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PART C.

SOME PERPLEXITIES IN REGARD TO THE AGRICULTURAL STATISTICS OF IRELAND.

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[*Read Friday, 9th May, 1924.*]

Seventy-seven years ago the first paper ever read to this Society was "On the Connection between Statistics and Political Economy" by Mr. James Anthony Lawson, LL.B. It has been my task, in the Chair of the National Economics of Ireland, to aid students to investigate the application of economic science to the special case of Ireland. The use of statistics to reduce the actual facts of Irish life to measured statements is, I think, the best method of approach to the subject for Irish students. I may be allowed to repeat here the words which I used a year ago on this very point in the *Manchester Guardian Commercial,* dated May 10, 1923 :—

> "Each race has the defects of its own qualities. The Celt had no use for statistics hitherto. He as naturally dislikes being asked for a *measured statement* of anything as he would resent being choked. His richly emotional nature craves for emphasis, for vehement utterances; his imaginative mind loves to believe that facts can be shaped by a strong will as clay in the potter's hand; and his intellect, much exercised about literature or verbal debate but quite untaught in science, has never understood Lord Bacon's great dictum, 'Nature to be commanded must be obeyed.' The Irish Celt has been accustomed to live in a world of his own mind, where facts were really impertinent. But to-day the Vita Nuova of self-government has brought new

mental valuations. To reduce the facts of Irish life to measured statements is the practical need of the moment. The statesman must begin by being statistician.

"The current notions about Ireland seldom stand the test of measurement. The country is a veritable *terra incognita* to those who dwell there, and Irish facts are not what they are commonly thought and said to be. No doubt many important facts could not become known except after a careful use of statistics. And Government experts are to-day busily engaged upon that sort of research. But the true cause of the general mental blindness is the inveterate Irish habit of squinting whenever the facts seem disappointing. Imaginative people, who happen also to be untrained in science, have a childish notion that we can select our facts as we like them. But rejected facts remain, even if we are unwilling to see them. It is the rejected facts of Irish life that will control our future in Ireland. 'In every work of genius,' said Emerson, 'we recognise our own rejected thoughts: they come back to us with a certain alienated majesty.' When Irish Ministers bring before Dail Eireann their practical measures for the reconstruction of Irish life, let us hope that the Irish people will be ready to recognise their own rejected facts, which will come back also with a certain alienated majesty, for in many cases they will be the dominating factors in the problem in hand. These unknown facts of Irish life are the submerged rocks through which Irish Ministers have to steer the ship of the Irish Free State."

Certainly, if we leave aside political issues for the moment and consider economic problems only, then the capacity of a people for self-government can be pretty well measured by their capacity to handle statistical evidence as to the economic position of their country. In Ireland this capacity hardly exists among our responsible public representatives, and is very rare among our irresponsible private citizens. The condition of our public statistics at the present moment is probably worse in the Free State of Ireland than in any civilised country in Europe. We have no census of Production since 1908; no census of Population, Housing and Occupations since 1911; no detailed report on Agricultural Statistics since 1917; no statistics of External Trade for any year later than 1921. Whenever our government departments do issue any statistical material, the method of its publication is unbusinesslike and is such as pre-

vents accessibility. The Railway Statistics, published in connection with our new Railway Bill, is sold to the public at the stiff price of thirty shillings; the annual Finance Accounts and the Estimates cost ten shillings; the Imports and Exports, which cost eight shillings in 1922, came down to three shillings in 1923. Our Stationery Office issues these publications without any "Official Number" to identify each; and without any annual Index Volume, which would (1) enable a student to ascertain what statistical material exists, and would (2) enable libraries to bind the loose sheets into well-ordered volumes, so as to preserve the records in an accessible form. The Irish Government is costly; it maintains a very numerous staff of Civil Servants: why should the public statistics of Ireland be in a condition so discreditable? One remembers John Milton's description in *Lycidas* of "our corrupted Clergie then in their height":—

> Blind mouths! that scarce themselves know how to hold
> A sheep-hook, or have learnt aught else the least
> That to the faithful herdman's art belongs!
> What recks it them? What need they? They are sped;
> * * * * *
> The hungry sheep look up, and are not fed.

I do not myself think that the fault lies with the Civil Servants: they have given proof in the past that they "know how to hold a sheep-hook," for under the old Dublin Castle government Irish economic statistics were, as a rule, well done. I do not know where the fault lies. But the fact remains that our Irish public statistics have fallen into a disgraceful state of confusion—the hungry sheep may "look up" the records, and search for figures, but they are certainly not fed!

> But swoln with wind, and the rank mist they draw,
> Rot inwardly, and foul contagion spread.

That Ireland formerly had an admirable body of public statistics was due mainly to Sir Thomas A. Larcom, R.E., who carried out the Ordnance Survey of Ireland, 1826-42. His census of Ireland, 1841, created "a new era in Irish statistics." He assumed the conduct of the Board of Works in Ireland during "the most dangerous and doubtful crisis" of the Great Famine, 1846-7, when "he remained like a sailor tied to the helm in a dark night and on a stormy sea." (Lord Cardwell's letter of 1868.) He was a principal founder of the Dublin Statistical Society in 1847. He created the Agricultural Statistics of Ireland in 1847, as part of his duties at the Board of

Works, and then brought them out annually, with remarkable completeness, until he saw that they were put upon a permanent footing while he was Under Secretary at Dublin Castle, 1853-69. No other man has ever given so many fruitful services to Ireland in the varied fields of topography and place-names, of historical antiquities, of economic statistics, and of administrative reforms. Yet no mention of his services is to be found in Dr. George O'Brien's excellent and elaborate work upon "The Economic History of Ireland from the Union to the Famine"!

In the use of statistics to follow changes in agriculture Ireland had the start of Great Britain by twenty years. British returns, giving only the acreages under crops and the census of live stock, begin in 1867 (Parl. Papers, 1867, vol. 71): they were brought out for the Privy Council by Mr. Albany W. Fonblanque, the journalist. But statistics that give the produce of crops (yields per acre) were not obtainable for Great Britain until 1884 (Parl. Papers, 1884-5, vol. 84). It is a remarkable achievement that the agricultural statistics for Ireland, issued by Captain Larcom, R.E., in 1847 (Parl. Papers, 1847-8, vol. 57), were complete from the start, and were the model, both in form and in methods of collection, for these returns in all subsequent years down to 1906, when certain innovations were made by Mr. W. G. S. Adams. Two local circumstances combined, with the ability of the man himself, to explain Larcom's success, both with his Population Census in 1841 and his Agricultural Statistics in 1847: (*a*) Ordnance Survey Maps were now available, so that the Irish boundaries were precisely known for the first time; (*b*) the Irish Constabulary (a centrally controlled force dating from 1836) supplied a corps of enumerators with ideal qualifications for the task. In his 1847 report (explaining by what methods the agricultural statistics had been compiled) Larcom wrote testifying to "their entire and zealous devotion to this novel duty. . . . To the admirable discipline and organisation of that body it is due that the most general and extensive inquiry can be conducted in Ireland with as much precision and exactness as a model operation on the most limited scale." It was a popular gibe with the politicians in those troubled times that Ireland's real government was "Larcom and the Police." We must acknowledge it gave us admirable statistics without which we to-day could not discern the social and economic changes in Ireland consequent to the Great Famine, 1846-7.

For 1851 and 1852 the agricultural statistics were brought out by the Commissioners appointed to take the Irish Census of 1851; but it formed a separate publication (Parl. Papers,

1852-3, vol. 93). Dr. Grimshaw initiated a custom by which Census Years (1841, 1851, etc.) are used, as stepping-stones down the stream of time, when following the changes of agriculture in Ireland. For brevity's sake the later practice is to compare merely the figures of 1851 with those of the year under discussion. Since nobody goes back earlier than 1851, it has now been forgotten that 1851 does not represent the position of our agriculture at the time of the Great Famine. It is a surprise to learn that tillage in Ireland was increasing after 1847, so that 1851 was a "peak" year, viz. :—

TILLAGE ACREAGES IN IRELAND. (LARCOM.)

	1847.	1849.	1850.	1851.
Corn Crops ...	3,313,579	3,174,424	3,149,556	3,099,401
Green Crops ...	727,738	1,167,693	1,317,572	1,352,315
Flax	58,312	60,314	91,040	140,536
Meadow Hay ...	1,138,946	1,141,371	1,200,124	1,246,408
Total Crops ...	5,238,575	5,543,748	5,758,292	5,858,951

N.B.—1848 figures exist, but omit three "disturbed" counties (Tipperary, Waterford and Dublin) for that year.

Comparing 1847 with 1851 in detail, we find that Total Crops increased by 620,376 acres, in which the Hay Crop accounted for only 107,462 acres. Corn Crops had decreased by 214,174 acres, yet Wheat alone showed the larger drop of 239,623 acres (viz., from 743,871 to 504,248 acres), being the only crop that was then shrinking. Potatoes had revived from 284,116 to 868,501 acres, and Flax had grown from 58,312 to 140,536 acres. The recognition of these facts would involve a revision of a good deal that has been written about Ireland at this crisis in our economic history.

The old Department of Agriculture and Technical Instruction by the publications of its Statistical and Intelligence Branch had rendered very great services to the scientific study of Irish Economics. It is now replaced by the new Ministry of Agriculture of the Free State. And I find myself again quoting from *Lycidas*—

> But, O the heavy change, now thou art gone,
> Now thou art gone, and never must return!

The change has been disastrous as regards Irish Agricultural Statistics. It is not the fault of the new Ministry of

Agriculture, but the result of the disturbed state of this country since 1918, which accompanied the transition to the new order and of the "partition" in the government of Ireland, which is the most deplorable feature of that new order. The last detailed report on the Agricultural Statistics of Ireland deals with the statistics for the year 1917; and it was issued in the middle of 1921 by Mr. John Hooper, the very competent statistician of the old Department. He had to contend with a sea of troubles, like what often follows upon an earthquake; and one can only admire the spirit and ability with which he faced his difficulties and managed to carry on as far as was possible. I quote his own words, which do him infinite credit—

> "The delay in restarting the publication of this series of Reports is regretted, but was unavoidable. During and since the War the Department's statistical staff, depleted in the first instance by enlistment and afterwards by transfer to other Departments, had to meet a largely increased demand for statistical information. Moreover, since 1917 the collection of statistics in Ireland has been becoming increasingly difficult; new machinery had to be devised for collection of agricultural statistics in 1918; this had to be changed in 1919 and again in 1920 to meet the changing circumstances. Still all the more important figures of immediate interest were issued fairly promptly each year in preliminary summaries, but the publication of the less urgent particulars had to be delayed."

This Report (Cmd. 1316, of 1921) has an uncommon importance, because it contains the explanations regarding two novel happenings in the history of Irish agriculture, viz. :— (1) The effect on tillage in Ireland of the measures taken by Government to increase home-grown food supplies during War Time (I may refer to my own paper of Feb. 2, 1923, in the "Journal" of this Society, dated October, 1923.) (2) The new methods for collection of statistics, devised suddenly when the services as enumerators of the old Royal Irish Constabulary were found to be no longer available after 1918. I want to say here something about this second event. From 1847 down to 1918, inclusive, these statistics were collected, on the Larcom lines, by police enumerators who visited each holding. From 1919 down to to-day the figures are compiled in the Office from "sample returns," obtained through the post from certain farmers who have complied with the Office invitation (perhaps 30 per cent. of the farmers may have made such returns). For a fuller description of the new methods now in use students

may be referred to the Official Paper, Cmd. 1317 of 1921, which is the "General Abstract" for years 1916-19-20. On the other hand, Cmd. 112 of 1919 ("Detailed Report" for year 1916) and Cmd. 113 of 1919 ("General Abstract" for the years 1916-7-8) make no reference to any change, because the R.I.C. enumerators were still doing the work in June, 1918. That date marks the transition.

Now, for nearly all persons who may want to use our agricultural statistics at all, what they want is a figure; and if they can get a figure (*e.g.*, out of Thom's Directory or Purdon's Almanack) they are satisfied, and feel themselves to be based on the actual facts. Their case is that of Peter Bell and the primroses in Wordsworth's poem :—

> A primrose by a river's brim,
> A yellow primrose was to him,
> And it was nothing more.

When Mr. John Hooper writes that "the more important figures of immediate interest were issued fairly promptly each year in preliminary summaries," he has these people in his mind : the people who only want a figure of some sort provided it be "official," and who might "kick up a row" if the figures were not there, or not there in time. But there are a few other people—I hope they include all my own students!—who are more critical, because they want to interpret the economic significance of the figures. These people know the difference between a "cooked figure" and an "ascertained statistic," viz., the interpretation of the former has to do with the mind of the person who "cooked" the figure, whereas the interpretation of the latter has to do with the economic significance of the fact which the statistic has measured. Every scientific statistician will know that a fundamental change in the method of collection will alter the comparability of the figures, and will need new canons of judgment when the significance of the bare figures requires an interpretation. The Irish agricultural statistics obtained on the Larcom plan were "enumerated" figures obtained by actual visits to the farm holdings; those published since 1918 are "estimated" figures compiled in the Office by generalising from sample returns that were obtained through the post. Both may rank as ascertained statistics, and neither can be branded as "cooked" figures, since both are honestly based upon evidence. But there is a difference, and the difference must affect both the comparability and the interpretation of the statistics.

I hope I have made it clear that no blame attaches to Mr. John Hooper in this matter; that, on the contrary, he deserves infinite credit for continuing to bring out the Irish agricultural statistics in spite of difficulties which would have daunted and overwhelmed any official less brave and competent than he has proved himself to be. I would like to lift my hat to him every time I mention his name! But I am anxious to blame somebody for the form in which our agricultural statistics are at present "made public" by our new Ministry of Agriculture. Single loose sheets are printed from time to time containing the figures required for publications like Purdon and Thom and similar works of reference. There is no explanatory comment to show how the figures were compiled and to assist people in interpreting the changes which the figures reveal either in Crop Acreages or Live Stock Numbers. For scientific purposes these sheets of figures are nearly worthless. They are also far from complete. But the worst features about them are that (although Official Publications) they are not on sale to the public; they carry no Official Number by which they can be bound up in ordered volumes by Public Libraries and so can be preserved in a form suitable for reference; and they are not listed and catalogued in Annual Index Volumes from our Irish Stationery Office, by which research students are so much facilitated. These loose sheets of figures are sometimes reprinted in the newspapers—in this way I discovered from the *Freeman's Journal* that the Agricultural Statistics for 1923 have recently been issued; sometimes one finds the new figures quoted in editorial comments by newspapers that have not reprinted the array of statistics; but in most cases the sheets are probably consigned to the editorial wastepaper basket as too indigestible for journalistic use. In the meantime, "the hungry sheep" (such as myself and my students), who are ever on the look out for this most welcome statistical nutriment, are certainly "not fed." What we want really is the "Detailed Report," containing the full official commentary and explanations: that is the only thing that has scientific value for the purpose of economic interpretation. That we have not had for any year later than 1917.

I have said that the handling by statesmen of the problems of self-government requires that the facts of Irish life be reduced to measurement in the form called statistics. I have described the present confused condition of the public statistics of the Free State of Ireland as discreditable. I will take our Agricultural Statistics as an illustration, but similar illustrations could be drawn from many other branches of Irish public statistics. A student may quote the agricultural statistics of

Ireland from many different sources, viz., (1) The preliminary figures issued in the early General Abstracts; (2) the revised figures, now withheld, which have previously appeared in the Detailed Reports; (3) the Irish Census General Reports; (4) the British Agricultural Statistics which endeavour to give figures for the former United Kingdom, and where the Irish Statistics are presumably obtained from Irish official sources; (5) the Statistical Abstracts issued by the British Board of Trade, also for the so-called United Kingdom; (6) numerous works of reference, such as Thom's Directory, Purdon's Almanack, Whitaker's Almanack, *Daily Mail* Year Book, and others. It is a source of constant perplexities to students of statistics that the figures obtainable from one of these sources for any statistical fact are different—often surprisingly different—from the figures for the same statistical fact obtainable from any of the others. Take, for example, the figures for the "Divisions of Land" in Ireland: namely, the areas covered respectively by Land under Crops, Pasture Land, Woods and Plantations, Bog, Marsh, Rough Mountain Grazing, Waste Land, included Inland Waters, excluded Greater Waters and Tideways, and the Total Area in acres of the whole country. The Detailed Report on Agricultural Statistics used to commence by a statement, "According to the Census of Ireland for (say) 1911, the following are the figures," etc. When you have looked up the Census Report in question you are met by the statement, "These figures were kindly supplied by the Department of Agriculture." Now, in all probability the real source for the figures is neither, and is the Ordnance Survey Office; but this body is never saddled with a responsibility for the problematical degree of accuracy that attaches to the figures, and, in any case, it is a body that never publishes an annual report that could be quoted. But this shuffling of the responsibility from one Government Office to the other does not worry people who assume that because they are somehow "official" the figures must be the same figures in both cases. Now, my point is that the two sets of figures are not the same; they are always different, with the signal exception of Sir Robert Matheson's Census for 1901. The student of statistics may swear "A Plague on Both Your Houses!" But, in the end, he has to choose the one, and stick to that one source for his figures throughout, ignoring the other source consistently. One often has a doubt, if a writer be quoting statistics, to decide whether he is really competent to handle statistics or not; this doubt is easily to be decided (a useful tip!), for unless the writer scrupulously refers to the source that is the authority for his statistics it is perfectly certain that he is a duffer who is

incompetent to handle a statistical statement. But, as the dramatists say, this tip is an aside. Let me quote the year 1911 as an example of many others :—

IRELAND, 1911 : DIVISIONS OF LAND. (*Acres.*)

Extent in Acreage.	Census Report (1912-13, Cd. 6663).	Agricultural Statistics (1912-13, Cd. 6377).
I. Under Crops (including Hay)	4,861,224	4,861,224
II. Under Grass (and Grazed Mountain)	12,431,804	12,430,798
III. Under Woods	295,809	299,791
IV. Non-Agricultural—		
Turf Bog	848,187	847,660
Marsh	350,418	350,341
Barren Mountain ...	500,143	500,143
Waste Land	965,515	943,633
Included Waters ...	——*	117,135
V. Total Area	20,253,100	20,350,725
Excluded Waters ...	601,622*	487,418
VI. Total Surveyed Area ...	20,854,722	20,838,143

*FOOTNOTE.—In the Census column, the total (20,253,100 acres) represents Land only. A footnote states that the 601,622 acres of Water had contained 481,293 acres "under larger rivers, lakes and tideways." This cryptic remark is then made nonsense by omitting the whole 601,622 acres of water! What the cryptic remark really means is that the 481,293 acres of Larger Waters were to be omitted, and that the balance of 120,529 acres was to be counted in with the "Waste." Had that been done, the Total Area of the country (viz., 20,373,629 acres) would then be the same figure as the sum of the Four Provinces, as it ought!

The two columns of figures brought together in this table purport to measure the same facts at the same date, and they are both "Official" figures: they ought to be identical figures, and they are not. The discrepancies may seem unimportant at a casual glance, and they alter in no way the interpretation. *But the point is that there should be here no discrepancy whatever;* rather one column should corroborate the other. The worry caused to students by such incompatibilities in Official figures is immense; so that many have abandoned the further

study of statistics in sheer despair—unless they have acquired in time a healthy contempt for the "Officials" who supply them with this rotten garbage—the sort of officials denounced in Milton's lines already quoted: "that scarce themselves know how to hold a sheep-hook," etc. I have been comparing here two blue-books, both produced in Ireland. But, like statistics relating to Ireland, could be quoted from the British Agricultural Statistics or from the British Board of Trade's Statistical Abstract, which would be found still more irreconcilable and inconsistent both with themselves and with the corresponding figures published here in Ireland. This kind of confusion is far too prevalent, and is calculated to bring the public statistics of Ireland into contempt.

One suggestion I would like to make. The practice of publishing "preliminary" statistics in prompt time, which are then "released" to English or other statistical offices as being the Irish figures they have been waiting for, and of then sitting down leisurely to produce "revised" figures (which often differ considerably from the "preliminary" statistics); this practice is one chief source of the confusion. It is a bad practice, and it ought to be suppressed rigidly. The preliminary figures ought to be "right" (*i.e.*, as good as humanly possible—for all statistics contain errors!) from the first, and ought to be the only figures published for the year: in other words, the results of "revision" ought to be reserved until next year, and ought then to enable an improvement in the accuracy of the next year's figures.

You will observe in the last table that the total area of Ireland is represented by two different acreages. The Census said it was 20,253,100 acres (taking Land only), the Agricultural Statistician said it was 20,350,725 (which includes 117,135 acres of the smaller inland Waters). Now it perplexes young students to explain how Ireland can have two different sizes at the same time, 1911. But one learns as one gets older that the thoughts of Irish statisticians "grow wider" with the progress of the years. At the Census years 1841, 1851, 1861, 1871, 1881, Ireland behaved reasonably, for its Total Area—according to Mr. Butler's Report for 1911 (Cd. 6377)—remained at the same figure, 20,328,753 acres. For 1891 and 1901 Ireland rose higher out of the Atlantic, for the statisticians make its Total Area to be 20,333,344 acres. But in 1911 Mr. Butler was able to lift Ireland to 20,350,725 acres. If Mr. Blythe could spend a little more money on getting out the next Irish Census, it is possible that our Irish statisticians would be able to provide enough new land for all the "landless men" in the Free State. That result would be hailed (through-

out the statistical world anyhow) as a typically "Irish" solution of a difficult political problem. But I find that Mr. Butler only made Ireland reasonable by the simple process of "watering the milk." Take the year 1851: I find in the Agricultural Statistics for that year (Parl. Papers, 1852-53, vol. 93) that the Total Area of Ireland is there put at 20,316,979 acres, which included Smaller Waters to the extent of 139,918 acres. Now Mr. Butler lifted these waters up to 151,692 acres, which brought Ireland up to the required mark, viz., 20,328,753 acres. That is one device by which the perplexities of students can be alleviated. There is another item called "Fallow Land," which is tillage land that lies uncropped for the year; it may run up to 195,053 acres as in 1851, or it may run down to 10,886 acres as in 1901. Now the more frequent practice has been to count in this item with the Waste Land; but sometimes it is not counted at all, and sometimes it is counted in with "cropped land" (which is then discreetly called "arable land"). Economically, it is "uncropped", and yet it is "tillage land" and "arable land," but, for the time being, it is also "waste land." Now, some uniformity in the practice of statisticians in regard to the placing of "fallow land" is much wanted by those students who try to investigate honestly the very important question of the decline of tillage in Ireland since 1851.

There are dozens of other perplexities in our agricultural statistics. The number of "Horses" in Ireland was "returned" in the Census 1851 as numbering 543,312; and the same men who brought out that Census also brought out the Agricultural Statistics of 1851. Now, 1851 is the standard year with which all subsequent years are compared. Yet at a certain point of time you will find this figure make its appearance at 521,706. I have often pointed to this discrepancy, and I have suggested that the correct figure should be reinstated, viz., 543,313. But I was wrong. I discovered only last week in a Paper which Dr. Grimshaw read to this Society in 1888 that he there quoted for the year 1851 the statistics as follows:—Horses= 521,706, Mules = 21,607. If Dr. Grimshaw had found authority for that from the statistical records of the Registrar-General's Office the point is cleared up, and we must owe the correction to him. It shows that the 1851 Report (as published) was wrong, because under the term "Horses" it gave us the "Horses + Mules and Jennets." So that is that!

I will only trouble you with one other example of perplexity, but it is a very important one. It is in regard to "Land under Grass." In the Census for 1911 the Land under Grass is stated at 12,431,804 acres, or 61.3 per cent. of Total Area; in the previous Census the corresponding figure was stated at

10,577,238 acres, or 52.3 per cent. There is no footnote in 1911 to explain how the "Grass" increased in ten years by the huge figure of 1,854,566 acres, nearly 10 per cent. of the Total Area. We all took it to be sad evidence of the decay of agriculture in Ireland. But it is nothing of the sort; it is a mere change of classification made in the Office, which altered the figures but not the facts (it was first made by Mr. Adams between 1905 and 1906). The earlier 1901 Census gave for "Barren Mountain" the large figure, 2,223,420 acres; the later 1911 Census gives it as 500,143 acres; so "Barren Mountain" has been changed in the Office—the 2,223,420 acres of 1901 were sub-divided into 1,723,277 acres rightly renamed as "Rough Mountain Grazing," and 500,143 acres still called "Barren Mountain." Then the Census of 1911 silently added the former to "Land under Grass." The public was misled; the 1,854,566 acres of new Grass Land, during that decade, 1901-10, was in actual fact only 131,289 acres, because the other 1,723,277 acres were merely this transfer of Mountain Grazing into the category of Grass Land—this transfer alone equals 8.4 per cent. of the whole area of the country. Think what it all means! People studying the decay of tillage in Ireland will take the figures of 1851 and of 1911, and will assume that nothing more is needed than to compare the two sets of figures. That would be a fallacious assumption. The 1911 figures were "doctored" by lifting 8.4 per cent. of Total Area out of the category "Barren Mountain" and adding it to the other category of "Grass Land." Before we can compare with the 1851 figures we must "doctor" them in the same manner—increasing the 1851 "Grass Land" by a figure equal to 8.4 per cent. of the Total Area of Ireland. Translating actual acreages into percentages of Total Area, the change is as follows:—

CHANGE IN THE USE OF THE SOIL OF IRELAND.
(in percentages of Total Area).

	1851 (Revised)	1911 (Census)	1851 (Census)
All Crops except Hay ...	22.7	11.4	22.7
Hay, including permanent Meadow	6.1	12.3	6.1
Grass Land, with Mountain Grazing	51.4	61.3	43.0
Woods	1.5	1.5	1.5
Non-Agricultural, including Small Waters ...	18.3	13.2	26.7
Total Area ...	100.0	100.0	100.0

We learn from the first and second columns that the following changes have taken place in the sixty years. viz.—(1) Grass Land is increased by 10 per cent. of Total Area of Ireland (10 per cent. of 20 million acres). (2) Half that new Grass came from the reclamation of Bog, Marsh, Waste, for the Non-Agricultural land changed from 18.3 to 13.2 per cent. (3) Half the new Grass came from Cropped Lands, for the percentage under all crops changed from 28.8 to 23.5. (4) Of the Cropped Lands themselves, the area under Hay Crop has doubled; the Area under Other Crops has become halved. These four points accurately state what has happened to Irish Agriculture during those sixty years.

Enough has been said. I will conclude with a Day Dream. I would like to see formed for the Free State of Ireland a Central Statistical Office which would be responsible for the issue to the public of all the public statistics of our Government. Some of the Dominions, such as Australia, possess such an Office, which is there presided over by a Chief Statistician, who compiles and edits a Dominion Year Book containing an exposition of the Dominion's statistical position in all branches of national effort where statistics emerge and are needed. But for the Free State I would prefer that there should be rather a Central Statistical Board composed of the separate statisticians of such departments of government as mostly supply the statistical material at present. To that Central Statistical Board I would entrust the direction of our Irish Stationery Office (which is not yet functioning properly as a publication office). The editing and planning of all the statistical material as well as the supply of that statistical material to the representatives of other Nations included in the British Commonwealth, and of all Foreign Nations interesting themselves in the affairs of our Free State, I would charge as the undivided responsibility of that Central Statistical Board. A complete file of our Government Publications should be placed by this Central Statistical Board for reference purposes (with proper conditions attached) at our National Library in Dublin, at all central Municipal Libraries, at all libraries attached to University Colleges, and with certain selected Chambers of Commerce that will accept the prescribed conditions. Only through the authority of such a Central Body can the confusion and discredit that now attaches to our public statistics be rectified and purged. That Central Statistical Board should be used by our Free State Treasury as its instrument for securing that every distinct department of the administration in our Free State shall not live enshrouded in secrecy (as so many of them live at present), but

shall put its yearly operations upon open record in an Annual Report issued regularly and with a reasonable promptness after the close of each financial year. Could such things be, and overcome us like a summer cloud, how much more common among our patriotic citizens would be the effective capacity for self-government.

POST SCRIPTUM.—The Agricultural Holdings of Ireland are classified in the Census Report in two ways—(1) By rateable valuation, (2) by size in acres. Again, the Agricultural Statistics, in the Detailed Report, contain a classification of the same holdings by size in acreage. Take the year 1911 :—

AGRICULTURAL HOLDINGS OF IRELAND, 1911. (BY SIZES.)

Acreage.	Census Report (Cd. 6663)	Agricultural Statistics (Cd. 6377)
Not over 1 acre (Plots) ...	50,220	86,906
Over 1, not over 5 acres ...	53,793	62,354
„ 5 „ 15 „ ...	139,856	154,354
„ 15 „ 30 „ ...	129,232	136,839
„ 30 „ 50 „ ...	72,522	76,384
„ 50 „ 100 „ ...	56,868	58,979
„ 100 „ 200 „ ...	23,110	22,789
„ 200 upwards ...	10,074	9,355
Total Farms ...	485,455	521,054
Grand Total ...	535,675	607,960

Now, the figures here brought together are irreconcilable. In the body of the Census Report appears the paragraph : " On the present occasion, instead of combining two or more farms belonging to one individual and reckoning the result as one holding, the holdings (farms?) so circumstanced were accounted for as separate holdings." The meaning of this slovenly sentence is unintelligible. But if we can assume that it means the exact opposite of what it says, *i.e.*, if we can assume that the Census Column counts the " Holders," whereas the other column counts the " Holdings," this would go some way to explain the discrepancies—at least till we reach farms above 100 acres. (This example of confused statistics was referred to by Professor Oldham verbally, so given here as a footnote.)