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NEWFOUNDLAND

ITS

FISHERIES AND GENERAL RESOURCES

BY

SIR AMBROSE SHEA, K.C.M.G.

LONDON

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International Fisheries Exhibition

LONDON, 1883

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1883



International Fisheries Exhibition

LONDON, 1883

CONFERENCE ON 24TH OCTOBER, 1883.

Mr. FUNG YEE, Secretary of the Chinese Legation, in
the Chair.

ON NEWFOUNDLAND: ITS FISHERIES AND RESOURCES IN CONNECTION THEREWITH.

MR. CHAIRMAN,—Up to a recent period the colony of Newfoundland, which I represent, has occupied a singularly paradoxical position. It is the oldest and nearest of England's colonial possessions, and yet is in the mother country the least known of them all, and the subject of confused ideas regarding climate, social condition, and general characteristics. From time to time stories of more or less accuracy or fulness of description, regarding historical and general events, have appeared, but have not attracted to any extent the attention of the British public, nor have they materially assisted in diffusing information or removing injurious impressions, which have for so long a period placed the colony in a false position.

Recently, however, the subject has been taken in hand by earnest and able pens. In a work published early in the present year, the Rev. M. Harvey, of St. John's, New-

foundland, and Mr. Joseph Hatton, of London, have, in co-operation, bestowed a long-deferred justice upon the island, and, in a clear and masterly manner, have set forth its claims as to climate, soil, and general resources. Thus the colony has at length been brought into rightful prominence, and, due justice having been done its famous fisheries and their exhaustless supply, it has become a public fact that we possess in addition other stores of wealth in the hitherto neglected interior, where there are sources of industry and wealth which promise to reward the enterprise it must attract when opened up by the railway in course of construction under the auspices of the Newfoundland Government.

The colony possesses a strange and eventful history. From its discovery in 1497 it has gone through every conceivable vicissitude of disputed possession and claims for sovereignty. A century passed after its discovery ere England concerned herself with the island, nor did she then share to any extent in the fisheries, which were prosecuted chiefly by Portuguese and the fishermen of the Basque provinces. In 1578 some four hundred vessels were employed in the cod fishery. Of these seven-eighths were French, Spanish, and Portuguese, England owning but fifty of the total. No attempt was made at this period to colonise the island. The fishermen resorted to the coast at the beginning of the season, and returned to their several countries on the approach of winter. This long-continued indifference of the English Government to the value of Newfoundland was at length brought to a close, in the reign of Queen Elizabeth, by the enterprise and decided action of Sir Humphry Gilbert, a knight of Devonshire. In 1583, in the presence of men of various nationalities whom he had summoned to meet him, the knight

read a commission from the Queen, authorising him to take possession of the island in her name. This was the first act of declared sovereignty; but it was not followed by any immediate efforts at settlement. No doubt this was in a great degree owing to the death of Sir Humphry Gilbert, which took place soon after the annexation to the crown.

Subsequent attempts to colonise were fitful and ineffective. While the sovereignty was *de jure* in England, the French were busily engaged in planting fishing settlements on the coast. Indeed, at the present period, the fishing ports, smaller harbours, and bays of the island are a *mélange* of corrupted French and Portuguese nomenclature. For many years a bitter struggle existed between French and English for the mastery of the island. This frequently resulted in serious conflicts, in which the former were rarely even temporarily successful. Notwithstanding these disasters, the French managed to retain a hold over a portion of the coast, and to this day, owing to the supineness of the home Government, possess certain rights upon "the French shore." In 1762, the French made their last organised attempt to obtain possession of Newfoundland; and, owing to treachery and the surprise of a sudden attack, were for a time successful, but the arrival of British troops resulted in their disastrous defeat, and effectually established the since unquestioned right of British sovereignty. But, even after the removal of these obstacles to settlement, the anti-social policy, which controlled Government and commercial operations for more than half a century of undisturbed British rule, was not less repressive. In short, these two agencies worked together in remarkable combination of intolerance. This wretched policy was, about the year 1820, terminated by the establishment of regularly constituted courts of law. Prior to that period, the adminis-

tration of miscalled justice had been in the hands of whatever captain of English man-of-war happened to be, for the season, on the coast.

In 1832, representative government was granted to the colony, and with it came the concomitant important steps towards progress and improvement. These have since developed into a settled policy, under which our self-governing population are asserting their rights to bring the colony within the pale of advancing civilisation.

THE COD FISHERY.

The cod fishery, from the discovery of the island, has been and still continues to be the main element of its resources ; nor are there at this day any symptoms of exhaustion. Seasons vary in productiveness, and unfavourable returns have sometimes extended over a course of years, and have raised questions as to whether the supply was not in course of diminution. But such speculations have always so far been ended by the return of abundant fisheries, showing that as far as Newfoundland is concerned, the cause of "short catches" lay in reasons apart from the failure of the species.

Notwithstanding the use of these fisheries for so many centuries, the present season has witnessed as large a catch as was ever known, and this fact undoubtedly furnishes an answer to all questions as to the "exhaustion of the cod" on the Newfoundland coast. As a rule our cod fisheries begin in June and end in October, the most productive months being June and July, when the coast is visited by a small fish called the "caplin," specimens of which are exhibited in the Newfoundland Court of this International Fisheries Exhibition. This fish, which somewhat resembles

the American "smelt," swarms on all parts of the coast, to which it resorts to spawn about the middle of June, in almost unlimited quantity. It is then that the cod, attracted by the caplin, is found along the shore in its greatest abundance. The caplin supplies the bait for that portion of the fishing which is carried on with hook and line, the other modes of capture being by means of a trap—a specimen of which is exhibited at the Fisheries Exhibition—and a cod-seine, which is a net from one hundred to one hundred and twenty fathoms long, having a depth varying from fifty to one hundred feet in the centre, but narrowing towards the extremities. This seine is swept round a body of fish, and drawn together. The foot is then hauled up, enclosing very often forty or fifty tons weight of fish. Fixed cod-nets are also used to some extent, while the degree of success which attends the different methods is a varying and uncertain condition, neither being sufficiently assured to warrant its absolute and exclusive application.

The coast-line for Newfoundland proper covers an extent of two thousand miles, exclusive of Labrador, on which the colony possesses one thousand miles of fishing ground. Here the fishing population is migratory. Those of our people who resort to Labrador go there in June and return in October, the residents, whose lives are spent in a primitive and unambitious manner, being a very small number.

The cure of the fish requires much care and judgment, the weather being a very important factor in the operation. Unbroken sunshine is not desirable, while a long continuation of wet produces deterioration of quality; the best cure is effected when the weather is variable. It is not more necessary that the fish should be exposed to the sun

to dry than that it should be piled and left in bulks to be gradually matured. Hence the reason for varying weather being desirable.

The quantity of dried codfish produced during a season averages 75,000 to 80,000 tons per annum. The value aggregates about a million and a quarter sterling, while the present season will probably exhibit an increase of from sixteen to twenty per cent. on this amount. The cured fish is exported to Brazil, Spain, Portugal, Italy, the West Indies, and a small quantity come to England. I shall, in the course of this Paper, endeavour to show why this small quantity should be increased, and with how much advantage to consumers in this country.

THE SEAL FISHERY.

The next of our productions in point of importance is the seal fishery, which is well illustrated in the Newfoundland Court of the Exhibition. This fishery formerly employed some four hundred vessels, varying from eighty to one hundred and fifty tons, requiring the services of about fourteen thousand men. The introduction of steam has changed all that, and the fishery is now carried on by about twenty-five steamers—not more than thirty or forty sailing vessels remaining, through the obvious impossibility of effective competition. The pursuit of this fishery is of far more recent date than that of the cod. We find that at the end of the last century the whole catch was but about five thousand seals per annum. It continued to increase, and in 1820 there were over two hundred thousand taken. Winds and ice conditions have a regulating effect on the success of the voyage, and the results show a most important variation. Thus in 1844, 685,000 seals were

taken ; in 1860, 444,000 ; in 1872, 278,000 ; in 1882, 156,000—the smallest on record ; while in the present year the catch is about 400,000.

We know that winds and ice play an important part in the prosecution of the sealing voyage ; but there is a strong conflict of opinion as to whether the species is not diminishing in quantity. The falling-off of the catch of late years is probably, in some degree at least, ascribable to this cause, and hence has arisen the serious question whether some measures of restriction may not be applied with advantage. At present the only regulating law is one which restrains steamers from proceeding on their voyage before the 10th of March, while sailing vessels may leave port on the first. About the 1st of March the seal brings forth its young upon the ice-fields. The young seal, which is the most eagerly sought after, is matured for commercial use about the 20th of March, when the skin and fat, separated from the carcase, has a weight of fully forty pounds. If taken about the 10th or 12th, the weight is not over twelve or fourteen pounds. It is to prevent the taking of immature seals, and the consequent loss, that steamers are kept back, thus preventing their premature appearance on the scene of slaughter. When winds prevail from the shore, and keep the ice slack, a ship can travel more or less at discretion, and the result on the whole is then a success. A prevalence of east wind generally blocks the coast, and packs the ice in the surrounding seas, so that at the critical period between the 15th and the end of March, should this condition of things prevail, the ships are imprisoned, and the issue is a losing one. It sometimes happens that ships are fortunately jammed amidst multitudes of seals, and then they obtain their full fares without chance of competition from those outside. As

many as twelve or fifteen thousand a day are often secured by those favoured with this exceptional opportunity.

In the case of sailing vessels, the men had half the gross receipts of the voyage for their share. But, owing to the greater cost of steamers, and their expensive outfit, the men's share is now reduced to one-third.

The steamers are from three to six hundred tons burthen—wood built, full timbered, with hold beams, heavily planked, sheathed, and thoroughly equipped to endure severe trials in the ice floes. They cost from twelve to twenty thousand pounds, or even more, and, as they can only be employed profitably during the short period of the seal fishery, which rarely occupies more than two months, and as this has been proved a business of chequered success, it cannot be contended that the investment is one of large attraction. To the people of the colony the substitution of steam for sailing vessels has proved a loss; the quantity taken has not at least shown any increase on the average of former times, while the men's share has been greatly diminished. Moreover, the sailing vessels were in a large degree the property of resident "planters," whose earnings helped to swell the common wealth, while now the ownership has passed into the hands of large capitalists, some of whom live abroad, and, in the nature of things, their means cannot play the same important part in promoting the social well-being of the colony.

When successful, the sealers sometimes return in two or three weeks. The seals—or rather the skin and fat, the carcase being left on the ice—are quickly landed, and the one separated from the other by a process termed skinning. The fat is then cut up, placed in a manufactory, and tried out by steam, the result being the pure, colourless, and tasteless oil, of which samples are exhibited in our collec-

tion. The skins are salted, and in due time shipped to England, where they are manufactured into leather, being split by machinery into leaves of various thicknesses, and recently, through the enterprise of Messrs. Stephen and Son, of Dundee, several descriptions of leather have been produced, which meet the wants of bookbinders and upholsterers as well as the former purpose of shoe-leather, to which, until recently, the Newfoundland sealskin was exclusively applied. The exceptional superiority of these various descriptions of leather is proved by a Gold Medal being awarded for them.

The value of this item of the productions of the colony shows an average of about £230,000 per annum. The men employed in the industry number about ten thousand. They are the flower of the labouring population, and amongst them it is not easy to find a man over forty years of age. For skill, daring, and power of endurance, it would be difficult to match them anywhere, and but for the obstacle arising out of the distance of the colony from this country, we should probably have had a batch of these fine fellows brought over to see and to be seen, without any fear that they would suffer by comparison with the fishermen of this kingdom, whose presence during the Exhibition has been such an appropriate and gratifying feature of this magnificent display.

THE HERRING FISHERY.

Following in importance to the seal comes the herring fishery. The supply of this fish is very large, especially on the south-west coast, where, during the winter and spring months, a material amount of business is done, a large portion of the fish being sent to the United States in a

frozen condition. It is not a rich fish, nor has it been turned to as much account as it might be as a cured article of export. What we prize most in this branch of the trade is the Labrador herring, which for size and nutritious properties is superior to any that the resources of the world have given to the Fisheries' Exhibition. This fishery is rarely ever followed as a separate pursuit. Herrings usually appear in August, and are seldom found on the coast after September. The fishing is attended to by the cod-fishermen as an adjunct to "the fishery," as the cod-fishing alone is termed. I may here note incidentally that we have a local legal decision that salmon is not fish!—a condition which, however paradoxical it may seem, was conventionally correct, for it had relation to a charter for a fish cargo, which locally was understood to be codfish, and which the offer to ship salmon did not satisfy. For various reasons the herring fishery has not expanded into the proportions it seems capable of attaining, but this is probably because cod-fishing offers superior attractions. The annual value is about £140,000. Herrings are taken in mesh nets and in seines. As many as two thousand barrels have been enclosed in one haul of the seine. When taken in such large quantities the cure is often inferior, from the difficulty of saving the fish in good time. Net fishing is more regular and satisfactory. The United States and Canada receive the larger portion of the catch of Labrador herrings. They should undoubtedly be known more extensively here, and their excellence would give them a high place in the fish-food market.

LOBSTER AND SALMON FISHING.

Lobsters have received some attention during the past few years, and the export of canned lobsters to this country, to which they are almost wholly sent, amounts to over £20,000. This fish will decidedly need the application of some conservative measures, for it already gives signs of exhaustion which it would be wise to regard. The high quality of the Newfoundland lobsters has secured for them the only gold medal given for this fish by the jurors at the present Exhibition, and the local Government will no doubt direct its attention to the means by which to guard this promising industry against strains beyond its capacity.

Salmon are found in greater or less quantities all around the coast, the finest being those taken at Labrador. In quality these are equal to any in the world. This fishery is carried on for purely commercial purposes, and nets are the means of its prosecution. June and July are our salmon-fishing months, and one rarely sees the fish at any other time. In addition to fish consumed in the colony the catch averages 4000 tierces of 300 lbs. each, salted, packed and sent chiefly to American markets, where they are sold for from £6 to £7 per tierce.

The fish offal has not hitherto been turned to account, beyond what was used by the fishermen and small farmers for their limited crops, but during the present year Job, Brothers, and Co., Newfoundland and Liverpool merchants, have established some expensive factories for the manufacture of fish guano; and, as it will be so much reclaimed from waste, we may hope the adventure will become permanent and profitable.

The above enumeration exhausts the category of those fisheries that enter into the commerce of the colony. The

whole value has reached a million and three-quarters sterling per annum hitherto ; and this year it will not be far short of two millions.

The resources of the colony are not confined to its fish produce, as has been the prevailing impression. Already, within a period of twenty years, copper mining has grown to a degree which makes Newfoundland rank as fifth in the list of copper-exporting countries of the world. As the growth and outcome of these industries the colony has an annual import and export trade of over three millions sterling, and the stable character of the commerce of the colony, based upon its fisheries, is well illustrated and substantiated by the fact that two local banks, possessing an aggregate capital of less than one hundred and fifty thousand pounds, supply all banking facilities required for its trade. We have in this statement evidence of the soundness of our trade, and the absence of speculative element. The cases are rare in which so small an amount of borrowed money has a place in the business capital of a country, while even in the banks the merchants are large stock-holders. Nowhere do business men exhibit higher integrity in their transactions ; and, in all those countries with which they have relations, the reputation of a Newfoundland merchant is second to none for those qualities which inspire confidence and respect. Failures of any consequence are so rare that they scarcely have a place in the estimate of contingencies ; and it is largely due to this satisfactory condition of affairs that we find the stock of our oldest local bank commanding a price of six hundred and fifty per cent. on its original cost—not a speculative value, but for the purpose of *bonâ fide* investment. The stock is not in the market, and can only occasionally be obtained. The stock of the other and younger

bank is worth three hundred per cent. when it changes hands, which is not a case of frequent occurrence.

Newfoundland merchants have found their way into the higher commercial and public life of England. A late governor (and for a long time director) of the Bank of England, Mr. Thomas Newman Hunt, is a Newfoundland merchant, whose house has borne an honoured name in the colony for more than a century. Nor is the colony unknown in the annals of the British Parliament. Some years since Mr. George Robinson, a Newfoundland merchant, sat for Worcester; and later, within the past few years, Mr. James Johnston Grieve represented Greenock, as one of those able, painstaking business men, whose effective, though unostentatious, labours have so large a share in the valuable work of Parliament. Mr. Grieve's retirement was a purely optional act, and he is succeeded by another eminent Newfoundland merchant, Mr. James Stewart, who also fills a highly useful and recognised position in the councils of this nation.

POPULATION, REVENUE, ETC.

The population of Newfoundland is about two hundred thousand, chiefly descendants of English, Irish, and Scotch. They are a hardy and enterprising community, inheriting the qualities of their progenitors. The Government is the same as that of other self-governing colonies, and works well. The revenue is derived wholly from imports, and the duties are levied for revenue purposes alone. It produces about £220,000 per annum, which is expended on civil administration, roads, lighthouses, telegraphs, &c. The administration of public affairs is sound in an exem-

plary degree, sallies of local opposition critics to the contrary notwithstanding.

The colony is practically free from debt, the amount it owes, about £250,000, being covered by reserves. If necessary every obligation could be promptly discharged. The savings bank, a Government institution, holds £300,000 sterling, the saved earnings of fishermen, on which three per cent. interest is allowed. I may here observe that an amount of fishermen's earnings almost equal to the sum in the savings bank is lodged in the other banks of the colony at the same rate of interest. The Government securities bear interest at the rate of four per cent. They are entirely confined to purposes of local investment, the colony never having borrowed from outside sources

NECESSITY FOR EXTENDED EMPLOYMENT, AND MEANS FOR THIS PURPOSE ; THE RAILROAD, ETC.

The state of things thus described was not, however without its seasons in which suffering was experienced owing to failures of the fisheries more or less extensive, and the hazards of relying on the single pursuit were often severely illustrated; and at best the state of the colony wanted those elements and conditions of advancement which form a main attraction of colonial life. The time had fully come when those charged with the administration of affairs felt that a policy of progress had become indispensable. Education was doing its work, and gave the people aspirations beyond the normal condition of a fishing community. Newfoundland is too near the fast-growing United States and Canada to retain its population, if they were left much in the rear of these countries in social conditions and in regard to future

prospects. It became a question then as to whether we should institute a policy of improvement at home, or make the people feel that they must seek to satisfy their higher aspirations abroad. The Government thereupon decided upon the only course which a consideration of all the circumstances rationally warranted. The fisheries always left at some portions of the year a time of enforced idleness, and, with a population chafing under "the laborious lassitude of having nothing to do," it became an imperative demand that this evil should be terminated as speedily as possible. The benefits of new industries had been felt to some extent, but the growing requirements of an increasing population claimed the application of a vigorous and well-directed policy, which would bring the resources of the island into fuller and more adequate development. From scientific reports no doubt remains that copper and lead are present in large quantities in several parts of the island. In these products a large field of labour is to be found, while, without claiming the highest place for our agricultural capabilities, we possess large stretches of country, where operations may be carried on with remunerative results.

The island has an area of forty-five thousand square miles, many parts being well wooded, and much intersected with water. We do not regard the soil as adaptable to the successful growth of wheat ; but for pasture purposes it offers advantages of no mean order, whilst all root vegetables attain a high degree of perfection, and we have had our experience only on the coast, where climate and soil are both less favourable than what exists in the interior of the island. It is an error to suppose that we are wrapped in perpetual fogs. No doubt we have these unpleasant visitations, but they are the exception, and not the rule ;

and even these are less known in the interior than on the coast. From a record kept by a gentleman who spent some time in the country, many years ago, on an adventurous mission, we find forty-one bright days, eight rainy, and four foggy, and this might be assumed as the probable experience of our inland life. June, July, August, and September, are our summer months, when we have a temperature of 65° to 80° Eahrenheit, and during which vegetation proceeds rapidly. The season would be longer in the interior, and where east winds have less effect. Winter really begins in December and ends in May. The temperature rarely goes below zero, the normal state being from twenty to ten above that point, The climate is specially healthy, and the appearance of the people is an eloquent testimony to this fact.

Such is a short review of the economic and social condition with which the Government had to deal, and it met them with wisdom and effect. The construction of a railroad to open up the means of conveyance for new industries was the manifest work to be undertaken, and it was entered on, in the year 1881, by contract with a company, who agreed to build and operate three hundred and fifty miles road for a subsidy of £40,000 per annum, together with five thousand acres of land for every mile of road constructed. Considering the cogent reasons that sustain the wisdom of this measure, it will seem strange to learn that it met with bitter resistance from some of the merchants, from whose minds the traditional idea of Newfoundland as a purely fishing station had not been wholly removed. But a general election having come on in 1882, the policy of the Government was endorsed by the return of twenty-seven against six members, and this pronouncement showed what the people felt and intended. So

emphatic an expression could not be without its effect in forcing the opponents to inquire into the reasons which led to it; and we are witnessing the usual result of such reflection on the part of business men, who rarely persist in impracticable courses, while in the present instance a calm consideration of the facts must show that merchants must be gainers by an increase in the earning power of the labouring man. The satisfactory results of the working of the forty-five miles of road already in operation have also had their effect in producing the practical withdrawal of opposition, and no Government would now be possible in the colony that did not make railway progress a cardinal principle of action. The inducements to the company, besides the subsidy, are the business of the resident population along the road, with the large traffic that must reasonably be expected from the new population that will be attracted by the homes offered on the lands the road will open up; and as it will pass through fertile stretches and timber districts, as well as valuable mineral belts, which are all available for the claims of the company, the prospects are such as should entitle the enterprise to take a good place in the category of promising *bonâ fide* business undertakings. In harmony with the spirit that promoted the railway is that which led to the establishment of a graving-dock at St. John's, the capital, and which will accommodate the largest vessels of the Atlantic fleet. The position of the port in the route of the trade between Europe and America, making it an unrivalled harbour of refuge, gives this dock a place of high importance to the transatlantic trade, and underwriters will not be slow to recognise its value. It will be completed and ready for work by the end of 1884, and is being built by Messrs. J. E. Simpson and Co..

of New York, whose docks are taking so high a place for their applicability to cold climates. This enterprise is the work of the local Government, on whose account it is being constructed.

Newfoundland has hitherto been little more than a geographical expression to most people in this country, but we may now hope for a change in this respect, in the interests of truth, and for that correct understanding the people of this country would naturally wish for regarding the oldest of the dependencies of the Crown. The representation of the colony at the Exhibition must have tended to this result, and have established the claims of Newfoundland, commercially and otherwise, to distinctive and intelligent appreciation.

I would here state that the leading object of this great enterprise—to place a fuller and cheaper supply of fish within reach of the people of this country—cannot be more effectively advanced than by bringing Newfoundland within the limits of the sources from which supplies are drawn. The dried codfish of the colony has been adjudged the first place, for all samples exhibited, and gold medals have been accordingly awarded to them all. Its excellence therefore cannot be questioned, and with good cooking few dishes are more acceptable. The average price of fresh cod to the consumer in this country is about sixpence per pound; and as it requires two pounds and three-quarters of fresh fish to make a pound of dried fish, the relative value of the latter would be about sixteen-pence per pound. In the process of cure no appreciable portion of the valuable properties of the fish is removed; and when I can state that this dried fish can be supplied for a fourth of its clear relative value as compared with fresh fish, as here stated, a case is placed before the people of this country

which they have great interest in earnestly considering. At present about 3000 tons of this dried fish finds its way to England, while 75,000 tons are sent to Brazil, Spain, Portugal, Italy, and the West Indies. In the four first-named places it is subject to a duty of from 25 to 40 per cent., and yet it has become a necessary food, prized by rich as well as poor. In this country, of course, it is free from taxation. I may observe that, in point of nutrition, dried cod-fish is as nine to ten in comparison with beef.

Another article which is of great hygienic importance figures in our category, and has obtained the highest approval of the jury. I refer to cod-liver oil, on which the award is unqualified, placing our whole collective exhibit in the front rank. This forms a subject of serious consideration for the public, who have a vital interest in avoiding remedial agents of a doubtful character; and the lesson contained in the decision of the jurors is one they cannot disregard. This award is not the expression of interested men whose motives might be questioned; and when the jury give to the cod-liver oil of Newfoundland the distinguished place established by their report, their decision must carry with it all that authority attaching to a body of high character and special competency intrusted with duties in which the interests involved demanded the most careful and conscientious examination.

On our oils generally the jury have made the following statement: "The above, forming an extensive assortment of the various descriptions of fish oils, are superior to any other exhibit of the kind in the Exhibition." This gives them a declared value over any similar productions in the world, which the laws of trade will not fail to regulate

I have now to avail myself of the opportunity afforded

me, to offer to the Executive Committee my hearty congratulations on the splendid success of this Exhibition, which owes so much to their unselfish and ceaseless labours, ably and wisely directed, and for which they will find their best reward in the good they have accomplished. But self-denying and effective though their labours have been, they will be the first to recognise the leading importance of the influence of H.R.H. the Prince of Wales, by which the people were drawn into co-operation with, and support of this great undertaking. Here we cannot fail to think regretfully of the great and good Prince Consort, with whom these international assemblies had their origin, and the grandeur of whose broad and well-balanced intelligence was but imperfectly known to the world until after the end of his pure and earnest existence. His daily life showed how royalty could find its highest uses in sympathetic and thoughtful endeavours to mitigate the trials and brighten the lives of those whose lot it is to toil; and H.R.H. the Prince of Wales has worthily accepted the inheritance in his devotion to works like the present, which aim at the broadest diffusion of welfare and happiness. In this noble exercise of his influence he is laying broad and deep the foundations of his exalted position in the hearts and convictions of the people, and presenting a spectacle that all well-wishers for the permanence of our matchless institutions must regard with feelings of gratified assurance and profound satisfaction.

DISCUSSION.

Mr. SAYER proposed a vote of thanks to Sir Ambrose Shea for his very valuable paper. He said there was not much dried cod used in this country, because we were supplied so well with fresh cod. We used to get fish off Ramsgate and Margate, but now we had to go nearly to the coast of Norway for it, and there was no doubt the time would come when English fishermen would have to make their way to Newfoundland, and perhaps even to America. There was no town in the world so well supplied with fish as London, as was shown by the fact that Mr. Hewitt supplied Billingsgate with 13,000 tons of fresh fish, at a cost of $1\frac{1}{3}d.$ per lb. He had no doubt there was an opening in Newfoundland for English merchants, and he hoped the time would come when the Labrador herring would be brought to the London market. The nets formerly employed had a mesh of twenty-eight to the yard, but they were used now forty to the yard, the result of which was that immature fish were caught, and fishermen had to go farther and farther off.

Mr. WILMOT, in seconding the motion, said it afforded him great pleasure to find that the adjoining colony to his own took such a prominent part in the Exhibition, and he hoped the time would arrive when his friend Sir Ambrose Shea would come to the conclusion that it was advisable not to stay out in the cold, but to join the Canadian confederation. Had the two colonies been united, they would have stood foremost in the world for the exhibit of fish. No one was better fitted to prepare a Paper on this subject than Sir Ambrose Shea, who had been identified with Newfoundland for a long time, and who recently had a

title conferred upon him by Her Majesty, which was esteemed an honour by all the colonies. Mr. Sayer had referred to the possibility of England having to go to Newfoundland or Canada, or America, for some portion of her fish supply. It had been his object throughout to press the importance of protecting the fisheries of this country, and he was glad to find that Mr. Sayer held the view that England had, in an improper and wanton manner, destroyed the fish round the coast. This had been brought about by the avarice of the fishermen not being checked by the Government. He would not dilate further upon this topic, but he could not express too strongly his sense of the want of some protection being afforded to the fish.

The resolution was carried unanimously.

Captain CURTIS, R.N., said he noticed that Newfoundland was not a free trade colony, the whole of her revenue being obtained from import duties. He wished, however, to draw attention to the question of fish offal. Some thirty or forty years ago his father anticipated that the supply of guano would fail, and manufactured several tons of fish manure by mixing the offal with charred peat. In Newfoundland there was plenty of peat, and by mixing it with the offal a very valuable manure might be formed. He had lately become acquainted with a gentleman, Mr. Johnson, who was making 200 tons of fish manure per month, and getting from £8 to £11 per ton for it, the works being carried on at Belvedere, below Woolwich, and he hoped some of the Commissioners would take the opportunity of visiting the works. There was no nuisance whatever connected with the manufacture; the offal and cuttings of fish was put into tanks at Billingsgate, and taken into barges and discharged into receptacles, where it was disintegrated and dried by superheated system; and

it was a remarkable fact that the men who went to the works from a hospital, far gone in consumption, had become quite strong and healthy there. In fact, the only complaint the men made was that their appetites became too good.

Sir AMBROSE SHEA, in returning thanks, said he regarded it as a great privilege to have the opportunity of addressing an English audience. At the same time he did not admit that he was a stranger, because the colonists claimed to be as loyal as any men under the sun. With regard to the observation just made, he might remark that during the past year attention had been given in Newfoundland to the subject, and a considerable quantity of fish guano had been made, and it was very likely that in future the offal would be brought into more general use. He quite agreed with Captain Curtis as to the importance of turning it to a profitable account.

Mr. HERBERT HOUNSELL said he could speak from practical experience of the value of fish manure, and he thought it one of the most important features of the fisheries of the future. Twenty-five years ago he was director of a company formed in the west of Ireland, called the Fishing and Fish Manure Company, the scheme being not only to fish, but to pay Irishmen for fishing and for the refuse fish. Every time the trawl was hauled on board there was a large portion, amounting to 60 or 70 per cent., wasted, being either smothered or of uncatable kinds, or too small for the market. The whole of this was thrown overboard, and in many cases fouled the breeding-places. Their scheme was to encourage the fishermen to bring this to shore, where it could be converted into manure. As far as the theory could be carried out it was successful, but unfortunately, through the inertia of Irishmen, they could

not get a supply of fish, and eventually the company collapsed. Some time afterwards Mr. Hewitt started the idea of giving the fishermen in the North Sea a bonus for bringing home the offal, and started a factory below Barking, where this was boiled and mixed with a certain amount of charcoal to fix the ammonia. He (Mr. Hounsell) purchased a cargo of this and took it to Dorsetshire; a portion he employed in growing mangel wurzel, and gained the first prize at the show, and the remainder he sold to farmers at £14 to £15 a ton.

Mr. SAYER said the idea of the Executive Committee when this Exhibition was got up, was to augment the supply and lessen the cost of edible fish to the public; they had no idea of turning fish into manure, but of getting a large supply to London, so as to cheapen it. When he was placed upon the Committee, he suggested the first thing to do was to educate the people to eat those fish which were thrown overboard; he said they might cook these fish in the Exhibition, and show the people that plaice, ling, haddock, coal-fish and cod were as good as soles and salmon. He was at first met with some opposition, and asked if he wanted to turn the Exhibition into a fried-fish shop; but his idea was carried out, and he hoped that one consequence would be to educate the public not only to eat soles and salmon, which were so expensive, but also to eat these common kinds of fish, which were so abundant in Newfoundland, in America, and sometimes on our own coast.

Mr. MACKIE said it was one thing to cook fish which were now destroyed by the trawls, and another thing to make good use of offal which was now wasted. Newfoundland seemed to be peculiarly a fishing station in which there was an absence of waste fish of the small kind.

and the prosperity of the island might be said to be based on fishing, and it appeared that this must continue to be the case in the future. It seemed to be unique in this respect, and also in the fact that other industries had been there developed in order to employ fishermen at times when they could not pursue their usual calling.

Mr. WILMOT then proposed a vote of thanks to the Chairman, which was carried unanimously.

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