices. There was also the case of a number of ex-service men who had ample agricultural experience, and would be likely to make fairly good small-holders, but who had little if any capital. No doubt the person with experience in the fluctuations of industry would say it would be better to wait, since it is scarcely ever wise to go into anything on the top of a boom. But waiting was difficult in the special circumstances. The war had lost applicants four years. The men demobilized doubtless felt that now was their chance. Public sentiment was in their favour, and it was well to take advantage of it before it had time to change. Also the war had cut many men's lives in half. Now, on demobilization, was the time to get into their life-work as soon as possible. From that point of view any protracted period of waiting was liable to very considerable social disadvantages.

In one respect these various factors were subject to some modification in the Highlands and Islands. There, where it was necessary to erect buildings on a holding, the man usually supplied all the unskilled labour himself, did the carting, and fed the mason during the progress of the work. Thus at pre-war values it was usual to erect a fairly comfortable house for an expenditure in cash of about £60. After the war the timber required and the slates would cost considerably more and carriage on them would be higher.<sup>1</sup> But the advance in the other elements of the cost of the buildings would be much less. Thus, where this method of building was in vogue, the burden of the equipment of the holding would not show so much increase as it would in cases where labour was hired in the ordinary way. Further efforts to reduce building costs were made by the purchase by the Board of surplus army material, such as huts. It was anticipated that fairly durable homesteads could be made out of these, and that 'a valuable investment' had been made by such purchases 'at a minimum cost on a rising market'. The expectation of saving, as compared with the cost of stone or brick structures, was far from being

<sup>1</sup> In 1919 the Board of Agriculture for Scotland intimated that it would supply building materials at cost price and delivered free to the nearest port or railway station. *Eighth Report*, p. xxvi.

realized, but in the critical situation of getting something done, these huts had a substantial advantage in rendering holdings available considerably earlier than would otherwise have been possible at the time. Similar purchases of wire for fencing were also made.

It was felt that ex-service men should have priority, and that they ought to have some financial allowance against the high cost of buildings. The pre-war position was that the accepted applicant became a land-holder under the Act of 1911, and was entitled to have a fair rent fixed for the land by the Land Court. The Board, out of its funds allocated for the purpose, bore the expenses of survey, plans, some of the compensation to tenants and other expenses connected with the adaptation of the holding. Where buildings were necessary the Board was prepared in approved cases to advance the capital repayable over a maximum period of fifty years at an annuity of 4 per cent. to cover sinking fund and interest. This left the rate for the latter  $3\frac{1}{8}$  per cent., a low rate in 1912-13, and one which had little relation to the cost of capital at the end of the war and during the early years after the armistice. Even so the position presented immense difficulties. Even at this rate, which was no longer an economic one, the cost of building had increased so much that small holdings, burdened with a 4 per cent. annuity on the cost of erecting a house, had become a highly dangerous proposition. The annuity on the cost of buildings might amount to as much as twice the fair rent of the land. As regards ex-service men there were the equities of the case. Through their service they had lost such chance as they might have had of securing holdings on the former more favourable conditions. The general feeling was that, as far as it could be contrived, men should not suffer through their having done their duty in the Navy or the Army. Also there was the general question of public policy regarding land settlement; since, with an immense demand for holdings, it became clear that unless the position were eased in some way for new applicants, the whole movement was in danger of coming to a stand at a very critical time. In relation to the

increase in the rural population by closer settlement some interesting figures were arrived at. The investigation was a comparatively limited one, being confined to six arable and six pastoral farms, as they had been with respect to the families living on them before they were converted into small holdings, and afterwards, with a similar comparison as to land cultivated and the stock carried. In both classes of farming there was an increase in the rural population, even when account is taken of the fact that the reckoning is by families, and the large farms would employ a considerable proportion of single men. But the advantage is much greater in the case of the pastoral farm than in that of the arable one.

COMPARISON OF (1) SIX AREAS OF LAND USED (a) AS ARABLE FARMS, AND (b) AS SMALL HOLDINGS, AND (2) OF SIX AREAS OF LAND USED (a) AS PASTORAL FARMS, AND (b) AS SMALL HOLDINGS.

	Arable		Pastoral	
	Before settlement	After settlement	Before settlement	After settlement
Total number of families . . . . .	52	90	29	243
Acreage under crop other than grass and hay . . . . .	1,112	1,593	214	1,225
Acreage under hay and grass . . . . .	2,210	1,467	6,693	5,682
Number of horses . . . . .	71	160	43	368
Number of cattle . . . . .	731	637	572	1,459
Number of sheep . . . . .	1,667	593	6,583	6,051
Number of lambs . . . . .	1,312	461	2,010	1,050

In view of the special claims of ex-service men in rural districts, as well as the wider question of general policy in reference to land settlement, it would appear that the broad equities of the situation would be met by an endeavour to arrange that service men, settled on the land, would not enter on occupation in a worse financial position by reason of their entry having been postponed through such service. In other words the attempt might be made to arrange that their obligations would not be greater than those of others who had entered on their holdings before the war. Even if this could have been

accomplished, these men would lose the advantage of the good times which those who were already installed had secured during the war. It is to be remembered that in rural Scotland there was little else that could be done for this class, and such action as was taken in their favour has to be compared with the various training schemes for urban workers and with the somewhat similar schemes for townsmen in England who now proposed to devote themselves to an open-air life. Also the large proportion of the population in the Highlands and Islands, which was affected, has to be taken into account. In Shetland, for instance, it was estimated that one-quarter of the *whole* population had been serving in one form or another—a remarkable proportion which was rendered possible by certain auxiliary services, such as coast watching,<sup>1</sup> which could be rendered by men over military age or in special cases by women.

If this view of the equities of the situation be accepted, there were several ways in which effect could be given to it. That actually adopted was the following, which was promulgated by an Order of the 17th of October 1919. Loans for the erection and adaptation of buildings were to extend up to a period not exceeding eighty years, in which case the annuity for repayment of principal, interest, and insurance was 2 per cent. of which the rate of interest was  $1\frac{1}{4}$  per cent. Loans for the provision of drainage were repayable within twenty-five years, for fencing, repayable between seven and fourteen years, though in exceptional cases certain types of fencing might be provided as a free gift by the Board of Agriculture. Interest on loans for drainage and fencing was charged at  $3\frac{1}{8}$  per cent. In addition the Board undertook to provide roads for access to new holdings and water supply as a free gift.<sup>2</sup> The largest item involved was that for buildings, particularly outside the Highland area, and the general effect of the scheme was that the annuity would remain about the same where the cost of the same buildings was doubled, since the rate of interest and

<sup>1</sup> On the northern coasts a perpetual watch seawards was maintained through the war. In at least one case a lady was decorated for special services of this nature.

<sup>2</sup> Order of Board of Agriculture for Scotland No. 2227/S. 72.

repayment was reduced by half, i. e. from 4 per cent. to 2 per cent.

Accepting the general principle, one searches for some reason to explain whether this order is not so utterly indefensible as it looks. At the date of the Order the Government was paying  $5\frac{1}{2}$  per cent. on Treasury Bills, and early in the following year the rate was increased to 6 per cent. Thus for a time money would be lent at less than one-quarter of the rate that it cost. This method had the very serious defect of failing to take account of the point of view of the other party to the bargain and that of their successors. The grandsons of ex-service small-holders may still be paying annuities on the loans for buildings. When times are hard<sup>1</sup> it will inevitably be a grievance that the principal for these buildings was an inflated one, and the great abatement in interest will not be accepted as a set-off. Eaten bread is soon forgotten, and as the rate of interest on Government securities falls the value of the concession in interest will be reduced. When the Government borrowed at 6 per cent. it was giving away 79 per cent. of the interest: if the rate fell to 3 per cent. it might be abandoning 58 per cent.<sup>2</sup> There was the further danger that when settlement was opened to non-service applicants they would expect and claim correspondingly low rates. There is an extraordinary difference between the attitude to finance in a city office and on the countryside. Not amongst small-holders only, finance is commonly regarded as one of the methods by which the townsman exploits the worker on the soil. It is highly probable that in the future in rural districts abnormally low interest will be regarded, not as it was intended to be, a special concession to ex-service men as a purely exceptional measure, but as a natural concomitant of the establishment of

<sup>1</sup> As a matter of fact by 1923 it was stated by the Board of Agriculture for Scotland that 'the burden imposed on the holders in respect to the abnormal cost of buildings. . . was too heavy to be met by the return that could be expected from their holdings', and it was arranged that the small-holders might have these charges reviewed by the Scottish Land Court. *Twelfth Report of the Board of Agriculture for Scotland, 1924, p. 15.*

<sup>2</sup> This would depend upon the Government borrowing for land settlement being in such short dated securities as would secure the benefit of a reduction in the rate of interest.

small holdings. On the general principle of recognizing service in the forces the simple form of this transaction would have been to write down the loan to such an extent as might be calculated to make allowance for the exceptional advance in the cost of building construction, or alternatively (which would have been simpler) to the pre-war cost, and then to have charged interest at market rate. This would have been a frank recognition of the facts of the case, and as interest rates fell it would have left some surplus. Unfortunately, during the period of inflation in 1919-20, ordinary sane financial methods were supposed to be banished to Saturn. From that point of view the objection was that, if the element of inflation in building costs were frankly written off, it constituted a present obligation to be provided at the time. If, for instance, a million was spent on buildings and half of it was not charged in the advances to small-holders, that half million would have to be provided for in the Budget. By the method actually adopted, no such charge was necessary, and the maximum amount of the loss was supposed to be passed on to posterity. Like all inflationist devices these were the natural and inevitable reactions. The loss, as between interest paid and interest received, as well as the cost of the fencing and roads and water supply, provided as free gifts, would cut into the funds at the disposal of the Board for the constitution of holdings. When economy succeeded inflationist administration the resulting drain would be seriously felt. It is significant in this respect that, although the funds at the disposal of the Board in 1920 were augmented by  $2\frac{3}{4}$  millions of pounds under the Act of 1919, it was found in the autumn of 1920 that the available funds were earmarked, and no further commitments could be undertaken during the remainder of the year.<sup>1</sup>

Apart from the method adopted, the general effect of these arrangements was that the ex-service applicant for land would be placed, as regards permanent improvements, in a position generally not less favourable than he would have been on a pre-war basis. There remained the question of his liability

<sup>1</sup> *Ninth Report of Board of Agriculture for Scotland, 1921, p. xv.*

for circulating capital, chiefly in the form of stock, implements, &c. The rise in prices was notorious. The following are some of the percentage increases as between 1914 and 1920 :

INCREASES IN PRICES OF STOCK, 1914-20 <sup>1</sup>

Store stock	Increase per cent.
Aberdeen, Angus two year olds. . . . .	143
Highland two year olds . . . . .	110
Ayrshire dairy cows. . . . .	170
Shorthorn crosses . . . . .	172

This left the position of the ex-service man a serious one as regards his expenditure for stock. In the case of pastoral farming some relief was found by co-operation, in the case of what are known as ‘club-sheep stocks’. Where a large farm had a stock of sheep this was transferred ; but instead of being divided amongst the small-holders, it became their joint property. In some cases funds for the purchase of sheep stocks as ‘a club stock’ were provided by a Land Bank, formed by the Scottish Small Holders’ Organization. But help of this kind did not extend very far. Indeed one of the great handicaps to the success of the small-holding movement in Scotland is the comparative backwardness of co-operation there. It is true that in Orkney there have been strikingly successful developments, especially in the egg trade, but elsewhere the agricultural co-operative movement is far behind that of many other countries. The scattered nature of the population in many districts has been one obstacle : while in other places, where the people live comparatively close together, the nature of their agriculture gives less scope for co-operative effort. In pastoral farming, for instance, apart from the holding of club-sheep stocks and co-operative purchases of household goods, there is comparatively little room for the simpler types of the movement, and it is usually upon these that the more complex developments, such as co-operative credit, are super-imposed. At the same time the normal life of a Highland township might almost be said to exist on a basis of co-operation in the wider sense of the term, and in the end this may prove a valuable basis from

<sup>1</sup> *Agriculture Statistics, Scotland*, for 1920, ix, Part III, p. 88.



which a special form of co-operation, suitable to the conditions of life and industry, may be constructed. On the other hand, in the dairying districts, the movement has made inconsiderable progress as compared with what has been accomplished in Denmark.

It remained then to devise some means by which the immediate post-war situation should be eased for applicants for land, not only as to permanent capital, but also in the supply of circulating capital. Here a somewhat different method was adopted. Loans for the purchase of implements were not to extend over more than five years (and that only in exceptional cases), the normal period was three years. Those for stock (other than sheep) were limited to a maximum of five years. The rate of interest was 5 per cent., and the amount was in general limited to a sum equal to that which an individual could himself supply, while the Board was precluded from lending him more than 75 per cent. of the sum required nor more than £500 at one time without the sanction of the Treasury.<sup>1</sup> This was a much more business-like proposal than the scheme for loans on buildings. Its chief defects were fortunately limited by the nature of the case: since, as matters turned out, not a large amount could be lent before the fall in prices had set in, and the risk of loss by such fall was in fact thus considerably curtailed.

To summarize the results of the complicated process of attempted readjustment which has been described, it may be said to have given the small-holder a fighting chance. It was not satisfactory in one respect, namely as regards men who took up holdings with stock at high prices. There was no insurance against the fall which eventually took place, and a situation was likely to develop in which the small-holder had to face a loss which would at least cripple, or might ruin him unless he received further aid from the public funds. As has been shown, the whole situation was immensely complicated by the danger of grave social disorder in certain districts if there was prolonged delay after demobilization, and in such conditions loss was unavoidable.

<sup>1</sup> *Ninth Report of Board of Agriculture for Scotland, 1921, p. xvii.*

It now becomes possible to examine the prospective demand for holdings in the light of these and other post-war readjustments. It will be best to obtain a bird's-eye view of the position by considering the applications in 1921, since notice was published that a man, to be entitled to preference on the ground of his war service, must have lodged his application before the 1st of March 1921. By the end of the year the pleas for land were sufficiently formidable. They numbered altogether over 18,000, and, to satisfy them all, perhaps  $1\frac{1}{4}$  million acres would be required. The following are the details :

APPLICATIONS FOR NEW HOLDINGS AND ENLARGEMENTS RECEIVED UP TO DECEMBER 31ST, 1921

	New holdings	Enlargements	
From civilians. . . . .	6,645	5,253	
From ex-service men . . . . .	6,114	150	
Totals . . . . .	<u>12,759</u>	<u>5,403</u>	= 18,162

The distribution of these applications as between the Highland counties (with the addition of Argyllshire) and the remainder of the country is interesting :

APPLICATIONS FOR NEW HOLDINGS IN THE HIGHLAND AREA AND IN THE REST OF SCOTLAND

	Areas north of Caledonian Canal with the addition of Argyllshire	The rest of Scotland	
From civilians. . . . .	4,253	2,392	
From ex-service men . . . . .	3,714	2,400	
Totals . . . . .	<u>7,967</u>	<u>4,792</u>	= 12,759

It is noticeable that the great majority of applications is still from the first of these two regions, but the discrepancy is not so great as had been the case before the war when over seven out of eight applications applied to the Highland and Island districts : now it is not quite two out of three. Since those from ex-service men had priority, these were most important, and these represented only three out of five for the Highlands. This fact had a distinct bearing on the quantity of land required, since a smaller area was required in the south, but the capital

needed for buildings would be greater. It was, as yet, impossible to say how many of the 6,114 ex-service applications would be effective. Some men would not have enough capital, and others might not be accepted by the Board for various reasons. Then many of the men might not accept holdings under the only conditions on which they could be offered to them. A small holding was one proposition during the roseate visions of 1919, and quite another in the colder light of a time of deflation when prices were falling. Again, some of the men thought they were to get holdings just where they wanted them, and they might refuse the nearest available. Nor was this an idle fear. In 1921 there was a case in Caithness. Certain holdings were ready for occupation. All the applicants who were ex-service men in the county, numbering 144, were written to. Of these 50 did not reply, only 8 took holdings, 17 refused to consider holdings except in districts where none were being planned, and 25 would not accept any holdings that were on offer.

As to the applications for holdings and enlargements from civilians, amounting to 11,898, these were in many cases duplications of those from ex-service men. Thus a man might have applied for a holding in 1913 and have subsequently joined the forces. If he wished to go on with the matter he was bound to apply again as an ex-service candidate. If he was accepted and entered on a holding, his first application would be ineffective, though in the meantime it swelled the total of civilian applications. At the same time the discrepancy between the civilian and service applications for enlargements was significant, showing that 5,000 of these must have been in addition to the ex-service claims.

At this date, including gifts of land, the Board of Agriculture had acquired almost 300,000 acres. About one-sixth had been used in providing holdings already in occupation, and it was anticipated there would be over 200,000 acres ultimately available towards meeting the demand, with the addition of such other lands as would be acquired later.

At the end of 1914, 434 new holdings had been established by the Board of Agriculture. During the pressure of the

remaining years of the war work was confined to completing the conversion of land from farms so as to make it available for settlement, so that between 1915 and 1918 only 162 holdings were constituted. In 1919 and 1920 progress was still slow, 282 new holdings being occupied in the former, and 227 in the latter year. The number in 1921 was 415, in 1922, 433, and in 1923, 322. This made a total of 2,279 new holdings between 1912 and the end of 1923, of which 1,507 were granted to ex-service applicants.

NEW HOLDINGS MADE AVAILABLE, 1912 TO 1922

1913 . . .	116	}	434
1914 . . .	318		
1915 . . .	70	}	162
1916 . . .	52		
1917 . . .	29		
1918 . . .	11		
1919 . . .	282	}	1,679
1920 . . .	227		
1921 . . .	415		
1922 . . .	433		
1923 . . .	322		
Total . . .	2,275		

One-fifth of the ex-service men had been settled, and that was considerably more than appears on the surface, since a proportion of the applications would not be approved. It seemed, however, to the men that progress was painfully slow and behind the service men were all the other applications which were temporarily postponed. The old difficulties, to which reference was made in the first Chapter,<sup>1</sup> come again to the surface, and these were made more active by the general unsettlement of the times. Just as industrial districts suffered from serious labour troubles, so land-raids took place in a number of areas. Men who wanted land took the law into their own hands and began to plant crops on farms or other ground which they seized and in some cases endeavoured to hold by force. As early as 1918 there was considerable tension in Lewis. In 1919 there were many threats of forcible seizure of land in the Highlands, and extreme measures were resorted to in the

<sup>1</sup> See above, p. 229.

Hebrides, particularly at Glendale, South Uist, and at Kinlochmeavig in North Harris. In 1920 actual raids were carried out in sixteen cases, and threats of raiding were made regarding no less than forty-seven farms. In 1921 raiding occurred in South Uist at Grogary, Drimore, and Drimsdale. In the vicinity of Skye raiders came from the island of Rona, seized land on the island of Raasay, where they built houses and began to cultivate the land.<sup>1</sup> It was announced in the Press in December 1921 that any applicant for a small holding, who was concerned in the forcible seizure of land, would be disqualified, and that his name would be removed from the lists of the Board. In spite of this warning, at the end of 1922 raiders remained in illegal possession of five farms, of which two were in Skye, one in Benbecula, one in Lewis, and one in Harris, these places all being in the Hebrides and the last three in the Outer Hebrides.

There was a curious and unexpected relationship between agrarian unrest and the industrial depression since 1921. The Highlands and Islands have been very heavily hit both by the latter and by the fall in the price of stock. Fishing has been poor, though showing signs of improvement. This has had a double effect. In Lewis and other places many support themselves partly by agriculture, partly by fishing, and previously poor returns from the former have been helped out by average or good results in the latter. Then again, many of the young women have brought home quite considerable sums from their work in the herring-curing industry. It seems impossible for this trade to approximate to its pre-war prosperity until conditions are more settled in Germany and Russia.<sup>2</sup> Further, in many Highland families the Budget is materially helped by one or more of the men obtaining employment in the towns during the winter. Under recent conditions in the labour market this resource is almost completely closed. Accordingly there is reason to believe in many cases it is difficult, if not impossible, for a number of men to wait for a chance of a small

<sup>1</sup> As to the circumstances of this case see *Reports of Land Court for 1920 and of Board of Agriculture for Scotland for 1920.*

<sup>2</sup> See above, p. 75.

holding. This is one explanation of the great emigration from the Highlands and the Islands in 1922 and 1923. Also there were the cases of men who had not the courage to face the risks of a holding in Scotland, as well as of all those who had no capital. Thus scenes, such as those recorded at the end of the eighteenth and beginning of the nineteenth century, were again witnessed, when emigrant ships started from Highland ports (as for instance from Stornoway) with families and young men seeking a home in Canada.

The extensive emigration will have its effect in reducing the number of effective applications for holdings in Scotland. By the end of 1922 it was possible to make a rough stock taking of the position. As already pointed out,<sup>1</sup> previous lists of applications contained many names of men for whom, through one reason or another, holdings would not require to be found. An effort was made to estimate the extent of the deductions to be made from the totals under this and other heads. Taking the service men first, applications had continued to come in after the date which was announced as that qualifying for preference. Accordingly these applicants fall into two categories, namely, those who had applied at the proper time and who were entitled to full preference over civilians, and the other ex-service men who were arranged in a class ranking for second preference. The following are the applications for new holdings from these classes :

EX-SERVICE MEN'S APPLICATIONS FOR NEW HOLDINGS AT  
DECEMBER 31ST, 1922

	Applications	
	First preference	Second preference
Total applications . . . . .	6,211	1,007
Less withdrew or untraceable . . . . .	2,243	140
Reported on unfavourably . . . . .	55	1
	<u>2,298</u>	<u>141</u>
	3,913	866
Number settled in new holdings . . . . .	<u>1,202</u>	
	2,711	

A number of these remaining applications had not yet been

<sup>1</sup> See above, p. 245.

reported on, and the Board of Agriculture expressed the opinion that ' a large proportion of these may be regarded as ineffective from unsuitability, lack of capital, or other reason ' .<sup>1</sup>

There remained all the civilian applications, work upon which had been to a large degree suspended during the war. A scrutiny of these resulted in a considerable reduction in the number which remained to be provided for if circumstances rendered this possible. The total number was reduced by about half, and in the case of applications for new holdings by more than half. The following are the details :

CIVILIAN APPLICATIONS FOR NEW HOLDINGS AND ENLARGEMENTS AT  
DECEMBER 31ST, 1922

	Applications for new holdings	Applications for enlargements
Total applications . . . . .	6,461	5,477
Less withdrawn or untraceable . . . . .	2,710	1,022
Refused . . . . .	90	18
Reported on unfavourably . . . . .	57	41
	<hr/> 2,857	<hr/> 1,081
	3,604	4,396
Number settled on new holdings or provided with enlargements of existing holdings . . . . .	751	1,093
	<hr/> 2,853	<hr/> 3,303

These totals are subject to further reductions. A large proportion had not been reported on, and amongst these some applicants would be unsuitable for various reasons. Also, there were some still on the list who had emigrated.

As against the applications, both ex-service and civilian, the Board of Agriculture held over a quarter of a million acres ultimately available for subdivision, and this quantity of land was being added to as various negotiations matured. Necessarily the progress of the scheme will be subject to the changed financial position of the country. Already in 1921 a Committee of the Cabinet had investigated the policy and finance of land settlement in Great Britain. The Board of Agriculture for Scotland was enjoined ' to proceed with the utmost expedition

<sup>1</sup> *Eleventh Report of Board of Agriculture for Scotland, 1923, p. 14.* In addition there were 263 ex-service applications for enlargements, and at the end of 1922, 155 of these were in occupation of additional land.

to provide new holdings and enlargements for ex-service men, subject always to a strict observance of the instructions as to economy'. Further, the Government decided that, 'in order that as many applicants as possible may be provided for in the existing financial situation, it was essential to reduce materially the average expenditure per holding'. This involved a reduction in the size of holding and the provision of a minimum equipment.

This decision introduced further elements of complication. The claims of ex-service men are within sight of being provided for. In satisfying these it will probably turn out not to be wise to limit the size of holding to an extent which will make it smaller than requires a pair of horses. Otherwise it is in danger of being driven below the economic unit. To that extent, not only are the chances of the new holders prejudiced, but the security of loans to them is impaired. While the greater part had been lent on buildings the possibility must be faced that, if the holdings are too small to be economic, they may become derelict and the advances would probably be lost. The contraction of expenditure on buildings was on a somewhat different footing. Since in many cases loans were being made on them from public funds, it was essential that they should be durable. Subject to this qualification, the difficulty of the financial situation was bound to have its reactions here as well as elsewhere. The country could only afford to assist in the provision of a bare minimum of buildings, and the prospective small-holder could not reasonably expect to escape the difficulties of the housing position, though in a number of cases there was considerable opposition to the revision of the plans.<sup>1</sup>

Assuming that (as should soon be the case) the valid applications from ex-service men are disposed of by settling them on the land, there remains the civilian demand. When the time comes it will be necessary to reconsider the whole position. Something will have been accomplished towards meeting the social ideals which lay at the root of the movement, but not enough. Experience will have shown whether the small-holder will be self-supporting and can maintain himself without concealed

<sup>1</sup> *Tenth Report of Board of Agriculture for Scotland, 1922, pp. 18, 19.*



subsidies from the State. Then it will be a question of what the country can afford to spend upon a movement which, in Scotland, has many social arguments in its favour. No very definite anticipation of the answer that should be given can be reached at present. The urgency of the various aspects of the social question involved in the small-holdings movement has to be compared with that of other problems as they will then present themselves, and that result corrected by the data, furnished by experience, of the stability of the holdings that have been created. Then, too, the state of the finances of the country will be a dominating consideration. The change as between 1912 (when the present phase of the movement started) and 1922 is distressingly unfavourable. But it may at least be hoped that, when the position is reviewed, a very material improvement in the financial situation, as it was in 1923, may be apparent.

VI

APPENDIX

THE JUTE INDUSTRY IN SCOTLAND  
DURING THE WAR

BY

JOHN PERCIVAL DAY, B.A., B.Sc., D.Phil.



## § 1. INTRODUCTION

Origin of the industry at Dundee : productive capacity and numbers employed before the war : the raw material : the risks : the jute mills at Calcutta : ' the jute industry is never normal '.

THE Jute Industry in Britain, which is practically confined to Dundee, has some peculiar features which it is well to note at the outset. It is a young industry ; it has been carried on by private rather than joint-stock enterprise ; it is largely dependent on the labour of women and adolescents ; and it is an exceptionally risky business.

The first cargo of jute directly imported into Dundee arrived in 1840 ; the tendency to turn from the older flax manufacture to jute was greatly strengthened by the stoppage of flax supplies during the Crimean War. Up to 1855 Dundee had a virtual monopoly of the industry, but in that year spinning and weaving started in Calcutta. In 1873 began the expansion of a previously insignificant production on the Continent of Europe. The shares in the world's consumption of raw jute in 1913 may be estimated :

	Per cent.
India : mainly Calcutta . . . . .	53·8
The Continent of Europe . . . . .	25·7
United Kingdom : mainly Dundee . . . . .	13·6
America . . . . .	6·6
Other areas . . . . .	0·2

In 1913 there were sixty-nine Dundee firms importing jute, and between fifty and sixty works. There were said to be 267,000 jute spindles in the city, and 23,000 in other parts of the United Kingdom. The number of looms was estimated at 13,500, and the amount of capital invested in the industry at over £10,000,000. When the industry was on full time it probably employed over 35,000 persons, and provided work for fully one-quarter of the occupied men, and two-thirds of the occupied women, of the city. The Census returns of 1911 group the jute and hemp manufactures together, giving 84 employers,

11,042 male, and 23,368 female workers. Of the last named, 5,787 were under twenty years of age, 5,532 were married, and 2,107 were widows. Of the males, 3,120 were under twenty years of age. It will be noted that Dundee has an extraordinarily large proportion of married women occupied in work outside their own homes. The wages paid appear to have averaged less than £1 a week.

PERCENTAGE OF MARRIED WOMEN AT WORK

Town	Ages 20-4	Ages 25-44	All ages
DUNDEE . . . . .	41.1	25.2	23.4
EDINBURGH . . . . .	7.3	5.0	5.1
GLASGOW . . . . .	7.5	5.3	5.5

The number of operatives employed in the Calcutta mills was 202,948 in 1913, of whom 10 per cent. were children under fourteen years of age. This child labour, which the employers claim to be 'a most important and indeed indispensable element in the production of jute goods', has not been favourably regarded elsewhere, and suggestions were made in 1913 in the United States that their tariff should prohibit the importation of jute goods partly manufactured by the labour of children under fourteen years of age.

The world's supply of raw jute is grown on a comparatively small area of about 3 million acres in the deltaic lands of the Ganges and Brahmaputra. Relatively insignificant quantities are obtained from the Madras Province and from China, and experimental cultivation has been tried in other places, as e. g. the more humid areas of the Sudan. The sowing of the Bengal crop begins about the middle of March. In the following months too much rain or insufficient sunshine may harm the young jute, but June is the important time which gives weight to the crop. Towards the middle of this month the monsoon breaks, and about the end the new harvest may begin to arrive in the Calcutta Bazaar. Arrivals, however, are sometimes delayed by a low level in the river causing a shortage of water for steeping purposes. The new jute season proper is taken to open on the 1st of July, and thence onward till October increasing shipments are normally made from

Calcutta and Chittagong, after which month the shipment totals fall off.

The freight charges from Calcutta to Dundee in the summer of 1913 were 30s. a ton, and the duration of the voyage is something over a month; the *Matheran* in March of that year completing a very quick passage in thirty-one days.

The jute crop is a fairly precarious one, an average out-turn being about three bales of 400 lb. to the acre.

	Acreage under jute	Out-turn in bales	Number of bales per acre
Average 1907-13	3,115,000	9,171,000	2.94
1907, a bad year	3,974,000	8,648,000	2.17
1912, a good year	2,970,000	10,291,000	3.46

It is, therefore, an exceedingly important matter for the trade to be able to estimate the probable crop as soon as possible. For this the trade depends partly on information from private sources and partly on the official forecasts. The latter are published by the Director of Agriculture in Bengal; there is a preliminary forecast of the acreage published about the 15th of July and sometimes preceded by district forecasts, and a revised forecast is published later. About the 20th of September the final acreage returns become available and a forecast of the out-turn in bales is issued. The figures for the approximate actual out-turn in bales may not be issued till March. Thus in July 1913 the preliminary acreage forecast was given as 3,191,178, in September the so-called final acreage gave 3,169,000, a revised figure of 3,180,614 came later, and the actual acreage turned out to have been 2,910,960. So, too, the bale forecast of September gave 8,751,000, revised later to 9,988,500, and the actual out-turn was 9,836,675. There are rather wide discrepancies here, and the trade not seldom complains: to quote the *Dundee Trade Report* for March 1914,

‘Fancy eight months of the season gone and no official proclamation possible of the approximate raw material supply. What are known as the first and final forecasts of the jute crop are of no service to the trade in the very slightest and for all the use they are they might be compiled in Timbuctoo.’

This, of course, is exaggerated language; the forecast publication

is always an event of high importance with considerable influence on the market, as e. g. in September 1913 when a somewhat unexpectedly meagre forecast resulted in a jump of over twenty shillings a ton in the price of raw jute. It is, however, not only the quantity of the crop which matters but the quality also, and unfortunately there is no classification in the forecasts. There is often a shortage of really good jute, a matter of special importance to Dundee, which maintains its position largely through the manufacture of high-quality goods and special fabrics. There seem to be circumstances tending to a slow but steady deterioration in the quality of raw jute. Moreover, importers cannot always rely on obtaining the quality ordered for shipment. The jute is liable to damage in transit to an extent which runs rather under 3 per cent. of the bales shipped, while an even more important and more irritating feature is that the quality is sometimes not up to the proper standard. This means dispute, arbitration, and loss of time, the costliness and length of which have been reduced by the substitution by mutual consent of a commercial, in place of the legal, tribunal. Even so, the fines awarded do not compensate spinners, as the latter have to enter the market again to get the quality required and are forced to carry larger stocks than would otherwise be the case. A more drastic, but equally inconvenient, action is to invoice the goods back to the consignor, and this has occasionally to be done.

The yarn spun in Dundee supplies the home demand, and there is a considerable but decreasing export. Brazil at one time took half this export, but the establishment of the industry in that country under tariff protection has resulted in a very considerable decrease. A small amount of yarn is exported from the Continent to Britain. The yarn is woven into various fabrics, such as hessians, bagging, tarpauling, sacking; it varies from narrow widths for hose piping to, it may even be, eight-yard widths for linoleum backing. The home demand in 1913 was estimated at 46 per cent. of the output, 54 per cent. being exported. The export figures are divided by the Board of Trade into two classes: (1) bags and sacks; (2) jute piece

goods. The former are sent to a great number of countries for various trade purposes, but the Argentine, Germany, and the United States were the chief pre-war customers. The backbone of the jute piece goods export trade was the demand from the United States, to which country nearly half the quantity exported was normally sent. Canada and the Argentine were also important markets. Calcutta is practically Dundee's sole competitive seller in the jute goods market at home and abroad ; the continental countries of Europe are occupied with their own protected markets, and only sell outside from time to time to relieve pressure there. Calcutta has manifest advantages in supplying China and Australia, and her competition is strongly felt in America and even Britain. The cheapness of native labour and the advantages of manufacturing on the spot have assisted her, but the labour is neither so steady nor so efficient as in Dundee. There is often a scarcity of operatives, and the natives tend to go home for the harvest season. In May 1914 Messrs. Ralli issued the following circular to the Calcutta Mills :

‘ We have to draw your attention to the deterioration in quality, the numerous weaving faults, over-damping and under-shotting of gunnies produced by the Calcutta Mills which during the past twelve months have reached enormous proportions. That a gradual lowering in quality has been going on during the past seven or eight years is generally admitted, but the sudden drop in quality and the innumerable weaving faults that have arisen is, to say the least, alarming. In consequence, consumers have become much more critical in their examination of Calcutta made gunnies, which has resulted in many arbitrations and heavy allowances having been awarded.’

Neither in Calcutta nor Dundee do the manufacturers, as a rule, have direct dealings with foreign countries. The product is usually sold ‘ on change ’ to merchants who have their connexions and travellers abroad, and these are the people who in normal times pit the prices of Dundee against the prices of Calcutta, and it may be of Hamburg, in the markets of the world.

The exceptional riskiness of the industry is due to its double dependence on the uncertain harvests of the world. The Indian harvest determines the supply of raw jute ; the harvests of the



Argentine, North America, and Australia make up a large part of the demand for jute products. It is not possible to forecast the result of these harvests long before the actual ripening. The earlier purchaser of raw jute may find prices fall away and himself undersold by those who bought later at an easier price. The spinner, who delays purchasing in the expectation of cheaper jute, may find, as a consequence of good harvests in the New World and an anticipated strong demand for the jute goods, that raw jute rises, and he is forced to buy at prices which cut into his profits on the yarn. A successful year's trading depends very largely on hitting the right time to buy the fibre, and, when the demand for the manufactured article depends so largely on the results of wheat, sugar, coffee, and other harvests in various parts of the world, hitting the right time to buy must always be to some extent a matter of luck.<sup>1</sup> Under such conditions, gambling and speculation thrive; the jute crop begins to be sold before it is sown, and, while selling forward by the mills for as much as ten or eleven months may take place, on the other hand, customers who have waited too long often offer very high prices for immediate delivery. Business tends to come along in sudden quick rushes, as e. g. when, after a period of stagnation and nominal quotations, a higher level is indicated and people rush to get in before the rise progresses; or when, after dropping quotations and consequent holding-off for the rockbottom, prices become definitely steady and business rushes in to try and forestall the turn. Winter and spring months usually witness the greatest trade activity. If the price level for manufactured goods gets really unremunerative, the mills are forced to reduce output by going on short time or partially closing down. There is a somewhat natural tendency for one centre to wait for another, and even one manufacturer to wait for others. Combined action is not always easy to obtain, although the trade has an

<sup>1</sup> In July 1913 First Marks were sold at £25 15s., before the end of that year they had touched £36 10s., or in round numbers a difference of £10 per ton in favour of the early buyer. In July 1914 Firsts were bought at £28 5s., in December their value had dropped to £18 5s., a difference of £10 per ton against the early buyer.

Employers' Association, because the manufacturer who has bought jute at a low level, and so obtained an advantage over less fortunate competitors, does not always see the force of giving up the advantage and restricting output in order to force up the price for manufactured goods and help out his competitors. One important point, therefore, is that the market is so fickle and changeable, and fluctuations in price so considerable,<sup>1</sup> that the business men have always to be very alert and vigilant. Few remarks are more frequent in the Trade Report than that past experience is no guide, 'the market year by year must be fought in an entirely new manner, and it spells danger to look back and refer to anything that had occurred in the past'. It is this comparative absence of anything approaching a normal state in the jute industry which made the events of the war years less astounding to a trade which had the resource of trained capacity to handle emergencies.

<sup>1</sup> Compare, for example, these :

July prices	Raw jute August First Marks per ton	Yarn Common cops per spool	Hessians 10½ × 40 per yard
	£	s. d.	d.
1909 . . .	13½	1 3	1¾ <sup>9</sup> / <sub>8</sub>
1913 . . .	28	2 5	3¾ <sup>4</sup> / <sub>8</sub>

## § 2. NARRATIVE OF THE WAR YEARS

Effects of the early months of the war : the *Emden* : divergence between the values of raw material and finished goods : in June 1915, Hessian cloth dearer than it had been since the American War : rise in freights : Government requisitions : wages disputes, 1916, 1917 : rise in prices, 1917, and fixing of maximum prices : increased control in 1918.

THE year 1913 was a very prosperous one for the trade ; the volume of business was very considerable and the price level unprecedentedly high. In February an all-round increase of 5 per cent. in wages had been given to the Dundee workers. A mistaken assumption that the demands for jute goods had been satisfied led to a temporary drop in prices in June, followed, owing to a short crop scare, by a rapid recovery to a yet higher level, but the year closed with the trade anxious, as the price of raw jute was abnormally high, at £35 10s. for First Marks, and a continuance of the high level of prices for the manufactured article could not be confidently expected. 1914 opened, then, with spinners holding back from purchasing until they could see what prices they would get for their yarn. Raw jute maintaining its high price, Calcutta went on short time in February, and Dundee, after a period of unremunerative trade, followed suit in May. The raw material dropped in June, but soon hardened owing to the lateness of the new crop, and the Dundee mills closed for the annual holiday of the last week in July with the market generally unsettled and waiting. The first result of the outbreak of war was to widen enormously the divergence in price of spot and shipment jute. The former ran up at once from £31 to £35, while the latter was nominal, and for some months the shipment of the new crop was very seriously hindered, partly by lack of shipping caused by the Government's requirements, and partly by the activities of the German cruiser *Emden*. At the end of September spot jute was offered on the basis of £35 for First Marks as against £19 for

October shipment. Cloth and yarn values also rose sharply, possibly owing to the general uncertainty of the outlook and the influence of the old tradition that there has never been a war without a good demand for jute goods. Moreover, orders were reaching Dundee, notably for Cuban sugar bags in connexion with the Government's large purchases of West Indian sugar, which might have gone to Calcutta had that centre been able to guarantee September shipment.<sup>1</sup>

In September, however, the bale forecast gave a record estimate of 10,531,505 bales, and considering that the Continent's consumption must become largely diminished, and that even Dundee could not consume more than the capacity of the machinery, not to mention shortage of labour, it became evident that, once shipment facilities could be restored, the price of the fibre would come down with a run. The *Emden* was destroyed early in November, and that month saw a big fall in values. Business was dull since buyers were waiting for the bottom of the fall, but when December opened with spot at £19 and shipment at £15, these prices were considered good enough for purchasing a considerable portion of the season's requirements, and a wonderful amount of business was put through. October and November also saw a heavy fall in cloth and yarn values, which, since business was very stagnant, seems to have been partly due to the general disorganization of the finance of foreign trade,<sup>2</sup> and partly to buyers holding off for the anticipated fall, and partly to the great restriction on exportation to neutral European countries and the great delay in obtaining special export licences. Possibly also the release of the accumulated stocks in Calcutta had its effect. On the 26th of November the Garden Works of J. C. Duffus and Nephew were closed down. Prices revived in December in sympathy with the raw material, and business became very brisk.

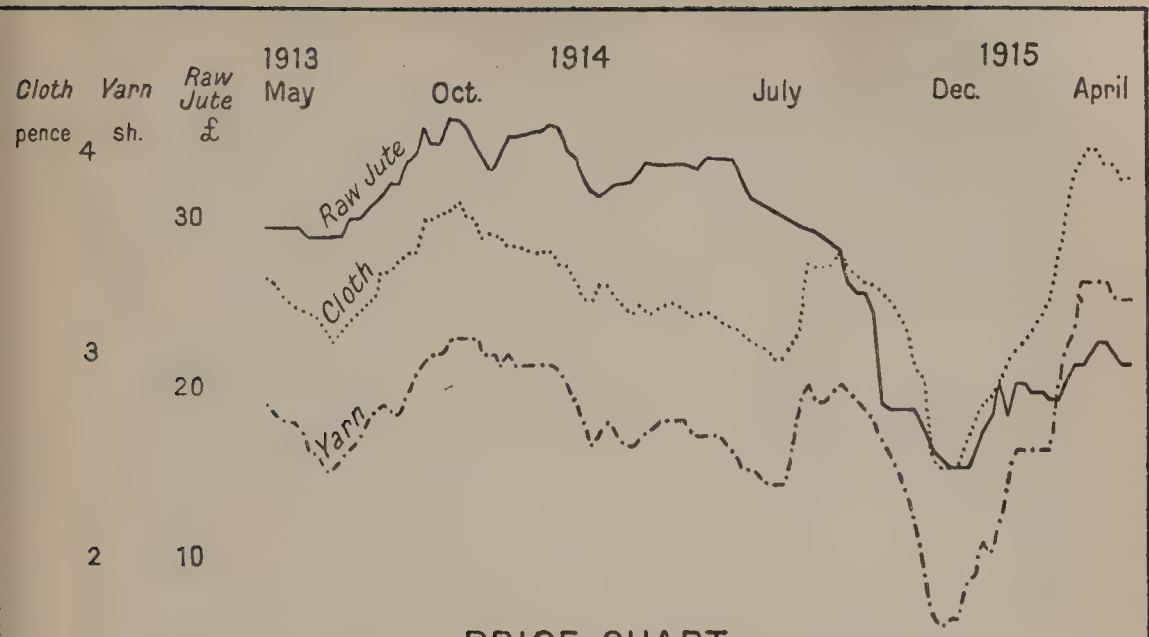
The reaction, helped by the alleviation of the financial

<sup>1</sup> These bags, which had been sold in Calcutta in July at 69s. 6d. net per 100, Cuban ports, were bought as high as 112s. 6d. per 100 less three per cent. c.i.f. for Liverpool.

<sup>2</sup> The Government scheme of relief to export merchants was announced on the 3rd of November.

difficulties of foreign trade, continued in the new year (1915); cloth and yarn rose steadily and continuously in price, though the raw material failed to follow and lost all its usual influence on the market. The crop, in fact, was known to exceed the consumptive power of the jute world, and spinners, already comfortably supplied, were able to maintain their position. There was still a scarcity of labour in Dundee, some machinery standing idle, and much congestion in the sewing branch. The price of raw jute would, indeed, have gone even lower but for the freight charges which were rising rapidly. In February the workers, after a short strike, obtained an all-round advance of 5 per cent. with a minimum advance of 1s. per week. On the top of this rising market came a very large and urgent demand for sandbags for the British and Allied Governments. Tenders for a million bags were requested on the 24th of February by the British Government and contracts for the supply of over 3 million bags by the 20th of April were placed. The prices of yarn and cloth were rushed up, and delivery became as important a consideration as price. The top seemed to have been reached in April; there was a slight drop in May, but a renewal of the urgent Government demands sent prices up again. By the end of June, hessian cloth was dearer than it had ever been known to be, except during the American War; spinners and manufacturers had never been so well booked with orders, nor sales so far forward; the market was largely sold up in everything and operations in yarns were carried on to the first three months of 1916, 'undoubtedly the furthest away purchases of any magnitude ever known to occur'. The supply of labour had been increased in May by the recruiting for the mills of fisher girls rendered idle by the stopping of fishing. A levelling up of the lower wages was arranged early in June, and from the 17th of July was granted 1s. a week increase to all time workers with an equivalent of 1s. on the piece rate, while women doing men's work were to receive men's wages.

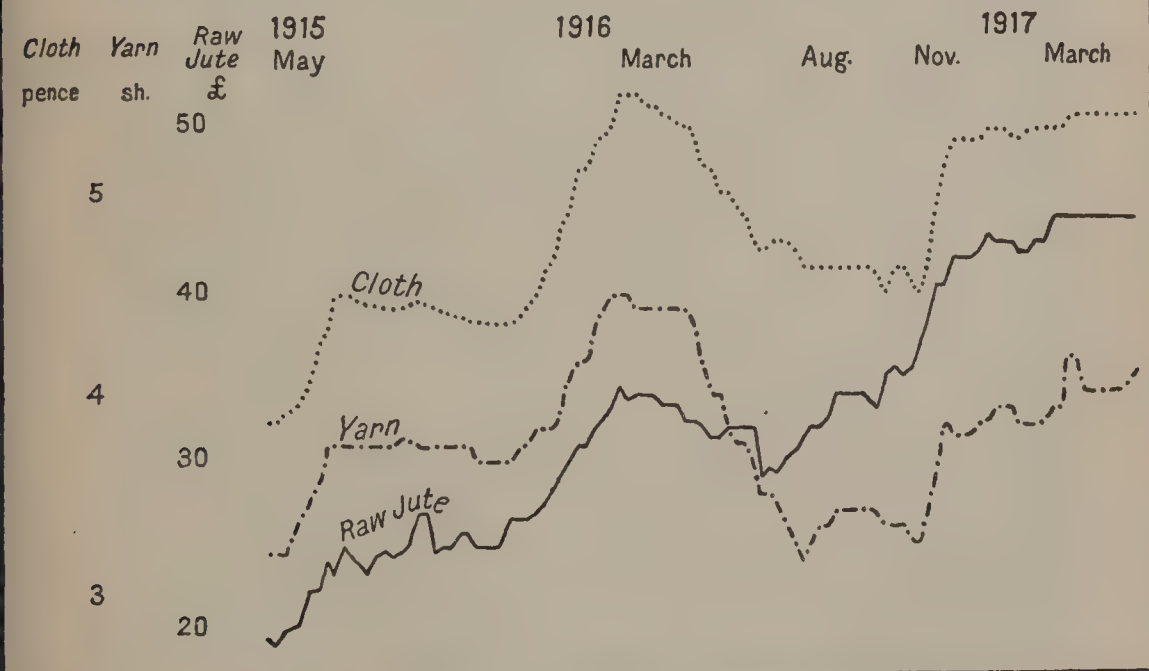
The first half of 1915 then, with the Government buying at market values and with Government orders taking so large a share of the production that a tight squeeze in hessian yarn



PRICE CHART.

Raw Jute: First Marks for shipment c.i.f. per ton.  
 Cloth: 40" 10½ oz. Hessian packed, per yard.  
 Yarn: 8lb. Common Cops, per spool.

Quotations, sometimes nominal, taken from weekly *Dundee Prices Current and Trade Report*.



PRICE CHART No. 1

and cloth resulted, was a glorious period for the trade and especially for the spinner who was getting his raw jute at most moderate rates and, owing to the inelasticity of production caused by the shortage of labour and the difficulty of procuring new machinery, could demand record prices for his yarn.

COMPARISON OF PRICES OF RAW JUTE, YARN, AND CLOTH AT THE COMMENCEMENT OF THE DUNDEE JULY HOLIDAYS, 1914 AND 1915

	Raw jute First Marks (August) per ton	Common cops per spool	Medium spools per spool	Hessians 10½ oz. per yd.
	£ s.	s. d.	s. d.	d.
1914 . . .	28 0	2 3½	2 7½	2¼ <sup>4</sup> / <sub>8</sub>
1915 . . .	24 15	3 9	3 10½	4¼ <sup>2</sup> / <sub>8</sub>

The acreage forecast published in July was only 2,365,000 acres, the smallest area since 1903, the decrease being ascribed to the great fall of prices in the last months of 1914, and to flood damage. Under the circumstances this had little effect on the market, but the same month saw the export, without special licence, of jute commodities to all countries in the world unexpectedly prohibited by the Government. A local expert was appointed to control the issue of licences, and it was a complaint, not only that there might be a repetition of the serious delay in granting such, but that the forced disclosure of the names of clients and the value and character of the transactions would be detrimental. The ostensible reason for the prohibition was the need to prevent supplies reaching enemy countries, though, as the Government were then making inquiries as to the capacity of the trade output, the action was taken probably to safeguard the Government needs, and possibly to place the Government in a stronger position for bargaining. After conceding the elimination of customers' names from the export licences, the Government requisitioned 20 per cent. of the production of hessian yarn and cloth for delivery in September and October. In the first week of September prices for Government orders were settled at 2s. 8d.—2s. 9d. for common

cops according to spin, *2s. 10d.*–*2s. 11d.* for corresponding spin of medium spools, and  $10\frac{1}{2}$  oz. hessian was fixed at  $3\frac{24}{48}$  basis ; whereupon the elimination of the name of the port of discharge, if outside Europe, was conceded. The September final acreage forecast was 2,377,000, and the bale forecast 7,428,733. From August to November trade, except for Government orders, was quiet : in the latter month labour troubles recommenced ; the Derby scheme of recruiting threatened to deplete labour, and the workers, whose October request for a 10 per cent. increase had been refused, were applying for arbitration. In December the Government requisitioned 50 per cent. of the yarn output for British and French sandbags, and the prices were fixed at *2s. 11½d.* for cops and *3s. 1½d.* medium spools. The year closed with the market moving unmistakably to a dearer level. Features of the year were (1) the great increase in the importation of French yarn ; (2) the phenomenal increase in the importation of Calcutta gunnies ; the import of 46,844,045 yards of jute cloth in 1914 rose to 156,497,350 yards in 1915, and of 35,077,400 bags in 1914 to 228,822,800 in 1915. From the 1st of October the export of hessian cloth and bags from Calcutta was prohibited except to the United Kingdom, but any balance after Government requirements might be exported under licence.

Freight during the year rose from *45s.* to *140s.* on account of the requisitioning of steamers, nevertheless Dundee was comfortably bought in raw jute by the end of the year and, indeed, shipment prices were at times above spot owing to the scarcity of warehouse accommodation.

The Government requisitions of December 1915 caused a rush of orders from buyers afraid of being unable to secure their necessary supplies. Till March the whole market, raw material, yarn, and cloth, moved rapidly to a higher level of prices. In this, raw jute was assisted by the continued rise of freight, which at *227s. 6d.*, cabled in February, represented one-third of the total cost of First Marks and was actually more than the fibre for the lowest grades. Fine yarn was assisted by the demand arising for it in substitution of the



scarce and costly flax and tow yarns. In March, the Indian Government, for revenue purposes, imposed an export tax of two rupees four annas per bale on jute and sixteen rupees per ton on hessians.

Meantime, the arbitration of the Committee on Production of the Board of Trade in January decided adversely on all particulars of the workers' claims for a 10 per cent. increase, the absorption of the 2*s.* war bonus, and the reduction of hours. Early in February the Jute Workers' Union applied for a 15 per cent. advance, which was unanimously refused by the employers on the ground that the workers had agreed to abide by the result of the arbitration. The employers were unsuccessfully asked to reconsider their decision on the 23rd of February, and on the 25th of March the workers went on strike. By the end of April practically all the workers, except the calenderers, had returned to work, the Employers' Association paying an indemnity to the firms affected. The continued strike of the calender workers led, however, to serious dislocation. On the 24th of May the employers offered to pay overtime at the rate of time and half and to investigate the cases of all male workers over eighteen years of age receiving 23*s.* a week or less, exclusive of the 2*s.* war bonus. This offer, since it did not touch the demand for the 15 per cent. advance, was rejected. With the continuous accumulation of goods waiting to pass through the calenders, the situation became very serious, and on the 7th of June the employers threatened a general lock-out. On the 14th of June the calender workers, after an eleven weeks' strike, went back on the understanding that their case would be considered.

All the time the strike was on trade was remarkably quiet ; the brisk demand of the opening months ceased abruptly in March ; prices fell steadily, and not even the interruption of production due to the strike stayed the fall. Under such circumstances the employers were able for the time to defeat the workers, but later it was found advisable or necessary to concede better terms. From the 22nd of July calender workers' weekly wages increased by 1*s.* to all who were willing to work

a reasonable amount of overtime. At the end of that month Sir George Askwith awarded an increase of 2s. a week, to include the 1s. already offered, while at the end of September an advance of 2s. a week was given to all time workers, and an equivalent to piece workers; the calender workers again sharing in this.

The fall of prices which started in March was checked in July. In the main, it was the usual reaction after the large amount of business early in the year, but the cessation of demand may also have been influenced by an expectation of the early termination of the war. The Germans had been defeated at Verdun; Brusiloff's Russian offensive was proving very successful, and much was hoped from the big Franco-British 'push' now starting on the Somme. The July preliminary forecast was only 2,612,966 acres, and it became clear that the raw material would be dearer. Except for Government orders and a strong demand from America for linoleum hessians, demand remained apathetic, and prices, which had slightly recovered, were back at the July level by the opening of November. The extraordinary spurt in values which followed may be explained (1) mainly by anticipation of renewed Government requisitions on a large scale. Calcutta had received orders in October for 100 million sandbags for delivery in November and December, and these had subsequently been largely increased. Orders to the extent altogether (hessians, sacking, and bagging) of from 20 to 30 millions of yards of material reached Dundee about Christmas; (2) by the perception, after the German successes in the Near East and the costliness of the allied successes on the Somme, that the war was not coming to an end; (3) by the continued rise in price of the raw material, which had reached £40 for First Marks by December; (4) by the Calcutta freight difficulties.<sup>1</sup> Freight which had been 140s. at the beginning of the year was 300s. at the close; (5) by the usual feature of the jute market that buyers seldom take advantage of the situation individually, but tend to be guided, in an admittedly difficult

<sup>1</sup> A jute steamer was lost in October and another in November.

market, by the tactics of their neighbours. As the *Dundee Trade Report* complained when prices were at their lowest in July :

‘ When buyers are out to secure goods they go on and on following prices upwards in a marvellous fashion. When the change comes over them, jute goods seem to be the last thing of interest in the world. It is frequently a case of all being in the market at one and the same time forcing up prices, or lying dormant preparing for the next spurt.’

(6) The September forecast of 2,686,000 acres and 8,340,266 bales, though a slight increase on the preceding year, indicated a possible shortage since stocks were much lower.

The imports of French yarn and Calcutta goods repeated in 1916 the phenomenal figures of 1915. Another event of interest in the year was the Government’s appointment in September of Messrs. Ralli Bros., as agents for buying all fibre for Dundee war orders. After strong protest from Calcutta, this arrangement was cancelled in November, and ten firms were nominated to furnish the supplies under the supervision and control of a new official, the Jute Commissioner. It may be noted also that while spinners had the advantage over manufacturers at the outset of the year, the positions were reversed in the summer, owing to relative over-production of yarn during the strike.

The first quarter of 1917 showed demand quiet but manufacturers well supplied with Government orders. The Government price for yarn was fixed in January at 2s. 10d. for common cops and 3s. for medium spools, an increase of 1¼d. in both cases was arranged with the February allocations, and a further increase of 7d. in June. In February the Government took possession of all unsold raw jute in the country, and with a view to economizing tonnage, requisitioned all further supplies at £42 10s. a ton. Spinners who required supplies in excess of that issued to them as against Government orders had thenceforward to apply to the Government representative in Dundee, and the selling price was fixed at £44 10s. First Marks. Further claims for higher wages, made in this month, were

awarded after arbitration in May as from the 22nd of March as follows :

	Time workers' increase per week	Piece workers' increase per week	
Males over 18 . . . . .	3s.	10%	} on earnings exclud- ing war bonus
Females over 18 . . . . .	2s.	7½%	
Youths and girls under 18 . . . . .	1s.	5%	

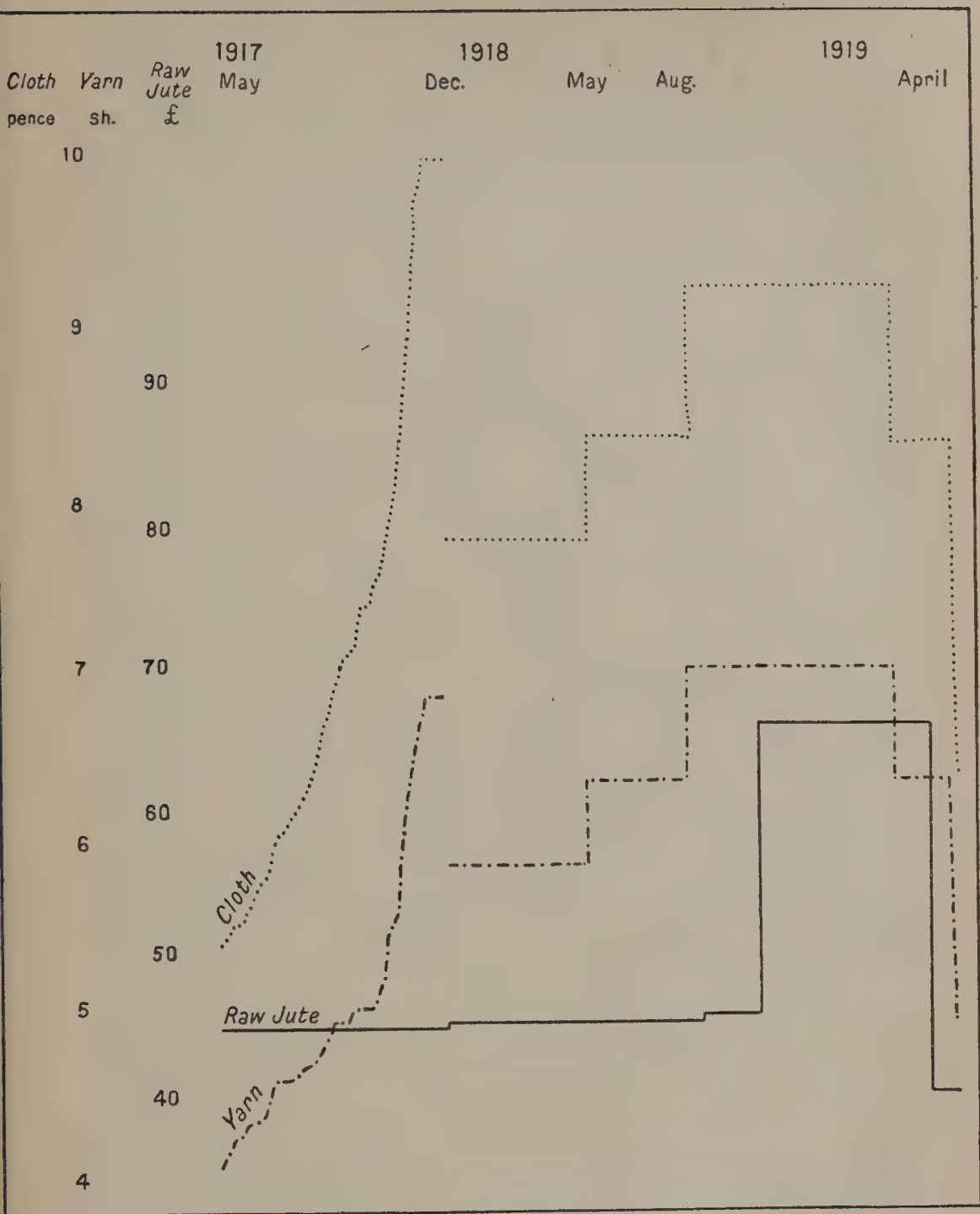
In May began an extraordinary rise in values outstripping all past experience and lasting until the intervention of the Government led to the fixing of maximum prices in November. The causes of this rapid rise may be found amongst the following considerations: (1) the commandeering of shipping at Calcutta was followed by the total prohibition from the end of April of the export of jute goods from Calcutta to the United Kingdom, thus eliminating Calcutta competition; (2) the amount of Government orders, and the priority which they took, in the early part of the year led to a withholding of demand until either delivery of previous orders had been received or the rush of Government requirements was worked off. There was a damming back of demand until it became clear that waiting was no longer of any use, and then demand rushed in like a flood; (3) the repeated commandeering of hessian goods and sandbags by the Government on a large scale, notably in July, when the demand was such as to cause a two-months' delay for all other customers. 'Never in the history of the Trade', said the *Dundee Trade Report* of the 7th of November, 'have prices reached so nearly a state of panic.' Labour seized the opportunity to obtain a further advance of 4s. a week for men, 3s. for women, and 1s. 6d. for adolescents under eighteen. The Government, however, was being pressed by food contractors who had contracted for the delivery of food-stuffs, including bags containing these, at a fixed price and were, owing to the rise in the cost of jute goods, seriously handicapped not only as regards price but as regards delivery. The Government appealed to the trade to take action to limit prices, to restrict export, and to conserve for national purposes the limited supplies of raw jute available; otherwise they would themselves take action, and they

issued an order prohibiting without permit the export of jute goods or yarn. The trade responded at once, and maximum prices for the home market were fixed in December, including  $10\frac{1}{2}$  oz. hessians at  $7\frac{36}{48}$ ; 8 oz. at  $6\frac{6}{48}$  per yard; common cops at 5s. 10d., medium spools at 6s. per spool.

In 1918 the control of the industry became even tighter. The amount of raw jute allowed to spinners was restricted to about two-thirds of their 1916 consumption, and spinners from March 9, weavers from May 18, adopted a forty-hour week until September 27, when the amount of raw material received would have permitted a resumption of the normal fifty-five-hour week. From March a system of priority grading was enforced in order to ensure the supply of the more urgent national requirements, and the export trade, needing both permit to manufacture and licence to export, practically vanished. The maximum prices were rearranged at a higher level as from the 18th of May;  $10\frac{1}{2}$  oz. hessians at  $8\frac{18}{48}$ ; 8 oz. at  $6\frac{32}{48}$ ; common cops at 6s. 4d., and medium spools at 6s. 6d. From the 15th of June the Dundee workers shared in the increase of wages granted to all textile workers.

	Increase of wages per week	
	Males	Females
Over 21 years of age . . . . .	7s.	4s.
18-21 years of age and young people doing full labour of adults . . . . .	4s.	4s.
Under 18 years of age . . . . .	2s.	2s.

The July forecast was 2,492,000 acres, and the raw material, which had so far been remarkably cheap throughout the war period, began to rise in price. The Government, however, held sufficient stocks, and were even able to allocate further supplies to spinners. On the 27th of August maximum prices were again raised;  $10\frac{1}{2}$  oz. hessians to  $9\frac{12}{48}$ ; 8 oz. to  $7\frac{16}{48}$ ; common cops to 7s.; and medium spools to 7s. 2d. The October forecast gave 7,009,060 bales, a reduction of nearly 2 million bales on



PRICE CHART NO. 2

the previous year, and the price of raw jute reached a maximum of £66 First Marks in September. In November the Government raised its selling price from £45 10s. to £66 per ton, but spinners had already obtained their requirements and had used all their permits for the remaining portion of the year. After the declaration of the armistice in November business remained somewhat in suspense; buyers were anticipating a general fall in values, and were restricting themselves to securing imperative wants only. There was a certain amount of trouble over old contracts which had been placed before the embargo on exports but unavoidably delayed in delivery; manufacturers found themselves expected to complete the contract at prices now completely out of sympathy with the greatly increased cost of production. Before the end of the year freight dropped from 400s. to 200s.; war risk insurance only continued at a low figure to meet the danger of floating mines; permits to manufacture for export were no longer required nor licences to export to the British Empire. A further increase of wages was awarded in January 1919; men and boys or women doing a man's full work, receiving an increase of 7s. per week; women and girls doing a woman's full work, receiving 5s.; and young persons under eighteen years of age receiving 2s. 6d. During the same month priority grading ceased and export licences were relaxed; restrictions on dealing in raw jute were abolished on the 9th of April, and the last of the Government war control measures was removed with the cancellation of the Maximum Prices Order on the 15th of August 1919.

### § 3. THE POSITION AFTER THE WAR

Costs of production in 1919 : comparison of pre-war profit with that of 1919 : the wage position in Calcutta ; competition between Calcutta and Dundee : increase in price of raw jute in the summer of 1919 : prices in 1920.

WITH the removal of Government control, the jute industry was faced with the problem of getting back to a new normal level of value. It was recognized that, unless artificially supported, the high prices could not be maintained, and that a break in prices would involve the necessity to lower costs of production. In Dundee the cost of production of standard hessian cloth, which had been £25 per ton in 1916, had increased to £45 by 1919. At the beginning of 1919 the anticipation was that a difficult period of falling values, relative stagnation in business, and friction with the workers over the reduction of wages, would have to be faced. There were also at the time circumstances causing temporary difficulties, such as the fluctuations of the Indian exchange, the effect of the large stocks of unsold Government jute and sacks, and continued trouble over freight. Behind all this was the old fear, now much strengthened, of Calcutta competition. During the war the industry both in Calcutta and Dundee had done remarkably well. The pre-war standard of profit, as adjusted for excess profits duty, of six Dundee companies is stated to have been £344,464, whereas their profits for 1919, before providing for income tax or excess profits duty, were £1,224,139 17s. 11d. The three Dundee-managed Calcutta mills which had paid a dividend of 10 per cent. free of income tax in 1914, paid 50 per cent., not free of income tax, in 1919, while in the latter year £400,000 of profits were capitalized, and the dividend on the preference share was raised from 5 to 6 per cent. Other Calcutta companies had been paying enormous dividends up to 300 and even 400 per cent. These extraordinary profits in Calcutta were due mainly to three causes : (1) the war demand ;



(2) the fact that supply could not be increased owing to the difficulty of getting new machinery, e. g. the number of looms in the Indian jute mills on the 1st of January 1914 was 15,832 sacking and 22,288 hessian, on the 1st of January 1919 they had only increased to 16,075 and 23,376 respectively; (3) the fact that the Indian workers were not able to obtain any share in the enormously increased profits of the industry. The weekly wage of a spinner in Bengal was 3.45 rupees in 1914; in 1919, 3.75; for a weaver the corresponding figures are 5.65 and 6.75. If the average weekly wage of all workers in Bengal mills on January 1914 is represented by 100, the figures for the following years are 101, 100, 101, 103, and in 1919, 113. The cost of production of standard hessian cloth in India, which had been £12 per ton in 1916, had only increased to £15 in 1919. Beside the wide margin between the average costs of production in the two centres, there was also the consideration that the Calcutta mills had been giving increased attention during the war to those finer qualities of jute manufactures which had formerly been largely a monopoly of Dundee, and had, indeed, been imported by India from Dundee to the value of £170,000 in 1914.<sup>1</sup>

It appears that about half the Dundee output is marketed in competition with Calcutta, and since the cost of production of standard hessian cloth was in 1919 £45 in Dundee and £15 in Calcutta, it was clear that the industry in Dundee could not be maintained on that basis. Furthermore, the expansion of the Calcutta industry, which was greatly stimulated by the enormous profits but held back by the impossibility of getting machinery, was likely soon to make itself felt. It was regarded as a significant event when in May 1919 the Angus Jute Works in Dundee were sold and the whole machinery transferred to Calcutta.

The year 1919 opened with very cautious buying. A trade agreement came into operation on the 20th of February that 10 per cent. off the Government maximum prices should be

<sup>1</sup> Moreover, Japan had appeared as an exporter of jute goods, especially canvas.

the minimum price, but the only result was the further restriction of business which became very stagnant, only purchases essential for urgent immediate requirements being made. The agreement was cancelled in April, and prices fell. The industry, having been forced to adopt alternate week stoppages, then sent to the Board of Trade a deputation to point out the handicaps which Dundee had suffered owing to the difference in scope of the Government control of the two centres, and was suffering owing to differences in taxation and cost of living. The deputation, after mentioning that the British home market only absorbed  $4\frac{1}{2}$  per cent. of the Calcutta output, equivalent to 30 per cent. of the British output, stated that the industry could not survive in Britain unless the home market were reserved for the home producer. As a result of these representations the Board of Trade appointed a departmental committee, but before the committee could report the whole situation had altered in an amazing manner. An extraordinary recovery in values started in May, maximum prices were reached by the 6th of August, and on the withdrawal of the Maximum Prices Order quickly passed. Raw jute, with the removal of restrictions and with the exchange alterations, nearly doubled its price between March and August, but from August onwards the unusual feature of cheapening raw material and increasing yarn and cloth values was experienced. This abnormal increase in yarn price seems to have been due on the demand side to the burst of unwarranted optimism which followed the close of the war, to the desire to replenish depleted stocks, and to the influence of the idea that the world was short of commodities with insufficient attention to the possible economic ineffectiveness of the undoubted demand. On the supply side, Calcutta was hampered by uncertainty as to freight and exchange conditions far more than Dundee, and there had been some curtailment of production at both centres.

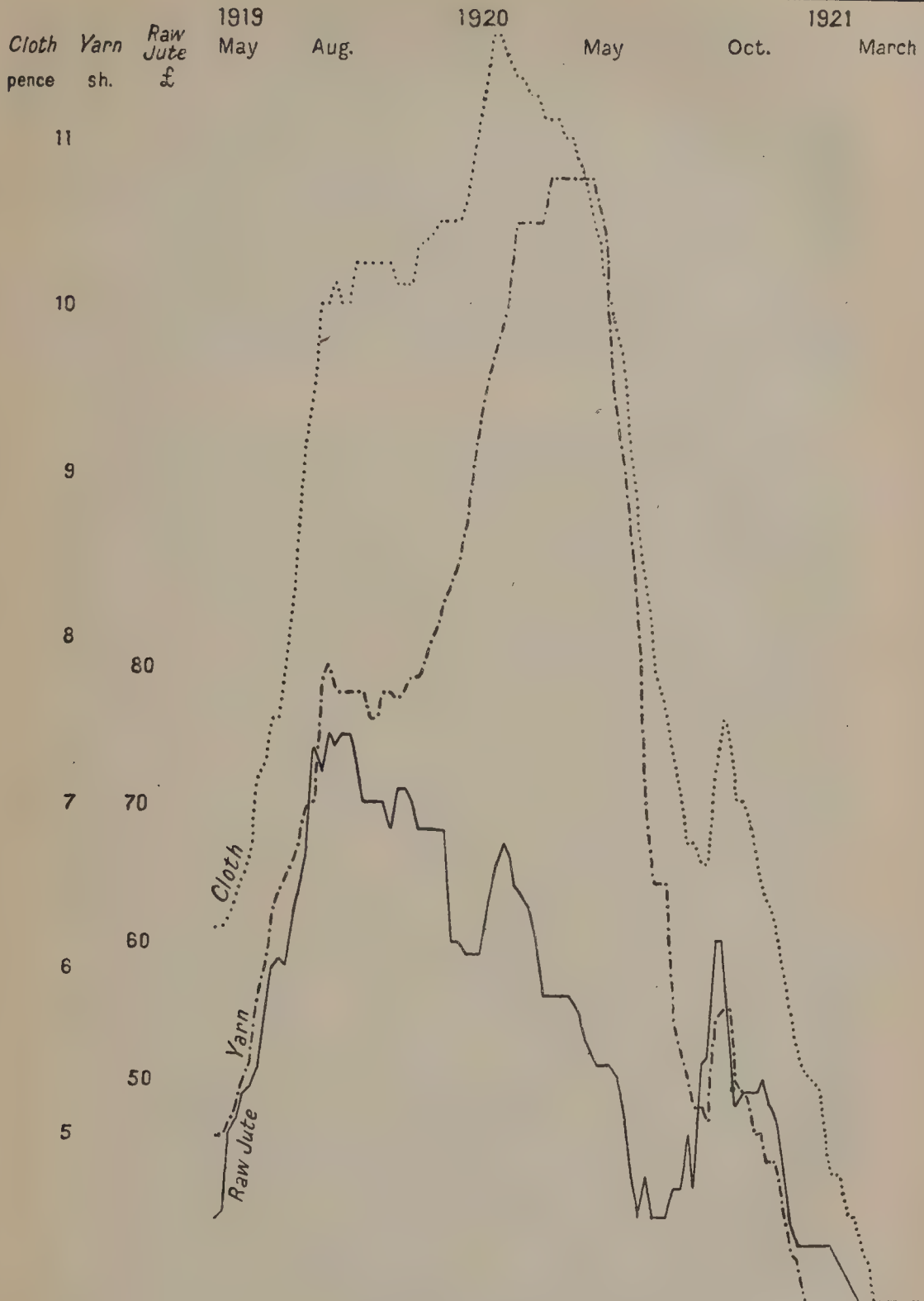
The committee, reporting in July 1919, considered the market prosperity only temporary, and ascribed it almost entirely to the appreciation in value of the raw material and

the effect of the rise in the Indian exchange. It was, indeed, generally recognized that values were still on a fictitious plane, but the trade was not unnaturally elated at the rapid recovery and inclined to think they had made too much of their former fears. The committee may have been of this opinion too; whether so or not, they dismissed both the suggested solutions as impracticable. The employers had desired the prohibition of the import of manufactured jute into Britain, while the workers wished the wages of the jute operatives in India raised to the equivalent of the wages in Dundee and the extension of Trade Boards and British Factory Acts to India. The committee, however, recommended the co-operation of employers in research work, and a Research Association complying with the conditions of the Government scheme for the encouragement of industrial research has since been established and registered as a non-profit-sharing company.

Dundee went forward to the year 1920 with yarn foresold in a manner never before experienced, and linoleum hessian had also been bought by America for delivery twelve months ahead. 'All the threatened interruption of the Dundee trade has so far come to nil', said the *Trade Report* of the 24th of December 1919. 'Conditions will retain for this centre quite a favourable share of the world's jute goods requirements.' The anticipated after-war collapse in values had, however, only been postponed; in March 1920 the world-wide depression of trade began to overshadow the jute industry, and a fall in values took place which in its rapidity, extent, and duration surpassed all previous experiences.

## COMPARATIVE PRICES

	June 1914	Highest values 1920	March 1921
Cloth: 10½ × 40 hessian per yd.	3 <sup>6</sup> / <sub>48</sub>	11 <sup>20</sup> / <sub>48</sub> Feb.	3 <sup>20</sup> / <sub>48</sub>
Yarn: 8 lb. Common cops per spool . . . . .	2s. 6d.	10s. 9d. April	2s. 6d.
Raw jute: for shipment per ton . . . . .	£33½	£67 Feb.	£32



PRICE CHART NO. 3

The shipment price of Calcutta gunnies fell from 79s. in January 1920 to 62s. 6d. in September, and collapsed to 21s. 3d. in April 1921. It was estimated that at the March price of 3¾d. for hessians there would be a loss of something like £24 per ton, based on the current value of the raw material, and it is certain that, both for yarn and cloth, prices were well below the costs of production. Both centres had been obliged to go on short time, Dundee, since the October 1920 coal strike, reducing to about three days a week. The Trade Board decided to reduce wages by 12½ per cent., to take effect in August 1921, and to be followed by a further reduction of 7½ per cent. in December.

Attempting to summarize briefly the effect of the war on the jute industry, it would appear that the war demand for jute products brought high profits and high wages to Dundee and enormously high profits to Calcutta, but with the restoration of peace came a collapse in values from which the industry has not yet (April 1921) commenced to recover. Its recovery, involving some adjustment of the high level of production costs, is only a matter of time depending on the passing of the general depression in world trade. There is, however, a more serious consideration for the industry in Scotland. As a result of the stimulus of the experiences of the war period, the production of jute goods in Calcutta will be very considerably increased; something like twenty new mills are said to be in hand or in contemplation to the extent of 10,000 looms and 200,000 spindles. Manufacturers of textile machinery for the trade are now making the full range of machinery in India. This increased competition has not yet had time to make itself felt, but it will have to be faced, and it is all the more serious owing to the opportunities given to Calcutta, during the time the export of jute goods was prohibited from Dundee, to invade markets formerly held by the Scottish centre and to develop the production of finer quality goods. The Departmental Committee on the Textile Trades endorsed in 1918 the manufacturers' suggestion of an export duty of £5 per ton on raw jute exported from India, with a total rebate in favour

of the British Empire, total or graduated rebates in favour of the allies, and graduated rebates in favour of such neutral countries as might offer reciprocal concessions. This policy has not been adopted by the Indian Government. The later Departmental Committee on the jute industry in 1919 rejected, as has been said, the idea of any protection either by way of import duties on manufactured jute, or by raising the wages of the Indian operatives. This committee contemplated the development of the tendency for the Dundee industry to become a specialized trade in the finer counts of yarn, in high-grade hessians, linoleum cloths, sugar bags, and such productions.

‘ If jute goods capable of being manufactured in India cannot be made in Dundee and marketed at prices which permit of the payment of an established minimum rate of wages to the workers employed, it appears inevitable that such trade must be lost to the United Kingdom and the industry in this country will find its level in the manufacture of goods which cannot be more economically produced in India. The Committee are unable to recommend artificial means to enable the United Kingdom to compete with another portion of the Empire and are of opinion that the industry should be informed as soon as possible that action in the direction of protecting the jute industry against the competition of India is impossible, and that it rests with the manufacturers engaged in the industry to take the necessary steps to economize working expenses to the uttermost and to develop the production and sale of the kind of jute manufactures which are not at present manufactured in India and which are unlikely to be produced there in future.’

The chief step in economizing working expenses is to reduce wages, but this does not rest with the manufacturers. At present it rests with the three appointed members of the Trade Board, the votes of the fifteen representatives of the employers being always paired against those of the fifteen representatives of the workers. The development of the production of new specialities would involve the investment of more capital, whereas the present tendency in some quarters is to take money out of the industry after a profitable period rather than, in the face of the risks and difficulties of the future, to sink more in. In November 1920 five Dundee private companies, and the

one and only public company existing, sold their share capital to a financial trust which, for a commission of £137,500, floated £2,500,000 preference stock on to the investing public. Subsequently a seventh company was absorbed. The resulting association is in the nature of a Kartel, in so far that 'complete continuity of the existing management' was to be secured, while the proprietary company undertook the selling of the products.

#### § 4. TWO YEARS OF DEPRESSION: 1921, 1922

At end of 1921 minimum time rates were lower than in any other industry under a Trade Board: drastic reduction in wages: rates in 1923: contraction in area growing jute: Indian export duty: progress in Calcutta: present state of the duel between Dundee and Calcutta.

THE adjustment of the high costs of production has continued. In April 1921 the Minister of Labour refused the request of the employers to abolish the Trade Board. On the 9th of September the 12½ per cent. reduction of wages, mentioned above (p. 292), became operative, and the report of the committee appointed to inquire into the working and effects of the Trade Boards Acts (Cd. 1645 of 1922) shows that on the 31st of December the minimum time rates for jute workers, both male and female, were lower than those of any other industry, having a Trade Board, in this country. The approximately four months' interval between a decision of a Trade Board and its becoming operative has been strongly criticized as inconveniently long, and the same committee recommended a reduction of this interval to four to six weeks. Further reductions in wages have brought the rates as from the 23rd of February 1923 to the following level for a week of forty-eight hours:

	MALE WORKERS other than loom tenters with a recognized full charge	FEMALE WORKERS other than spinning shifting mistresses, spinners, and weaving learners
	<i>s. d.</i>	<i>s. d.</i>
21 and over . . . .	39 1	25 0
18-21 . . . .	35 2	25 0
16-18 . . . .	20 4	20 4
Under 16 . . . .	15 3	15 3

The two years, 1921 and 1922, were bad years of depression; trade moving slowly, and customers buying usually only for immediate requirements; short-time production at both Calcutta and Dundee, and prices generally unremunerative. A speculative movement, based on a small crop forecast of 4,000,000 bales, led in September 1921 to a rise of prices which



soon collapsed, leaving the market lifeless and bewildered. It may be worth passing notice that the German textile mills were at this time experiencing a boom, and were even forced to reject or ration their orders.

What will probably turn out to be the turning point of the depression was reached in March 1922, when the market quotations were: raw jute (first marks), £27 10s.; yarn (common cops), 2s. 8d.; cloth (10½ oz. hessians), 3¼d. Two events now came to give temporary help to the Dundee industry, both of which are useful examples of how the hazardous nature of the trade serves to prop up the industry in Scotland. Cuban sugar merchants, watching a falling market, had delayed rather too long their purchases of bags, and, on entering the market, found stocks inadequate. On such occasions, for quick delivery, Dundee is better than Calcutta, and so orders for a million or so of sugar bags came to the Scottish centre about the end of March.

The July forecast gave another exceptionally small acreage, 1,456,546 acres, and, in spite of the previous year's forecast having proved grossly under-estimated, a very considerable speculative movement sent Calcutta prices up in anticipation of the publication of these figures. By May, Calcutta prices had been rushed beyond the corresponding Dundee level, 'a state of affairs', the *Dundee Trade Report* said, 'which pessimists never hoped to live to see again'. A good deal of business came therefore to Dundee. A relapse came with June, and down to November trade was quiet.

Consequent on renewed activity in November, mainly due to American buying, the new year (1923) opened with a much better and more cheerful tone, and this has been upheld by the big demand, chiefly from the United States, for light-weight hessians. The consumption of jute goods in North America, indeed, has more than recovered its pre-war level, and appears to be greater now than ever before. The Fordney Tariff, which came into operation on the 22nd of September 1922, placed a 50 per cent. *ad valorem* duty on jute paddings, and 1 per cent. per lb. on burlaps, plain woven, both of which had formerly been free. According to the survey on jute cloth by the United

States Tariff Commission, the domestic production of burlaps and jute paddings has always been negligible, representing only about 1 per cent. of the total consumption, and the production has been confined to companies weaving such cloth as a subsidiary part of their own business. As a result of the scarcity and high price of linoleum hessians during the war, floor coverings were increasingly made from saturated roofing felt, and sold, under various trade names, at a cheaper rate than the burlap-backed linoleum. The new tariff duty, while increasing the price to the ultimate consumer, is not expected to reduce, and does not appear to be reducing, the import, owing presumably to a real increase in demand.

Fiscal changes in India are also worth notice. Raw jute had been exempt from export duty since 1860. An export duty was replaced, for revenue purposes, upon it in 1916 and doubled in 1917, being defended as a moderate duty on a monopoly. It is, per bale of 400 lb., 1 rupee 4 annas on cuttings, and 4 rupees 8 annas on all other descriptions. The export duty on manufactured jute is, per ton, 20 rupees on sacking and 32 rupees on hessians. In addition, there is a small port duty of 2 annas per bale on raw jute and 12 annas per ton on manufactured, for the benefit of the Calcutta Improvement Trust, and a similar duty at Chittagong. The import duty on machinery has been kept at  $2\frac{1}{2}$  per cent. *ad valorem*, the Indian Fiscal Commission of 1921-2 considering that, if encouragement is to be given to the manufacture of machinery in India, it should be given by means of bounties, but it is added, 'jute being a monopoly of India, it is possible that the jute manufacturing industry might be able to bear an import duty on its machinery, with a view to developing the manufacture of this machinery in India'. In 1920-1 the imports of jute machinery into India were valued at 278 lakhs of rupees, in 1921-2 at 432. These largely increased imports are partly the renewals of plant which could not be obtained during the war period, but they also point to the development of the industry in Calcutta. If the average price of the ordinary shares of thirty-two jute mills in India on the 29th of July 1914 be represented by 100, the corresponding price of the

same on the 31st of March 1920 was 562, and even after the collapse of that year the price on the 31st of March 1921 was 372. Sacking looms have risen in number from 15,832 on the 1st of January 1914 to 17,452 on the 1st of January 1923, and hessian looms from 22,288 to 28,111 during the same period. The export from India of manufactured jute has, in quantity, already passed pre-war totals.

VALUE OF EXPORTS FROM INDIA IN LAKHS OF RUPEES

	Average of five pre-war years 1909/10- 1913/14	Average of five war years 1914/15- 1918/19	1919-20	1920-1	1921-2
Raw jute . . . . .	22.20	12.80	24.70	16.36	14.05
Manufactured jute	20.25	40.19	50.02	52.99	30.00

Though there is some evidence that the demand for jute goods, especially from the Americas, is reviving with the general improvement in trade, 1923 is still likely to be a somewhat difficult year for the Scottish centre; and probably the original prophecy after the war that it would take five years to re-establish a new normal level in the jute industry will prove not very far wrong. It has to be remembered that the Calcutta mills, since April 1921, have only been working four days a week, and the position can only become clear when full-time production is resumed at both centres. The Dundee mills of the Jute combine were stated to be running 90 per cent. of their capacity in February 1923. The raw material position is also obscure. The remarkably small forecast in September 1922 of 4,236,728 bales appears to be, like that of the previous year, absurdly under-estimated, for more than that quantity has already (March 1923) been marketed. Yet the supply is undoubtedly much below pre-war dimensions—a natural result of the collapse in value of raw jute and the reversion, stimulated by the high price of food grains and perhaps by political sentiment, from jute to rice. Reviving trade will bring higher prices for jute products, and this will have to react on the price of raw jute before the cultivation is extended. The July

forecast of 1923 will be closely watched, and would, if it could only be regarded as at all reliable, be of much importance.

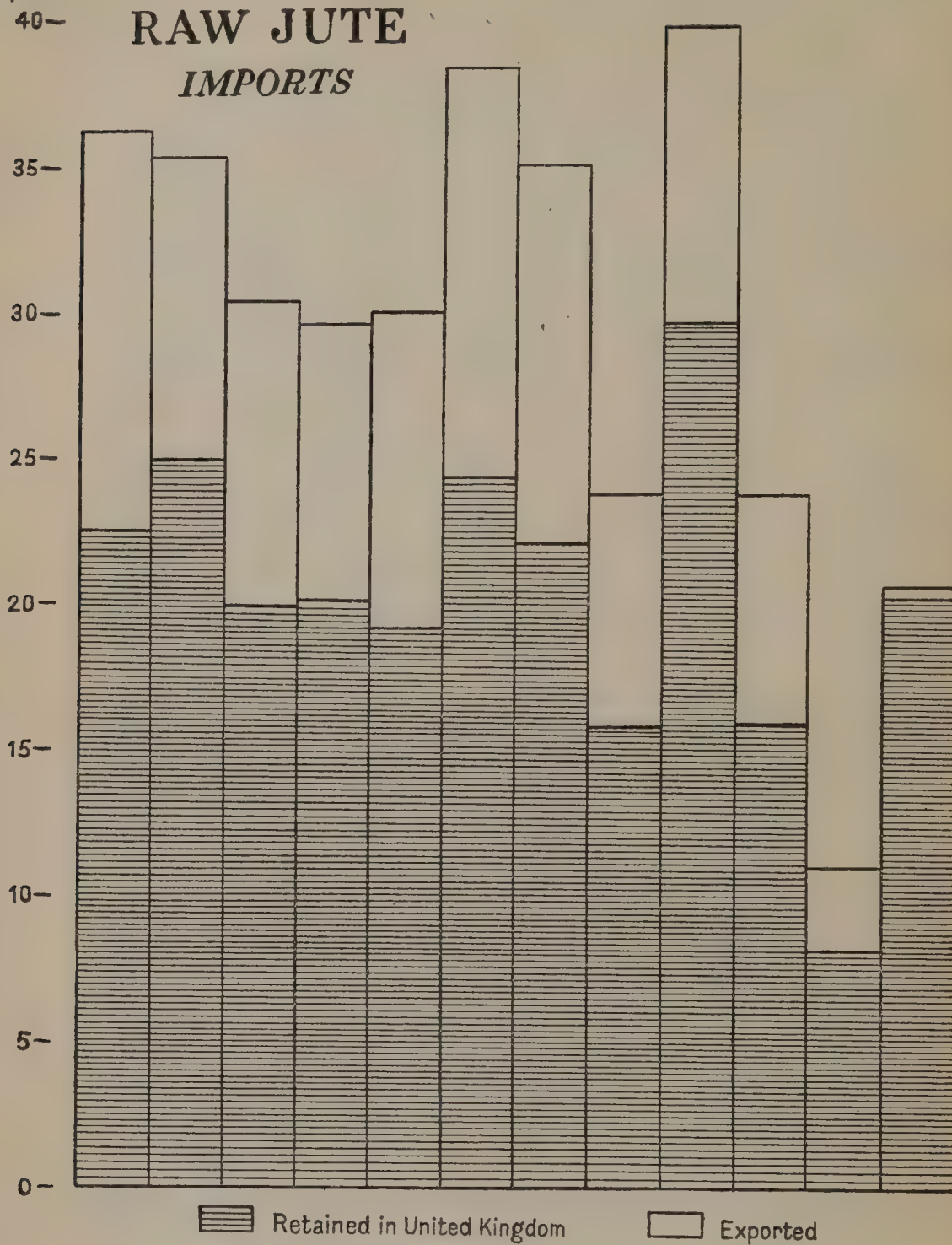
So far as can be foreseen there still appears to be room for the jute industry in Dundee, depending largely on specialized products and gaining business at opportune times when circumstances, such as attempted speculative booms or industrial troubles in Calcutta, or needs for quick delivery, give the Scottish centre an advantage. The Dundee combine of Jute Industries, Ltd., was able to report a profit of £313,037 received from its subsidiary companies in 1921, and £248,866 in 1922. Costs of production at the Scottish centre can hardly come much lower so far as real wages are concerned; the minimum rates are already at the bottom of the Trade Boards list, and the Jute Trade Board would probably not care to widen the difference between the wages of this industry and the next lowest paid. Any attempts to reduce such wages by increasing the work of the individual worker are likely to be stoutly resisted, at least while unemployment is at all evident, by the workers' organization.

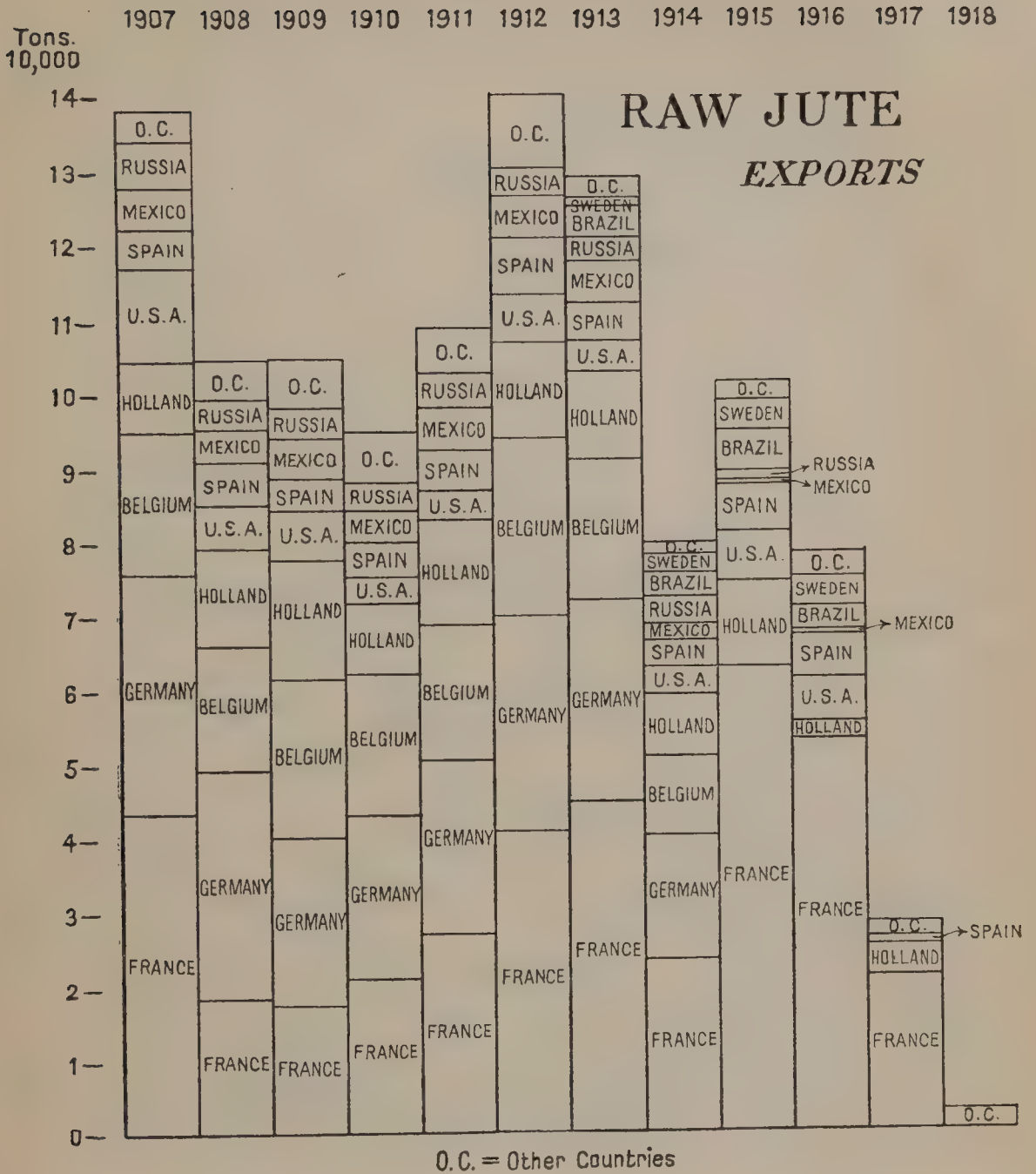
The tendency to amalgamation of interests continues. Jute Industries, Ltd., now comprises seven spinning and manufacturing firms and one business firm; in September 1922 a merger of some of the biggest firms in Germany resulted in the Vereinigte Jute Spinnereien und Webereien A.G. with head-quarters at Hamburg. In India the Maharajah of Darbhanga is said to have considerably over fifty lakhs of rupees invested in the industry, and rumours of contemplated combines have sometimes come from Calcutta.

This change from private company organization to the Kartel is, perhaps, to be regarded as, at all events partly, one of the effects of the war, but, apart from temporary phenomena, the main result of the war on the industry will, no doubt, be found in the great stimulus given to the development of production in Bengal. The Scottish industry, whatever may be its new adjustment to after-war conditions, will remain one which makes quite exceptional demands on the energy, ability, and foresight—and one might almost say, courage—of those who have the responsibility of conducting the industry and safeguarding its continuance and prosperity.

Tons  
10,000

1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918

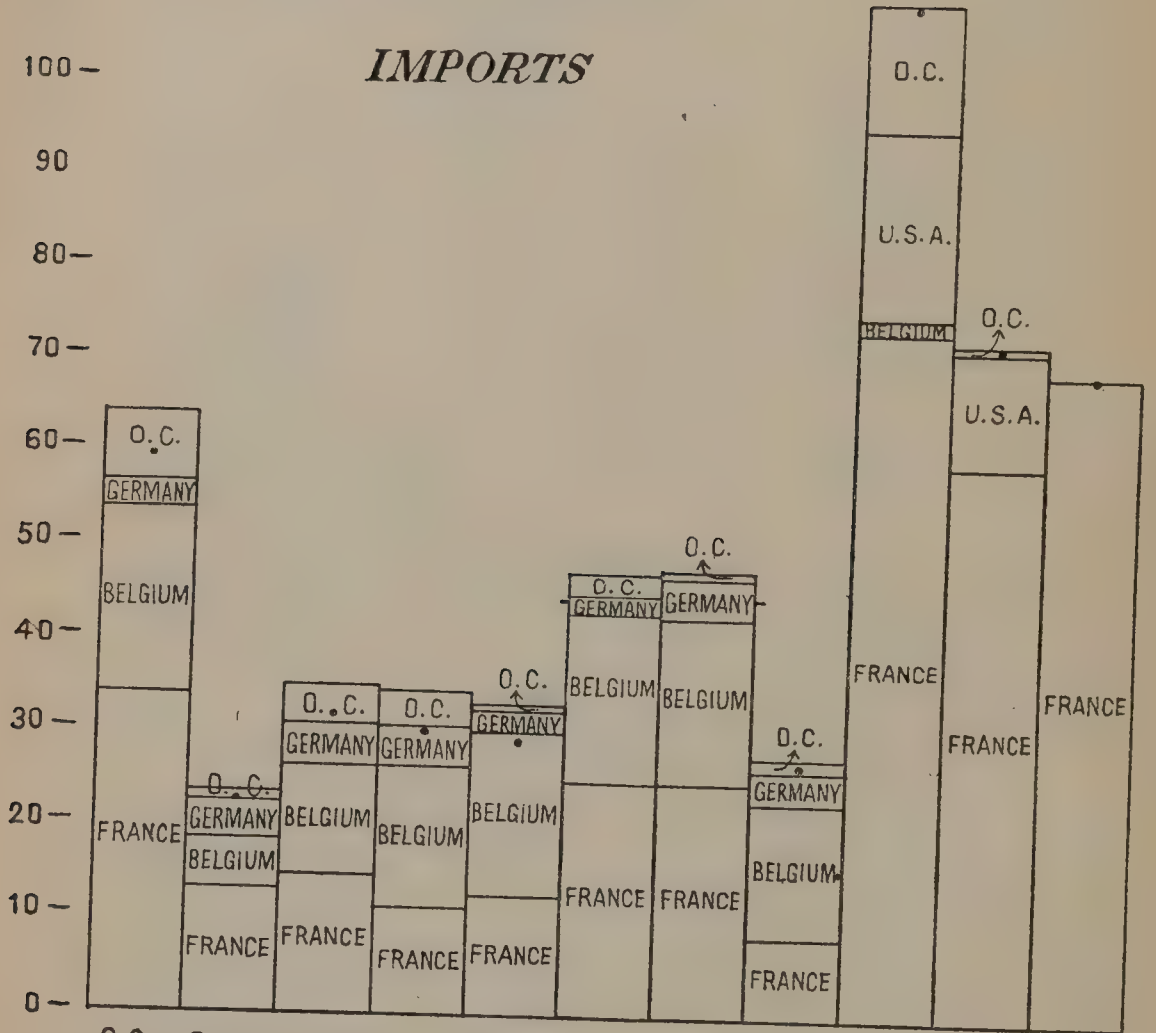
**RAW JUTE***IMPORTS*



100,000 lbs. 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917

# JUTE YARN

## IMPORTS



O.C. = Other Countries; • Indicates amount retained in United Kingdom

1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918

100,000  
lbs.

# JUTE YARN

## EXPORTS

600—

500—

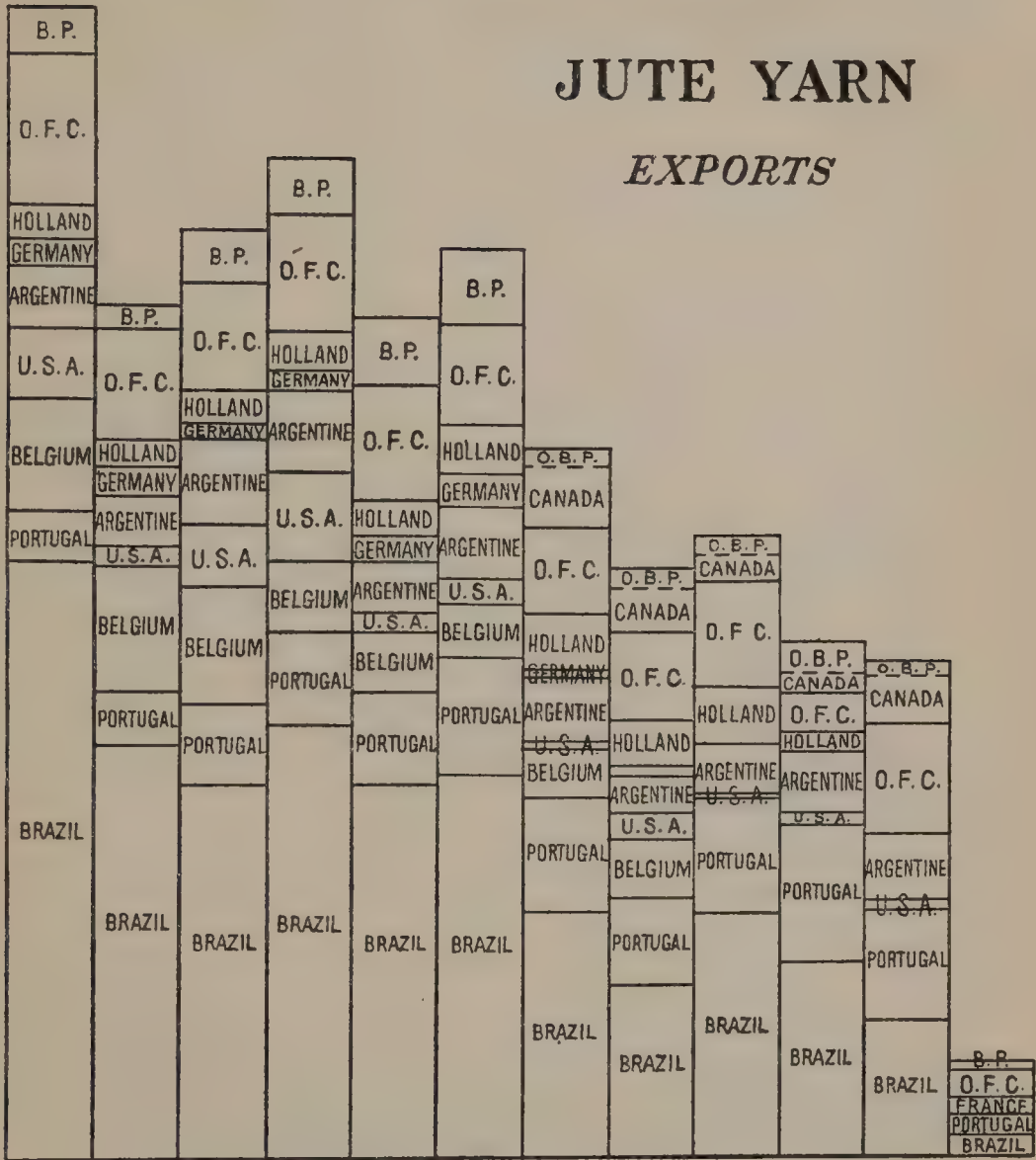
400—

300—

200—

100—

0—



O B. P. = Other British Possessions; O. F. C. = Other Foreign Countries.

B. P. = British Possessions.



1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918

£1,000,000

6—

# JUTE PIECE GOODS

## IMPORTS

5—

4—

3—

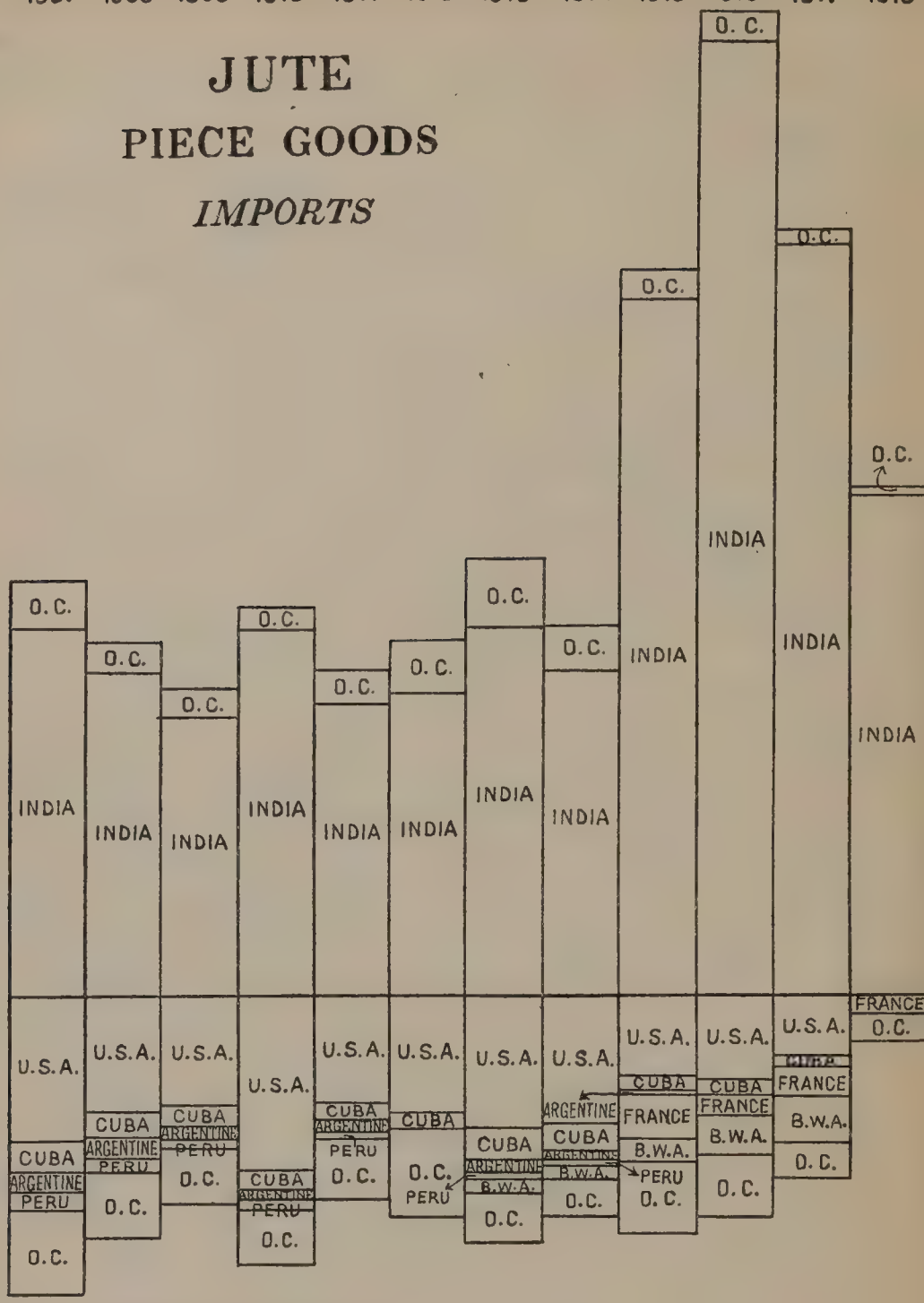
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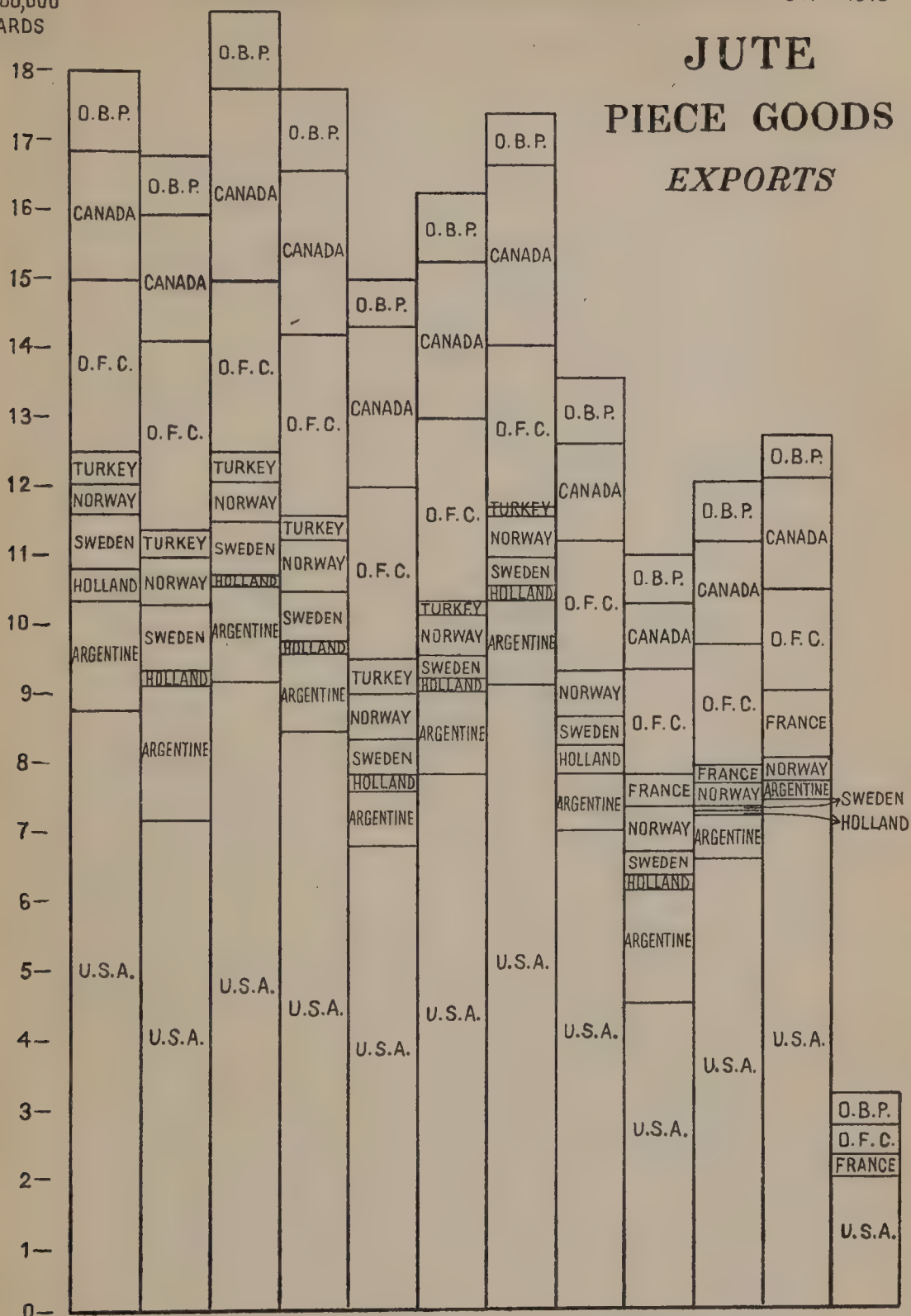
## RE-EXPORTS

O.C. = Other Countries; B.W.A. = British West Africa

10,000,000  
YARDS

1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918

# JUTE PIECE GOODS EXPORTS



O. B. P. = Other British Possessions; D. F. C. = Other Foreign Countries.

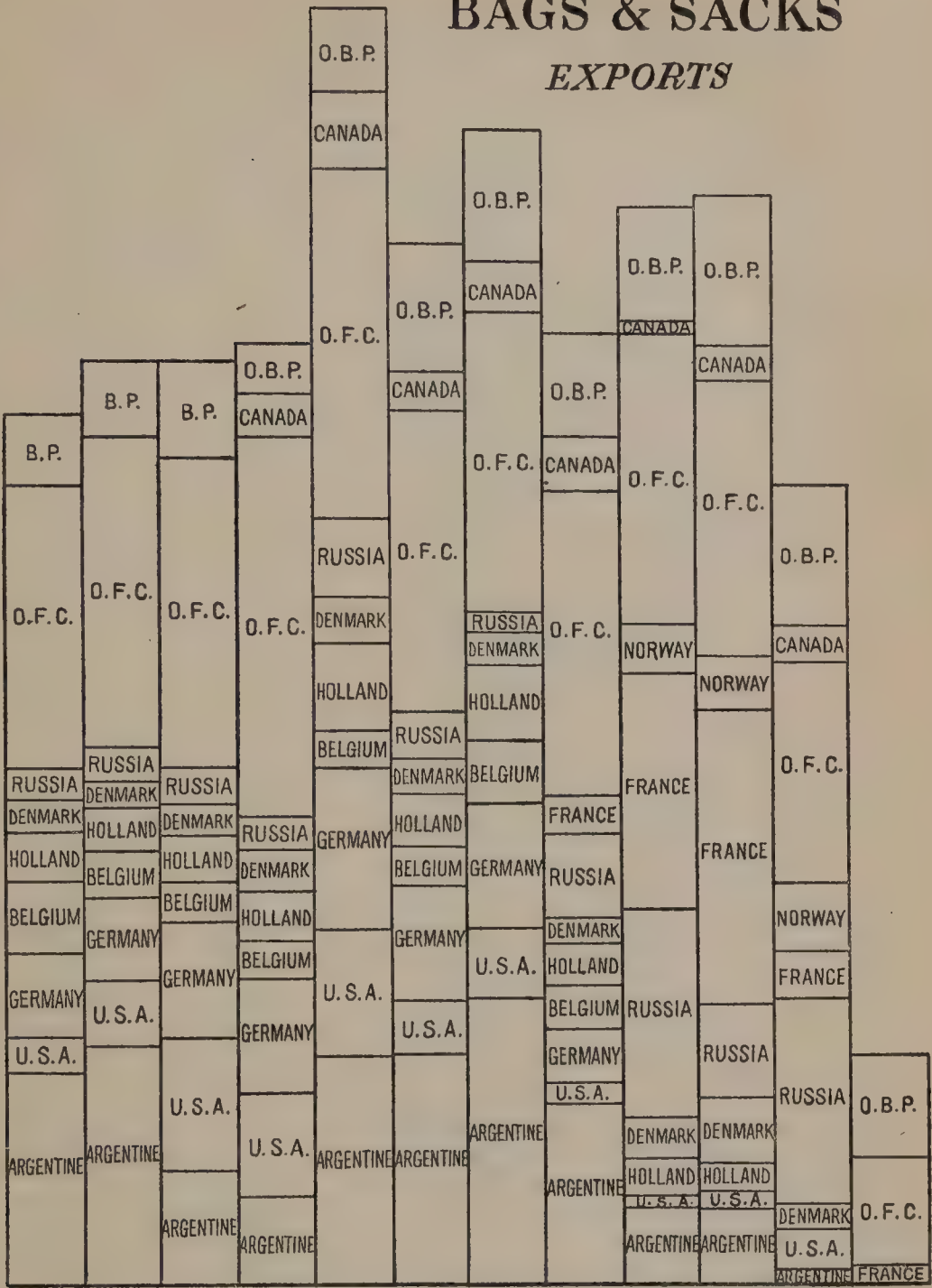


DOZENS 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918  
100,000

51—  
48—  
45—  
42—  
39—  
36—  
33—  
30—  
27—  
24—  
21—  
18—  
15—  
12—  
9—  
6—  
3—  
0—

# BAGS & SACKS

## EXPORTS



O. B. P. = Other British Possessions; D. F. C. = Other Foreign Countries.  
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