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*PAPERS OF THE CONFERENCES*

*Held in connection with*

*The GREAT INTERNATIONAL  
FISHERIES EXHIBITION*

THE

FISHERIES OF IRELAND

BY

J. C. BLOOMFIELD

LONDON

WILLIAM CLOWES AND SONS, LIMITED

INTERNATIONAL FISHERIES EXHIBITION

AND 13 CHARING CROSS, S.W.



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*International Fisheries Exhibition*

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LONDON, 1883.

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CONFERENCE ON 30TH JULY, 1883.

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THE EARL OF MILLTOWN in the Chair.

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IRISH FISHERIES AS AN ENGLISH  
SUPPLY.

THIS great gathering of fishermen and fish consumers of all nations will be more or less taken advantage of by every civilised community to gauge the opportunities and shortcomings in the development of God's greatest gift of sustenance to man—a harvest to be gathered without sowing, and, under infinitesimal restrictions, to be annually used to *the utmost capacity of natural appetite without fear of annihilation.*

To add my mite of information on the subject from Ireland's point of view is now my task.

The words of H.R.H. the Duke of Edinburgh at the earliest meeting of the promoters, where he specially alluded to the results which he apprehended would flow from their labours in the stimulation of Irish fishing, are conclusive on the side of what he expected they would be able to do for the coast population in that country; but this is indeed only a small and local element in the consideration of the subject, the main expostulation including much more serious and Imperial interests.

I have had in preparing this paper to consider closely the Report of the Inspectors of Irish Fisheries, and I must say a more disheartening job I have never undertaken,

although they have made the most they could of a weak case, and put as good a colouring as possible to make the pale face bear the light before a national audience. It would take me long to do it justice, but I will give you an idea of what the country is losing.

In page 4—"Herring Fisheries," 1882—statistics have been taken from the following places *only*:—Howth, Arklow, Kinsale, Greenore, Ardglass, Omeath, and Warrenpoint, Kilkeel, Amalong, Courtown and Balbriggan, from which points were captured 70,457 mease, at a total value of £78,860.

Of course you will imagine that these are scattered denominations, representing the attacks upon the herring, *all round* the coast of Ireland. *No such thing*; look at the map behind me, where I have marked them *all*.

But, to make things worse, when I refer to the report of 1879, I find that *these same points* are *there* declared to be *then*, as NOW, the ONLY places from which regular and authentic returns *can* be procured! *Worse again*—I *there find* that the value taken in '79, from these *exceptionally favoured* places, which make up the Irish contribution to English supply is considerably over that of 1882. Well, but what proportion of our coast do these places represent to calculate this? We must turn to the divisions, and *there* I find that, giving the *whole possible area* in which these fishings could be defined, the mileage amounts on the east coast to 223 miles, and Kinsale to 110 miles, making altogether 333 miles, leaving besides four divisions—the length of which is not given in the report—2337 *miles of coast with no return*. With these Government statistics available must we not charitably imagine that the Treasury cannot have read them, when opposing Mr. Blake in a pitiful *grant of our own money* towards carrying out the recommendations of the

Inspectors, in developing such an accessory to employment and contentment in Ireland as well as additional national supply? Perhaps our good friend Professor Brown Goode will tell us what 2337 miles of coast teeming with fish would mean, in a value sense, to the people who breed shad and raise carp remuneratively in mud baths. I have no time even to hint at the aggregate amount of loss when we add mackerel, cod, and all the edible fish, besides herring, in the length of coast stated. I will but touch on the mackerel, as I have little time to emphasise what we have learned in the herring report. In the captures at all the stations, amounting to 199,779 boxes, £128,473 value, the *little* fishery pier of Baltimore springs into a prosperous station in a remarkable manner, rising *in two years* from 9845 boxes to 56,643, making, with the established fishing harbour of Kinsale, the amount of 177,000 out of an Irish total of 199,779, leaving but 22,779 boxes for all the rest of Ireland—close on 3000 miles! The fish were there when the 9000 boxes represented the whole take in 1880.

How is this? Simply a pier was built, costing £4000, by Government, and the people (who could not fish before, and so had no money to start) found a patron, who advanced the necessary funds, and see the result. The Report also shows that turbot, soles, mackerel, cod, haddock, herring, whiting, sprats, lobsters, crabs and divers coarse fish abound in every division; and it will be remembered that the old theory hitherto commonly obtaining, that the shoals of herring and mackerel passed along the whole coast, has been rudely shattered at these Conferences, *so* that the utilization of new fishing ground does not only give an extra catch to the human congener of the herring-loving cod, but, encountering a new supply, is like the discovery of an *original source of national wealth and sustenance*; and

however science may be required in England to overhaul the experience of the United States in propagating sea-fish—and I heartily hope science will insist upon its legitimate rights in this respect—neither science nor law founded upon it are wanting to give the country knowledge, *if* it feels that it wants fish, and as a natural sequence that it should be had *if possible*.

The means for carrying on the industry of course is confined in extent to a scale consistent with the demand which has hitherto been purely local on the coast-line in question, and the reason sufficiently explained in the above Reports, namely, an absence of means of transit, and in many places a want of safety piers and small refuge harbours for boats. Let me shortly quote again a passage or two from this important official document :—

“INSPECTORS OF IRISH FISHERIES.—The importance of securing facilities for transport to the great markets cannot be over-rated—they exercise the greatest influence upon the fisheries of any locality—as a rule securing to the fishermen more satisfactory prices for their fish, and bringing them in direct communication with the large buyers.

“The coastguard officer considers the fishing in the locality to be excellent, but thoroughly undeveloped. The drawback to the fishery is the great want of the means of transit or want of curing stations, but that energetic fishermen, not fishing spasmodically, would make a good profit. The shoals of fish off the coast, particularly herrings and mackerel, are sometimes enormous, from which local fishermen get little profit.

“The great drawback to any fishing being prosecuted on an extended scale in this or any other similar locality is the great distance between the place of capture and a line of railway ; at present, the nearest station is Tralee, situate



twenty-seven miles from Dingle, and about thirty-five from the fishing-ground.

“We cannot over-rate the importance of providing safe and convenient harbours wherever practicable, as without proper shelter for the boats it is not to be expected that there can be any great development of the fisheries.”

Besides the above, in the Appendix to this paper will be found the denomination of 70 points on the coast where the Inspectors have unanimously recommended fishery piers to be constructed. To Lord Waterford's opinion, that “there was as great wealth in the seas of Ireland as in the seas that washed this country,” I can add the testimony of the Minister, Mr. Shaw-Lefevre, who admitted this but hazarded the officially informed addenda, that the elements were against our securing the prize, though he did not explain how the law of storms, coeval with Cabinet sympathy, kept an eccentric puff in hand for my poor country, whilst refraining from interfering with the Norsemen of Shetland or the fishermen of Newfoundland.

I will not weary my audience by going over the ground so exhaustively trod in these Conferences by such men as Huxley, Brown Goode, and others, fully proving to the fair mind the inexhaustible supply the seas afford. It is enough for me that all authorities unite in proclaiming that the Irish coasts are not exceptional as resorts for the vast shoals we have heard so much about in recent interesting papers; but ere I leave the consideration of our coast fisheries, I would earnestly ask my audience to make a special inspection of the United States annex, with a view to appreciate thoroughly the question, and not to forget to pause before the jars which hold the produce of such refuse of the cod as its head and backbone turned into a valuable agricultural recuperative, while the edible

portion is preserved for human food ; and, above all things, to study the grandest specimen of piscatorial topography ever exhibited, in the official fishery map of the United States, which I hope will not leave this country until it has stamped its merits indelibly upon our department.

I now come to the consideration of the most practical matter, not only connected with the subject of this paper, but with the outcome of this great international exchange of experience and ideas on fish supply, viz., the possible result of the utilization of our inland waters, of course confining my statistics to Ireland, while generalizing the knowledge I have acquired in this building on the point.

My *début* in connection with these Conferences took place at the reading of a paper on coarse fish by Mr. Marston, which, however, was principally confined to the production in artificial waters. The discussion on that paper, however, led me to put to myself the query—how many thousand acres of small lakes exist in Ireland, all more or less containing fish bad and good, which now contributing nothing to the food supply of this great country, could with small expenditure be made to add a defined annual tonnage to the present amount of a most wholesome, economical, and appetizing nutriment for the poor? No sooner struck with the importance of the demonstration than I hastened to acquire statistical information. I knew that by an application to the Ordnance Survey Department in Phoenix Park the exact return of the area of each lake in Ireland could be supplied me from the six-inch map, and so the application was made, but time would not allow for the calculation, so I was obliged to fall back upon that wondrous compilation, Thom's Directory, and there I found the area of inland waters in each county given, and

for my purposes at present will answer so far as to force the consideration of this important matter not only upon the Government and leaders of opinion in Ireland, but likewise upon the minds of those in this country who, for private gain or sympathy with the poor, would like to see utilized all practical means for providing their sustenance.

The inland waters of the 32 counties as given in this most truthful publication amount to 574,887 acres, and the supply from them is confined to the comparatively few tons of salmon and eels which are supplied from the large lakes into or from which rivers run, and both these fish are restricted from price to the class of luxury. My next move, after contemplating my figures, was to discover from the resources of the Exhibition whether indeed such a treasure of industrial and food resource did lie at our command under the smooth waters of our inland lakes hitherto unutilized. England could find me no information except in a book on ponds, by Marshall, some 120 years ago, though I believe, if my classics had not been like the neglected waters, Cæsar would have informed me that the Romans provided for their certain supply by ponds in Britain. Ireland too has sundry local names which prove that our ancestors there—those who, like myself, have a portion of the blood of the breechless Bryan Boroohne—secured to the religious houses the necessary piscatorial supply; but what I could not obtain from the old country herself, her reliant and provident children of the West voluntarily and kindly afforded; and it is to the extraordinary—in the broadest sense of the word—knowledge and experience of my friend, the United States Commissioner, that I am indebted for the following facts.

In the United States the cultivation of fish is not left

solely to private enterprise, but is encouraged, and materially assisted, by the State, the reports of the Government officers being exhaustive returns of their own work and quotations from all the authorities of Europe; appropriations to the amount of 1,000,000 dollars having been already granted by Congress to develop this great source of natural food. Apart from the culture of their own fine normal species they have imported carp in large quantities from Germany. Hear the Fish Minister (as I call him) on this subject:—"The most noted features for the year ('79) are, first, the commencement of the distribution of young carp to various points in the United States; and, secondly, the authorisation by Congress of a special steam vessel to serve as a floating station for the hatching of shad and other useful food fishes." Further on, speaking on the general cultivation of fish, "This is carried to perfection as far as the carp is concerned, for not only are its eggs hatched artificially, but it is *nursed* and *tended* like a *domestic animal*, and even to prosiness." I must add, in the interest of our thousands of natural waters, the quotation, "That it will be of great advantage to permanently stock our lakes and rivers with young carp, as carp raised in lakes and rivers have a much finer flavour than pond carp. The only way to raise those large and beautiful carp, weighing 20 to 50 pounds, the beau ideal of carp, the proprietors of lakes, and even those renting lakes, should stock their waters with large masses of young carp."

From the same source I learn that "France before the war had carried out, on a large scale, the system of artificial impregnation, and have thereby exercised a very beneficial influence on fish culture throughout the whole country. The smallest areas are cultivated, and the best possible use is made of the different characters of

the waters. France has more than 4600 miles of lakes and ponds. French statisticians compute the annual gain from the *freshwater* fisheries at four million francs (\$800,000), and the annual rent of every hectare of water at \$15 (or 30s. per acre). The fisheries, however, are not yet able to supply the home demand." "By the cultivation of fish in France, at first in the rivers in the localities where there was the greatest amount of poverty, a new life has been developed, so that many a poor fisher and farmer has become a man of means through his little fish-pond." The Marquis de Jolleville in Normandy, from one stream and fish-pond, made \$750 to \$900, that ten years since did not produce one."

Coming to Austria, the United States Commission quotes "Carl Peyrer," that from 370,500 to 492,000 pounds of carp are sent annually to Vienna from the estate of *Willuy* alone in the south of Bohemia; the *acre* of *water* in Austria is valued at \$9 (or 36s.). The same authority writes: "*Civilized nations cannot do without this important aliment without detriment to themselves. Fish even without an elaborate dressing forms a good and easily prepared meal for the labouring classes; their flesh contains as large a quantity of proteine as pork. 100 lbs. (Austrian) of fish flesh contains as much nourishing matter as 200 lbs. of wheat-bread, or 700 lbs. of potatoes*";—prodigious fact, which brings me back to a consideration of the primitive denizen of a farm in Galway or Donegal striving to eke out a miserable existence on the watery tuber to which his primitive knowledge and situation holds him, while close to the doors, with the full moonlight reflecting his own shadowy life on its neglected waters, lies the lake which might hold, with half the labour of his potato plot, 15 *times* the *nutriment* (considering the deterioration from disease) *in a given weight.* 574,887 acres

of water to be utilized at a trifling expense to produce what?—I dare hardly write the sum, nor has it yet scarcely passed the portals of my appreciation, so wondrous is its meaning, so marvellous the effects to be produced. But here is the book from which I have compiled my area statistics, and in the United States annexe is to be found the man who, by his own and country's experience and world-wide investigation, must be answerable for my conclusion that there is idle in Ireland a portion of its surface capable of yielding, at the French computation, £862,330 annually, and supplying innumerable tons of food to the Imperial store. Let any member of the Legislature move for a return of the inland waters of Ireland, and their several acreages which I have shown can be readily given, and their deducting such areas as the Lakes Erne and Neagh, and confining the calculation to lakes and waters completely within our own power, to utilize *to the full*, and there remains a wondrous lever to raise the status of the people there, and by a mutual interest increase the correspondence and further the intimacy and confidence of the two countries. For evidence, however, on the vital abstract of unlimited demand, I must come to England for my information, and London alone will pretty well suffice to set the matter at rest. I find Mr. Birkbeck, M.P., while presiding at the Inaugurating Meeting of the "Fish Culture Association," said he hoped that "the Government will see its way to affording support similar to that which was afforded by the Governments of America and Canada;" and further stated that, "owing to the demand for fish as food, it was necessary that something should be done in the direction of fish culture in rivers as well as the sea." That *this* is an authoritative piece of evidence that the present supply is *not sufficient* an audience in this building will not deny. I might quote

speeches without end, supplementing this acknowledgment of the want of more fish in London, not only in the description which forms a delicacy at the rich man's table, but for the coarser sort, which Mr. Osborne, of Clerkenwell, so truly states were "essential for the sustenance and physical well-being of the poor people." My audience will, I am sure, again appreciate my abstention from overloading this paper with oft-repeated truisms, which are patent to the readers of every public journal, especially as I have personally gauged the soundness of the conclusions by the unerring standard of value. I have purchased cod in Mr. Whiteley's stores at 1s. per pound, and have seen it labelled elsewhere at 1s. 4d. In King Street, Hammer-smith (a remarkable place on a Saturday night), I have bought, and subsequently eaten with satisfaction, five sprats, *beautifully cured*, form and colour preserved, for 1½d., tied in a bundle. I have purchased mackerel at 9d. each, and refused them at 1s. But let us probe the matter further, and see whether in the circumstances attending the transfer of fresh fish, under the present available supply, from the place of capture to the London market accounts for the present price.

In a circular I produced at the Conference on the reading of His Excellency Mr. Walpole's paper, the rates of fish from the places of capture to the several towns in England did and do show a want of appreciation of the great trading motto of low price and large and quick turn overs ; but to show you what a blessing railway connection is, even with exorbitant rates, the settlement of that great corporation on our eastern coast at Greenore, with the best plant, as I am constrained to say, metamorphosed the district into which it has penetrated, by running over the Great Northern system right across Ireland, taking

salmon, eels, and other fish as far as from Ballyshannon on the west—a return which I have here from one village *en route*, giving of eels alone 28 tons, from January to June, which at 8*l.* per pound average—I have known 10*l.* to be paid—comes to over £2000, going to a village of 400 inhabitants, all conveyed to London by the “London and North Western Co.” the responsibility never leaving the same carriers from Ballyshannon to the place of consumption ; no, though we pay for our whistle more than we should, and though we might be defeated in a battle of rates with the most influential public carrier in the world, or be cast in an appeal to their generosity in favour of the London poor, or Irish starvelings, I am certain that the rates swelled even in their immorality by the addition of a Billingsgate ring, that we hear of often, would not account for the high price of fish, or show that the present supply was sufficient for the existing population of Great Britain, to say nothing of the vast annual increase. Then to secure to the people of this country the mine of national wealth ready to hand in Ireland, requires but the means of transit, boat refuges and enterprise ; and in most countries the first and pressing necessity would be solely effected by the Government, where the object to be obtained was the supply of a physical want to millions of people daily. But in England the jealousy of State meddling (so called) has reached such a pass, that although special interference with the laws of political economy daily obtain on the grounds of abstract justice, the inhabitants of Lambeth might starve in the midst of plenty, and the Irish poor rates in the coast unions rise to 10*s.* in the pound, before a helping hand would be given on the part of the State, unless the royal princes and their influential and philanthropic congeners, who promoted this Exhibition, determine on coming to



the rescue. Two methods of dealing with the raw material of this great Imperial source of sustenance are required to ensure the greatest possible use of this wondrous gift of the Great Provider: first, the transport of as much as possible to England in its natural state; and, secondly, to provide curing stations on the coast. These methods should receive equal attention. Herring and sprats visit the coasts in amazing quantities, and while swimming undisturbed on the shores of Donegal, whole parishes within 10 or 15 miles inland have been on the verge of famine, and while fresh fish in London, Manchester, Birmingham, and all the towns mentioned in the accompanying schedule will ever be above the opportunity of the pauper class, well-cured skate, halibut, herring, and sprats, conveyed by special parliamentary rates, should ever be available for a family with the lowest coin of the realm at their disposal.

#### WHAT IS REQUIRED AND WHO SHOULD DO IT ?

In the first place, as has been shown, railways. Where *these are* present with the fish, all is serene, but the conveyance must be the shortest possible route, in point of time, that science can suggest and carry out. A gap of a few miles cuts off the supply; fast steamers may come down the coast of England in less time than the locomotive, and the same method may be adopted to carry the fish to a western port in England, connected with either of the great railway systems from any part of the east coast of Ireland; but the products of the western coasts of that country, specially the north-west, must come across the island. Here some would say, "Do you want the Government to take upon themselves all the work connected with the development of the Irish Fisheries?" Certainly not; I wish to see *Imperial interference reduced to the minimum*

*of necessity*, and that point in relation to this question I proceed to enunciate. Recent legislation (whether wrong or right is not the question here) has operated to extinguish individual exertion towards promoting local railways; and as the development of the fisheries combines a two-fold imperial benefit in the interests of the producer and consumer, it is the duty of the Government to go so far in assistance as to bring the construction of fish-bearing lines under the influence of practical enterprise, by advancing money at a low rate of interest, up to such an amount as they may be advised the undertaking will secure, and advances should be freely made, where the inspectors deem it absolutely necessary, to *construct small piers and harbours for the safety* of the boats. All beyond this would be provided by private enterprise educated up to the knowledge of the existing and general want of supply through the teaching of the Conferences of the Great International Fisheries Exhibition. There *is* another aid (and God forbid that, while urging the case upon the ground of duty and self-interest as between the Government and people I should be thought to condemn the exercise of spontaneous philanthropy), and though I make no appeal to charity no one pretending to exhaust the subject of the Irish Fisheries can abstain from noting and recording the divinely impelled experiment of a right noble lady in affording assistance to a hardy and honest class on strict principles of prudence, because the result has proved alike honourable to the kindness and sagacity of the giver as it has to the character of the recipients; and during these Conferences, in a less formal manner, I stated, on the authority of the banker of Skibbereen, then present, that the result of this industry, succoured by benevolence, had been illustrated by fish purchases requiring on one day £7500. I have already shown from official

returns that the fortunate place selected for the experiment has afforded more than a third of the entire mackerel supply from Ireland.

Before I conclude I would, on the part of my countrymen, thank the Royal Princes and Executive of this Exhibition for their sympathy, and wish to stamp their influence upon the pleadings for the development of this great industry in Ireland, not from any selfish feeling, but solely from the desire at least not to add to the catalogue of Irish complaints, that of neglect on their part. For myself I believe in the inspiration of all good from above, and therefore, in the promotion of this Exhibition by our Princes and their kindly utterances, with the hearty reciprocation of all concerned, seem to me to be earnest of an all-wise intention to illustrate practically that in close connection with this Empire (great only while indivisible) the true happiness and prosperity of my countrymen must ever depend.

#### PIERS AND HARBOURS.

The following is a list of applications received for grants-in-aid of constructing either Piers or Boat Slips, or for the Improvement of Harbours on which we have reported, and which we have recommended for grants under the "Piers and Harbours Acts," but for which no grants have as yet been made:—

No.	County.	Name of Place.	Situation.
1	Cork . . .	Ballycotton . . .	Ballycotton Bay.
2	" . . .	Knockadoon . . .	Youghal Bay.
3	" . . .	Sherkin Island . . .	Baltimore Bay.
4	" . . .	Robert's Cove . . .	S. Coast, near Cork.
5	" . . .	Gortnakilla . . .	Dunmanus Bay.
6	" . . .	Rooska . . .	Do.
7	" . . .	Coosagour . . .	Do.

No.	County.	Name of Place.	Situation.
8	Cork . . .	Canty's Cove . . .	Dunmanus Bay.
9	" . . .	{Dunlough, Coosais- land . . .}	Mizen Head.
10	" . . .	Long Island—Skull	Long Island Bay.
11	Clare . . .	Carrigaholt . . .	River Shannon.
12	" . . .	Rinnavilla . . .	Do.
13	" . . .	Liscannor . . .	Liscannor Bay.
14	" . . .	Labasheeda . . .	River Shannon.
15	" . . .	Scattery Island . .	Do.
16	" . . .	Muckinish . . .	Near Ballyvaughan.
17	" . . .	New Quay . . .	Aughinish Bay.
18	" . . .	Seafield . . .	{W. Coast, near Mil- townmalbay.
19	" . . .	Kilkee . . .	Moore Bay.
20	Donegal . .	Port Salon . . .	Lough Swilly.
21	" . . .	Ballyederlane . . .	Inver Bay.
22	" . . .	Port Ochre . . .	Donegal Bay.
23	" . . .	Inver . . .	Inver Bay.
24	" . . .	Culdaff . . .	Culdaff Bay.
25	" . . .	Malin Head . . .	N. Coast.
26	" . . .	Donegal . . .	Donegal Bay.
27	" . . .	Bundoran . . .	Do.
28	" . . .	Newbridge . . .	Lough Swilly.
29	" . . .	Greencastle . . .	Lough Foyle.
30	" . . .	Dungloe . . .	Near Dungloe.
31	" . . .	Kelly's Rock . . .	Donegal Bay.
32	" . . .	Portnacross . . .	Do.
33	" . . .	Malinmore . . .	North Coast.
34	" . . .	Moville . . .	Lough Foyle.
35	Down . . .	Annalong . . .	East Coast.
36	" . . .	Kilkeel . . .	Do.
37	Galway . .	Ballyloughane . . .	Galway Bay.
38	" . . .	Corra . . .	Mid Arran Island.
39	" . . .	Cleggan . . .	Cleggan Bay.
40	" . . .	Callowfenish . . .	Kilkerrin Bay.
41	" . . .	Carrowmore or Balli	Off Galway Bay.
42	" . . .	Derryinver . . .	Ballynakill Bay.
43	" . . .	Ballyhees . . .	S. Arran Island.
44	" . . .	Scrabhallia . . .	Cloonile Bay.
45	" . . .	Tarrea . . .	Kinvarra Bay.
46	Kerry . . .	Annascaul . . .	Dingle Bay.
47	" . . .	Ballydavid . . .	Smerwick Harbour.
48	" . . .	Ballyheigue . . .	Ballyheigue Bay.
49	" . . .	Coolnalahy . . .	Dingle Bay.
50	" . . .	Dingle . . .	Dingle.
51	" . . .	Portmagee . . .	Near Valencia.
52	Londonderry	Portstewart . . .	North Coast.
53	Louth . . .	Blackrock . . .	Dundalk.
54	" . . .	Clogher Head . . .	East Coast.
55	Mayo . . .	Belderrig . . .	West Coast.
56	" . . .	Bellmullet . . .	Broadhaven.
57	" . . .	Carrowmore . . .	Louisburgh.

No.	County.	Name of Place.	Situation.
58	Mayo . .	Carrowkeeran . .	Clew Bay.
59	” . .	Inniskea . . . .	South Island.
60	” . .	Killala . . . .	Killala Bay.
61	Sligo . .	Aughriss . . . .	Sligo Bay.
62	” . .	Pullocheeney . .	Killala Bay.
63	Waterford .	Ardmore . . . .	Ardmore Bay.
64	” .	Boat Harbour . .	{ South Coast, near An- nestown.
65	” .	Balinagaul . . . .	Dungarvan Harbour.
66	” .	Checkpoint . . . .	Waterford Harbour.
67	” .	Hacket's Dock . .	Passage.
68	Wexford . .	Ballyhack . . . .	Waterford Harbour.
69	” . .	Carne or Carnsore .	S.E. Coast.
70	Wicklów . .	Bray . . . . .	East Coast.
71	” . .	Greystones . . . .	East Coast.

The works mentioned in this list are given in the order of counties, but not in their order of importance.

## DISCUSSION.

MR. HORNSBY said from the extreme point on the east coast at Ardglas there was a long expanse of coast line which was not fished from May until the close of the year. Mr. Walsh accounted for it by stating that the Kinsale fisheries were first promoted by a tentative effort to ascertain whether they would be worth pursuing after they had lapsed for some years. Now the west coast was in exactly the same condition. Those who fished at Kinsale were chiefly from Scotland and the Isle of Man, and they returned from there, following the direction of the fish salesmen, to other parts of the coast line, chiefly to the east coast to prosecute their fisheries there, under the direction and stimulus of the fish curers, and under the patronage of the fish salesmen. For example, the Scotch east coast

fishermen, who fished on the Norway coast during the winter, came to the Kinsale and Howth fisheries for the month of April or May, and then in July they went to Peterhead, Aberdeen, and other places, as directed by the fish curers. They were retained for this purpose, a subsidy being given them, and they remained there until they had secured a certain amount of fish ; if they did so within the time contracted for they were free to fish on their own account. Afterwards they went to the southern ports, such as Lowestoft and Harwich. The fishermen on the west coast of Scotland, Campbeltown, and Loch Fyne, were accustomed to fish in the same way, but of late years those fisheries had been failing ; some of the men at Campbeltown owned thirty or forty boats, and they were prepared to try the west coast of Ireland, but who was to induce them to do so ? The fish salesmen would not attend them there until they had proved the fisheries would be successful. Therefore there seemed to be a missing link, and the question was who was to promote the general movement of fishing boats attending the west coast of Ireland ? The whole coast was peopled with hardy fishermen, who, as Mr. Brady had said, were remarkable for their honesty and hardihood ; he wished he could say as much for their persistent industry ; but these men were very teachable, and if you had Scotch boats along the west coast of Ireland for the present month up to the end of September or the middle of October they would no doubt be glad to take one or two native fishermen as pilots, who would in that way pick up a little technical education, and would be instructed in the art of following fish to a considerable distance from the coast. Last week he was talking with some men of this class off Clew Bay near Achil Point, the furthest on the west coast of Ireland. He found there the

appliances they had for fishing were the native coracles. If these men could be taken on board the Scotch fishing vessels and taught, in the course of time, with a little assistance from the State, they would invest their money in hookers and larger boats. The question was, who was to instruct these men? At present they only fished with these coracles; they went out to a bank perhaps five miles off the coast, and that was the last of their enterprise. The reason these boats were generally used was that they would ride in about a foot of water, they passed readily through the surf, and could be easily taken up and carried on their backs when they got on shore. He thought Mr. Walsh's idea, if it could be carried out, of having a steam carrier for going from port to port to collect the fish would be very good, otherwise it was often thrown on shore to rot. There might be tons and tons of herrings thrown on the shore, because there were no means of sending them to market. Again, another missing link with regard to these Irish fisheries was this, if Scotch or Cornish boats were to come to the south or west coast of Ireland there might be harbours of refuge as near as possible to the fishing grounds, provided by and under the control of the Government, and, on the other hand, there must be light tramways to connect the more distant parts with the established railway termini. The charts in the British section would explain why it was from the month of May or June to the end of the year the west coast fishery was practically not prosecuted; the fish were there and were not caught, first, because the men were not there, and, secondly, because the fishing grounds were so distant from any harbours.

Mr. BLAKE, M.P., proposed a vote of thanks to the two gentlemen who had read Papers. As an Irishman he was very much interested in the fisheries, and felt much obliged

to both gentlemen for the most interesting and valuable Papers they had read. No man in Ireland was more entitled to speak on industrial subjects than Mr. Bloomfield, because no one had made greater efforts in that direction than he had. It was more than a quarter of a century since he had been associated with him in an effort for the extension of railway accommodation in Ireland, and for the State to purchase the railways ; it was a great misfortune for Ireland that this was not done, and also for the State, because they would have paid very well. He was very glad indeed for the sake of the fisheries to find that Mr. Bloomfield had taken up this question, and everyone who had heard the Paper would agree with him that he had dealt with it in a very exhaustive manner. He was sorry to be obliged to say, that there were very few men occupying a high social position in Ireland who took any practical interest in this question, and, therefore, Mr. Bloomfield's Paper was all the more welcome. The Paper read by Mr. Walsh was also of a most important character. He was practically engaged in the fishery enterprise in the south of Ireland, and had shown how it could be made to pay. The interest in this subject was not confined to Ireland, it was of national importance when one considered the vast amount of fish consumed in the United States. He had taken great trouble to prepare a statement, which he would put before the House of Commons, showing the aggregate amount of fish consumed in the United States, and it amounted to the enormous quantity of 12 millions a year : that was chiefly sea fish, and was entirely independent of importations from Norway, Newfoundland, or elsewhere, in the preserved condition. Out of that total the amount captured by Englishmen was 8 millions sterling, Scotland 3 millions, and not more than half a million for Ireland, and of that



a considerable portion was taken by Manx, Scotchmen, and Cornishmen ; and even the French fishermen came in considerable numbers to the Kinsale coast. It seemed very strange that Ireland should contribute so little to the national larder, when it was asserted so often that there was no diminution of the quantity on the coast, and, from his experience, he believed such to be the fact. In old times the English monarchs had derived large revenues from allowing foreign nations to fish on the Irish coasts. In the time of Charles £8000 was given by the Spanish Monarch to allow a certain number of Spanish vessels to fish there, and in about 1640 the Swedish Government, in return for services rendered to England, was allowed to send a certain number also. Frenchmen and Flemings fished extensively there, and the important pilchard fishery, which Mr. Walsh had not touched upon, was carried on very extensively by the Dutch, and even now in certain parts of the county of Cork there were remains of what were called fish palaces, where the Dutch used to cure the fish. He did not wish to awaken old and bitter memories, but it was quite impossible in dealing with the fishery question, to omit the fact that down to a very recent period so far from the fisheries being encouraged by the government they were absolutely discouraged and depressed. It seemed to be the idea that the fisheries of Ireland were to be for the benefit of every one save and except the Irish themselves. The Cromwellian Parliament was inundated with petitions that the Irish fisheries might be suppressed in consequence of their competition with the English, and under a commonwealth ordinance there was an immense amount of suppression ; many fishermen were sent to Connaught, and others transported to Barbados and the other West Indian islands. He would not go further into these matters, but

he merely stated them for the purpose of showing that there was a strong claim on Imperial assistance now, for the purpose of forwarding the long neglected and even repressed Irish fisheries. One circumstance would prove why these fisheries ought to be helped as a matter of Imperial interest. It was an unquestionable fact that the fisheries in the North Sea were considerably diminishing, and at this moment, or very lately, there was a Royal Commissioner nominated for the purpose of inquiring into the cause of this diminution of fish in the North Sea. Under such circumstances it was most desirable that the fishing resources of Ireland should be developed to the greatest possible extent. There were only £500,000 worth captured, and that quantity might be readily augmented ten-fold. The previous speaker had alluded to the very small amount to which the west coast of Ireland was utilised for the purpose of fish capture, but there was no doubt that arose from the want of sufficient harbours. From the mouth of the Shannon to Galway Bay, about seventy miles, there was only one indifferent harbour on the coast of Clare. For thirty-five miles, from Galway to Liscanor Bay, there was no harbour which would accommodate a boat of even ten tons, and from there again to the mouth of the Shannon there was an equal absence of harbour accommodation. Fishery companies had been established for the purpose of fishing the west coast, but they had all failed, chiefly from this cause, because owing to the tempestuous character of the sea, the crews were often obliged to remain for weeks in a state of enforced idleness, and he was sorry to say that they then often resorted to the public house to kill time, so that when the water was suitable they were not in a fit state for resuming their labours. He was happy to say that, owing to a very important vote lately passed for granting out of their own

money, the Church Fund, £250,000, the want was likely to be supplied, and he had no doubt as a consequence very important fishery enterprises would be established. It was quite out of the question for men to think of getting boats suitable for fishing in those tempestuous seas, if there were not adequate harbours to seek shelter in. Another important point as mentioned by Mr. Walsh was the great inconvenience and loss which in the south of Ireland a fleet was put to by being obliged to come into harbour with each cargo of fish, and there was no doubt that an immense improvement would be made if steam power were employed. That, however, must be a matter of private enterprise. All that the Government could be expected to do was to provide the means for harbours. Then he spoke of the great want of more suitable boats and gear, but there were two sources of supply now in operation. The inspectors of fisheries had a fund of £500,000, from which fishermen could borrow at very moderate interest for the purpose of supplying boats and gear. Since that fund had been in operation, the inspectors of fisheries had lent out about £50,000 to the fishermen of Ireland, and, very much to the credit of those men, the whole of that sum had been paid back with the exception of about £1,000, and even that very small sum would not now be outstanding if adequate means had been taken for its recovery. Besides that, there was a Society in Dublin which had £30,000 or £40,000 at its disposal for the same purpose. An important provision had been introduced last year, enabling the inspectors instead of lending money to advance it in the shape of boats and gear which was a great improvement, because he was afraid some of the money was often applied to very useful purposes, such as portioning their daughters, paying rent, enclosing land, and such like. Now the borrowers were

debarred from that kind of thing, and instead of getting the money obtained the same assistance in kind, which would tend very much to the advancement of the fisheries. He had a very well grounded hope that there was a great future for the fisheries of Ireland. It was much to be deplored that there had been a very great decrease, owing to causes which he would not stay to enumerate in detail, but subsequently to the famine the numbers of fishermen were reduced from 113,000 to 25,000, and the boats from 20,000 to 6,000 or 7,000; still he had strong belief that with the means now placed in the hands of inspectors of fisheries a great stimulus would be given to the enterprise, and that many other industries, such as boat-building, sail-making and net-making, would be put in motion also. It was not Ireland alone which would benefit by the promotion of this industry, but the United Kingdom also would participate by having a very largely increased quantity of the most wholesome food contributed from the Irish seas.

Mr. EARLL seconded the vote of thanks. Those who had paid attention to the questions which had come before the Conferences must be more deeply convinced than ever of the importance of the fisheries, and of the necessity of the utmost caution in all questions of fishery legislation, for fisheries, though little understood, now rank among the principal industries of the world. They had had to-day two Papers by gentlemen evidently deeply interested in the subject. Mr. Bloomfield had spoken of the possibility of increasing the supply of fish in the inland waters of Ireland, and had referred in very flattering terms to the United States Fish Commission, and to their method of stocking inland waters. It was found in a country like the United States rather difficult to get the best quality

of fresh fish sent from the sea-board for 1,500 miles into the interior, and Professor Baird, who was at the head of the U.S. Fish Commission, determined to see if he could introduce some fish that might answer as a good and substantial food for the people of the interior who were deprived of the fish of the ocean. He, therefore, sent to Germany, and secured a quantity of German carp, which he thought might be adapted to the inland waters. These were imported at the Government's expense, kept in ponds, and artificially propagated until a sufficient quantity had been raised to warrant their distribution to the smaller waters of the interior. As soon as the supply was sufficiently large, the distribution began, and year after year it had increased, until, at the close of 1882, German carp had been introduced into upwards of 18,000 different localities scattered over all portions of the United States. It was at first considered doubtful whether these fish would be suited to American waters, and it was therefore decidedly desirable for the Government to undertake the experiment of their introduction, for no private individual or company would feel justified in hazarding their funds on such an uncertain venture. He was happy to say that the efforts of Professor Baird had proved successful beyond expectation. The German carp were found to increase more in size in the waters of Florida in eighteen months than they did in their native waters in four years. Thus it was found possible to introduce valuable food-fish into the inland waters of America—and under that term he included mill ponds, and the little ponds on the lands of the farmer—for many farmers were now clearing the rubbish out of their little ponds, and were sending to the Commission to obtain a supply of carp which was given them gratuitously, and many were now raising them successfully, frequently distributing the

young to their neighbours gratuitously, or selling them at a low price. He thought it would be quite possible to do the same in the inland waters of Ireland. Mr. Walsh had made many suggestions, some of which were very valuable, especially that relating to the introduction of steam into the herring fishery. Only last week he had visited the coast of Scotland with the express purpose of studying the herring fisheries of that region. He not only visited the fishing ports, but went out both upon a steam trawler, and upon a herring boat, to see the methods adopted for catching fish. At Aberdeen—the port from which he sailed—about 500 vessels started, and proceeded to sea, some 30, some 40, and some 50 miles. The fish were fairly plentiful, and a number of the boats secured good catches; but the wind died out, and their fish were as worthless to them as though they had been swimming in the sea. They were, almost without exception, unable to make the harbour. A few were provided with salt, which enabled them to preserve their herring, and to remain out for another night's fishing; but the next morning was as calm as before; and many of them again saw their catches lying comparatively worthless in their boats: for, even if salted, the curers would pay only half as much for them as for fresh herring. Two or three steamers had recently been purchased by Aberdeen parties, and fitted out for the herring fishery, and it was an aggravating sight to those who were depending on wind and sails to see the steamboats going by them to harbour to market their fish. He quite admitted that steam could be used with a decided advantage in the fisheries of any country where it was necessary to run to market in order to sell the fish while fresh. In America they began the capture of the Menhaden and other fish, which it was desirable to land fresh, with sailing vessels, but soon found it was difficult to

get them to land in proper condition, and one after another the fishermen introduced steam, and within five years the entire fleet of sailing vessels in the Menhaden fishery was replaced by steamers.

Even in the herring fishery, although that was very limited and did not compare in any way with what he had seen in Scotland, steam had been introduced for collecting the fish, and in a few instances for vessels employed in catching them, and the results were found very satisfactory. He believed it possible for a Government to do much to encourage the fisheries by a judicious expenditure of money for such things as could not be expected from private capital. Improvements of harbours, the erection of lighthouses, fish culture on a large scale, and perhaps the introduction of improved methods of catching and curing fish, as employed in other countries, naturally belonged to the Government ; but the building of curing-stands, and the purchase of nets and boats, belonged to private capital. There were undoubtedly instances where assistance to fishermen, in the form of loans with proper security, for the purpose of enabling them to obtain larger and more seaworthy boats, would prove beneficial, but, as a rule, he thought it was a decided mistake to lead fishermen to believe that they could do nothing until they were helped by Government. If leaders impressed them with the idea that they must remain idle until Government took some action, they were not only doing injustice to the fisheries but to the fishermen themselves. He could mention a number of instances in which American fishermen, with hardly a penny in their pockets, had begun to work, and to-day were men owning a fleet of vessels. They might have laboured under more favourable conditions than those of Ireland, doubtless they did in many instances, but

certainly if the Irish fishermen, or indeed those of any country, came to realise that they must depend largely on their own energy and perseverance, it would be much better both for them and for the community in which they lived.

The vote of thanks having been carried unanimously,

Mr. BLOOMFIELD, in reply, said he was much obliged for the kind way in which the proposition had been made by his friend Mr. Blake, whose extreme kindness had shown that it was not necessary for Irishmen to be of the same opinion in politics in order to be appreciated by those who like themselves had the Irish interests at heart. There were only two points on which to touch with reference to the discussion which had taken place. Mr. Hornsby put it forward that they were to look entirely to the English and Scotch boats if they were to fish the whole coast of Ireland. He must say he demurred to that proposition. He believed it was possible for the same men, who it was proposed should go on board those boats, to show the English and Scotch what they were to do, and where they were to find the fish, if they got the opportunity to take the boat in hand and fish on their own account. It was because they had not the opportunities which were given elsewhere that they did not do so, and he must answer Mr. Earll's remark in the same way. As Mr. Blake had so properly observed there were no harbours of refuge along miles of coast, and if boats of English and Scotch owners could not come on that account it was utterly impossible for the poor Irish to engage in fishing there. They had heard from Mr. Earll how the inland fisheries had been developed in America, and it was only fair to ask why the Government should not be called upon to do something in the same way for Ireland. The United States had spent a large sum of money in bringing carp from Germany for the purpose of stocking



their inland waters, and already 18,000 localities have been supplied with this fish. In conclusion he begged to move a vote of thanks to Lord Milltown for his kindness in taking the chair.

Mr. WALSH seconded the vote of thanks. He said Mr. Blake, who had given himself great trouble in connection with the fisheries of Ireland, had slightly misunderstood some remarks which he made in connection with the Irish fisheries. He did not say that they required State aid for the introduction of steam carriers; but he pointed out that these would be very useful. The State aid he asked for Ireland was in connection with what Mr. Blake now said was given, viz., the grant of £50,000 for the promotion of fishermen ownerships. That was a very small amount of money for such a purpose, and last year only £900 was given to the county of Cork, from which county over a quarter of a million pounds' worth of fish was shipped to England for food in fourteen weeks. In that respect they required larger aid from Government, but the aid he spoke of, as being particularly necessary, was in the matter of technical education with regard to net-making, boat-building, curing-houses, &c., and he was glad to find that his ideas with regard to this matter, and also the transmission of fish, were approved. He hoped these Papers and the discussions on them would do some good, and that the wants of Irish fishermen would not be altogether forgotten.

(The vote of thanks having been carried unanimously),

The CHAIRMAN said it had been a sincere pleasure to him to attend and to listen to the extremely interesting discussion. If he might be permitted to add anything personal, he might say that it was always a matter of sincere pleasure to contribute in however small a way to anything which would favour the cause of his dear native

country. Mr. Bloomfield had made out a very strong case indeed, and had proved to demonstration the absolute ignorance which existed on the subject of Irish fisheries, and had also proved how little had been done by the Imperial Government towards their development. Mr. Blake had referred very slightly to the incredible injustice of past days, and it was impossible for any man, whether an Irishman or Englishman, to read of the record of that cruelty which destroyed the wholesale manufactures of Ireland, without feeling his blood boil with honest indignation at such atrocities being committed. It could not be denied that the Government of to-day, which, though not exactly the same Government as of those days, was its successor, and owed a reparation to those industries which it was easy to destroy, but often extremely difficult to re-habilitate. Mr. Bloomfield had given a case in point. He had alluded to the little port of Baltimore, which, owing to the generosity of Lady Burdett Coutts, had developed in an incredibly short time to a most important fishing-port. If so much could be done by private enterprise and benevolence, surely it became the Government of the richest Empire in the world to rescue people from that slough of despair into which a great portion of Ireland had been plunged for so many generations, and to raise them again into a position which they should occupy, and which, he was firmly convinced they would occupy without the necessity of foreign migration, or without further or more dangerous experiments in agricultural legislation. The Paper read by Mr. Walsh was one of extreme interest, he had given a succinct history of the fisheries of that part of Ireland with which he was specially connected, and brought forward very strong reasons indeed for Government assistance, and with regard to technical education and other points. He

had also informed them of the enormous freighting charge from Milford and Holyhead for the transport of fish, and suggested that, as whisky and other goods were carried at a much lower rate, the railway companies should be compelled, as he understood him, to carry articles of food at a less rate than was now charged. But he really did not see how the Government could carry out that suggestion, or how they could be expected to compel the two railway companies to carry these goods at less rates than they chose to impose. The principles of political economy, although banished, as far as Ireland was concerned, to Saturn and Mars, in England held their full sway, and under these circumstances he could not help thinking that any attempt on the part of the Government to compel railway companies to carry these articles of food at a less rate than those they considered proper, would hardly meet with the sanction of Imperial Parliament. With regard to the interesting statement that Mr. Earl had made with regard to the inland fisheries of the United States, he thought there would be little difficulty in carrying out something of a similar nature in Ireland, where the lakes and rivers were, as far as affording food to the population, entirely unproductive.

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