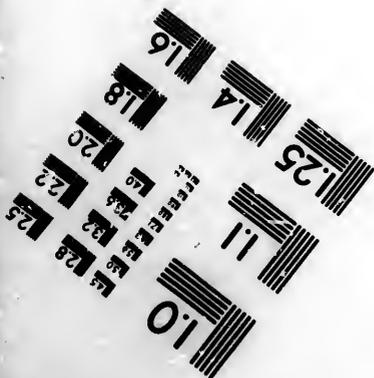
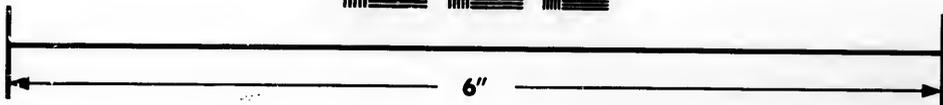
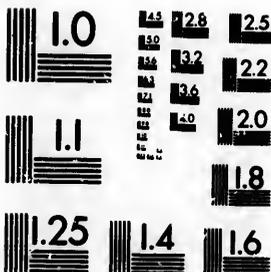


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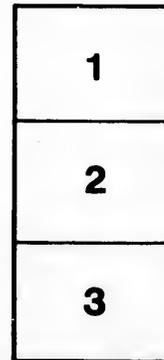
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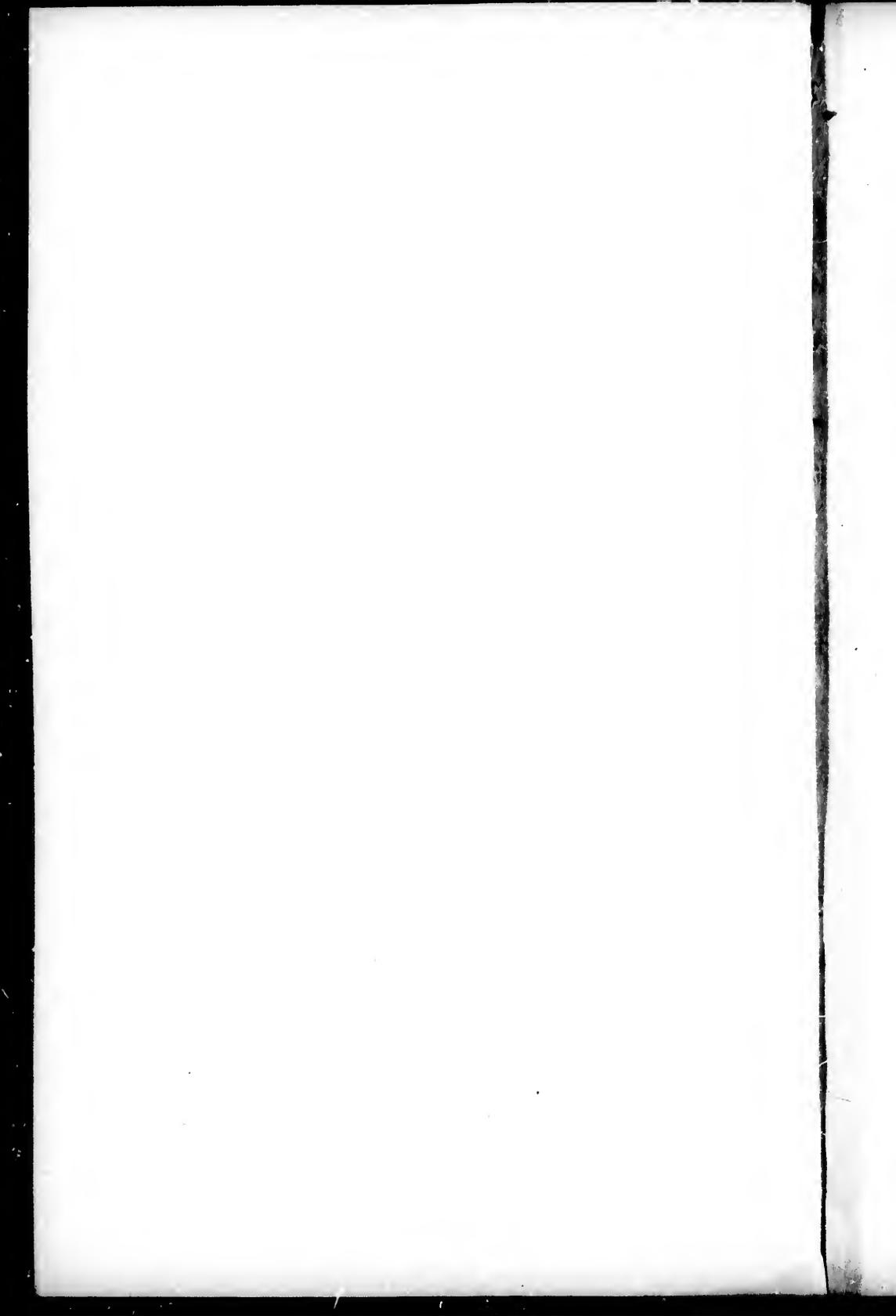
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# PRACTICAL NOTES

ON THE

## Legislation for the Fisheries

OF THE

**ST. LAWRENCE.**

*Publics*

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TO WILLIAM RHODES, ESQUIRE,

*President of the Fish and Game Club.*

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QUEBEC:

PRINTED AT THE OFFICE OF THE "MORNING CHRONICLE," FOOT OF  
MOUNTAIN HILL.

1864.



# PRACTICAL NOTES

ON THE

## Legislation for the Fisheries

OF THE ST. LAWRENCE.

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*To William Rhodes, Esquire, President of the Fish and Game Protection Club :*

SIR :—

In addressing these notes to you, as Chairman of the above Association, there is no wish to pay an empty compliment, but a desire to stamp them with the weight of a name long associated in this District, with numerous efforts to promote the development of its agricultural and other resources.

From the first moment that the organization of a Society to save from extinction the Fish and Game of the Province was contemplated, there is no one who has displayed a greater interest in its welfare than yourself; and in submitting these notes for your consideration, it is essential to avoid every statement that cannot be supported by incontrovertible testimony.

There are persons, no doubt, who consider the increase of Game or the development of Fisheries objects of a frivolous nature; but, when it is remembered that a good supply of Fish, or even of Game, affords an inducement to the intending settler, to make for himself a home in the localities where such food abounds, the subject claims some attention—besides Fisheries in all countries, as well as in this Province, have been properly classed among real sources of national wealth and industry.

No one will deny that the River St. Lawrence, the link connecting the pure waters of the great lakes with the salt tides of the Atlantic Ocean, joined in its downward course by the Ottawa and the Saguenay, and fed by more than fifty minor tributaries, contains a field for the cultivation of valuable Fisheries, unrivalled in capacity and extent.

When this portion of the continent was first peopled, this vast field formed the rich pasture-ground of untold numbers of Fish—indeed most northern regions, in the earlier periods of their history, were famed for their enormous supplies of this wholesome food. So abundant were Salmon at the mouths of certain rivers of Boothia Felix, that 3,378 were captured in a single haul. Sir George Simpson found Salmon so plentiful in the Columbia River that as many as 1,000 were captured daily in a basket. A stream in Russian America was so full of Salmon that the ascent of it in a canoe was impeded by their numbers. 50,000 of these Fish were annually captured in one river alone, on the north shore of the St. Lawrence. But a few years ago (1841,) 1,800 Salmon were taken in one tide at Tadousac, at the mouth of the Saguenay, and many other places on our coasts formerly yielded proportionate supplies.

Canada is not the only country which has suffered by the decline of these Fisheries. The same thing has occurred in England and Wales, in Ireland and Scotland, in New Brunswick and Nova Scotia, where enormous quantities of Salmon once existed. It is a lamentable fact, also, that the most valuable of all our Fisheries in the Gulf and River St. Lawrence, that of the Cod as well as that of the Salmon, appears to be declining; and at the moment of penning these notes, many hardy and industrious fishermen are threatened with the loss of their daily bread.

The Salmon affecting the Gulf and River St. Lawrence are identically the same species as the *Salmo Salar* of the British coasts, possessing the same instincts, and have been diminished by the same means. Both kinds are reproduced in fresh waters, and migrate periodically to the same ocean, where they grow to an equality in size. In the spring and early part of summer the fish which have fattened themselves on the sea coasts return again to their native rivers, there to deposit their spawn. The instinct by which they are impelled at a certain season of the year to make their way from the sea for this purpose—the early-breeding fish ascending to the higher parts of the streams, the later fish in succession sowing the lower portions with their seed, so that, in a natural state of things, the whole course of a river, so far as it affords suitable spawning ground, becomes stocked with the ova, is a most beautiful arrangement. The process of spawning is thus described:—A gravelly shoal is selected over which a current gently flows. The female wriggles herself among the small stones, and with a rapid vibration of the fins, tail and body, turning alternately from side to side, keeps in motion the gravel displaced in forming the bed, thus the sand and lighter particles are drifted away by the stream and carried behind her. The male during this time is in attendance, gambolling about, charging at intruders, and occasionally jostling her. When the bed

is made she settles upon it, and beckons to her Lord to do the same; ova and milt are then expressed by the bodily contact of both fish, lying partially upon their sides during a quivering pressure. The female then sails leisurely away, absents herself for a short time, again returns, and with the same action used in removing it, restores the gravel heaped on each side in forming the bed to its proper place, stirs more from above, thus covering the impregnated ova, and ending her labors. In due course the ova are hatched and the young fish emerge from their stony couch and swarm in the stream. On their first appearance there is observed attached to the abdomen of each a transparent inflated bladder, which gradually disappears, when the young fish go under the appellation of *Parr*; about one-half of the *Parr* assume another stage during the first year of their existence, and are then distinguished by the name of *Smolts*. These descend to the sea, and half of them return in a few months as *Grilse*—the *Parr* remaining in their native river do not become *Smolts* and visit the sea until the year following and in a few instances some *Parr* do not assume the *Smolt* stage until the third year, and none migrate until they have attained that crisis. It has been ascertained by repeated experiments, effected by marking the *Smolts*, that they do not either all return to their native river the same year as *Grilse*—some continue in the sea until the year following, when they re-ascend the fresh waters as small Salmon. It appears to be a natural law of these fish to descend to and return from the sea by double or divided migrations.

In no instance has nature been more bountiful than in her efforts to preserve the Salmou tribe from extinction. Every female fish annually deposits one thousand ova for each pound of her own weight. This ova may be fecundated not only by the milt of the full grown male shed with it, but also by the milt of the *Grilse* and the *Parr*, and it is never deposited in the sea, for there would be too many enemies; nor do the young fish commence their journey to the ocean until they have attained sufficient size to warrant so important a step in Salmon life. The rapidity, too, with which they increase in stature affords another instance of infinite bounty. Twenty months from the deposition of the ova—only two or three of which are passed in the sea—suffices to produce marketable fish. Every fortnight of their stay in the salt water adds over a pound to their weight. The Salmon will make flesh more rapidly than any cake-fed ox or sty-fed pig; he will add pound after pound to his own substance for our use and consumption. Born and nursed in streams whose banks are clothed with the habitations of man, from whom he demands neither attendance nor care, he will descend to the ocean, and there, in rich pastures, fatten and return, offering himself again and again for capture, without cost for maintenance or transport.

When nature has been thus profuse in her efforts to multiply these fish for our benefit, the enquiry is naturally suggested—How then has it occurred that, in a sparsely settled Province, they have in so many places disappeared, and in others diminished to so great an extent?

The answer is a short one. They have been destroyed by abuses, wasted by imprudence, netted without discretion, shut out from their breeding-

grounds. The few fish permitted to reach them have been assailed by spears and mutilated upon their spawning beds. Some of these evils exist even at this hour. Illegal netting and spearing was practised during the present summer. Provisions of the Fisheries Act as well as of the Regulations were in numerous instances contravened.

From the year 1789 have Fishery Laws been in force in Canada, and since that period twelve or thirteen Statutes with Orders in Council have been enacted. A Government Fisheries Staff has for the last five years been in existence, at an expense to the country, and yet the present season as well as the last has developed the fact that these Fisheries with very few exceptions are declining. If the laws passed from time to time have served no other object, they at least record the opinions entertained upon the necessity of preserving a free passage for the fish up the rivers, upon the use of improper nets, the disregard of the spawning season, and the employment of spears and torch-light in the capture of Salmon.

The 28th, 47th and 48th Geo. III. contained provisions on these heads. The 4th, 5th and 9th Geo. IV. did the same. These provisions were repeated in the 6th Wm. IV. Subsequent Statutes, also, the 4th and 5th and 7th Victoria required the rivers to be kept open and unobstructed. The 18th Victoria followed, and its wise provisions should have been engrafted into the 20th Victoria, which repealed it, as well as into the present Fisheries Act, the 22nd Vic., ch. 62.

The preamble to the 18th Vic. declared that it was expedient to provide against the destruction of Salmon, Maskinonge, and Trout Fisheries in Lower Canada, which would result from a continuance of the present practice of killing these fish during the spawning season, *and with Stake or Barrier Nets*, and by the aid of artificial lights at night. The enacting clause rendered it unlawful at any time to take or kill these fish anywhere in Lower Canada by means of *Stake or Barrier Nets, or any other Self-acting Machine*, but the proprietors of Salmon Fisheries might take and kill Salmon by means of nets other than Stake or Barrier Nets, &c.

Now that a Bill to regulate the Fisheries is again before the Legislature, and will no doubt at its next sitting become law, time will be usefully employed in making an impartial enquiry into the nature and properties of the Engines forbidden to be used by the 18th Vic., ch. 114, as too destructive to the Salmon, Maskinonge, and Trout Fisheries.

These "Stake or Barrier Nets," which are of universal use in the Salmon Fisheries of Canada, were invented in Scotland, about fifty years ago, and were found to be effective modes of capture by intercepting the fish in their approaches to the rivers; they spread rapidly, and some years after were introduced into Ireland as well as into this country. They are formed, as the name implies, of strong netting attached to long "Stakes," firmly driven into the shore, and usually extend from high to low water mark. They act upon the principle of a leader against which the fish on their way along the coast to their breeding grounds strike, and are conducted to a narrow open-

ing, the entrance to a chamber or trap from which there is no escape. Other engines, the same in principle, formerly used at Swansea, Lynmouth, Bangor and other places on the British coasts, and still on both shores of the St. Lawrence, are *Brush Weirs*, composed of wicker work, or more rudely of brushwood ; they enclose at the lower end a circular chamber with a narrow entrance ; within this chamber the fish of all kinds and sizes are left at the ebb of the tide. They are erected in the spring, and continue fishing day and night without intermission until the frost of winter either renders them useless or warns the fishermen to remove them. The Fishery regulations require an open space to be made in the lower part of this chamber, to be covered with net-work, to admit of the passage of the fry and smaller fish ; but this provision is defeated by the quantities of seaweed and other rubbish which effectually close the apertures at every tide. The *Brush Weirs* as well as the *Stake Nets* are *Self-acting Fixed Engines*.

Of this destructive instrument, the *Brush Weir*, the late Superintendent of Fisheries for Upper Canada in a recent report wrote—"The system of extending wading fences in the St. Lawrence has in a great measure destroyed the Salmon Fishery of Upper Canada."

The *Stake Net* was many years ago condemned by the highest authority, "As all Salmon and Salmon Trout return to their native rivers, so *Stake Net* fishings ought to be abolished. Salmon do not go far out into the sea, and always return along the coast, scenting out as it were their native river," says Sir Humphrey Davy.

In adverting to the evil done to the Fisheries by the use of these fixed barriers, and in pointing out the course believed to be indispensable to preserve what remains of these Fisheries, may be interfering with the gains of a few, who, in large estuaries or other favored localities, still reap a precarious harvest from their use ; but I hold it to be due to the public that the destruction caused by the modes of fishing hitherto and still practised should be frankly indicated without regard to the private gains of any individual. There is no doubt that the longer these obnoxious Engines are permitted to exist the more difficult will be their removal. The instances in older countries of the destitution, the riots, the bloodshed and loss of life caused by these nuisances to fishing and navigation ought to be a warning to us. The expense incurred before they were effectually removed from the British shores, apart from the other afflictions they occasioned, was very great. The Imperial Government appointed Commissioners on no less than five occasions, and both Houses of Parliament nominated seven different Committees to investigate the causes of the decline of the British Salmon Fisheries. There exists, therefore, within our reach the information collected by the above means, all of which is condensed in an elaborate Report published by Sir William Jardine, Bart., the eminent naturalist, W. J. Ffennell, Esq., Inspector of Fisheries in England, and G. R. Rickards, Esq., in February, 1861.

The principal causes of the decline of the Salmon Fisheries of England and Wales, assigned by these learned men, who formed their opinions after a

careful investigation of the whole subject, and after hearing from experienced and practical witnesses, answers to 18,000 questions, were—

1st. Obstructions to the free passage of the fish.

2nd. The use of Fixed Engines—the latter cause including the former.—“Of all the evils that affect the fisheries,” say these commissioners, “artificial obstructions must beyond all question be regarded as the most pernicious, whether such obstructions proceed from the Barrier nets or from the want of Fish Passes. It is obvious that to prevent the fish from entering the rivers is a surer way of destroying the breed than the most deadly mode of making war upon them when they are there. The existence of such obstructions is a cause fully adequate, if there was no other to account for the gradual disappearance of the fish; and if effectual means be not taken to remove the evil, the total extinction of the breed of Salmon must at no distant day be expected.”

The Encyclopedia Britannica Ed., of 1845, *verbo* Fisheries, contains a tabular statement of thirty years' fishing on the Tay, divided into equal periods of ten years each. The first period, before Stake Nets were used, the number of Salmon and Grilse taken was 130,854. During the succeeding ten years' use of the Stake Nets, the catch fell to 91,312. The third and last period—after the removal of the Stake Nets, and a rest of five years was afforded the Fisheries to recover—the catch rose to 225,372. These statistics afford conclusive evidence that a net increase by the removal of the Fixed Engines was obtained of 134,060 fish—about 140 per cent.

It has been stated, and I think established, by the adduction of both facts and figures, that the causes of the decline of the Salmon Fisheries in the British Isles, up to the time of passing the Imperial statutes of 1861 and 1863, proceeded from the use of these improper nets; and as the same Engines have hitherto been exclusively employed on Canadian shores, the decline of our fisheries must be rationally attributed to the same cause. But a few years ago the River Escoumains was famed for the numbers and size of its Salmon. A Mill Dam impeded the ascent of the breeding fish, and a Brush Weir in the estuary captured the fry on their way down to the sea. Eighteen bushels of Smolts were thus destroyed in a single ebb of the tide. These proceedings soon depopulated the whole river.

Some distance below River Ouelle, on the south shore of the St. Lawrence, there has been for some years a Fixed Engine, composed partly of Brushwood and partly of Net-work, with meshes of one inch square. This Engine when first constructed used to capture 1,300 salmon annually; but its destructive powers have so far destroyed itself, that at present not more than 100 Salmon are taken by it during the season.

If the injury caused to the public by these engines was limited to the extinction of the Salmon tribe alone, great as would be the loss to the Province, it might nevertheless be sustained; but the evil does not cease there. All other kinds of fish migrating along the coasts of the St. Lawrence,

either in search of food or of a suitable place to reproduce their species, are likewise destroyed by them. A zealous missionary, who resided for many years in the Bay of Fundy, the Rev. Ferdinand Gauvreau, alluding to the

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Cochran Craig, Esq., J. P., of Grand Manan, writes to Mr. Perley—  
"They (Herrings) are also taken in Weirs, which are put down on every bar and in almost every channel which those fish "play" through, and even around our shores. This mode, I think, must be most destructive, as in securing such as are fit for use, they destroy double the quantity saved, of those that are entirely too small for any purpose whatever but manure."

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## Caribbo Annet

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either in search of food or of a suitable place to reproduce their species, are likewise destroyed by them. A zealous missionary, who resided for many years in the Bay of Fundy, the Rev. Ferdinand Gauvreau, alluding to the condition to which the Shad Fishery would be reduced by these Engines, thus wrote to the Hon. M. H. Perley :—" Standing Weirs and Standing Nets are unquestionably the most effective means of destroying Shad altogether in our bays, or at least of thinning their quantity to an incredible degree; both ought to be discontinued at once, and prohibited by strict laws, and defaulters heavily fined." In another part of the same letter the reverend gentleman adds—" I reiterate that both Weirs and Standing Nets ought to be prohibited by law, as being destructive to Shad, and very ruinous to our Fisheries and commerce. "The Brush Weirs," writes Mr. Perley, "are believed to be most injurious to the Shad Fishery, as in almost every case they were found to take the smallest fish only."

Many other authors could be cited to show the injury done to the Shad Fishery by the Weirs as they capture the small fish, and thus cut off the succeeding year's supply. They are as destructive to the Shad Fishery as they are to that of the Salmon.

The Herring Fishery, as I shall presently show, is not exempt from the universal destruction occasioned by the use of these Fixed Engines.

John Sandall, Esquire, who was long actively engaged in the fisheries of the Bay of Fundy, writes—" Herrings are taken around Grand Manan and West Isles by Torch-light and Brush weirs. These Weirs must destroy a great quantity of fry every season."

" Formerly," writes Mr. Perley, " the quantity of Herrings cured in this place (Annapolis Basin) was from 25,000 to 30,000 boxes annually; and twenty years ago the average catch of every Weir was 2,000 boxes each season. The whole quantity now cured (1850) from the catch of all the Weirs together was supposed not to exceed 2,000 boxes."

Mr. Ray said " that he formerly cured 1400 boxes of Herrings every season from the catch of his Weir. The quantity gradually diminished to 400 boxes, and after the Weir was placed on the bar it fell off to 200 boxes. During the season (1850) he did not catch a single fish."

It was stated by Mr. Riley, of Annapolis, " that about one-half of all the fish caught in the Weirs are entirely lost; that he had sometimes seen 300 or 400 barrels of Herrings, taken during a single tide, left in the Weir to spoil. It is quite certain that this fishery has fallen off to such an extent as forebodes its ceasing altogether."

Cochran Craig, Esq., J. P., of Grand Manan, writes to Mr. Perley—" They (Herrings) are also taken in Weirs, which are put down on every bar and in almost every channel which those fish "play" through, and even around our shores. This mode, I think, must be most destructive, as in securing such as are fit for use, they destroy double the quantity saved, of those that are entirely too small for any purpose whatever but manure."

"These Standing Weirs," adds the same writer, "are most injurious to the Herring and In-shore Fisheries. None that I have talked with on the subject pretend to deny, and they have been many of our oldest and best fishermen, and among them several of the Weirholders themselves."

And further on he continues—"I will, with a large majority on my side, say that I consider the extent to which our In-shore Fisheries are and have been injured by the destruction of Herrings, both fit and unfit for proper use, taken in the Weirs, is almost endless. The heavy schulls of Herring fry being yearly cut up by those Weirs, and the Cod having no bait to draw them in-shore, they are only to be found far out in deep water, where boats and small vessels (the poor man's dependence) cannot follow them."

Again, "it is considered a settled point by all experienced fishermen on this island that, while so many Weirs are allowed to stand, so long will our Herring and in-shore fisheries continue to decline. So long also must we be annoyed with obstructions to our navigation, which many of the Weirs are at present."

"Next to the Weirs," writes the same gentleman, "the falling off of our Fishery may be attributed to the very great destruction of spawn for many years past. The preservation of spawn ought to be attended to; but what will be the use of this, if the Herrings are to be fenced in and killed before they are the length of your finger."

Augustus F. Kynaston, acting-commander of H. M. sloop *Persian*, wrote to His Excellency Sir E. W. Head, Bart. :—"There are actually Weirs laid down which must necessarily interrupt the course of myriads of fish, which had they been allowed to pass, could have deposited their spawn unmolested. Independent of this, these Weirs offer a great obstruction to free navigation, and I would venture to suggest their entire removal."

Mr. Perley, in alluding to the Basse (Barfish) wrote—"Basse were very plentiful formerly, but now are seldom seen, having been thinned off by the Weirs and other contrivances."

It is not exclusively to the Salmon, Shad, Herring and Basse Fisheries that these Fixed Engines are ruinous. It has been repeatedly intimated that the Brush Weirs destroy the small fish as well as the fry of the larger kinds. It is these small fish that serve as the natural food of the Cod, and wherever this supply fails, there the Cod Fishery must also decline. To destroy this bait by using it to manure the soil is obviously an effectual way of driving the Cod from haunts where such waste prevails.

"There has been great complaint of late years," wrote Mr. Perley, "of the falling off in the Cod Fishery in the upper part of the Bay of Chaleurs—it is said to be every year decreasing. At Carleton, Maria, New Richmond, and other places on the Gaspe shore, the fishing establishments are deserted and going to ruin. At these places there was formerly an abundant supply of fish, but the inhabitants now barely catch enough for their own winter

store. The decrease is also felt on the New Brunswick shore. The decline of the Cod Fishery in the upper part of the bay is attributed to the wanton destruction of the proper and natural food of the Cod—Herring and Capelin, which are taken in immense quantities, not for immediate eating, or for curing, or for bait, but for manuring the land. In a representation made to the Legislature by a fisherman of Gaspe, it is stated that this fisherman has seen five hundred barrels of Capelin taken in one tide expressly for manure, and that he has also seen one thousand barrels of Herrings caught at one time and left to rot upon the beach."

Mr. Fortin, in his report for 1863, states "that at Cap des Rosiers, Griffin's Cove, Fox River, Natashquan, Kegashka, Meccantina, Whaleshead, on the north shore of the Straits of Belle Isle, on the north shore of Newfoundland, on the eastern shores of Labrador, at the River Moisie, in Godbout Bay, and indeed almost everywhere the Cod Fishery failed for want of bait."

The present season (1864) affords a sad confirmation of the statements contained in Mr. Fortin's report. Indeed many of the Cod fishermen will not make sufficient to indemnify them for the expenses of outfit. In some instances numbers of employees have been discharged, as there was no fish for them to catch.

From what has already been stated, and from the inquiries and research made, I am seriously impressed with the conviction that national properties, formerly of great value and importance, have through improvidence and abuse, and through the absence or entire disregard of legislation, been suffered to decline, and unless prompt and stringent measures be adopted for their recovery, they will at no distant day be visited with total annihilation.

At the same time I have no doubt but that with an efficient law promptly and stringently carried out, our Salmon and other Fisheries may be made to yield not only a fair commercial value, but will be capable of supplying a great increase of wholesome food. While our population is augmenting, and while efforts are being made to increase it still more by emigration, no source for the supply of aliment should be overlooked, particularly one which requires neither expense to maintain nor labor to cultivate, but needs only to be judiciously managed to improve its capabilities.

The salvation and development of the Fisheries is a matter which concerns the public far more than any individual. To the fisherman decrease of numbers may be compensated by increase of price; to the public it involves a decrease of food.

The causes which have reduced our Fisheries (apart from the fluctuations to which they are all subject) are clear and palpable, and admit to a great extent of a remedy by human means.

Whatever sacrifices this may at the outset entail upon individuals, will be found to be more imaginary than real, and those now most opposed to the changes which should take place in removing obstructions from the waters, and in constituting a free and open river for all, will in the end be the most benefitted.

It must be obvious from the foregoing remarks that the first thing the recuperation of our Salmon, Shad, Basse and other Fisheries demands is the introduction of a clause into the Bill now before the Legislature, to remove the Barriers and Fixed Engines hitherto in use. This, as already observed, has been effected by the Legislatures of other countries, where difficulties far surpassing those which beset us had to be overcome for the benefit of all. If it be really imagined on the banks of the St. Lawrence that fish cannot be captured unless the objectionable machinery is used, let us at once be taught by those who know better, and who have used and are practically acquainted with the working of other Engines in older and more experienced countries.

That Fixed Engines are not necessary for the purpose of obtaining a supply of fish has already been shown by statistics; but let us see what Mr. Ffennell, the Inspector of English Fisheries, says on this subject:—"Fallacious statements are often made that Salmon cannot be caught efficiently and in good condition by other means than Stake nets; but a reference to a few facts will be quite sufficient to dispel any illusions on this head. The Oot net, Draft net, and Drift net fishermen in the Boyne, the Liffey, the Slaney, the Suir, the Nore, the Barrow, the Blackwater, the Lee, the Laun, the Shannon, and in very many other places, did catch Salmon in abundance, and do catch some still, although not in the numbers they would if the Stake Nets did not monopolize them; and those fish always did, and still do obtain the first price in all markets. The lessees of the Duke of Devonshire's Fishery, from Lismore to Cappoquin, catch plenty of Salmon without the aid of Stake Nets, as also do the lessees of the Moy, Ballyshannon, Galway, Sligo, Liffey, Foyle, and many other fisheries; and here again the fish bring the first price in the markets. In Scotland, the Tweed fisheries are more profitable, now that Fixed Engines have been abolished, and more Salmon are captured. The fisheries of the Tay are all worked by Draft nets (seines.) The Duke of Richmond captures many more Salmon without the aid of Stake Nets in the Spey than he did with them; and his fish, as well as those of the Tweed and Tay, and the tens of thousands of other fish captured in Scotland with the net and coble, bring the highest price in the markets."

But it may be said this applies exclusively to Salmon Fisheries. How are Shad, Basse and White fish to be taken? By precisely the same means as the Salmon. Their habits of migrating at certain seasons from the salt to the fresh water, along the coasts in search of food or to deposit their spawn, renders them easy of capture by Seines, when the Stake Net and Brush Weir bar their progress and force them to shed their ova in places unsuited

to its fecundation The White fish brought to our markets are captured by the Draft Net.

Mr. Yarrell, in his work on British Fishes, says :—"The mode of fishing for Herrings is by Drift Nets. The Nets are only in actual use during the night. The fish strike the Nets in much greater numbers when it is dark ; the darkest nights are therefore the most favorable. Nets stretched in the daytime alarm the fish and cause them to abandon the place where that practice is followed."

The Herring is a native fish breeding along the lower shores of the St. Lawrence, and never entirely leaving them, although it retires after the spawning time and disappears, whether by going to sea or by sinking into the deeper parts of the river, it is unnecessary to enquire. They are taken at the Magdalen Islands in Seines. Pilchards, of which there are extensive fisheries on the coast of Cornwall, are also taken by Seines.

The Fishery Bill changes the time for trout fishing, and prohibits the taking of these fish after the *twentieth* day of September. This alteration is not sufficient ; Trout ought not to be captured after the first of September, as their spawning season begins early in that month, and they are from the commencement of it unfit for food.

The law of the State of New York, passed in 1862, prohibits the taking of Trout between the first of September and the first of March.

Since the passing of the statutes regulating the Salmon Fisheries of England and Wales and of Ireland, so short a time has elapsed that it has been almost insufficient to afford an indication as to what the fruits of that legislation may be. Nevertheless, some of the English journals, even at this early stage, represent the effect of these recent laws as promising in the highest degree. The Statute applying to England and Wales received the Royal assent in the year 1861, and the third Report of the Fishery Inspectors is thus alluded to by a London journal :—

"Two years and a half have passed since an Act for the Improvement of the Salmon Fisheries in England and Wales came into operation, and the third Report of the Inspectors appointed under it, which has just been presented to Parliament, affords us the means of estimating the probable benefits which we shall derive from the measure. It is gratifying to find that these in no degree fall short of the anticipations which we had ventured to indulge. Already a most sensible increase of fish appears to be recognized in every one of the rivers to which the Act has been applied. Replies have been obtained from the local managers of the rivers from Cumberland to Cornwall, of those which debouch into the English Channel, and of those of Northumberland and Durham, and there is a uniform acknowledgment of the very marked, and in some cases striking, increase in the numbers of Salmon seen and caught. In some instances the improvement has already affected the markets, and brought the prices down from an average of 2s. to 1s. per pound, occasionally even so low as 8d. Waters hitherto empty

are reported now to be swarming with fish, and in others they have appeared, not only in greater numbers, but at seasons earlier than has ever before been known. When it is recollected that this improvement can only date its commencement from the first spawning period subsequent to the Act coming into operation—viz., the winter of 1861-62—and that of the produce of that season only a small proportion can have by this time contributed to the increase of the breeding stock, so as to afford a supply of Salmon of the second generation under the new regulations, we may gather the more encouragement from the satisfactory reports which are made of the state of the fishings during the year 1863. For it is thus evident that even the small stock to which we were reduced under the former absence of regulation is sufficient, such is the wonderfully prolific character of the fish, to give, under the imperfect protection of the very first year, a decisive and invariable augmentation in the practical supply of this description of food. We may reasonably anticipate that as the arrangements become more perfect, and as the additional breeding stock populates the streams hitherto barren, we shall find that we have won by only a little forethought and fair play, a not inconsiderable source of food made newly available to the country. Even if Salmon still continues to be a species of luxury, it will become a luxury so common and general as to take the place to some extent of other species of food, and so leave it to the use of those who cannot directly aspire to luxuries. It is well to remember that, though the new Act is watched over by Government Inspectors, there is really no Government action, and none but the simplest of general regulations involved in its operation. All that it professes to do is—keeping in view that the Salmon is a migratory fish, which must ascend the rivers to breed and descend to the sea to feed—to prevent any single owner who holds a portion of the course it must traverse from so exercising his rights of property as to extirpate it altogether. The Act, therefore, prohibits the erection of any impassable barrier, such as Dams or Weirs, and any absolutely fatal methods of fishing, such as those by Fixed Nets, or any fishing at all at the time when the fish are out of season and unfit for food. These simple rules are left to be enforced by the owners of the rivers themselves, who are authorized to form, if they choose, associations for carrying them into effect, and punishing their breach by the infliction of the statutory penalties. All that the Inspectors have to do is to watch, in the interest of the public and of natural history, the results of these operations, and to acquaint Parliament with the experience gained and the further measures that are thought to be desirable.”

The law applying to the Irish Fisheries was passed on the 28th July, 1863, and the effects arising from it in affording employment to increased numbers of poor fishermen in so short a time are astonishing. An English journal thus adverts to the subject :—

“ It is pleasant to find that the recent legislation on the Salmon Fisheries is improving the condition of the fishermen of Ireland, in all the Districts where the Act has come into full operation. Near New Ross, in

particular, there are now employed, according to the official returns, 1,392 men, working 348 Drift and Snap Nets, where last year there were only 147 nets, finding employment for 688 men, all of them only one remove from paupers, whilst now each man can earn from £2 15s. to £3 per week. Last year the highest amount paid in one week by buyers of Salmon in New Ross was £105. Since the first of March this year, the money paid there per week for Salmon has averaged from £700 to £1,000."

Enough has now been said to satisfy the most skeptical, if not at the same time wilfully blind through self-interest, that our Fisheries have been gradually deteriorated by the barriers and obstacles erected on the shores of the St. Lawrence. These barriers, when they do not wholly arrest the migrating fish, scatter and drive them out of their course while on the way to their natural breeding grounds. The same Engines have wasted and destroyed the fry of the larger kinds, and have so far diminished the sustenance of the Cod as to banish him from long-frequented haunts.

The course, and the only one left to restore the Fisheries to their former productiveness, has been plainly indicated; this course has been tried and confirmed by the experience of older countries. Let Canada, therefore, profit by their example, and the development of the vast field she possesses in the St. Lawrence and its tributaries, for the production of food and wealth for her people, will be readily accomplished.

I am, Sir,

Your obedient servant,

PUBLICUS.

Quebec, 1st August, 1864.



