

V.—*Economic Development in Ireland.*

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In laying before the members of this Society some considerations regarding the very wide subject of "Economic Development in Ireland," I have in view the situation created by the Agriculture and Technical Instruction (Ireland) Act, 1899, which comes into operation on April 1st, of the present year. The object of that Act is to stimulate economic development in Ireland. It creates a new Department of the Irish Government, which is to concern itself with two distinct purposes: to assist in developing—(1) the agriculture and fisheries, and certain rural industries; (2) technical education applied to any form of local industry. On the one hand to enable the production of greater wealth from the lands and waters of Ireland; and, on the other hand, to improve the productive quality of Irish labour by technical education applicable to any of the industries or the circumstances of each district—these are the beneficent and truly national purposes of an Act of Parliament which makes an entirely new departure in the relations between the people and the Government of this country.

This Act has sharply divided the field of operations of the new Department into two mutually independent parts. In all that concerns Part I., the Department will take action without having to consult with anybody in Ireland, and the expenses incurred under Part I. will be provided annually by Parliament: and, like all expenditure provided for in the Estimates, it will be subjected to the control of the Treasury in London. But in regard to all matters contained in Part II. of the Act, the Department cannot take any action without the approval and sanction of certain bodies representative of the people of Ireland, appointed by the Act; and the moneys to be expended under Part II. will come from the annual income with which the Department is to be endowed from the start, supplemented as they may (or, in express terms, must) be by funds to be derived from local sources in Ireland. For this part of its work the Department will have an annual income of about £166,000, not a penny of which is to be spent on the salaries of the permanent officials. The people of Ireland are to be directly concerned in the mode of expenditure of that income. The situation amounts to this, viz.: that in all that Part II. the Act

creates a partnership between the two bodies (termed the "Board of Agriculture," numbering twelve members, and the "Board of Technical Instruction," numbering twenty-one members) representing the Irish people on the one hand, and the new Department, representing the Irish Government on the other hand; by which partnership both are to co-operate together to spend this annual income in promoting the material prosperity of Ireland in the two directions already mentioned. This I call an entirely new departure. It is a constitutional experiment fraught with great moment to the economic interests of Ireland. There is the "Council of Agriculture" (numbering ninety-nine members, drawn from thirty-two counties), which is to discuss and to declare the wants of Ireland "in connexion with any of the purposes of this Act;" and there are the two smaller bodies (the "Board of Agriculture" and the "Board of Technical Instruction" aforesaid) which are to insist that the Department shall attend to those wants so declared. One might draw a curious parallel with the constitution of Grattan's Parliament, so far as the limited field of operations covered by Part II. of this Act is concerned. But I am only here concerned to emphasise the important point—that there is this element of popular initiative and of popular control in the working of this Act of Parliament.

My point, in short, is that from the 1st day of April next, the question of "Economic Development in Ireland" is to be no longer an academic theme for discussion among Irishmen. These tools have been placed in our hands, and we are now to consider how we shall use them. For many a long year Irishmen have felt themselves like the sleeping partner in a business which was being run at a loss by the other partner who had only an indirect interest in the business. But by this Act, the Irish people, in regard to the economic development of their own country, have been made working partners who are as responsible, as much as the new Department itself, for seeing that the most shall be done that can be done with this annual expenditure of some £166,000 to promote the material prosperity of Ireland. It is, then, because of this new situation that I have ventured in the present paper to discuss, however inadequately, this very large subject.

Economic Analysis of the Population.

The population of Ireland having fallen from 8,175,000 in 1841 to 4,705,000 in 1891, it is interesting to learn whether the economic condition of the smaller population is improved by this change. The Census of 1891 tells us that of the 4,705,000 there were 2,106,000 who were employed at specified occupations, and 2,599,000 who were unoccupied—that is to say, 44·7 per cent. of the population were "Employed," and 55·3 were

“Dependents.” The relative proportion of these two classes has fluctuated since 1841 in the following manner:—

CENSUS		1841	1851	1861	1871	1881	1891
Population*	...	8,175	6,552	5,799	5,413	5,175	4,705
Employed	...	44·3	46·0	47·1	47·4	45·9	44·7
Dependent	...	55·7	54·0	52·9	52·6	54·1	55·3

* 000 omitted

The relative proportion shifted progressively in favour of the Employed up to 1871, and then subsided, leaving the proportion in 1891 practically what it was in 1841. It is to be observed, however, that the Census classification for 1891 is not exactly comparable with that for 1881. “Domestic Service” accounted for 427,000 persons in 1881, and for only 258,000 in 1891. The reason is that 139,000 were females classified in the Census of 1881 under the heading of “Others engaged in service.” These women, returned as “housekeepers,” were really wives or other near relatives of heads of houses. In the Census of 1891 they were removed from the “Domestic Service” class and included in the Indefinite or Dependent class. Owing to this difference in classification it will be necessary to remember, in what follows, that the 1891 figures are not strictly comparable. They make 1891 look worse than it is in the above table by enlarging the dependent figure. In the table that follows they make 1891 look better than it really is, by an apparent shrinkage in the Domestic Service class, included in Group D.

Mr. Charles Booth, whose work as a careful investigator of statistics is held in the very highest repute, read a paper before the Statistical Society of London on May 18, 1886, in which he analysed the Census figures of the Occupations of the People of the United Kingdom. I will extract from that paper his analysis of the Occupations of the Irish people alone; and I may add the figures for 1891, although, for the reason above stated, they are not strictly comparable.

In the following table the “Employed” portion of the population is alone considered. This is ranked into four economically distinct groups. Group A is those engaged in *productive industry*, and includes agriculture, fishing, mining, building, and manufacture; Group B is those engaged in *distributive industry*, and includes transport, and dealing (those employed in buying and selling); Group C is those described as *industrial services*, and includes a commercial service class, and the important Irish class called “general labourers,” most of whom must be agricultural

labourers; lastly, Group D is the *non-industrial services*, and includes professions, domestic service, and others. The percentages of the Employed belonging to each group when so ranked are set forth in the following remarkable table, viz.:—

CENSUS	1841	1851	1861	1871	1881	1891*
A. Productive Industry ...	80·6	74·0	66·7	63·1	60·4	64·8
B. Distributive Industry ...	3·1	5·0	5·9	6·7	7·0	8·0
C. Industrial Services ...	1·2	2·3	7·5	7·5	6·7	6·6
D. Non-Industrial Services ...	15·1	18·7	19·9	22·7	25·9	20·6
	100·0	100·0	100·0	100·0	100·0	100·0

* Owing to the different classification of Group D, the 1891 figures are not comparable.

Decline of Productive Employment.

The evidences of an economic decadence in the quality of Employment of the Irish people afforded by this general picture are so startling that it will be as well to set out the actual numbers employed in each group. This is done in the following table, subdividing Group A into two sub-classes. *The numbers are in thousands, viz.:—*

CENSUS	1841	1851	1861	1871	1881	1891*
Agriculture, Fishing, Mining...	1,858	1,483	1,191	1,065	1,005	941
Building, Manufacture ...	1,061	745	632	557	435	423
Transport, Dealing ...	112	152	163	171	160	168
Industrial Services ...	43	71	204	193	160	140
Non-Industrial Services ...	547	565	544	582	615	434*
Total Employed ...	3,621	3,016	2,734	2,568	2,375	2,106

*The 1891 figures are not strictly comparable

The latter table will serve to explain the former, but it is the former table that is really significant. The whole population has declined, but the decline is not uniform. It is very great in those branches of employment which are directly productive of wealth. The non-productive, or rather non-industrial, classes (as professions, domestic service, &c.) have not declined, but are

now increasing. The distributive industries have steadily increased all the time, notwithstanding the steady decline in population whose wants they serve. In short, the producers, who have rapidly decreased in numbers from 2,919,000 in 1841 to 1,364,000 in 1891, have to maintain auxiliaries, more or less economically serviceable, who have actually increased from 702,000 in 1841 to 935,000 in 1881 (or to 742,000 on the different classification of the 1891 Census).

It is obvious that the producers of wealth in Ireland have long needed some assistance; and the object of the new Department of Agriculture and Technical Instruction is to bring them all the assistance that is possible. But the problem of economic development is complicated by the fact that the direct wealth-producers are maintaining an army two-and-a-half times more numerous than themselves, which is either unemployed or employed in a way that is only indirectly productive. The reduced population in Ireland to-day is not in as healthy a condition, economically speaking, as it was in 1841. Ireland may have improved since the Famine in many ways which ought to have meant improvement in the general well-being; but the world elsewhere has been progressing in economic development so very much faster that Ireland is to-day relatively in a worse economic state, and the reduced population finds less work to do per man.

Multiplication of Distributors.

Reverting to the former of these two tables, we see that the people engaged in *productive industry* have declined so much faster than the entire Employed class that they formed only 60·4 per cent. in 1881, as compared with 80·6 per cent. in 1841. What is the significance attaching to the increase from about 20 per cent. to about 40 per cent. in those otherwise employed?

One might suppose that the *distributing* machinery that served the wants of 8,175,000 persons would have been more than sufficient for 5,175,000 persons. Yet this class were 3·1 per cent. of those Employed in 1841, and became 7·0 per cent. in 1881. The economic interpretation of this phenomenon is somewhat complicated. Let me say that the 3·1 per cent. in 1841 is distributed as 0·5 for *transport* and 2·6 for *dealing* (buying and selling). On the other hand, the 7·0 per cent. of 1881 is distributed as 2·2 for *transport* and 4·8 for *dealing*.

Now it is well known that a Free Trade regime necessarily multiplies the machinery for distribution, since consumers bring their supplies from more distant sources and producers send their products to more distant markets. To quote a recent writer:—"A country which seeks to retain its trade and industry in its own hands, does not need many distributors. Between the manufacturer and the consumer there are at most but two middlemen, the dealer and the retailer; often the first is knocked out altogether, sometimes both. But the moment a

foreign commodity is dealt with, a small army is employed. There is the shipowner with his office staff, or his agent, the harbour officials and labourers, the draymen and warehouse keepers, importers and brokers, and then dealers and shopkeepers, and all expect to make something out of it. A commodity that can afford to bear all these charges must be more cheaply produced elsewhere to be imported and disposed of on economical principles. Similarly the goods purchased in exchange will go through much the same routine, and while they have employed the same number of hands in producing, they engage more in handling, and yet arrive eventually at the consumer cheaper than if made on the spot. A fair exchange of manufacturing labour, therefore, means the employment of a more or less important quantity of intermediate labour as well."—(J. W. Root, *Tariff and Trade*, p. 418.)

All that is true, and is part of the explanation why the distributing machinery in Ireland tends to be larger under Free Trade. It also explains a part (but only a very small part) of the phenomenal growth that is also apparent in Group C of the *industrial services*. The 43,000 forming that group in 1841 contained 12,000 engaged in commercial service, which became 16,000 in 1881 when that group had swelled to 160,000.

But the phenomenon is far too big for that Free Trade explanation. The *transport* machinery in Ireland employs far more hands than there is work for, for the same reason that *domestic service* in Ireland is swollen so ridiculously beyond the economic necessities of the case. The proportion of servants to population in so poor a country as Ireland has, since 1841, become amazingly greater than in England or Scotland. "Domestic service" accounted for 283,000 in 1851 and for 427,000 in 1881. As Mr. Charles Booth says:—"The only explanation that suggests itself is that servants are more numerous where poverty makes service cheap!" So, too, with *transport*, there are railway-porters everywhere in Ireland who have very little work to occupy them during their long hours, and for whom auxiliary occupation is an urgent desideratum, because lack of employment makes their services cheap.

Excessive Shopkeeping Class.

But the really objectionable aspect of the phenomenon is to be found in the increase under the head of *dealing* from 2·6 per cent. (94,000 persons) in 1841 to 4·8 per cent. (111,000 persons) in 1881, and to 5·4 per cent. (114,000 persons) in 1891. This doubling of the shopkeepers when the population is being reduced by one-half is part of the fungus-growth that accompanies economic decay in a country. But to some extent a deep significance underlies the surface fact. Competition has an effect which in retail trade may work out quite otherwise than in productive industry. In productive competition, the weaker must

go to the wall; when undersold by the cheaper product of a rival he only makes a bigger loss by continuing in trade. In retail trade another alternative is possible. If ten shops be sufficient for the trade done and five additional shops open, then the whole fifteen shops can continue open without any increase in the number of trade transactions done—provided each can make a somewhat larger margin of profit on each transaction. Now, since the year 1873, it is well known that there has been a very great and continuous fall in the wholesale prices of nearly all commodities. This has made productive industry increasingly unprofitable, but, as a result, more and more enterprise and capital have been diverted into distributing trades. As retail prices, when they fall at all, never fall as fast as wholesale prices, therefore, as long as wholesale prices continue falling it remains possible for the retailer to retain a larger margin of profit on each trade transaction. In other words a larger number of shops are enabled to open in business and remain open than are economically necessary as measured by the work of distribution that has to be done. Ireland has suffered from this in the same degree as other portions of the United Kingdom. But the diversion towards retail trade has, here, been intensified by all the special facts that have handicapped the business of direct wealth-production in Ireland. The result has been a prodigious growth of retail shopkeepers, notwithstanding the great decrease in the population that is served. It is also to be remarked that the amount of business knowledge and ability in the Irish retail shopkeepers, has noticeably declined according as the ability and capital diverted into commercial travellers' work and wholesale trading has increased. Many retailers now-a-days are mere agents for handing across the counter the goods which are delivered to them already sorted, blended, and parcelled out; and they depend for all the brains and technical knowledge of their trade upon the periodic arrival of the commercial man who supplies them with their stock-in-trade. To-day the Irish retail trade is both far larger in extent than the economic needs of the country require, and it is done with much less business ability than formerly. This is a factor that hampers economic development in Ireland. The wealth-producer is burdened with the support of a class too numerous for the economic services they can render to him. Everything required for production should be rendered as cheap as possible, and the producer must be served by the retailer as efficiently as possible, if he is to successfully build up a productive industry against foreign producers. The amount of handling that the foreign goods have to undergo before getting into consumption is the foreigner's difficulty and the native producer's advantage; but the over-multiplication of the retailing and transport business in Ireland tends to cancel this natural handicap against the foreigner, and even to give him a distinct advantage over the native producer.

The "General Labourers" of Ireland.

Before leaving the analysis of the Occupations of the Irish people, it is important to notice the sudden increase in the Group C, *industrial service* class between 1851 and 1861. From 71,000 the group sprang up to 204,000 persons. We have seen that a small part of this increase is the rise of the commercial service class accompanying Free Trade. But the main increase in this group is that of the "general labourers," who were 31,000 in 1841, but became 144,000 in 1881. I quote Mr. Charles Booth's remarks:—"These labourers (who no doubt to some extent belong to the agricultural class) can hardly be added to the ranks of productive industry. They take their origin from the destitute class who appear in the return of 1851 (after the famine) as 'indefinite,' and who, dropping out of this unnamed position, appear in 1861, and continue in 1871 and 1881 as 'general labourers.' It is true that this class is, relatively, almost as considerable in England and Scotland as in Ireland, but there is a great difference in the fact that in the former countries they have always been a numerous order connected with the manufacturing and building industries, whereas in Ireland they have no such basis of support, and sprang into existence, not from any need of their services, but as the outcome of agricultural and industrial distress and charitable doles on an enormous scale." There is evidence that the numbers of this class in Ireland are dwindling down for twenty years past. Probably, being more educated and still finding only very irregular employment at home, this class is emigrating. Their departure, if a benefit to themselves, is becoming a serious matter in Ireland, where both the quality and the amount of temporary labour is now insufficient.

What Agriculture means to Ireland.

The new Department in directly assisting economic development in Ireland is to be mainly concerned with agriculture, fishing, and certain related rural industries. It may be of service to recall here the argument by which Sir Robert Giffen established before the Financial Relations Commission his conclusion that *two-thirds of the Irish people depend on agriculture for their livelihood*. He showed from the Irish Census in three distinct columns the figures of specified occupations:—(1) of all persons, (2) of males only, (3) of males over twenty only. In the first column, "agriculture" accounted for 937,000 out of the total of 2,146,000; being much less than the half. But that column was vitiated by the fact that many females, drawn from all classes, are there ranked under "domestic" only. Leaving out the women, then, and taking, in a second column, the Males only, he found that "agriculture" accounted for 846,000 out of a total of 1,504,000; being now much more

than the half. Yet that column, too, was vitiated because the so-called "Professional" Class is there swollen by students and others who are not income-earners. Therefore, he considered finally, in a third column, only the "bread-winners," or Males over twenty. He then found that "agriculture" accounted for 701,000 out of the total of 1,213,000; being now fifty-eight per cent of the total. A further contribution had still to be considered. For the "Industrial" Class included "general labourers" to the number of 114,000; and of these there were 96,000 aged twenty and upwards. Now, in Ireland most of these are agricultural labourers. He therefore transferred three-fourths of these to the agricultural class, which thereby reached 773,000. The agricultural class, therefore, provided sixty-four per cent. of the total number of bread-winners; or practically two-thirds.

That was his argument on one side. This result was confirmed by the Census figures of another sort, viz., those stating the numbers of *persons who live on agricultural holdings*. They number 2,978,470 persons, out of a total population of 4,705,000; or again sixty-four per cent. Add the farm labourers who live off the holdings they work on in neighbouring towns, and we are confirmed in the result that *two-thirds of the Irish people* depend on agriculture for their livelihood. This fact is important because it shows how much "Economic Development in Ireland" depends on the development of Irish agriculture. I should like to add that as long ago as 1836 the Commissioners appointed in 1834 for inquiring into the condition of the poorer classes in Ireland stated their opinion as follows:—"It appears that in Great Britain the agricultural families constitute a little more than one-fourth, while *in Ireland they constitute two-thirds of the whole population*; that there were in Great Britain in 1831, 1,055,982 agricultural labourers; in Ireland, 1,131,715: although the cultivated land of Great Britain amounts to about 34,250,000 acres, and that of Ireland only to about 14,000,000." (Third Report, published 1836, p. 33). If that estimate of 1836 be as well-considered as Sir Robert Griffen's estimate, made sixty years later, the coincidence is certainly remarkable considering all that has happened during the intervening period.

Why Irish Agriculture has suffered.

The economic causes that have militated against Irish agriculture are partly local and partly general. There has been a general disturbance of agriculture in all countries. Owing to a combination of extraordinary occurrences we have been confronted with a phenomenon that can perhaps only happen thus once in the history of mankind. *The food-supply of the world has increased faster than the population.* The rapid developments of new transport machinery have enabled mankind to

apply the accumulated capital and knowledge of the "old" countries to bring into sudden cultivation enormous areas in the "new" countries that were themselves almost vacant of human inhabitants. Such a thing cannot happen again. But the result has been that in all the "old" countries there has been an "Agricultural Depression" that is intimately related to the "Foreign Competition" of which European farmers complain. Now the economic result of increased competition is the same in all forms of productive industry: it leads to what economists term an *intensification* of the industry. More brains, more capital, more trouble and skill have to be applied to the old business. Producers find that they have to specialise in such branches of their business as the natural advantages of their situation make most suitable for their productive purposes. They must concentrate their whole effort on those branches, and they must undertake to "lick Creation," to secure the top price, in every market with the products belonging to those special branches. One interesting consequence resulting from the operation of this principle of *intensification* in the case of agriculture is that, in every country where agriculture is progressive, it has changed its character and has become an associative or co-operative industry. Another consequence is that the whole structure and distribution of Markets, and the system by which produce is collected and sent to market, has been revolutionised. Such things as the great produce-exchanges of the modern world are but the latest term in a long series of changes, and the revolution in method is the summation of the whole series.

Irish agriculture can no more escape from these world-changes than it can jump into another planet. But it has itself suffered not merely from these general economic disturbances. There have been local causes which have hampered the Irish industry in adapting itself to those changes in the environment and prevented Irish farmers from "keeping pace with the times." Chief among these are three, which in the present paper I can only indicate briefly. Historically, Irish agriculture was badly prepared for the coming changes of the modern world. The prosperous epoch that culminated during the Napoleonic Wars, during which Ireland became a great tillage country, left behind it a fearful heritage of parasitic growths that has inflicted untold misfortune on Irish agriculture during the nineteenth century. Secondly, an unfortunate system of land tenure has paralysed the progress of the industry. Thirdly, the railway system as developed in Ireland has not been suitable to its peculiar economy, and in an era of Free Trade (when transport facilities are the very mechanism of progress) it has heavily handicapped not merely agriculture but every form of productive industry in Ireland. It is impossible within my present limits to say more on these local causes. They must be remembered. There are people who say that Irishmen are themselves to blame because their industries have not flourished during this century.

But it may be doubted, if the most go-ahead races of the world had been handicapped by the same local impediments as have existed in Ireland, whether any of them could have improved upon the Irish record. There must be none of this dispiriting despair in the minds of the men who are to guide the new Department.

I cannot pretend to discuss here the whole subject of agricultural development in Ireland. I am too conscious of its complexities and of my own perplexities. But there are some matters which have interested me because they bear upon the subject, and which I will consider.

The decline of Tillage analysed.

The decline of tillage has been a net economic loss to Ireland; as the increase in stock-raising has fallen far short of being a compensation to the country, although it meant a better return to the small class that controlled the course of our agricultural economy. It is obvious enough that the amount of tillage in Ireland at the end of the 18th century was an economic monstrosity, due to the high "War prices" that were only temporary. It is not clear that the amount of tillage of fifty years ago was economically unsound. It is nearly certain that the decline during these fifty years has gone too far. An increased cropping of the land should, I think, be an essential feature in our future economic development.

The character of the shrinkage that has taken place in the "Land under Crops," between 1847 and 1899, has been concealed as well as revealed in the cloud of figures which were issued annually in the Irish "Agricultural Statistics" during that period. I have had to epitomise the statistics in a diagram before I could myself interpret their significance. That diagram is before you, and some of the results which it presents so clearly to the eye were interesting to my mind. The entire extent of land under crops, together with the portion occupied by each crop, are accurately shown for each year in such a way that the eye can follow the fate of each crop during the whole fifty-two years. The land under permanent pasture (now 10,470,000 acres; or more than half Ireland) is, of course, not shown, except so far as permanent pasture contributes to the hay crop. It is the land under crops, not all cultivated land, that is here depicted.

The steady growth in the area under Meadow and Clover, and the great extent of the Oats as an Irish crop, at once strike your notice. But what is most remarkable is that the sum of these two crops has been a nearly fixed area in Ireland for the whole period from 1847 to 1899. The upper edge of the Oats area, representing the sum of Oats and Hay, comes out a practically horizontal line on the diagram. How interesting that constant is when we consider the vicissitudes of Irish farming.

It means that the increase in the land under Hay has all been subtracted from the land under Oats; and the changes in the other crops can be considered as uncompensated shrinkages. The "Other Cereals" includes wheat, barley, bere, rye, beans, and pease. All these crops have declined rapidly and continuously; except barley, which has fluctuated curiously with a tendency towards shrinkage. The Barley area shrinks slowly to 1866, after which it rises gradually though hesitatingly to 1879, when it was nearly as large as it ever was; it then tumbled down again, and has fluctuated for ten years at about two-thirds its former extent. The net result is that "Other Cereals" declined steadily till 1874, since when they have, as an entire group, remained steady. Potatoes, the most valuable of all Irish crops, though not the greatest in area, rose rapidly from the collapse of the Famine of 1846 to 1860; since when it has steadily declined, and now stands at about two-thirds of what it was during 1860-70—a great money-loss to this country. The "Other Green Crops," including turnips and mangel-wurzel, have remained remarkably constant for the past forty years, the turnips slightly shrinking and the mangel expanding. If we omit the Hay crop, which has nearly doubled its area, we find that the whole area under all other crops has shrunk to one-half what it was in 1851. The climax was in 1860; since that year the land under all crops in Ireland has declined from about 6,000,000 acres to about 4,700,000 acres—which is paralleled very exactly by a decline in the population from 5,799,000 in 1861 to about 4,500,000 in 1900. It is all those crops that are raised for agricultural use, to be fed to Live Stock on the farm, that show the greatest steadiness or the least tendency to decline.

That diagram only shows the acreage under each crop. It does not show the relative money-value of each crop to Ireland. Lest it should too forcibly impress the memory, it is advisable to add a further statement of the relative importance of each crop. The yield, condition, and market price of crops of course vary. It is sufficient for my purpose to quote the figures given by Sir Robert Giffen as a fair estimate of the average annual value of Irish crops during 1889-93 (Second Volume of Evidence, Appendix I., p. 176, of the Financial Relations Commission), viz.:—

Quantity and Value of Irish Crops.

CROP.	Average Annual Produce	Average Price Assumed	Annual Value of Crops
	Thousand Cwt.	Per Cwt. s. d.	Thousand £
Wheat	1,266	7 0	443
Oats	18,345	6 6	5,962
Barley	3,051	7 0	1,068
Bere and Rye	184	6 6	59
Beans and Pease	87	6 6	29
Flax	314	55 0	864
	Thousand Tons	Per Ton s. d.	
Potatoes	2,669	60 0	8,007
Turnips	4,287	12 0	2,572
Mangold	722	15 0	542
Hay	4,555	58 0	13,210
Total Estimated Value of the Crops			32,756

The prices here assumed may seem rather too high for an average. But the figures in the last column will serve to mark the relative money importance of the crops. Sir Robert Giffen thought that about one-half of the Oats and eight-ninths of the Hay, as well as all the turnips and mangold, were fed to stock on the farm, the other crops going direct into market consumption.

In considering the possibilities of economic development through better cropping of the land in Ireland, the following occur to me as the important points:—(1.) Absolute security of tenure. Until the Rent difficulty is determined, by making the cultivator the occupying owner, economic development is a dream of the What-might-be-done. (2.) Better organisation of the marketing, including the transport agencies. (3.) Intensification; the growing of valuable crops like flax, fruit, early vegetables, etc., that require skill and care, and are therefore removed from ordinary competition. (4.) Improved service of labour, and better organisation of harvesting operations.

New Practice of selling Crops "on foot."

The subject of agricultural labour receives some consideration later on. Here I will only point out that of late years a system

has been spreading in Ireland of the farmer not undertaking to himself to employ labour to harvest the crops that he grows. The crops when matured are sold by auction "on foot," as it is called: that is the crop, as it stands in the field, becomes the property of the purchaser at the highest bid, who undertakes to cut and remove the crop off the land within a reasonable time limit. The purchaser is one who makes a business of this handling of crops, has his reaping machines and gang of labourers, and he does this harvesting work over a wide area. I venture to think that the new Department might well make an investigation into the extent to which this system of employing other people to do the harvesting has come to prevail among Irish farmers, and whether it is an economically healthy procedure. As a general rule, when we use the brains, organising power and capital of another person to do our own work for us we have to pay him: and there is little doubt, I think, that these harvest-jobbers, as I may call them, are scraping a profit for themselves off the backs of the farmer by relieving him of a troublesome part of his business. It would seem that the case is analogous to that of the proprietorial creamery; and that by a little organisation among farmers in the same districts, they might save this harvest-jobber's profits for the actual tillers of the soil. In any case an investigation into the economic results of this system of auctioning crops "on foot," and into the extent to which it now prevails, is an important desideratum that the new Department might well consider.

Circumstances alter cases. This very system of selling crops "on foot," which is of doubtful expediency in most cases, is, I feel sure, absolutely the remedy for the problem of Flax-growing in Ireland. Flax is a crop requiring an elaborate after-treatment and preparation for the spinner. No other crop offers such a very wide value of margin for skill. The value of the Flax crop is merely potential, and it entirely depends on the skill and knowledge with which this after-treatment is handled what the value of the flax fibre as a marketable commodity will turn out to be. Therefore, there is room, and even necessity, for making that after-treatment of the Flax crop the basis for a separate business. The farmer's part should be to prepare the ground, and grow the Flax as an agricultural crop. He should sell the crop standing on foot, and have no more to do with it as farmer. The whole of the subsequent operations of pulling, steeping, drying, scutching, etc., should be undertaken at central Flax factories, which would make a speciality of realising the full value that is there latent in the fibre, but is only to be educed by adequate skill. Now, there is little doubt that the Department will attend to this question of Flax-growing. I have pointed out that the operations of the harvest-jobbers in Ireland also require attention. It seems to me that what is necessary and advantageous in the case of Flax—the selling of the crop on foot—is a mistake and unprofitable to the farmer

in the case of his other crops. But the whole subject is one that certainly requires a thorough practical investigation.

Fruit farming.

As regards other forms of *intensified* culture besides flax growing, some public interest has been taken lately in tobacco-growing in Ireland. A much more important matter is that of flower and fruit growing. I would like the Department of Agriculture to report on the economic results of the remarkable development of large strawberry farms in that part of the country lying between Armagh and Portadown. The astonishing profits that have been made on some of those farms, and the large extension which this fruit-farming has already reached in that locality offer a striking example of what *intensification* of cultivation may yet do for Ireland. But a merely local fruit market is, of course, soon overstocked. Such fruit-farming should be localised round centres where jam factories could be started on co-operative principles, if the full profits of the industry are to be retained as the industry itself expands.

The Agricultural Labourer in Ireland.

The deficiency alike in the quality and in the quantity of available agricultural labour in Ireland is a difficulty before any increased land cultivation. The farmer has, to-day, to pay more wages for a less efficient workman, owing to emigration having removed the better class of labourer. The difficulty arises from the inability of providing the labourer in Ireland with continuous work at all periods of the year. Besides the migratory labour that goes annually from Ireland to England many parts of Ireland now obtain their labour by migration at certain periods of the year from other parts. But, whether the labour comes into the district, or belongs to the district, the labourer must have his home somewhere; and any improvement in the economy of the Irish agricultural labourer must begin at his home. He must have a bit of land, and he must be instructed how to use it. There are three possible home resources for him and his family, viz. :—(1.) Market gardening. (2.) Home industries. (3.) Poultry and eggs. The Labourers' Acts have now been put in operation in more than two-thirds of the Poor Law Union districts, and in consequence there is already a considerable class that is provided with a decent dwelling and half an acre, or more, land. The time has, I think, arrived when an organised effort might be made to instruct this class how to use their land. It seems an absurdity to use such a patch of ground for growing oats, as is often done—a few ridges of potatoes, and perhaps cabbage, and the rest in oats! I think these poor labourers must have no knowledge of market-gardening; their only idea seems to be to use their patches as if they were minature farms. Now, one of the most noticeable features

of country towns in Ireland, and even larger towns, too, is the difficulty of obtaining any good vegetables. All these labourers' plots should be wholly devoted to the production of vegetables, not for the labourer's family merely, but for the general market. But many of these poor men are ignorant of the different varieties of vegetables and of the proper ways of growing them. The Department of Agriculture would do well to work out a system of economy for this class, and instruct them in the method of using their bits of land. Besides these labourers occupying houses built by the Unions, I have often considered that the railway-men who have so little employment and such long hours at so many small stations throughout Ireland ought to be assisted by their railway companies to obtain similar plots of land, and to be given facilities by the railway for forwarding the vegetables and other produce raised on such plots to good markets along the line.

Irish Agriculture too much subservient to Stock.

In the present agricultural economy of Ireland the cropping of the land is largely subsidiary, the main business consisting in Live Stock and Dairy Produce. Taking round figures, and speaking in millions of statute acres we find that Ireland contains twenty million acres all told, of which five millions go to bog, waste, water, etc.; five millions are under crops; and ten millions are under pasturage. But of the crops grown, all the turnips and mangel wurzel, quite half the oats, and eight-ninths of the hay are fed to live-stock on the farm and do not, as crops, go into market-consumption. That means that quite two-thirds of the cropped land is as subsidiary to the stock-breeding industry as the grazing land itself. Furthermore, the diagram epitomising the decline of tillage indicates the general fact that where a crop shows some steadiness, or a tendency to not decline, it is a crop that is subsidiary to stock-feeding.

Changes in the World's Meat-Supply.

There is a rooted prejudice in favour of the view that this subordination of our agriculture to stock-breeding is absolutely right, and inevitable under the climate and circumstances of Ireland. It is much to be hoped that this rooted prejudice, or this general assumption, may not be accepted as an economic gospel by the new Department of Agriculture without investigation. It is no doubt the case to-day, as it was when Edmund Spenser wrote of Ireland—"That countrie is a great soyle for cattle, and very fit for brede." But let us not exaggerate on the point. If Irish pastures be richer than those of England, it is certain that our agriculturists are not to be compared with theirs. Suppose we take the consumption of six sheep as equal to that of one ox, then "it appears that the total number of stock in Ireland on every 100 acres of pasturage is equivalent

to only 44·6 oxen, whereas in Great Britain the number is 71·7. Excluding sheep, the corresponding numbers are 38·2 and 41·0." —(Alex. B. MacDowall; *Facts about Ireland, a Curve-History*, p. 10.) The truth, I believe, is that class-interest and the exigencies of the rent-trouble have powerfully operated to discourage the cropping of the land as an end in itself desirable: in other words, cattle have been favoured more because they were convenient rather than because they were the choice of an enlightened economy. Speaking broadly, economic development in Irish agriculture will not be practicable until the rent trouble is ended. Now, when this question arises, as it will first arise, on farms of which the occupier is also the owner, then it will wear another aspect. When we further consider that *meat-producing* is an industry that at the present moment is rapidly undergoing new and far-reaching developments; that the English people will get their meat-supply in future less and less from Ireland and more and more from distant ranches in the "new" countries; and that, in short, the cattle-business is likely to become increasingly unprofitable: then it will, I think, come to be recognised that in the near future the agricultural economy of Ireland must undergo a change to a system of Mixed Farming in which the cropping of the land will occupy a much more important place than it does to-day.

Sir Robert Giffen gave an estimate to the Financial Relations Commission that the gross annual return of Irish agriculture at present may be put as follows:—

Crops going directly into human consumption ...	£14,800,000
Dairy Produce	£11,000,000
Live-Stock consumed or exported	£17,800,000
Total	£43,600,000

Now, we have already quoted his estimate of the annual value of all the Irish crops, according to average market prices and an average yield, as being £32,700,000. So that the value of those crops now fed to stock must be taken at the difference between the £32,700,000 and the £14,800,000, viz., £17,900,000. I do not know that it has ever been noticed that this shows that these crops were really more valuable *before they were fed to stock than afterwards*, when they were included in the value of the Live-Stock. The crops might have been value for £17,900,000 had they been sold; but they were fed to stock with the result that the Live Stock (including in their carcasses not only the above crops, but the whole grazing of the country as well) come out, at the market prices assumed as value for £17,800,000. I do not propose to unravel this tangled skein. But it may serve to suggest the thought whether crops may not be raised as marketable goods to much better advantage under present circumstances than they are raised now merely for agricultural use, as subsidiary to stock-breeding.

I have alluded to the far-reaching changes that, at the present moment, are revolutionising the *meat-industry* of the world. Means have been discovered by which meat can be kept by cold storage in fresh condition for indefinite periods. In addition, the machinery and business of transport has been so improved (elsewhere than in Ireland) that it is to-day a commercial transaction to carry live animals enormous distances over land and sea, and land them in England in better condition than Irish cattle are landed after the short journey across the Channel. The consequence is seen in the sensational growth of the imported meat-stuffs during the last few years. Between 1893 and 1897 the population of the United Kingdom rose from 38·4 millions to 39·8 millions. But the money value of the imported meat-stuffs rose in the same time from £35,820,000 to £47,760,000—an increase of one-third in only four years; and the increase in the quantity was larger than that shown in value. In 1899 the value had risen beyond £51,000,000. The increase is so great that it is obvious that this meat imported from abroad is displacing much of the meat formerly raised at home. Has this new competition affected the Live-Stock industry of Ireland? The following shows the export of cattle from Ireland to Great Britain during the years stated, viz. :—

YEAR	Cattle				Calves
	Fat	Stores	Other	Total	
1893	316,344	318,545	8,473	643,362	45,307
1897	259,173	419,302	5,043	683,518	62,494
1898	278,770	460,903	4,101	743,774	59,588

Upon this table the following remarks may be made, viz. :—
 (1.) The increase is nothing like an increase of one-third in four years. We do not keep pace with the foreign importations.
 (2.) The increase is chiefly in stores. The Fat cattle formed 49·2 per cent. of the Total in 1893; 37·9 per cent. in 1897; and 37·5 per cent. in 1898. This declining percentage seems to show that Ireland is gradually abandoning the industry of fattening her cattle here—we export our stores which are then fattened on the other side.

It is clear that the Irish cattle trade has to-day to do battle with a competition of a new and invincible kind. The deterioration in condition (amounting to something like £1 per beast, on an average) caused by the bad handling that the Irish cattle receive in transit is a serious factor under these circumstances; and unless the Irish trade can be managed with the same enterprise and organising ability as the trade which ships live cattle

from the Argentine Republic to England ("fattening the cattle on the voyage") there is every possibility that the business will come to an unprofitable end. We may find it necessary to intensify the whole industry, to kill the beasts here exporting the dead meat and find our profit in the use of bye-products.

Action respecting Tuberculosis in Cattle.

I do not propose in this paper to say anything about the Dairy Industry. But there is a subject which is of growing importance to both trades of meat and dairy produce—the losses to agriculturists from tuberculosis. I have not read the Report of the Special Commission of 1897 on Tuberculosis, and can here only draw attention to the subject. Koch's discovery of tuberculin is still so recent that many of us have not awakened to the fact that Continental opinion is rapidly crystallising into action based on practical experience of the use of this means of diagnosing the disease. When the President of the French Shorthorn Society wrote some three years ago to the English Society, urging that cattle should be sold subject to the tuberculin test, England threw cold water on the suggestion. But some of the highest-priced animals imported from England, including the champion bull "Nonsuch," had proved on being tested and afterwards slaughtered to be seriously diseased. The French Government forbid the importation of cattle which do not pass the test at the frontier; and Belgium, Switzerland, Buenos Ayres, and other places are taking similar precautions. In such a matter as this is our Irish Department of Agriculture to have a mind of its own, or is it to be bound to follow England's course of action?

It has been shown that the extent of the disease has been greater owing to winter-dairying, through close and heated air, insufficient ventilation, and overcrowding. Large herds show more disease than small herds, and anything that mingles different herds increases the disease. Thus co-operative dairies involve the risk of disseminating germs of disease, unless the skim milk handed back to the farmers for the use of calves is sterilised by sufficient heating. The Danish experiment seems to have proved that the disease can be eradicated by systematic isolation of the unhealthy. In 1893 the Danish Government appropriated a sum of £2,700 (increased to £5,000) for five years for providing free tuberculin tests for young cattle to owners who were in a position to separate healthy from re-acting cattle. The veterinary surgeons being on the premises for free testing of the young stock, it soon became the rule to test also the grown stock by private arrangements at small additional cost. The Danish farmer thus had the advantage of knowing promptly how he stood as regards his whole stock, was able to divide his herd, and immediately start upon the gradual process of clearing away the disease. It is certain that the Irish

dairy industry cannot expect to compete successfully against these go-ahead Continental rivals unless they can emulate their zeal for improvement. And it is to the new Department of Agriculture that Ireland must look to be kept at least in touch with such developments of progressive agriculture. It must be the Intelligence Department of the Irish farmer. In regard to this important matter of tuberculosis I cannot but think that it will be its duty to forthwith take steps—(1.) To disseminate accurate information in a concise and readable form as to the methods of dealing with tuberculosis elsewhere, and their results. (2.) To establish some station where tuberculin of guaranteed and uniform quality can be obtained on reasonable terms by farmers who wish to test their herds; and (3.) to be prepared to furnish a list of veterinary surgeons who may satisfy the Department that they are competent to apply the tuberculin test with precision.

Other Duties of the Department.

In conclusion, it was my intention in commencing this paper to deal with "Economic Development in Ireland" from an industrial as well as from an agricultural point of view. Especially I had thought of showing how far it might be possible for the Department to go, having regard to the terms of the Act of Parliament, in assisting industrial and commercial development other than by Technical Education;—as for example in exercising some mediatory influence between traders and the railway despotism that obtains so widely in Ireland. But the length to which this paper has run, and the very scrappy character of the treatment which I have been limited to, even at such length, in dealing with the economic development of agriculture alone, both have made it clear that the task, if to be completed, must be resumed on some subsequent occasion.

The New Local Bodies and the New Department of Agriculture and Technical Education and the development of the resources of Ireland.

By CHARLES DAWSON,

[Read Tuesday, 24th April, 1900.]

Two classes of Bodies have been lately created by the present Government. One class by the Local Government Act of 1893; and the other by the Act which established the Department of Agriculture and Technical Instruction of 1899. By the first Act the government of the thirty-two counties of Ireland, and the various towns and villages they contain, has been handed