THE

SALMON FISHERIES

OF THE

ST. LAWRENCE

AND ITS TRIBUTARIES.

BY RICHARD NETTLE.

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DEDICATION.

To His Excellency

SIR EDMUND W. HEAD, BARONET,

Governor General,

&c. &c. &c.

In the compilation of this work I have been sustained by the reflection of the honor conferred, in the permission accorded me to dedicate to Your Excellency this little volume.

There are few phases in which to view the question of the protection of the Salmon Fisheries of which Your Excellency is not already cognizant.

Your Excellency's practical knowledge of the habits of the Salmon tribe, and of the laws that are necessary for their preservation, will justify the hope, that the Salmon Fisheries of this Province will receive that attention at Your Excellency's hands which the importance of the subject merits.

I would desire to express my sense of Your Excellency's kindness.

And beg to subscribe myself

Your Excellency's

Most obedient

Humble servant,

THE AUTHOR.

INTRODUCTION.

CHAPTER I.

"Laws are made for evil-doers."

I make no apology for throwing this little volume on the public. The absolute necessity that attention should be directed to the subject of the Salmon Fisheries of the St. Lawrence, is being evidenced every day. That element of food, which was once so abundant, is now becoming very scarce: that, which a beneficent Creator has provided for the many, is being destroyed by the few. Every year sees our markets supplied with Salmon pierced with the spear or "negog," the spawn literally protruding, and even covering the bottom of the vessels which convey the fish to our markets.

Reader! If thou art a lover of fair play, thou wilt aid by thy influence to bring about a better state of things.

I write for the poor who have been deprived of that support which a good Providence had provided for them. I write to the rich, who have influence, and I beseech them to exert it in a good cause. I write to the Legislature, who are as stewards, and to whose care is

committed the welfare of the people at large; and who, as lawgivers, are required to make good laws for the guidance of the community. I ask that the executive authorities see that good laws are framed and enforced. I pray for that which has been so loudly called for,—

PROTECTION FOR OUR SALMON FISHERIES.

CHAPTER II.

"Prevention is better than cure."

Let us take a brief glance of the Salmon Fisheries of the Mother Country.

In former years, Salmon was so abundant that its usual price was from one penny to two pence per lb.

In the indentures of Apprentices, a clause was sometimes inserted to the effect, that they should not be compelled to eat Salmon oftener than twice a week. Alas! the change. Seldom can either master or man get a nibble, much less a bite! The vile practice of fishing at all seasons and by all appliances, has driven the noble, tho' dogged fish from the shores, and the result has been, the destruction of a greater portion of the fisheries, and a rise in the price of Salmon, of at least one thousand per cent.

What shall we do? Protect the fisheries! Effect a cure, when the disease could have been prevented. The Legislature enact laws, (but do not enforce them), and that at the eleventh hour. The evil has been consummated, the fish

will not return, and could they speak, methinks they'd say, destroying us brings injury to yourselves. Reader! dost thou know the habits of the Salmon? Dost thou know that the river wherein they are spawned, is to them a homestead; that even as a school-boy returns joyously to his home at the holiday season, so do these fish return from the briny deep,—the young to frolic, and the old to seek the soft sandy-gravelly bed, wherein to deposit their ova or spawn, and from whence they themselves were brought into existence.

Man, the destroyer man—commenced a war of extermination, hunted them with nets of all description,—with spear, with hook, with lister, poisoned them with lime, spearing them by torch-light—mangling and wounding as many as he killed—and to crown all—denied them a right of way, by building Dams—and thus destroyed their fisheries indeed.

I have said that the fish are dogged, and sullen. All sportsmen know what I mean. Prevent them from reaching their old haunts—their spawning beds, and experience proves, that it is with difficulty they are enticed back. Good laws, time, and a right of way, may induce them to return. The mother country killed the "Golden Goose," and now has to pay dear for her eggs, and as Ephemera—of London "Bell's Life" says, "it is only the wealthy that can make the purchase."

"We have frequently seen a band of men come down the celebrated Salmon rivers in the North of England and in Scotland, with a horse and cart, and in a short space of time, catch as many as the animal could draw, in fact, the destruction of Salmon at this season of the year (October

and November) is quite appalling; and were it not for the vigilance of the guardians of the rivers, and the strictness of the laws (too late enforced) this species of fish would scarcely be able to exist. And had it not been for the fortunate—I may say providential circumstance to which the reader's attention will be directed in another chapter, but few Salmon, indeed, would have been found at this period (1857) in the rivers of the United Kingdom.

Before the year 1812, and even to 1815, almost every river in the Kingdom swarmed with fish. Witness in Scotland, the Tweed with its 150,000 Salmon, at a rental of above £20,000 per annum, the Tay a similar river, the Deveron, the Findhorn, the Don, the Spey, and numerous others.

In Ireland, the Shannon, the Bann, the Lee, the Foyle, the Blackwater, the Lagan, the Moy, with its 70,000 fish in one season. Numerous others are also to be found in the Emerald Isle.

In England, the Tamar, the Plym, the Exe, the Tyne, the Trent—and very many others. In Wales also, there are a few Salmon rivers; the principal fish being trout in that district.

When we reflect on man's abuse of the good gifts of the Creator, and the unnecessary and wanton destruction of his choicest blessings, we must be led to admit, that we are undeserving of them, and that, were he to remove them altogether, it would be no more than we deserved.

My favourite river the Tamar, in Devonshire, where I have often sported joyously in my youth, and wandered rod in hand tempting the finny tribe, formerly abounded with Salmon and Salmon trout, but is now almost without a

fish of the Salmon species; tho' the principal cause of the destruction of this river, has arisen from the Mundick water, or the drainage from the mines within the district.

The following graphic account of a fishing excursion to the favorite river of my boyish days, will not prove uninteresting. It is so life-like, that I cannot refrain from giving the reader the pleasure of the scene:—

"Once at the water's edge, the young man's tackle was speedily made ready, and in a few minutes his long line went whistling thro' the air, as he wielded his powerful rod, as easy as if it had been a stripling's reed, and the large peacock-fly alighted on the wheeling eddies, as gently as tho' it had settled from a too long flight. Delicately, deftly, it was made to skim and dance the clear brown surface, untill it had crossed the pool, and reached the hither bank; then again, obedient to the pliant wrist, it rose on glittering wing coiled half around the angler's head, and sent straight as a wild bee's flight, into a little mimic whirlpool, scarce larger than the hat of the skilful fisherman, which spun round and round, just to the leeward of a grey ledge of limestone. The gay deceit had vanished, the swirl of the surface, indicated a fish had risen, and the forked tail shewed the monarch of the stream; the turn of wrist fixed the barbed hook, and taught the scaly victim the nature of the prey he had gorged: shewing his silvery sides, and with a bound, on his broad back he strikes the water, but not as he meant, the tightened line; for, as he leaped, the practiced hand lowered the rod's tip, that it fell in a loose bight below him. Again! again! again! and yet a fourth time, he bounded in mid air with desperate dashes, like an unbroken steed that would dis-

mount his rider, but ah! 'tis no avail! Again he bounds, lashing the eddies of the dark stream into bright bubbling streaks, and making the heart of his captor beat high with anticipation of the desperate struggle that should follow, before the monster should lay panting and exhausted on the yellow sand or moist greensward.

"Away! with the rush of an eagle through the air, he is gone like an arrow down the rapids—how the reel rings; and the line whistles from the swift working wheel, he is too swift, too headstrong to be checked as yet, tenfold the strength of that slender tackle might not control him in his first fiery rush.

"But Jasper, although young in years, was old in the art and skilful as the craftiest of the gentle craftsmen. He gives him the butt of his rod steadily, trying the strength of his tackle with a delicate and gentle finger, giving him line at every rush, yet firmly, cautiously, feeling his mouth all the while, and moderating his speed even while he yields to his fury.

"Meanwhile, with the eye of intuition and the nerve of iron, he bounds along the difficult shore, he leaps from rock to rock, alighting on their slippery tops with the firm agility of the rope-dancer, he splashes knee-deep through the slippery shallows keeping his line ever taut, inclining his rod over his shoulder, bearing on his fish with a killing pull, steering him clear of every rock or stump against which he would fain smash the tackle, and landing him at length in a fine open roomy pool, at the foot of a long stretch of white and foamy rapids, down which he has just piloted him with an eye of faith, and with a foot of instinct.

"And now the great Salmon has turned sulky; like a piece of lead he has sunk to the bottom of the deep black pool, and lies on the gravel bottom in the sullenness of despair.

"Jasper stood, gathered up in his left hand a heavy pebble and pitched it into the pool, as nearly as he could guess to the whereabout of his game,—another, and another! Aha! that last has roused him. Again he throws himself clear out of the water, and again foiled in his attempt to smash the tackle, dashes away down stream impetuous.

"But his strength is departing, the vigor of his rush is broken, the angler gives him the butt abundantly, strains on him with a heavier pull, yet ever yields a little as he exerts his failing powers; see, his broad silver side has thrice turned up, even to the surface, and though each time he has recovered himself, each time it has been with a heavier and sickly motion.

"Brave fellow! his last race is run, his last spring sprung —no more shall he disport himself in the bright reaches of the Tamar; no more shall the Naiads wreathe his clear silver scales with river greens and flowery rushes. The cruel gaff is in his side—his cold blood stains the eddies for a moment—he flaps out his death pang on the hard limestone.

"Who-hoop! a nineteen pounder!

"Meantime the morning had wore onward, the breeze had died away, there was no curl upon the water, and the heat was oppressive.

"It had now got to be near noon, for, in the ardor of his success, the angler had forgotten all about his intended breakfast; and Jasper had traversed by this time some ten

miles following the sinuosities of the stream, and had reached a favorite pool at the head of a long, straight, narrow trench, cut by the waters themselves in course of time through the hard shistous rock which walls the torrent on each hand, not leaving the slightest ledge or margin between the rapids and the precipice. The morning had changed the second time, a hazy film has crept up the zenith, and the sun was now covered with a pale golden veil, and a slight current of air down the gorge ruffled the water.

"It was a capital pool, famous for being the temporary haunt of the very finest fish which were wont to lie there awhile, as if to recruit themselves after the exertions of leaping the two falls and stemming the double rapid, before attempting to ascend the stream farther.

"Few, however, even of the best and boldest fishermen, cared to wet a line in its waters, in consequence of the supposed impossibility of following a heavy fish through the gorge below, or checking him at the brink of the fall. It is true, that throughout the length of the pass, the current was broken by bare, slippery rocks peering above the waters at intervals, which might be cleared by an active cragsman; and it had been in fact reconnoitered by Jasper and others in cool blood, but the result of the examination was that it was deemed impassable.

"Thinking, however, little of striking a large fish, and perhaps desiring to waste a little time before scaling the banks and emerging on the high-road, Jasper threw a favorite fly of peacock's herl and gold tinsel lightly across the water; and, almost before he had time to think, had hooked a monstrous fish, which, at the very first leap, he set down as weighing at least thirty pounds.

"Thereupon followed a splendid display of piscatory skill. Well knowing that his fish must be lost if he once should succeed in getting his head down the rapid, Jasper exerted every nerve, and exhausted every art to humour, to meet, to restrain, to check him. Four times the fish rushed for the pass, and four times Jasper met him so stoutly with the butt, trying his tackle to the very utmost, that he succeeded in forcing him from the spot.

"Round and round the pool he had piloted him, and had taken post at length, hoping that the worst was already over, close to the opening of the rocky chasm.

"And now perhaps waxing too confident, he checked his fish too sharply. Stung into fury, the monster sprang five times in succession into the air, lashing the water with his angry tail, and then rushed like an arrow down the chasm.

"He was gone—but Jasper's blood was up, and thinking of nothing but his sport, he dashed forward, and embarked, with a fearless foot, in the terrible descent.

"Leap after leap he took with beautiful precision, alighting firm and erect on the centre of each slippery block, and bounded thence to the next with unerring instinct, guiding his fish the while with consummate skill through the intricacies of the pass.

"There were now but three more leaps to be taken before he would reach the flat table-rock above the fall, which once attained, he would have firm foot-hold and a fair field: already he rejoiced, triumphant in the success of his bold attainment, and confident in victory, when a shrill female shriek reached his ears from a pretty flower-garden; caught by the sound, he diverted his eyes, just as he leaped, to-

ward the place whence it came; his foot slipped, and the next instant he was flat on his back in the swift stream, where it shot most furiously over the glassy rock. He struggled manfully, but in vain. The smooth, slippery surface afforded no purchase to his griping fingers, no hold to his laboring feet. One fearful, one agonizing conflict with the wild waters, as he was sweept helplessly over the edge of the fall, his head, as he glanced down foot foremost striking the rocky brink with fearful violence.

"He was plunged into the deep pool, and whirled round, and round by the dark eddies long before he rose, but still, though stunned and half-disabled, he strove terribly to support himself, but it was all in vain.

"Again, he sunk and rose once more, and as he rose that wild shriek again reached his ears, and his last glance fell upon a female form wringing her hands in despair on the bank, and a young man rushing down in wild haste from the cottage on the hill.

"He felt that aid was at hand, and struck out again for life—for dear life!

"But the water seemed to fail beneath him.

"A slight flash sprang across his eyes, his brain reeled, and all was blackness.

"He sunk to the bottom, spurned it with his feet, and rose once more, but not to the surface.

"His quivering blue hands emerged alone above the relentless waters, grasped for a little moment at empty space, and then disappeared.

"The circling ripples closed over him, and subsided into stillness.

"He felt, knew, suffered nothing more.

"His young, warm heart was cold and lifeless—his soul had lost its consciousness—the vital spark had faded into darkness—perhaps was quenched for ever."

CHAPTER III.

Necessity proved the mother of invention.

FRANCE AND FRENCHMEN.

Gehin and Remy, two poor fishermen of France, found that their means of subsistence was nearly at an end. That the rivers to which they looked to obtain a livelihood—were become barren and unfruitful; they found that fishing in season and out of season had brought want and poverty to their door.

"We have toiled all day, and have caught nothing." What shall we do? we have no fish, therefore we cannot buy bread! What shall we do?—Was it stern necessity? or was it inspiration that caused these poor unlettered men, these fishermen of the Vosges—who could have had no opportunity of ascertaining that the people of former centuries were in possession of the means of propagating the finny tribe—to pause and reflect,—to conceive and to carry out the grand discovery,—the artificial propagation of trout (applicable to all descriptions of fish.)

Gehin and Remy! to you belong the honor, to you are due the thanks of your countrymen—the thanks of England and of all countries, for the grand discovery of an art by which thousands are benefitted, and the value of which can by no means be correctly estimated. Rivers barren and un-

prolific can now be stocked with thousands of the finny tribe, evidence those rivers of the old country which had been destroyed by a vicious system of fishing, now teeming with countless thousands of Salmon, propagated by the artificial system.

That the ancients understood and practiced largely the plan of artificial propagation, — that experiments were tried by certain French and German savans, and by our own countrymen, to propagate, and even to cross the breed of fishes,—and fishes and other aqueous animals, we cannot doubt. The successful results of such experiments have been recorded,—but they were, almost, we may say merely experiments, and were never applied to any public good. The French fishermen had never heard of the process, their own simply recorded tale shews them to have been ignorant of the artificial mode of procuring fish. They were nature's scholars, and happily carried into practice the lesson she taught.

They observed, as you may do, reader, that in the fall of the year the fish congregated in shoals, and experience told them it was for the purpose of spawning.

Let us also watch with them,—observe the fish, how still they lie! this pebbly shore must be their favorite haunt. Now they are in action! See them grovelling in the sandy bed. What can they be about? They are making ridges in the sand; Oh! they are about to spawn, now comes the female and exudes her ova in the ridge they have prepared. Will they let them remain so? Wait a little, and observe, here comes the male fish, he it is who must give vitality to the spawn, see how he follows in the same track. Were our powers of vision stronger we would

perceive that he also exudes a whitish milky substance, (the milt) which falling on the spawn, impregnates them, and gives them life. Now cover them up, there let them remain till time vivifies them, and they become fish.

Now for the first time perhaps, are these poor men struck with ther own folly, and that of others—then comes the admission. We have destroyed our fisheries, and brought ruin on ourselves. We have caught the fish at all times spawning, or not spawning. What shall we do? —"conservez les pêcheries." Yes my good friends, if you would preserve yourselves, you must preserve your means of support, your fisheries.

Now comes reaction, reason take her place,—preserve the spawn, and we shall have fish in abundance! Here are their spawning beds! aye, but heavy currents may wash away the spawn. Let us make artificial beds, and enclose the fish now they are about to spawn. Haste thee away Gehin, bring the nets and tubs, 'tis done! and e'er night fall, they become possessors of thousands of impregnated spawn, having enclosed the fish, and with the hollow of the hand, formed by the thumb and forefinger, gently compressed the ova and the milt from the fish. The ova and the milt, secured in tubs and gently stirred by the hand mix together, the spawn becomes vivified, and before night these poor men have placed their prize in an enclosed gravelly pond with a running current. Oh! can it be possible that we shall succeed! argued these poor men: the scene of their labour is visited daily: week after week, month after month passes, but they do not despair. Suspense is about to be terminated. Remy! Remy! regardez-donc! regardez! The fish are come to life, cries the astonished Gehin, run! run! They approach the

pond, they perceive a minute fish, here and there, and in the course of three weeks the pond is swarming.

Remy, Gehin, you have acquired a never-dying fame, you are the benefactors of mankind. The news flies,—Department after Department echoes the report,—the Court and the philosophic schools take up the subject,—Commissioners are appointed to visit the spot, see with their own eyes, understand with their own hearts. But ah! it is no new thing, says one; no new discovery, says another,—I have tried the experiment. And thus some few of the *savans* who had not learned the best of all lessons, truth, endeavour to rob these poor men of the honour of the discovery. 'Tis no use! The good and honourable overcome the base and dishonourable, and these poor but honest and intelligent men are rewarded by the protection of the powerful, the esteem of the good, and their names recorded as the discoverers of the art, They dine at the Emperor's table, and are welcomed at the houses of the good and wise.

A few words as regards the happy results of the discovery. The Government of France, truly valuing its importance, have spared no expense in carrying out the artificial system. On various rivers and canals, the operation is carried on most extensively and successfully. They have also a splendid Piscatorial College at Paris, where the process is carried on and studied, and which is an object of curiosity to all visitors.

Thus it may be said, that France is under the obligation to these two men, for the preservation of that which forms a chief article of food for the people of that country.

As regards England, she has greatly benefitted by the

discovery. The Artificial process is carried on in the United Kingdom with the most astonishing success. Millions of impregnated ova are annually brought to life; and thus those rivers which were almost entirely destroyed, are now becoming of great value.

So simple is the process and so wonderful the results, that I am persuaded the Artificial process will come into general use in a few years, especially as there is no vague uncertainty as to the results. They can be counted on with great precision,—even more so than on many agricultural productions, requiring no such care as grains or esculents receive at our hands. All that the fish demand to have restored to them is the right of way, and permission to deposit their stores of wealth on our shores. We have much to be thankful for, that, in the midst of the destruction brought upon the Fisheries, we have providentially the means afforded us of re-stocking our rivers and lakes with that food which the faculty have ever considered as an essential to the sanatory condition of the system.

CHAPTER IV.

"To be, or not to be, that is the question."

I HAVE deemed it necessary to give a hasty sketch of the Salmon and Trout fisheries of England and France, prior to the important discoveries of the two fishermen. I have shown that in former years the fish were most abundant, that they were within the reach of the poorer classes. I have shown also the havoc perpetrated, and the destruction brought upon the fisheries by the perni-

cious system practised,—destruction which would have been lasting had it not been for the timely discovery referred to.

It is now my purpose to draw attention to that which more nearly concerns Canada, and to ask the question, "To be, or not to be?" Are we to permit utter destruction to come upon our fisheries, or are we to learn wisdom from the dear-bought experience of others, and preserve to ourselves, by proper legislation enacted and enforced, our Fisheries, which, by persons competent to judge, exceed in value one hundred thousand pounds per annum; a fact which will not be doubted by those who will carefully follow my journeyings to the St. Lawrence and its tributaries.

CHAPTER V.

Roll on, thou dark and deep blue river, roll.

THIS majestic river, this grand artery, this Nature's Grand Trunk, this highway of commerce with its chain of immense fresh-water lakes, unequalled by any in the world, forming one of the most striking features of British North America; issues from Lake Superior, and, passing successively through Lakes Huron and Erie, narrows at the eastern extremity of the Erie and forms the River Niagara, thence, dashing o'er the stupendous falls, flows into Lake Ontario. Meandering onwards, it passes the fairy scene, the Thousand Islands, which must be seen to be enjoyed,—all description avails but little. Onward

flows this "river of waters," in a continuous course of above two thousand miles, and thence into the Atlantic. At its mouth it is more than ninety miles wide, is navigable for ships of the line for more than four hundred miles from the ocean, and is now happily taking its proper position as the highway of commerce. Without presuming to the power of prophetic vision, but merely, if I may so express it, using a geographic eye, I dare affirm, that the whole of the imports from Europe necessary for the Canadas and for the West, and also the exports of the whole of this country, will be wafted on its bosom, and that Quebec will become the depot and entrepot of commerce.

It is now my purpose to show the value of that which lies hid within its bosom; I will direct the reader's attention to one valuable production of this river and its tributaries, namely, the Salmon. It is not my intention in this little volume to traverse the Upper St. Lawrence, but more especially that portion of the north shore which lies between the most easterly extremity of the province, Ance au Sablon, and the River St. Ann's, above Quebec—and on the south shore, to that which lies between the Chaudiere and the River Restigouche, in the Bay Chaleur. *En passant*, I would remark, that the Upper Province suffers in the same manner and from the same causes; that the White Fish and the Salmon Trout have decreased at least seventy-five per cent. during the last few years; indeed, the salmon trout, which abounded in most of the rivers, is now becoming very scarce, and but few are to be seen in the markets of the Upper Province.

For the more ready reference to localities, it will be desirable to divide the shores of the St. Lawrence into districts, I would therefore invite attention to the places ties that lie between the easternmost point of the north shore, Ance au Sablon, and the River Saguenay.

And now having entered the Gulf, let us wander awhile amid the bays and estuaries of this noble river. Let us view the royal domain, the homestead of the Salmon and the Salmon Trout, which nature has so bountifully provided for them. Let us ascend the dashing and foaming torrent; let us view the fish in their preparation for the birth of their progeny, and see the ova, in countless thousands, deposited in its sandy bed.

Reader, bear with me while I enumerate the rivers within this locality; while I show what in former years has been done, and what may be done; so that our rivers may yet swarm with countless myriads of the noble fish. Deem me not visionary in my computation, do not come to a hasty conclusion; but pause and reflect, make your own observations, examine for yourself, study the best authorities, and you will find that I have based my calculations on a much lower scale than any who have written on the subject, from Jacobi and Goldstein of the last century, to Shaw, Ramsbottom, Ephemera, and others of the present period; and should conviction be forced on your minds, you are bound to use every influence you may possess, to bring about a better state of things than at present exists; seeing that it is a question that affects both the social and commercial interests of the community. In it is involved the utter destruction or the preservation of an element of food which a kind Providence has ge-

nerously sent to our shores, and which "should be within reach of every inhabitant of Canada." It is a question for the political economist, for the legislator. It behooves them to guard with a jealous eye every action that may tend to the injury of the whole community, whether caused by the evil practices of our own people who disregard the rights of others, or by aliens or foreigners, who with net, spear, and torch, destroy our fisheries, and illegally encroach on our bays and rivers, after having destroyed their own fisheries within their own territories. I have no desire to be too severe in my remarks; but every right-thinking person, be he Canadian or a resident of the States, must admit that such illegal acts must be prevented at all hazards. We will welcome all parties who come on a fair fishing tour, or as purchasers; but as destroyers, we tell them, keep on your own side of the line.

CHAPTER VII.

SALMON FISHERIES OF THE ST. LAWRENCE AND TRIBUTARIES.

ANCE AU SABLON TO THE SAGUENAY.

Between these two points, lie the principal fishing stations of the Hudson's Bay Company.

Of the interior of the country, but little is known that can be depended upon, the territory is as it were locked up, the feet of few white men have trod its surface, the Indians, (the Montagnards) and a few of the Hudson's

Bay Company's employés, are the only persons who have traversed its soil, and the only value to be derived from it, arises from its Furs and Fisheries. Before reviewing this district, it will be well to say a few words relative to the Island of Anticosti, on which, though there are no rivers of any magnitude, the Jupiter being the largest, yet it possesses many of smaller size; and its inlets, bays and creeks around the whole coast, swarm with large quantities of Salmon.

The following incident will shew the vast quantities of Salmon that formerly swarmed these shores. A H. B. Company's schooner was fitted up with the necessaries for prosecuting the fishery during the season. They made their way to one of the lower fishing stations, where they expected to load the vessel in about a month or five weeks, Arrived at the bay, they prepared their nets; their first catch was the produce of an afternoon's tide, and to their utter astonishment and surprise, they found that they had taken between 500 and 600 fish. Successive tides gave fish in abundance, and scarce a week had elapsed, when their barrels were filled, their salt all expended, and they, on their return to the Post from whence they came. Such was the quantity of fish taken in former years. I have heard of 500 having been taken by seine in Barnpool, at the mouth of the river Tamer, but never have I heard of so successful a catch as that of Morin of the H. B. Company.

Thus much for the past, now for the present: Behold the white shores of Ance au Sablon, let us hasten ashore at the little bay that lies above us. Here is a fishing station, and the men at their nets. Let us ques-

tion them, and mark well their answers. Well, my friend! what sport? Pas beaucoup, Monsieur. Why. Do you not kill as many fish as you used to do? No, Monsieur. But what's the reason? After a great many shrugs of the shoulder—for your Hudson's Bay men are very taciturn, and abominate questions from a stranger—you may possibly get an answer, which will be somewhat to this effect,—"Ils pêchent tous les jours,"—in other words, that they fish at all times. Continue your questions, and you will find, that not content with netting and spearing in the bays, they ascend the rivers and fish both by day and by night, not only during the fishing season, but also spearing the fish on their spawning beds. And thus, are our fisheries becoming worse and worse every year. In fact, so few have been taken lately by the Hudson's Bay fishermen, that they are becoming careless of the fisheries—and indeed, they themselves have ever tended to destroy them, from the use of what I would call illegal nets.

Another grave evil that requires the prompt attention of the Legislature. Let us hear what Dr. Adamson, one of the best authorities in the Province, says on the subject: "Schooners from the United States have arrived in the Bay of Seven Islands with armed crews, and set nets in the Moisie in despite of the Hudson's Bay Company. The river Bersinies is this year (1856) in the hands of a rapacious and speculating American Company, who, with the Indian spear—the regog—mutilated large numbers of this fine fish, and after glutting the Boston and New York markets, they brought some boxes to Toronto in September, when they were out of season and unfit for use!" The Doctor further adds—"prompt action is required; if plans are not ma-

tured before the King's posts are abandoned by the Company, the Salmon rivers will be in the hands of hordes of lawless men, who will exterminate the fish, by means of nets, spear, torch, and every other engine of piscine destruction, and will kill, burn, and mutilate every fish that ventures up our rivers."

Such is the present state of the fisheries of the River St. Lawrence—for the same mode of destruction is practiced in every river where they are wont to congregate—only that in the lower part of this district mill dams have not yet been built, and it is to be hoped that, when it becomes necessary to build dams therein, every precaution will be taken by the erection of chutes or slides, so that the fisheries of these rivers may not be destroyed, as one within this district has been, the Escoumins, which deserves and will receive especial notice in another place, as tending to shew the utter destruction that may be brought upon a river by the erection of mills without the necessary slide.

Although, comparatively speaking, they are still good Salmon rivers, yet there is not one-twentieth of the fish taken within this district at the present time, to what there were in former years. Bouchette, twenty years ago, complained of the wanton destruction of the fisheries, caused by injudicious management. What would he say now?

But let us proceed onward, and review the rivers in this locality, and while so doing it is my intention to estimate the number and value of the fish, and to base my calculation on the lowest scale. That my statements may not take the reader by surprise, I will quote a paragraph from the *Daily Scotsman* of the 18th December last, relative to the Salmon fisheries of the river Tweed.

The writer says : "Within a few years, the rental of the Tweed Salmon fisheries has fallen from £20,000 to somewhere about £3,500. The yield of fish has fallen from 150,000 to 60,000. Imagine, reader, one river alone producing 150,000 fish and a revenue of £20,000 per annum. Who can appreciate the value of our many rivers, which no part of the world can rival, especially as regards the fisheries?"

Trending westward from Ance au Sablon, we pass the following rivers, on several of which are the Hudson Bay Fishery stations : — The Esquimaux, Natashquan, Mingan, St. Johns, Trout, Moisie, St. Margaret, Pentecost, Trinity, Goodbout, Manitoo, St. Austin, Manacouagan, Outardes, Papinachois, Betsiamites, Blanche, Portneuf, Escoumins, Grande and Petite Bergeronnes, Misissiquinak, St. Pancras, besides many other excellent rivers where salmon are taken. The two last named, with some others, where the falls are too high, afford no spawning-ground for the salmon, though large quantities of sea-trout are taken in those rivers every year, averaging 4 to 7 lbs. each.

Before estimating the value of the fisheries within this district, I would direct attention to a favorite river of the amateur fishermen of Quebec and other places, the Escoumins. A few years since it was so prolific, that Morin, the King's Post fisherman, used to average from 150 to 200 fish each tide. Amateur fishermen would bask in the sunshine of their desires, always sure of sport. Twenty, thirty, forty, and as many as fifty fish have been taken with a single rod in as many hours. Mr. Strang, of Quebec, carried off the palm from the Escou-

mins, having killed his fifty fish in two days' fishing. I have said that a few years ago it was prolific; would I could add it is so now. Alas! the contrary is the case. A dam was built on the river, the right of way stopped, and that splendid and valuable stream; once so abundant that the waters may be said to have been alive with fish, —that river in which thousands were annually taken,— is utterly destroyed: and not a salmon is now to be caught in the Escoumins. That river which, if in the mother country, would have yielded from £6,000 to £8,000 per annum, is now of no value; when, by the simple remedy of erecting a chute or slide the evil would have been overcome. Let us hope that another year may not pass without the necessary slide being erected, on this and on every river where dams are erected, or where it may be necessary to erect them. Never let any one be so blind to his own interests, as to obstruct the whole course of a river, when, by an outlay of twenty dollars at the most, he may preserve his fisheries, and have his mill at work at the same time.

It is a happy omen when we see the principal mill-owner in Lower Canada acknowledging the evil, and aiding to bring about a better state of things by advocating the erection of slides. I refer to Mr. Price, M. P. P., who, in the last session of Parliament, introduced a Bill for the protection of the Salmon fisheries, wherein was a clause, compelling the owners of mills to erect slides on the different dams of the Lower Province. The Bill passed the Lower House unanimously, also a first and second reading in the Upper House, but from some cause, to me and to many others unknown, was never brought up for a third reading,

and consequently fell through. Whoever was the cause of its failure, is little aware of the serious evils inflicted by the non-passing of the Bill introduced by the Member for Chicoutimi.

Let us suppose that within this vast district there are but 400 breeding fish, which, escaping the net and spear, deposit their spawn in safety in the sands of these and other rivers; which would average about 15 to 20 fish for each river, and which is a very low calculation for the breeding fish in this locality. Now it has been proved that the smallest of the breeding fish deposit 10,000 ova each. Again, nine-tenths are given to destruction, caused by freshets, and by the enemies of their own kind, consequently 1000 are saved from each fish. We may now presume that they are seeking the briny waters of the ocean,—and here again destruction ensues; for although the thousand to each fish leave the rivers, yet they do not all return—one in four is lost, or 25 per cent. on the whole, consequently the number and value of the salmon for this district may be thus calculated: The 400 fish give, after destruction caused in the river, 400,000 (one thousand to each fish); loss while on their migration tour, 25 per cent., thus decreasing the number to 300,000; and as few persons would object to give 2s. 6d. for a fine salmon, seeing that the H. B. Company charge 5s. for each fish, large or small, the value of the fish within the district of Ance au Sablon and the Saguenay appears to be from the calculation thus made £37,500. Persons who understand the subject, will say that the estimate is a very low one indeed. I admit it; nor do I hesitate to assert that, with the necessary care, the number, and consequently the value, could be considerably increased.

CHAPTER VIII.

RIVER SAGUENAY.

We now enter the grand, the chief tributary of the St. Lawrence, (the St. Maurice not excepted) which for sublimity, may vie with any in the world.

Its source is to be found in Lake St. John, whence it issues from two outlets, the Grande and Petite Décharge. On reference to Bouchette's B. N. America, I find it stated, that this river is from 150 to 180 miles in length, and, that on its downward course it receives the waters of above 30 tributaries; in most of which Salmon were formerly taken. The lover of the sublime and picturesque will be well repaid by a visit to this locality, and opportunities are afforded by steamer from Quebec, every week during the summer months.

As a nursery for the Salmon few rivers can equal it, sufficient spawn could be preserved in its tributaries alone, to stock the whole river with myriads of the finny tribe.

The fish (beside the Salmon) in this river are the sturgeon, salmon-trout, pike, white fish, trout, pickerel, cod, herring and smelts. The bottle nosed whale were formerly taken, and the seal are even now had in the bay: the cod fish once so common is now seldom caught. The same causes which have led to the destruction of the fisheries elsewhere, hold good in this river.

The immense quantites of timber, formerly to be had in this district, led to the construction of mills, without the necessary chute or slide—consequently the fish have been unable to ascend many of the rivers, in which there were

formerly abundance of fish. However, there are still very many fine rivers in which the fish make their way. The principal estuaries of the Saguenay are on the north-east shores, the Marguerite, Peltier, Outarde, Valain, Caribou, Rompues and Pingris—while on the south west, we find the Chicoutimi, Moulin, à Mars, Ha-Ha, Bellefleur, St. John and the Little Saguenay, with many others of less note.

Based on the same scale as the former district, and supposing that only seven are adapted as Salmon spawning rivers, we arrive at the following results, as the number and value of the fisheries of the Saguenay and its tributaries.

The 7 rivers, giving us each 20 spawning fish equals 140, the young fry saved from each, being 1000, gives us the quantity of the young Salmon to be 140,000; deducting 25 per cent., during migration, will lesson the number to 105,000, which, valued as heretofore, at 2s. 6d. each, gives £13,125 as the value of the river Saguenay and its tributaries—a low estimate, indeed, but it is better to err on the safe side, than to give too high a value; that is, if it be possible, to estimate too highly that gift of a good providence; which can be multiplied, *ad infinitum*, and which may be calculated, with as much surety and even more, than can be placed on any agricultural production.

CHAPTER IX.

SAGUENAY TO MURRAY RIVER.

The next division of territory to which we will direct attention, is that which lies between the River Saguenay and Malbaie, and Murray River.

Sweeping along the shore, the only rivers of any note

that we will pass are the Canard, Black, and the Murray Rivers; the two former of little moment, though salmon are caught in each of them. The Black River is very turbid and filled with boulders. Here again the spear is brought into use. Along the bays and creeks, salmon were formerly taken in large quantities, and now and then a few are taken in the *pêcheries* that are placed along the shore. While at Murray Bay, two years since, I saw several taken; one a splendid fellow of thirty pounds weight. The fish was cut in four parts and divided between the owners of the fishery, each being a *share-holder*.

MURRAY RIVER,—called by the inhabitants La Rivière Saumony, from the immense quantities of fish that were formerly taken in the bay and river. I have been informed by John Nairn, Esq., Seignior of Mal Baie, that from two to three hundred fish were taken at a tide, and that he himself had killed about fifty fish in three or four days with the fly.

In no place have the evils arising from the erection of mill-dams been better evidenced than on this river, and to which I would direct the reader's particular attention. The Seignior told me that he had leased the river to a party of Americans; that they had built a mill-dam at the Chute, about nine miles from the mouth of the river, and in a short time the whole district found the evil effects resulting from the erection of the dam; in the total destruction of the river so far as the salmon were concerned. They abandoned the river entirely; not a fish was to be seen. The evil continued several years. At last—fortunately or unfortunately as the case may be,

"'tis a bad wind that blows nobody good"—the mill was abandoned, the owner falling in arrears of rent, and the Seignior immediately destroyed the mill, which was in a dilapidated state. Mark the result,—the Salmon gradually returned to their old haunts, and two years since I had the pleasure of killing the first fish that had been taken since the destruction of the dam, a splendid fish of 20 lbs. less 3 oz., and which was followed the evening after by the capture of a fine fellow of 21 lbs., by Mr. Nairne, after about an hour's fine sport. I also found that the river was full of salmon smelt, having taken several while fishing for trout, but which I immediately sent to their homes again; an example which I beseech all persons to follow who may chance to find the young fry dangling at the fly. Last year the freshets were very high and the fish were enabled to ascend the river some thirty miles above the Chute, and few, if any, were taken below.

Having heard much of the beauty of the scenery above the Chute, and being desirous if possible of "bagging a fish," I made a short portage above the Chute, and, accompanied by a friend, a keen sportsman, commenced our ascent of the river. Our frail canoe buffetted the current. Our canoe-man, a half-breed, was fully up to the mark. More magnificent basins it was never my good fortune to behold. The scenery was sublime; we revelled in its delights, here and there taking a cast, now and then compelled to debark, while our canoe-man, knee-deep, piloted our frail bark up the rapids. Onward we go, mile after mile, through the different windings of the river. We approach a sheet of water where our guide says we may expect sport, and where our progress appears to be

blocked by an almost perpendicular cliff. We approach nearer, and perceive the river takes a sudden turn, almost at right angles. Rest we here!—basking in the sunshine of a most glorious day, but too clear for fishing; with a succession of salmon-pools before us that would make the sportsman's heart leap for joy; but though we used every art to tickle their fancy, yet could we not tempt them from their sandy bed. Well, if they wont bite! we will. Richly did we enjoy our repast, with our double Gloster and the contents of our flask. My friend Veasey took a bath, and bathed also in the sunshine of delights, puffing at his meerschaum, while I thrashed the water in expectation of a fish. The scenery is enchanting, a fitting place for the Naiads to sport in. But we must away. The word is given,—*embarquez!* and away we do go with a vengeance, over the dashing torrent and thundering cataract, and, in the words of the song, compelled literally to "keep life's boat in trim." We sit without a movement, holding our breath in anxiety, depending on the quick eye and ready arm of our guide. The least error, and we shall go floundering down the stream. Look at that fearful rapid below! had we not better disembark? "Non, non," cries our guide, "ma vie comme à vous," —my life's as good as yours. Go on! my fine fellow: where you go we will follow; and within half an hour, skimming the surface it had taken three hours to ascend; and shooting over rapids like an arrow from a bow, we arrive in safety at our starting-point of the morning, the Chute; where we are again tempted to try a cast, the water being in fine condition and the sky having become clouded, with soft showers. 'Tis all to no purpose, they

will not rise, though in the same pool I killed my 20lb. fish of last year.

We drive home to the village. 'Tis a day to be remembered, and which will not be forgotten while memory lasts.

The following little incident, which occurred on the Murray River, may not prove uninteresting :—

We had been given to understand that spearing was carried on almost every night, and the principal place where the fish were taken was at the Chute; where, if the river is low, the fish have to remain untill it swells, they are then enabled to proceed on their upward course. Here was the poacher's favourite spot; here, night after night, was the pool emptied.

Fishing one evening with a friend at the Chute, my gentleman came polling up the river in his canoe—our boy pointed him out as the pêcheur au flambeau, fortunately my friend had a copy of the lately passed Act, forbidding the spearing of Salmon, in his pocket; he crossed the river, and held a parley with Master Luke, telling him it was unlawful to fish with the spear; that having heard he was in the habit of doing so (I had seen him spear three fish the night before, and had cautioned him myself,) he warned him, that should he continue the practice, he would be summoned before the magistrates and fined.—This information was received with a very ill grace, and a determination expressed to fish when and how he liked; with a threat to any one who should attempt to prevent him.

We continued our fishing till dusk, and were about to up rods and away, when a short distance on the opposite

shore, and a little way in the wood, appeared wreaths of smoke. Aha! Aha! my fine fellows, you are determined to make your words good; and we are as determined to prevent you. The shades of evening have closed over us, and we cannot be seen, we remain still and quiet, by and by we perceive a light. Now 'tis extinguished, they have discovered us, as we suppose. No matter—let us remain a little longer, a half an hour passes, we are enveloped in darkness, only here and there a brilliant star appears, we ascend the hill, a rather steep one from the Chute—on our way home, after walking a few yards, we come opposite the place from whence the smoke issued; behold the fire, the glare of which shews us the figures of two men who are apparently "biding their time." Hush! steady! One approaches the shore with a torch in his hand—he returns to the fire, finding as he supposes the way clear—a few minutes, and a canoe is hauled from the bushes on to the river, they embark and "shove off shore," the torch at the bow of the canoe, one polling, the other prepared with the spear:—'tis a splendid sight! the red glare of the torch is thrown over the whole river, lighting up every nook, and giving a distinctness to every leaf and pebble. However beautiful the sight, we must spoil the sport, not a fish shall you take this night! Away we go, helter skelter over rocks and stones, brakes and briers. We hail them with a volley of words and a volley of stones. A shore with you!—ashore, or take the consequences, we throw above and below the canoe, literally killing two birds with one stone, and yet speaking in paradox, actually saving life by so doing.

Master Luke and his companion hie to the shore quicker

than they came out. They are about to return our compliment, see! they are picking up stones—they alter their plan, into the canoe they go; and make a dash across the stream to where we are standing. Come, they have a little pluck, they are going to show fight, 'tis fishing rods *versus* pole and spear,—a fight by torch light, 'tis a pity there are no spectators; they touch the shore and advance towards us, we are too polite to allow them to come the whole way, having chosen each his man, we advance to receive them. Woe be to you, Master Luke, if you get a crack on the crown from my friend Capt. Reeve's Salmon rod, you will spear no more fish, I'll warrant you. They come thundering on with spear pointed, and when within a few feet from us—stop, and begin chattering like magpies. What did you throw stones at us for? demands Master Luke. You rascals! how dare you fish with the spear, is our answer. You were told it was illegal, and if you dare attempt to fish so, we will pelt you right and left; and morever, we will fine you ten dollars to-morrow, as sure as you live. They find they have the wrong persons to deal with, and become more submissive; they admit the great evil of spearing, and promise never to fish with it again. We, on our part, promise to take no further action in the matter, and part better satisfied with each other.

"Luke! Luke! you broke your word, you speared the fish that smashed my line, it was seen in your possession a few days after. Verily, you had your reward!—Ten dollars fine and costs; your salmon cost you pretty dear, Master Luke."

A vile practice, is also carried on, in this and the lower districts of the Saguenay, that is, netting the lakes for Trout.

At certain seasons of the year the fish congregate in shoals for the purpose of spawning, during which time it is difficult to tempt them with fly or worm, they must be killed some way or other, the seine is put in requisition; and thus in a few days, the lakes are drained, and more spawn killed than man could count, whereas, by desisting for a month or six weeks, they would ever have them in abundance.

By permission of that veteran amateur Doctor Henry. I give the reader a few extracts from a letter which I lately received from him, also a few sketches from his "Portfolio," and which, I am sure, will be read with pleasure:

"MONTREAL, 12th Feby., 1857.

"DEAR SIR,—I received this morning your note of the 10th inst. asking permission to copy in your forthcoming "Treatise" on the Salmon fisheries of the St. Lawrence, my sketches of fishing excursions to Malbaie and Jacques Cartier, to which I reply—assuredly, yes:

"I wish Dr. Adamson and yourself the success you deserve in your endeavours to save the Salmon of the lower St. Lawrence from extinction. This must soon happen if some stringent legislative measures for their protection are not *enacted* and enforced, which is the main point. In 1828, when I first fished the Malbaie and Jacques Cartier rivers, I used to catch 50 or 60 Salmon in a week in the latter, and not unfrequently a cart load of Salmon of large size and Salmon Trout, averaging 3lbs., in a day; coming home to a late dinner at 8 oclock. For the last five or six years, the amount of a fortnight or three weeks' fishing in the Jacques Cartier has sunk from 13 or 14 to 0 in 1855.

"You will oblige me much by sending me a copy of the petitions. Whatever I can do shall be done most cheerfully in supporting your labours.

"The Governor General is, I am informed, a good Salmon fisher-

man himself, and doubtless must see the important bearing which the protection of this valuable fish has on the prosperity of the Province.

I remain, Sir,
Yours very truly,
W. HENRY, M. D.,
Superintendent of Hospitals.

Thus much for the worthy Doctor's letter, now for his pleasing extracts:

"I have been on four fishing expeditions to Malbaie, and hope that a short account of one of those may not be tiresome to the reader.

"In the latter end of June, 1830, my friend. Major Wingfield, of the 66th, and myself, set out from Montreal on a fishing trip to Malbaie. We embarked in buoyant spirits, well provided with choice apparatus, and taking with us *materiel* for preserving our fish—namely; salt, sugar, spices, and a large cask of vinegar. A good-natured American General with his Aide-de-Camp, were our fellow-passengers in the steamboat to Quebec. They were heretics of the Utilitarian School, and thought it not a little extraordinary that we should make so long a journey to catch fish that might be so easily obtained in the market.

"On reaching Quebec, we found to our great mortification, the wind blowing up the river, strong against us, and no steamboat running whither we were bound. We were therefore obliged to wait there three days, and then take our passage in a miserable schooner for Kamouraska; the Captain engaging to land us at our destination on the opposite shore. The voyage was extremely tedious and disagreable, lasting four interminable days and nights, though the distanee was only ninety miles.

"At length, with beards like Jews—cold, wet, half-starved, and every way miserable, we reached the mouth of the Malbaie river, where we had bespoke lodgings, at the house of a Canadian named Chaperon.

"By a beneficent ordination, our sense of present enjoyment

is keen in proportion to the recollection of recent discomfort or distress; but I shall say nothing of the converse of this; having little to do with that branch of the subject at present. Dryden has condensed the idea in five words—

"'Sweet is pleasure after pain.'"

Indeed the sensations of my friend and myself, when at length we found ourselves clean and confortable in M. Chaperon's pleasant parlour, were much to be envied. Sweet, very sweet was our shave, and our bath, and the feel of cool linen, and the sense of total renovation pervading our whole persons—but, shade of Apicius! how exquisite the Gunpowder and Pekoe tasted after rancid pork and garlic!

"On our way from the shore we cast our hungry eyes on a salmon, just come in with the tide, and floundering in a net: we incontinently licked our lips and purchased him. When we reached the house our servant handed the fish over to Madame Chaperon, with instruction to broil it for our breakfast—*not* alive, but as near as might be. Our toilet being finished we drew the table to the window, into which a rosebush in full bloom was peering from a flower-garden underneath. There, amidst the mixt aromata of flower, and fish, we commenced an attack on a pyramid of toast fit to form a new apex to that of Cheops—numerous dainty prints of fresh butter, some half gallon of thick cream, and half a bushel of new laid eggs—which was kept up vigorously for a couple of hours.

"On Monday morning, July the 5th, we engaged a *calèche* with a good-looking Canadian boy, named Louis Panet, to attend us on our daily visits to the *Chute*, about six miles distant. The road up the valley is very good, following the winding course of the river, and overhung on the other side by green globular hills, very steep in many places. These are covered with a thin soil, which often after rain peels off in large patches, carrying down trees, fences, flocks, and even the houses, "in hideous ruin and combustion" to the bottom. One of these frightful *éboulements* had fallen across our road lately, and the country people were still busy in clearing away the rubbish.

"From my former experience, the first glance at the river assured me we should have good sport. Instantly our fishing rods were got ready, and taking Jean Gros with us— a *habitant* who had accompanied me on former occasions, we descended the steep bank, got into his crazy canoe, and we ferried across to the best part of the stream.

"There was a large granite boulder in the river, in the wake of which I had formerly hooked many a fine fish. At the very first throw here I rose a large salmon; but although he appeared greedy enough, he missed the fly. On these occasions—particularly so early in the season—the best and most experienced anglers will feel a slight palpitation, arising from a struggle of opposite emotions—hope of success—doubt of failure—and uncertainty and curiosity as to the size of the fish. Giving my finny friend time to resume the position at the bottom he had quitted, and to compose himself, I then threw the fly lightly over him—communicating to it that slight motion which imitates life. He instantly darted at the glittering deception, and I found him fast on my line. After a moment's wonderment he dashed madly across the river, spinning out the line merrily, and making the reel "discourse eloquent music." This fish did not stop in his career until nearly touching the opposite bank, when he turned—made another run for the middle, and then commenced a course of leaping, a yard or two out of the water. This is a dangerous time, and here unskilful anglers most frequently lose their fish; for each leap requires a corresponding movement of the arms and body to preserve the proper tension of the line. In fact, on these occasions a good angler will make a low *courtesy* to his fish. I played this active gentleman fully three quarters of an hour, when he gave up the contest, and I gaffed and secured my prize—a beautiful male fish, in fine season, weighing twenty-five pounds.

"We continued at our sport till mid-day, when it became too hot and clear. By this time my companion had caught a number of large salmon trout, and I had picked up two more salmon and several trout of the same description; marked with the most

brilliant colours. We then crossed to the shady side and reposed ourselves; and having discovered a copious spring bubbling through the gravel, close to the water's edge, we enlarged it into a well, into which we plumped our fish and a bottle of Hodson's Pale Ale; covering it with green boughs. We then employed ourselves in collecting strawberries for a desert to our sandwich; and after lunch, enjoyed our cigars, and chatted over our morning exploits.

"'Fronde sub-arborea, ferventia temperans astra.'"

"When the shade of the high bank stretched across the river, we resumed our sport, and returned to a late dinner with our *calèche* literally full of fish. A goodly shew they made, as they covered two of Madame Chaperon's largest tables: the sum total being five salmon, weighing 105 pounds, and 48 trout, averaging three pounds a piece.

"Next morning, after an early breakfast, we started for the Chute, taking a tent with us, which we pitched on a knoll overlooking our fishing ground. It proved, however, more ornamental than useful; the banks being so umbrageous that we did not require it by day, and we always returned to our lodgings in the evening.

"Nothing mundane is without its alloy. Our enjoyments were great, with one serious drawback—the flies, those volant leeches that surrounded us—and notwithstanding our defence of camphorated oil smeared over our hands, faces and necks—sucked our blood without compunction. A fly is considered a stupid creature notwithstanding his powers of observation, but our Malbaie musquitoes were insects of great sagacity, for they appeared to watch their opportunity to take us at a disadvantage, and when they saw us occupied in playing a fish, they made play too, and had fifty spears in our skins in half a minute. The little invisible sand flies, too, teased us extremely, and those insidious black wretches, who give no warning, like the honest musquitoe—these crawled about our necks and up our sleeves, tracking their way with blood.

"During our second day's fishing I had a little adventure which was not unattended with danger, though such was the excitement of the moment that I was scarcely conscious of it. Having observed a large salmon rising at a fly in the middle of the river, I got into the canoe and made old *Jean Gros* pole me out to the spot; kneeling as we were often obliged to do, for fear of upsetting the unmanageable little craft. I soon hooked the fish, and making my Charon stick his pole firmly into the bottom, we brought our tiny vessel athwart it, kept our position against the force of the current, which here ran very strong, and having a fine range of the open stream I played the fish for half an hour until he was quite subdued. *M. Jean* was then desired to weigh anchor and push for a shelving sandy bank where we had been accustomed to gaff our salmon. In pulling up the pole, which was shod with iron, the old man, by some inexplicable awkwardness, lost his hold of it—away the rapid stream bore us, whilst the long pole was left standing perpendicularly, vibrating still and shaking its head at us very ominously.

"*Jean Gros*' shoulders elevated themselves to his ears instantly, and his wizened and corrugated face was elongated some three or four inches to the obliteration of manifold wrinkles that adorned it. It was irresistibly comic, and I could not help a loud laugh, though it was no joke. We had no paddle nor any thing else to assist us on board, and were running at six knots an hour towards the jaws of a dangerous rapid. My old *Voyageur*, after his first astonishment, uttered one or two indecent oaths, like a veritable French colonist; then, apparently resigning himself to his fate, became paralysed with fear and began to mumble a prayer to some favorite Saint. In the meantime some good-natured *habitans*, who had been watching us playing the salmon, ran down the shore, parallel with us, when they saw us drifting down; flinging out to us every stick they met for the chance of our catching and using it as a paddle. All this time the salmon remained on the line, and my large rod occupied one hand entirely, and prevented much exertion in stretching for the floating timber; but as for abandoning rod or fish—neither was to be

thought of for a moment. Once I overstretched myself, and canoe and all were within an ace of being upset. At last success attended us—I secured a piece of board, and the first employment of it was the conferring a good sound thwack on *Jean Gros'* shoulders, accompanied with "*Ramez ! s*———, *ramez !*" The effect was electrical—the old fellow seized the board and began to paddle vigorously, steering, as we approached an island, down the smaller branch, where the rapid could be passed with safety. By great good luck our co-voyageur in the water, took the same channel, and down the stream we all went merrily for half a mile. The rapid ended in a deep and quiet hole where the fish was soon gaffed; and after a little rest, and a *coup* of brandy to the old man, notwithstanding his delinquencies, he placed the canoe on his shoulders, I carried the fish and we returned by the bank.

"The practicability of passing the smaller rapid being thus established, Wingfield, two or three days after, having hooked a large salmon, and not being able to prevent it from going down guided it in the canoe through the same branch of the river; but, unfortunately the line caught in a rock near the bottom and the fish broke off.

"We spent a delightful fortnight at Malbaie, killing many fine salmon, and a great number of magnificent trout; whilst we employed our servant, when we were fishing, in pickling, smoking, or salting them. But the season became dry—the river fell, and the fish ceased to run in any considerable numbers. Towards the end of July we struck our tent, embarked in a large boat and proceeded twenty miles down the North shore of the St. Lawrence, with the intention of exploring a small salmon stream, called "La Rivière Noire," which, it was said, had never been fished.

"The North shore of the great Canadian Estuary, is an interesting field for the Geologist and it has not yet been half explored. Indeed a comprehensive and scientific research through both these great Provinces is yet to be made; and would, I am persuaded, develop great natural riches, as well as many objects

of curious enquiry. At the Falls of the Montmorenci a little below Quebec, that river has cut through the junction of the sienite with the superincumbent limestone, and illustrated not a few of the recondite secrets of the early history of rocks. At Beauport, in the same neighbourhood, enormous quantities of marine shells in a state of remarkable preservation—the colours even yet perfect—are found imbedded in blue clay. Farther down the North shore, the country becomes more purely granitic and mountainous to the very edge of the St. Lawrence: the bold capes and head-lands increasing in boldness and altitude, until they are interrupted by the singular and enormous fissure through which the Saguenay runs. The waters of this great tributary, beneath a perpendicular bank, from six to nine hundred feet high, and only a yard from the shore, are one thousand feet deep, and in some places no bottom has yet been found.

"It was a fine afternoon when we left Malbaie; the river was calm, and the white porpoises, those unwieldy looking creatures, were tumbling about in all directions. We had guns and tried a few shots without effect—the balls *ricochetting* off their smooth and oily skins, whenever they struck them. As it approached sunset our Canadian boatman began a quartetto, by no means inharmonious, though the voices were rough enough—and kept it up with great spirit nearly all the rest of the voyage. At midnight we arrived at the mouth of the river, where we found a fine dry sandy beach, with a line of creamy surf rippling gently against it, in a wild and uninhabited country. We landed, found plenty of wood to kindle a large fire. At our supper, which we shared with our *voyageurs*, they gave us another song under the exhilirating influence of a *coup* or two of brandy. We then wrapped ourselves in our cloaks, looked out for a soft stone for a pillow, placed our guns by our sides, put our feet to the fire and soon fell asleep.

"The morning sun awoke us: we started up and took a refreshing swim in the salt water, whilst our attendants were getting breakfast ready. When the meal was over we prepared our rods and set out to reconnoitre the stream, the banks of which were

covered with almost impenetrable jungle; but after great exertions, we explored to the distance of four or five miles, yet only got one small salmon, which my friend caught, for our pains. The river, as far as we could reach, was a continuous succession of rapids and falls from one enormous granite rock to another.

"On our return we disturbed a huge bear, who was busily employed in tearing up a large rotten pine to get at a colony of ants that inhabited it. We stopped and so did he; feeling, no doubt, as displeased as any christian, at being interrupted in his meal. He then walked away, and as we had left our guns at the boat, we felt no inclination to follow him.

"Next day we returned to Chaperon's and the following morning visited the Chute and found that a fresh batch of fine trout had made their way up the river, low as it was, which afforded us capital sport; rising greedily at our salmon-flies, and very lively and strong on the line—but we could see no salmon until late in the evening, when we noticed a very large one sucking in some small flies in the middle of the stream. We embarked in the canoe, and both covered him, endeavouring to tempt his palate by various flies resembling those on the water; using at the same time a single gut casting line, but all in vain. At last, just before starting for home, I tried one more cast over him, when he rose like a young whale, and I found him firm on the hook. The tackle was slender, no doubt, but the delicate fibre that held him prisoner was of the best description, and, though of nearly invisible tenuity, possessed great strength, which the flexibility of a long and admirable rod materially assisted. Great was the

"'————————certaminis gaudium.'"

during the exciting play of that noble fish, and many, many apprehensions had we of the result. But the staunch O'Shaughnessy kept its hold, and the tenacious gut failed not. Finally, after a glorious struggle of an hour and a quarter, this magnificent fish lay gasping on the sand. It weighed twenty-eight French pounds, or about thirty-one English.

"On the 3rd of August, we returned to Quebec with two barrels of fish, for distribution amongst our friends; and I guess if our utilitarian Yankee acquaintances had met us then, we should have been less the objects of their derision."

By these extracts, the reader will perceive that I am fully borne out in my estimate of the value of the fisheries within the districts we have already passed.

Without attaching any value to the Rivers Canard and Noir, but merely noticing the value of Malbaie and Murray River, we find the calculation to be as follows:

Giving but 20 fish to spawn in safety in this splendid river, and making the usual deduction for destruction in river and sea, we arrive at the following results as the value of the Salmon fisheries of this district: 15,000 fish, at 2s. 6d. each, gives £1875, and which could be considerably increased, and I would suggest to the Seigniors the benefit they would derive from a proper care of this enchanting spot.

The Seigniory of Malbaie was originally granted to John Nairne, Esq., Captain of Her Majesty's 78th Regt., and that of Mount Murray to Lieut. Malcolm Fraser, of the same regiment. Within these Seigniories, Dame Nature appears to have played some comical pranks,—foot-ball, for instance, on a gigantic scale, tossing the hills too and fro, and such-like sports; tumuli scattered here and there,—one field in particular has several immense mounds,—causing the beholder to imagine that they were the burial-places of some great Indian warriors; indeed, so convinced were several persons that they were so, that Mr. Nairne caused one of the largest to be cut through to the centre, but could find nothing to prove

the supposition that they were tombs. The whole country appears to have been terribly convulsed, deep ravines and gorges plainly showing volcanic action; and as a proof that Lucifer had a hand in the matter, the whole district throws up its sulphur springs. Latterly this place has become a favorite watering-place, for visitors from Quebec and elsewhere; and it only requires that a good hotel should be built near the landing-place, with baths on the sandy beach, to become *the principal* resort of invalids and pleasure-seekers. The South shore will bear no comparison with the North for beauty and sublimity of scenery, and the various lakes in the district afford ample scope for the angler.

CHAPTER X.

MURRAY BAY TO RIVER ST. CHARLES.

Let us now hasten on our upward course, and examine the rivers between these two points.

The first we shall pass is the little Malbaie, in contra distinction of the Baie spoken of in the last chapter. This river is very small, and of no moment as a Salmon river. I have been told that some few Salmon were taken here formerly; indeed, I believe there were but few streams in which there were no fish. Between this place and St. Paul's Bay, there are one or two small streams. Emptying into the Bay St. Paul, we find the river Du Gouffre. The bay is of considerable size as is the river also. Salmon are taken in the bay in con-

siderable quantities, by net and spear, also abundance of other fine fish. The Du Gouffre has several estuaries; but I regret being unable to give much information as regards this river.

The district around St. Paul's Bay is extremely grand, the shores are bold and lofty, and in some places rise perpendicularly to an immense height.

It has been compared to Switzerland or the Highlands of Scotland. Formerly the shocks from volcanic action were very frequent, and the observer will perceive in a moment, that nature has burst her barriers in many instances.

Journeying onward we approach the St. Ann *en bas*, where Salmon are taken in great plenty, but, alas! the most of them with the spear, and that late in the season, when they are full of spawn. Some distance from the mouth of the river, is the "fall of St. Ann," above which the Salmon cannot make their way.

The upper waters could be stocked with fish; and with little trouble and expense, great results could be arrived at. By the erection of the Salmon slide, the fish could be had in abundance; and it is sincerely to be hoped, that the necessary laws for the protection of the fish, *and other aid*, will be given to bring about so desirable an event.

About 18 miles above the St. Ann's, flows the far-famed river Montmorenci. This river is impassable for Salmon, from its stupendous fall, higher than that of the Niagara: though the volume of water which flows over it, bears no comparison with that of the Thunderer, which I believe is the meaning of the Indian word Nia-gara.

This river is much visited, and deservedly so by tourists. The falls are equal in beauty, tho' not in grandeur to that

of Niagara, and the wild and picturesque scenery along the shores cannot be surpassed; there are many curiosities to be seen, such as the Natural steps! the Trois sault! and others.

It is a favourite river for trout, and a question arises: Could not the artificial propagation of the Salmon be prosecuted with success in this splendid river? I am of opinion that it could be stocked with innumerable quantities of that fish: tho' possibly they would deteriorate in quality, by not having recourse to the salt water.

Again, would their instinct cause them to avoid the fall? The experiment is worth trying, and should it succeed, would be of immense benefit to Quebec. Were I to experiment, my plan of operation would be to transport several breeding fish to the upper waters, say ten miles from the falls: I would also choose a favourable place and stock it with spawn. Two years would shew the result, and certainly it is worth the trial. A few Salmon are taken below the falls, and I have seen trout from 3 to 4 lbs. taken in great numbers.

River St. Charles.—This truly serpentine river winds along the picturesque valley of the St. Charles. At about ten miles from the mouth of the river stands the Indian village of Lorette; inhabited by the last remnant of the once-powerful tribe of Hurons. Alas! the children of the forest are fast dwindling away, and those few who remain are not improved by their intercourse with a civilized and christianized community.

At this village, the progress of the few Salmon that are now taken in this river is blocked. Here stands the very pretty fall of Lorette, and between this fall and the mouth of the river, Salmon were formerly taken in abundance.

Paul, the descendent of the Huron, and a respected resident of Lorette, informs me that the old man as he calls him, " son grand père," generally killed about 150 to 200 Salmon during the season—*with the fly*—and an old resident on the river has told me that his average catch was about 70 during the season, others have stated that they always had plenty, with a good supply salted down for the winter; the fish had abandoned the river, and it is only within the last six years that they have returned to their old haunts.

The greatest number I have killed during a summer has been from 15 to 18, fishing about three evenings a week during a month or less, throughout the season, though I believe few persons besides myself have taken any; consequently no particular money-value can be attached to this river. I am in hopes of seeing the " artificial propagation" carried on on this river, which is well adapted for the process. It is well worth the trouble and the slight expense that would attend it, to throw a few thousand salmon into this river every year. The Quebec markets would be well and cheaply supplied from the rivers within this district. The average weight is from 10, 12, to 14 lbs., though this year (1856) I had the good fortune to kill a splendid fellow of exactly 18 lbs. and three feet long, a clean run-fish. I had been fishing for a half hour with a salmon-fly without getting a rise. Feeling my fly had touched the branches of a butternut-tree, I turned my head, and when about to throw again, I perceived a rise in the water with the circle eddying, as though a stone had been thrown. I thought that was impossible from the position I was in. Waded ashore, off salmon-fly and

on with "favorite" trout No. 2; cautiously I threw a yard or two above the place where I saw the splash; just to "tickle his fancy," I brought my second cast along the spot; when, like a porpoise, he made a roll and gulped my little fly. Never did I have such a struggle with a fish. After he felt the hook, he gave a dash and a running leap of at least ten feet—leap after leap in succession—and then down the rapid.—'Tis a fearful struggle; no power can keep him up. My line is two-thirds out;—so I must follow. Across the river on a slippery, shelving bed I make my way. I arrive in safety on the opposite shore; my eye upon my rod, with a tolerably tight line. My gentleman takes to deep water;—I follow him down, winding gently and with care. My gut is good—but I fear for my hook. I press on him;—off he darts, but my eye is on him. Down the river he goes and over a ledge of rocks, which I vain try to prevent his passing. I ease him gently as he goes over. I dread I'll lose him;—but no! I have him still,—and still follow on. Again he takes to deep water. Reeling slowly up, I come opposite the pool wherein he lies. A nice gravelly beach offers a fine place for landing. "Thus far shalt thou go, and no farther."—Here I'll land or lose you, my fine fellow! I reel short up and press upon him, veering by inches towards the shore. He feels his danger.—With one desperate effort he flings himself out of the water, and, with a curve of the body, comes down with the dash of his tail upon the line. My eye watches his every motion, and, with a slight declination of the rod, I baulk his manœuvre. He rushes to his former resting-place. Again I press on him—lifting him gently; and now, without much resistance, inch by inch, I bring

him onward. I perceive his white belly. The battle's won; the prize is mine! Gradually I bring him to the shore, where he lies exhausted and motionless in about three inches of water. Down rod,—and in a second I was between him and the river, and with both arms heaved him on the shore. One blow on the back of the head—a little quivering of the body—and the noble prize lies dead, after an hour's hard fight, and without the aid of the gaff. Never do I expect to kill such a fish again, under such circumstances and amid such rapids and falls.

This river, with proper care, may be made to abound with salmon; and being but an hour's drive from the city, how pleasant would it be to the angler to be able to drive out of an afternoon; and return home, after a pleasant evening's fishing, with one or two fine fish. That pleasure has often been mine, nor do I know any recreation so truly invigorating and delightful.

CHAPTER XI.

QUEBEC.

We have now arrived at the stronghold of the British dominions in North America, one of the brightest gems in the *tiara* of our Queen.

Seated on a promontory of immense height, and having the broad St. Lawrence flowing at its base, with a panorama on nature's grandest scale, of upwards of one hundred miles in extent; with a range of mountain scenery in

the background equal in some parts to the Appenines or the Pyrenees,—thus stands QUEBEC, unequalled in beauty and sublimity.

In the winter this Queen of the West puts on a robe of unrivalled whiteness, which, on the approach of summer, she throws off for one of dazzling splendor. Viewed from the river, she seems enthroned in majesty and grandeur, and clothed in vestments of silver.

I have basked in the climes of the Mediterranean, bathed in the delights of an Italian sunset, watched at midnight the belching of Vesuvius from the famed Bay of Naples; wandered o'er its classic ground, and pondered amid the ruins of the once-famed and now recovered cities of POMPEII and HERCULANEUM; and though the mind may become entranced, amid the many scenes of thrilling interest of a by-gone age;—and though in these respects, Quebec must yield the palm to the ITALY OF THE PAST: yet for grandeur and sublimity of scenery, Quebec is not to be surpassed by that, or any other place.

The future of Quebec will, or I am much mistaken, surpass the expectation of the most ardent of its well-wishers. Already have we our Grand Trunk Railroad, nearly nine hundred miles of unbroken length; giving us a daily communication with the Upper Province and the United States. Soon may we hope to be in possession of our North Shore Railroad; which will give us greater facilities of communication, thence onward to our Great Lakes and the Far West, and which, perhaps, may become a stepping-stone to the route to the Pacific; seeing that by a line drawn on the chart from the shores of England to the chief cities of the Chinese empire; Quebec is, or very nearly is, one of the points of intersection.

The attention of the Government has been very wisely directed to the improvement of our NATURE'S GRAND TRUNK, the ST. LAWRENCE. Upwards of one hundred thousand pounds have been expended in the erection of wharves and lighthouses. Further improvements are in progress, other lights and beacons are about to be placed on the points and shoals where necessary; and it must be admitted, that whatever expense may be judiciously incurred in facilitating the navigation of the St. Lawrence, ought not to be objected to, but ought to be, not only the bare duty, but the great aim of every resident of Canada, inasmuch as it conduces to the interests of all parties, *directly or indirectly.* Again, to facilitate the despatch of vessels upon their arrival in the Gulf; two powerful and splendid iron steamboats, as strong as wood and iron combined can make them, have been built by an eminent Scotch firm for the enterprising Government contractor: F. Baby, Esq., and much good has been already effected to the mercantile community, by the use of those boats in towing vessels up and down the river. They are called the Queen Victoria and the Napoleon III.

The shipping interests both here and elsewhere, can yet scarcely appreciate the value of these powerful iron steam tugs.

How often has the delay occasioned by contrary winds, after entering the Gulf, equalled the time taken in crossing the Atlantic? without instancing the many and sad wrecks, and the loss of life, that used more or less to occur every spring and fall. Now! the dangers are almost overcome by the building of LIGHT HOUSES and BEACONS, and by the use of the TUGS. What a change comes over

the spirit of the scene;—observe the steamer with one or more windbound vessels in tow? "She walks the waters like a thing of life," and in the course of from 40 to 60 hours, her destination is gained, and the cry is heard in the harbor of Quebec: Let go the anchor! Where would this vessel or these vessels have been, had she not the aid of the Tug?—Perhaps a wreck! or if not, either in the Gulf still windbound, or else beating about in the river. A week is saved at the least, all risk over, and the vessel is being discharged, in safety in the harbour. I leave the calculation of the gain, to those interested in the subject: the owners and underwriters of the vessels. I would only instance the "Tchernaya;" by the use of these boats, this vessel and cargo were saved, covering possibly twenty or thirty thousand pounds, or more. It only remains for Mr. Baby to make the rates of towage as low as he consistently can; and he will soon have occasion to build more boats. Light houses, beacons and steam tugs, have lessened the risks of the river, at least 75 per cent., and the necessary result will be, a great reduction in the rates of insurance. Since writing the above I have been informed by Mr. Baby, M. P. P., that another, and a larger Iron Steam Tug is being built; and that she will be on this side of the Atlantic in the month of June.

A further proof of the desire of the GOVERNMENT and the people, that "progress should be the order of the day" is to be seen, in their having subsidized a line of "Ocean Steamers," the "MONTREAL OCEAN STEAMSHIP COMPANY." These boats are admirably fitted up, and most deservedly popular. The owners spare no expense, in conducing to the comforts of the passengers; and to show how highly

valued they are, it is only necessary to state, that they are always filled with passengers, not only from Canada, but also from the States; but what is particularly worthy of notice is, that the fact has been clearly established, and during this last summer plainly demonstrated—THAT THE RIVER ST. LAWRENCE IS THE NEAREST AND QUICKEST ROUTE BETWEEN THE OLD AND THE NEW CONTINENTS.* Canada owes a debt, not only of gratitude, but of something more tangible to the enterprising proprietors of this line; and it is to be hoped that the Government, by a further subsidy, will enable them to put on this route a weekly line of steamers. †

The trips are made semi-monthly, this year it is to be hoped, will see us with a weekly line of steamers equal to any on the continent. A run across the Atlantic will be one of pleasure. Leaving the shores of England about the middle of May, tourists would be wafted to our city, in about eight to ten days. They may, if so disposed, spend a month, rod in hand, wandering amid our rivers and lakes, enjoying scenery never surpassed, sending now and then a few fine Salmon,—killed off their own rods to their friends at home,—they may visit the whole of the Upper and Lower Provinces; sketching and fishing to their hearts content, and within three months, be again seated; each by his own fireside, recording his adventures to his admiring, but less fortunate friends.

Should this little volume meet the eye of any of my

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* See the Postmaster General's valuable Report for 1856.

† While revising this work, I read that the Inspector General has moved (and carried unanimously) to increase the subsidy to £50,000 per annum, that we may have a weekly line.

countrymen on the other side of the Atlantic, who may be desirous of making a tour; which would afford him pleasure during the remainder of his life; let me assure him, that a three month's excursion to our shores, will give him food for reflection; he will see for himself, and be led to admit, that he knew little of the beauty, wealth or resources of the British North American Provinces.

He will find on his arrival at Quebec, the good sea-boat Steamer Saguenay, prepared to receive him and other tourists, and to convey them to the different watering places and fishing stations below Quebec. The trips are made semi-weekly; touching at Rivière Ouelle, Murray Bay, Rivière du Loup, Cacona, Tadousac, Ha! Ha! Bay, and Chicoutimi; where they may wander amid scenery the most delightful, and spend a week in Elysium; viewing the towering peak and dashing torrent of our shores and rivers, and the exclamation Ha! Ha! will indeed escape them, when, steaming up the Saguenay the broad expanse of the bay, so called, bursts upon their view, and when "Eternity," that towering cliff, 1800 feet in perpendicular height, threatens destruction to the tiny bark. Returning per steamer Saguenay, to which I would here add my meed of deserved praise, and would state, that for comfort and attention to the wants of the passengers, nothing is left to be wished for. The best evidence in favour both of Captain and ship, is the fact: that she has been on the route several years, and no accident has happened during the whole period. We must sincerely hope that "the sweet little little cherub that sits up a-loft," will still keep watch o'er ship, passengers and crew, and that the number of tourists may so increase,

that the agent, J. Laird, Esq., may soon be enabled to put another vessel on the same route. The following letter gives much information and may not prove uninteresting.

"I send you my greetings from the Lower St. Lawrence, on my return from Chicoutimi, and the River Saguenay, to Quebec. As I glide onward, under the power of steam, against current, and breeze, and tide, amidst a happy company of ladies and gentlemen, and amidst scenery on which I could never be weary of gazing; the grand river, the shores, the sloping uplands, hills peeping o'er hills, the distant mountains,—green forests, cultivated fields, villages, and churches, and white farm houses, and neat country seats, thickly succeeding each other—Ships under sail with full spread canvass, some outward bound to ports beyond the seas, and others just coming in from beyond the broad Atlantic—an occasional lighthouse, either floating or perched on some rocky islet—and all these things, and innumerable others, involved in alternate shadow and sunshine, as the rich fleecy clouds flit across the heavens—all forming a gorgeously painted ever-moving picture, whose magnificence and beauty no human skill can pretend to emulate,—amidst such surroundings, I think of you and other friends in Western New York, with a wish that they too were here, to share the beauties of this scenery, and to be partakers of my joy.

"Before I left Rochester, on an excursion through Lake Ontario, and down the St. Lawrence, I was advised not to let slip a favorable opportunity, if one should offer, after my arival in Quebec, for making a visit to the Saguenay, and looking for myself upon the bold, rugged, and very remarkable scenery along its rock-bound shores. Such an opportunity, fortunately, was not wanting; and after I had spent five days in Quebec—days of great interest to me—visiting places most deserving attention in and about that wonderful city—famous in the world's history, about which I had read, with thrilling interest, when I was yet a boy, and of Wolfe climbing the heights of Abraham, to fight,

and conquer, and die—the Gibraltar of the Western continent, and the capital of the British North American Provinces;—learning that the "Steamer Saguenay, Capt. Simard," would leave next morning, on a pleasure excursion down the St. Lawrence, and up the Saguenay, of which I had heard so much, and from which the good steamer received very appropriately its name, I lost no time in making arrangements for the trip, and through the courtesy of the agent, John Laird, Esq., and of Captain Simard, and others both on the boat and elsewhere, I have made the trip with great comfort and pleasure; and on my return now hastily give you some little account of my experience.

"Owing to a strong head wind, we were late in our arrival at Rivière du Loup, 120 miles below Quebec, on the shouthern shore, where we were to spend the night, and where many passengers landed to spend a few days, in a spot romantic in situation, commanding an extensive prospect of the Saint Lawrence, there upwards of twenty miles wide, studded with islands and bounded on the opposite shore by lofty and rugged mountains. The village contains about a thousand inhabitants; and the sojourners resorting there for health or pleasure, enjoy pure air, and look out upon the broad expanse of waters, over whose surface numerous large vessels under steam, or outspread canvass, are constantly gliding. At that point commences the Grand Portage Road, leading by Lake Temiscouata, and the Rivers Madawaska and St. John, to the town of St. John in New Brunswick, and to Halifax.

"I of course have not time here to speak particularly of the many points of interest we pass on the route, after leaving Quebec;—Point Levi opposite, with its steeple-crowned height, from which Wolfe first opened his ineffectual batteries, the broad capacious basin, twenty-eight fathoms deep, and covered with almost innumerable large vessels; the imposing aspect of Cape Diamond, surmounted with defiant fortifications, and the Citadel-City with its tin-covered cupolas, domes and roofs, gleaming in the sunlight; the beautiful Falls of Montmorenci, which you pass in full view; the Isle of Orleans, with its green fields and forests, and pleasant country seats, and exhibiting everywhere marks of

fertility and high culture ; Cape Tourment, a bold promontory lifting its head eighteen hundred feet above the river ;—Murray Bay, a pleasant village on the north shore, now a favorite resort of Canadians, in warm weather, for pleasure and sea bathing. The view of this place to-day both as we approached the wharf, and as we receded from it to the opposite shore,—girded with an irregular amphitheatre of rugged hills and mountains, receding in the distance, their sloping sides and summits resting in sunlight, with occasional shadows slowly passing over them,—the bay, the village, the lofty heights, stretching far away on the right and left, and some of them especially those of Eboulements, rising to an elevation of 2500 feet—formed a scene of enchanment on which I gazed long, and thought how delighted I should be to linger there a week, and ramble amidst such beautiful scenery—Cacouna, on the southern shore, a few miles below Rivière du Loup, much resorted to by health and pleasure seekers, from Montreal and Quebec, I saw in the distance, and thought it seemed delightfully situated, but did not visit.

" The steamer commonly spends the night both going and returning at Rivière du Loup—the trip from Quebec up the Saguenay occuping three days—and from that point, early next morning we passed across the mighty St. Lawrence, there surging like an ocean, and entered the Saguenay, which is at its mouth about one mile wide, and immensely deep.

" This noble tributary of the St. Lawrence has its origin in a very considerable lake, the St. John, some thirty or forty miles broad, containing about five hundred square miles in surface, away in the interior, north west of Quebec ; and after a course of some 130 miles, in a direction generally a little south of east, falls into the St. Lawrence at Tadousac, about one hundred and twenty miles below Quebec. At this point commenced the chief interest of my excursion. I gazed the more earnestly and thoughtfully upon Tadousac, a little village situated just at the entrance, on a semi-circular terrace, at the top of a beautiful bay, with a sandy beach, hemmed in by mountains of solid rock—because it is one of the oldest settlements in America. Here, it is

said, was the first house of stone and mortar erected in Canada. Here was, at one time the missionary station and residence of Father Marquette, the explorer of the Mississippi. It was at an early period, the capital of the French settlements in all this region; and on that account always called at, by the first explorers of the Great River, the St. Lawrence, the mighty outlet of a chain of inland seas, and one of the noblest rivers in the world.

"Our staunch sea-going steamer, in accordance with announcement, proceeded fifty miles up the river—between bold, rugged, sterile banks, abrupt and precipitous, like huge Titanic walls of craggy, beetling rocks, rising often in frowning cliffs and pinnacles, to the height of one thousand, fifteen hundred, or two thousand feet, scantily decked, here and there, with pines and birches, and other trees and shrubs, of northern climes—to Grand Bay—or as it has been, and is frequently called, Ha! Ha! Bay—a beautiful expanse of water, nine miles long and six wide, affording good anchorage for the largest vessels, the average depth being from twenty to thirty-five fathoms, though, in many places, not less than fifty fathoms. This singular name, Ha! Ha! Bay, is said to have been given originally by the early French explorers, as expressive of their surprise and delight at the view of its broad surface, opening unexpectedly upon them, and capacious enough to hold the combined fleets of Europe.

"Steamers, on their pleasure excursions, do not usually ascend the river farther than Ha! Ha! Bay; because, a few miles above, there is a bar, which it is said, cannot be passed safely unless at high tide; and thus they are liable to be detained. Ha! Ha! Bay, therefore, was the expected limit of my trip, and I was purposing to return immediately, with the steamer, after a couple of hours delay, to Quebec, but an unexpected and urgent invitation to visit Chicoutimi, twenty miles higher up by the course of the river, and thirteen by land, led me, very suddenly, to alter my plan. I concluded to accept the invitation, thus proffered to a stranger, and spend a week at Chicoutimi, and await the next visit of the steamer; I did so, enjoying, while at Chicoutimi the hospitality of David E. Price, Esq., son of W. Price, Esq. of

Quebec, who are engaged very extensively in the lumber business; having, up and down the Saguenay, and the St. Lawrence, and other rivers of Canada, thirty-six large lumber establishments, giving constant employment to between three and four thousand men.

"This sojourn of a week, in circumstances so favorable, at Chicoutimi, an old Post of the Hudson Bay Company, added very much, I hardful need say, to the great pleasure of my excursion. It was to me a delighted region in which to rusticate. I was there amidst the wildness and solitudes of primeval nature; far away from the restraints, and conventionalities of artifical life; breathing the pure mountains airs; looking out from some lofty post of observation, upon boundless forests, and far receding mountain ranges; listening to the lulling sounds of the falling waters, as they came tumbling over the rocks of the Chicoutimi. Though among those whom I never saw before and never heard of, I was treated with the kindness and hospitality of friendship. I scarcely had the feeling of a stranger, but rather looked upon all around me as my friends and brethren, members of one great family—having a common nature and common wants, and common frailties, and a common Father in Heaven, and a common destiny, I was disposed gratefully to cherish the feelings of the man described so beautifully by Cowper, who, as he looks abroad over earth and heaven—

> "Calls the delightful scenery all his own;
> His are the mountains, and the valleys his,
> And the resplendent rivers, his to enjoy,
> With a propriety that none can feel,
> Save who, with filial confidence inspired,
> Can lift to heaven an unpresumptuous eye
> And smiling say—"My Father made them all."

"You will readily understand that my sojourn of a week, at Chicoutimi, enabled me to learn much of the country and the people, which had I returned immediately in the steamer, as I at first contemplated, would have been impossible. It was a pleasing novelty to me, to find myself far away in the midst of forests,

in a spot by which a mail comes but once a week and then borne by a man on foot, upon his back, a distance of sixty miles, from Malbaie, on the St. Lawrence, through the woods, over unbridged streams, by a route impracticable for a horse, and along which there is not a human habitation. I skimmed over the waters of the Saguenay,—O how delightfully!—in a bark canoe, which I had never seen before, propelled by the skilful hands of two kind hearted Indians, who were greatly amused and laughed heartily at my ignorance of birch-bark canoe craft and of life in the bush. I attended a large political gathering at Chicoutimi, the largest by far ever mustered there—I wondered where all the people came from:—whose object was, the nomination of a member to represent the counties of Chicoutimi and Tadousac in the next Canadian Parliament; and had the gratification to find that a vast majority of all those present were decidedly, and with joyous acclamations, in favor of my friend and host, David E. Price, Esq., with whose name they made the welkin ring, and the bold shores of the Saguenay loudly echo. You may form some idea of the importance of the Saguenay, when I say that there, at Chicoutimi, seventy miles from the St. Lawrence, the tide rises from twelve to twenty-four feet. It is a remarkable river; remarkable for its depth, and for the bold, rocky, wild scenery on its shores. The depth is vastly greater than that of the St. Lawrence. Anchorage can seldom be obtained, unless in occasional coves, for fifty miles from its mouth, on account of the depth, which according to Capt. Bayfield of the Royal Navy, and deemed of the highest authority, is often nearly nine hundred feet.

"The shores, presenting a steep and rugged front, composed chiefly of granite, are so abrupt and precipitous that within a few feet of these rugged walls—dark, naked, towering bluffs—the depth of water is nearly as great as in the middle of the channel. The whole formation and aspect give strong evidence that in some far off, bygone age of our earth, in some vast convulsion, the solid strata of the rocks were rent asunder, creating an enormous fissure, in whose deep and extended cavity the waters of

the Saguenay now flow;—and forming a scene worthy of the gaze, and commanding the wonder of all intelligent, reflecting men. In bringing this long letter to a close—in which, though I have said much, I have left more unsaid—what can I do better, than recommend to you, and other friends in Western New York, when you wish to make a pleasant excursion, to turn your faces and your footsteps towards Montreal and Quebec, the St. Lawrence, and the Saguenay. Certainly this has proved to me, since I left Rochester, three weeks ago yesterday, up to this good hour, one of the most pleasant, I think I may add, profitable excursions I ever made. Earth and skies—men and elements—have combined to make it so;—and I here record my averment of it with a grateful heart."

In regaining Quebec, the tourist may wander a few days in the vicinity, and will be well repaid by visiting the following places of note:—First in the van we would notice the battle-ground—the Plains of Abraham—where the triumphant Wolfe and the brave Montcalm, fighting the battles of their country,—fell on the field of glory. The Cape, the Gibraltar of America, will well repay a visit; the Cathedrals and Churches, le Séminaire de Québec, the Laval University, the Marine Hospital, the Hotel Dieu, the Ursulines and many other objects of note within the city—and in the vicinity, the Falls of Montmorency, Chaudière, and Lorette, the Indian village, the Natural Steps, Lakes St. Charles and Beauport, and many other scenes of interest and beauty, will well occupy a week or fortnight, and the time will be well spent. The hospitality of the inhabitants will cause him to leave with regret; and should he prefer taking the steamboat to the railroad in his upward route, he will have the choice of three or four which daily ply between Quebec and Montreal.

A few words to the emigrant who may be desirous making our shores the land of his adoption. To him —the agriculturist, the farm-laborer, the mechanic, the artisan, of every description—we are prepared to say, welcome; and to assure him, that by industry and attention to his different pursuits, he will attain that social comfort and independence which are, and should be, the desire of every honest mind; and that by choosing the route via the River St. Lawrence he will be wafted to our shores in less time, at less expense, and with more comfort, than by any other route; that on his arrival not only will he be free from the land-sharks that infest other sea-ports on the Atlantic sea-board: but he will be cared for, and directed to those localities where he will be sure of obtaining instant employment; every facility being afforded him by the Government Emigration Agent, A. Buchanan, Esq., who is ever ready to give assistance where it may be required.

Being disinterested, and only desirous of directing my countrymen aright, and of saving them much time, labor, and expense; to say nothing of a thousand other annoyances, I can only repeat—should your destination be the British North American Provinces—or the Northeastern or Western States of America,—BY ALL MEANS CHOOSE THE ST. LAWRENCE ROUTE.

The great and just cause of complaint is, that the "Press" of the mother country, is, or appears to be, ignorant of the great mineral and agricultural resources of the Canadas; and even of our geographical position. I have often had cause to blush when reading the unjust and erroneous remarks that have appeared in some of the leading

journals of the Great Metropolis, treating Canada as a bye-corner of the continent, apparently little aware that the British possessions are much larger than the United States; though, I am glad to perceive that latterly we have been treated with a little more consideration. That Canada is a little better spoken of than she was formerly; —that she is taking that position, which, from her immense resources, she is so justly entitled to; and we can only express a hope that—THE FUTURE WILL BE ONE OF PROSPERITY AND MUTUAL ADVANTAGE TO BOTH MOTHER AND DAUGHTER, AND THAT BEFORE MANY YEARS HAVE ELAPSED, THE WHOLE OF THE BRITISH DOMINIONS WILL BE UNITED—THE BRIDE OF A SCION OF OUR MUCH-LOVED QUEEN—AND QUEBEC THE PRINCIPAL SEAT OF GOVERNMENT—THE CIRCLET OF THE DIADEM—BEING, AS IT WERE, THE CENTRE OF THE CIRCLE.

CHAPTER XII.

THE JACQUES CARTIER.

Within the district between Quebec and St. Ann's are to be found the following rivers:—The Jacques Cartier, the Portneuf, and the River St. Ann *en haut.*

THE JACQUES CARTIER.—This celebrated river takes its name from the discoverer of the country, who wintered in the estuary in the year 1536.

The general appearance of the river is varied, picturesque, and extraordinary, presenting a thousand combinations of unrivalled grandeur, beauty, and magnificence.

It is about sixty miles in length. Bouchette says it "was formerly the terror and often the grave of travellers. It abounds with fish, especially salmon." It was, and still is, the favorite resort of the amateurs of Quebec, Montreal, and elsewhere. Dery's bridge is the principal point of attraction for the fly-fishers. It is about ten or twelve miles from the mouth of the river. Here the fish congregate together in shoals;—I had better say,—did congregate, for, alas, but few are taken now. There are some splendid runs for fish from the mouth of the river up to Dery's. Salmon-fishing here commences about the middle of June. First the large fish make their appearance; later in the season the grilse begin to run up. Spearing at one end of the river and netting at the other, have been the means of destroying this magnificent fishery.

At the bridge there is a perpendicular fall of about ten feet, in a very narrow gorge; at the bottom of which there is formed a pool. Here the fish congregate, and many are their efforts to ascend. They could manage to get up, but here Dery scoops them up with a net, and takes them alive to a pond of running water. They remain there till enough are taken to be sent to market.

Persons wonder how it is that there are so few fish taken now. My only wonder is that they have lasted so long, and that there are any yet to be taken. Here was truly the golden goose, but the gander Dery killed it. Had he only spared ten or twenty fish every year and sent them swimming in the upper waters above the bridge, the river would always have swarmed with fish.

But no! take all you can has been the maxim, and now you have none to take.

Formerly they were taken by the thousand; a few years since they were counted by the hundred; but now they can scarcely be numbered by the dozen.

Let us take evidence and hear what two old and experienced fishermen say on the subject.

Charles Langevin, Esq., who made Dery's his country residence for several successive years, has favored me with extracts from his journal. He says:—

"JACQUES CARTIER SALMON FISHERY.

1850,	from 20th June	to	September,	.....	No. 210
1851,	" "	"		.....	" 221
1852,	" "	"		.....	" 142
1853,	" "	"		.....	" 165
1854,	" "	"		.....	" 48
1855,	" "	"		.....	" 50
1856,	" "	"		.....	" 47

"Spearing at the mouth of the river has taken place every year in the months of October and November, at an average of about 90 each season."

He has also furnished me with the number taken by Deary with the net. He says:—

"*Netting above the Bridge from 20th June to 1st September.*

1850,	.....	No. 110
1851,	.....	" 91
1852,	.....	" 64
1853,	.....	" 74
1854,	.....	" 36
1855,	.....	" 40
1856,	.....	" 48

"CHAS. LANGEVIN."

Thus we see that in a few short years a decrease of from three to four hundred per cent. in fly-fishing, and one hundred per cent. by netting, has taken place. Would the netting was put a stop to altogether! or, at all events, that some twenty or thirty fish were allowed to spawn in the upper waters.

And now we will give the reader a few extracts from Dr. Henry's fishing excursion to the Jacques Cartier River:

"Having heard of a new place with the fine name of the "Remoux St. Jean," I set out on Monday morning to pay it a visit, accompanied by my host, Louis. At one part we were obliged to creep for 3 or 4 hundred yards along a narrow and crumbling ledge of the half-rotten limestone, with a high perpendicular cliff over our heads, through which the numerous springs poured on us like a shower-bath, and a boiling rapid under our feet. It was rather perilous work; for in some places the narrow footing, which the edge of a decaying stratum afforded us, had been worn quite away, and we were forced to cling as we might to the side of the precipice, something after the fashion of a fly on the ceiling. We had taken the precaution of putting our shoes in our pockets, and the powers of adhesion of our wet woollen stockings, like suckers, assisted us admirably. At length after a long struggle and some unpleasant slips, we weathered the point—cut our way with Louis' axe through the forest, near the hole we sought, and were rewarded for our trouble by a couple of good fish.

"Althougn probably in our whole lives, considering the zest its accompaniments gave it, we never enjoyed a *déjeuner* so absolutely perfect as that at Chaperon's after our disastrous voyage to Malbaie—yet our breakfasts here were capital; and as we always started for our sport very early in the morning, and had plenty of salutary exercise in running through the woods, mounting and descending the steep banks of the river, exclusive of the

fishing itself; we returned with an appetite no ploughman could surpass.

"On the return from the Remoux St. Jean, the animal part of our nature became very troublesome and clamorous, and I could not help contemplating the certain sweetness of some Vauxhall slices from the admirable Westphalia we had for dinner the day before. The waking vision of their sweet diaphanous fat, and high-flavoured lean, even haunted me when shaving, and flitted between my eyes and the glass. But when that disgusting operation and its concomitants were over, nature could bear no longer without possible injury to the gastric coats, and we sat down to table. There—"*horesco referens!*" was every thing else—but—

"'In the middle a place where the *jambon* was *not*,'"

O, misery of miseries—the whole succulent and delicious ham—manifest product of a high caste, gramnivorous pig which had lived all its amiable life under the shade of oaks and chesnuts, browsing upon their nuts—had been feloniously abstracted from the larder by some vile Philistine!

"Next morning one of our best salmon was stolen from the tub.

"O, Louis Joseph Papineau! to our dying day will we hold thee responsible for this outrage.

"By the middle of the week the river had fallen sufficiently to allow fishing in the "Grand Rets," out of which I picked several salmon; but one large fellow, who had been there for some days, would repeatedly come up to the fly—reconnoitre it carefully, and then dip into the deep water again, evidently not liking its appearance. Where I sat on the edge of the rock, was not more than eight or ten feet from the surface of the hole, so as to enable me to see his motions very distinctly. I tried various flies to tempt his palate, and even dressed some for his express use, but all in vain. The fastidious gentleman would tantalize me by darting at the fly, turning one eye to examine it more closely—even touching it with his nose—but he would never open his mouth.

"Now, this was mighty provoking, and—unreasonable man that I was—I often abused this wise fish for his entomological talents, and, abandoning for the time every other object, a solemn resolution was made to catch him, by hook or by crook.

"On the third day of the campaign, a most captivating Mallard's wing and Grouse's hackle was prepared—with a small black head—two party-colored *antennæ* and the most natural tail imaginable. Waiting till the shadow of the umbrageous bank opposite fell on the hole, I took off my shoes, stole quietly along the rock and sat down on a ledge close to the brink. After a little, I dropped the new fly within a couple of inches of the water, and bobbed it up and down, as if the insect meditated alighting, but did not much relish the thought of wetting its delicate wings and feet.

"No salmon that ever swam could resist the temptation. Up came my friend with open mouth—darted his huge muzzle out of the water—took the fly in the air; and then disppeared in the depths of the eddy.

"I was prepared for a desperate struggle, but not exactly for what followed. After I struck and found him fast on the line, he made a rush out of the hole into the main rapid, and, apparently having lost all command over himself in the frenzy that followed the first prick of the hook, seemed determined to run down. But when he had proceeded about forty or fifty yards to where the stream slackened a little on one side, and the eddy forming the hole first began, I stopped Mr. Salmo and brought him back into the hole, almost by main force; at the same time hallooing lustily to Louis to bring the gaff to my assistance.

"For more than an hour I played this fine fish—bringing him frequently to the edge of the rock lower down the hole, on which Dery stood, gaff in hand, ready to plunge it into his side. At last, in a moment of comparative quietness, my Aide-de-Camp attempted to use the gaff, but missed the proper part, and only tore the skin near the tail, thus doing mischief unintentionally and maddening the fish, which made one desperate

running leap out into the mid-torrent and down the tremendous rapid he went, at the rate of High-flier or Eclipse.

"In anticipation of the possibility of such an event, I had, whilst he was yet in the deep hole, moved round a difficult part of a recess in the bank, under some impending trees, and was now ready for a run as well as the salmon. As soon, therefore, as the line on the reel was reduced to its last turn, fisherman and fish commenced a race; in which the former would have had little chance, had not the latter relaxed his speed; and, apparently apprehensive of foundering against some unseen rock, turned his head up the current, and thus dropped down, tail foremost. I could then easily keep up with him, and even wind up some of the line. After six or seven hundred yards, we both arrived tolerably flurried and out of breath at the hospital, in which fine hole the fish brought up, and in three or four minutes was gaffed by Louis.

"After a week's good sport we returned to Quebec, and there took the boat for Montreal the same evening; which we reached in high spirits, delighted with our expedition, in augmented friendship towards each other; and feeling as honest anglers ought to feel—in good humour with all the world."

Further extracts from Dr. Henry's "portfolio":

"On a pleasant morning in August, my wife, little boy, and myself started from Quebec and drove along the Ste. Foi road. The day turned out very fine—the new-mown hay perfuming us a great part of the way, and the "wavy corn" refreshing the eye as it swayed beneath a gentle south-west breeze. After a very agreeable journey we reached Dery's bridge.

"In ten minutes after our arrival I was seated on the ledge of the rock above the "Grand Rets," cautiously dropping my fly into the dark eddy below; the favourite resting place of fish after surmounting the canal rapid. At the second cast I hooked a salmon; but from his brown colour it was plain he was not in season; and had been a long time in the fresh water. I played him, therefore, carelessly, and after a few leaps he dashed out

into the torrent and broke off, to the great grief of my son and heir, who was watching the proceedings from the high bank of the garden opposite, attended by his mamma. However, after dinner the young gentleman was gratified by witnessing the veritable capture of a fish.

"It began to rain in the evening and continued raining heavily all night: next morning the river had risen much, and was still rising very fast. By mid-day the water approached the reservoir, which then contained about sixty live fish; and soon after, as the stream began to trickle over its rocky margin, and threatened to liberate these unfortunate prisoners, they were all scooped out, put to death, and sent off to the Quebec market, to furnish the citizens with a good Friday dinner.

"For two days the Jacques Cartier tumbled and raged very grandly in its rocky channel, and we had no fishing; but on the third the water began to fall, and I recommenced my sport after breakfast, with success—killing five salmon in about two hours. In the evening I caught three more; and then, after changing my wet clothes, indulged in the luxury of a genuine Havanah, seated on the airy and pleasant bridge—

"*Revenons à nos saumons.*" There is a hole some considerable distance below the chute, of difficult approach, in which I caught the first salmon, and several afterwards; all of large size. This place has been hitherto anonymous, but, by the custom of the angling fraternity, I have a right to give it a name: it is therefore, with the permission of my brethren, to be henceforward designated the *Remoux aux gros saumons.* To reach this hole it is necessary to wade along an oblique ridge of sloping and slippery sandstone, polished into a glassy surface by the strong current; which at one or two places can scarcely be stemmed, and when there is much water in the river the attempt to cross would be useless. One morning before breakfast, having put my shoes in my pockets, I proceeded along this nervous path, clinging to the smooth rock with my wet woollen stockings, and using my toes like a Hindoo or native Australian. The gaff-

handle was always very useful as a *point d'appui* to leeward on these occasions. The hole consists of a strong current on the farther side, overhung by a high precipice, crowned with wood, and a deep eddy on the nearer; at the commencement of which —just where the stream begins a long course of rapids—is a comparatively quiet spot, where the fish are much in the habit of resting after surmounting the strong water.

When the sun began to shew a glimpse or two of his radiant morning face through the branches of the trees, on the high bank opposite, I here hooked a large salmon, which at first allowed me to lead him captive a hundred yards up the stream, and away from the dangerous neighbourhood of the rapids.—But, as I was beginning to think I should have little trouble with this quiet gentleman, all at once he got into a towering passion—flung himself half a dozen times out of the water, shaking his head violently to get rid of the fly; and then made a desperate race to his old berth at the top of the rapid. Here I thought it probable he would bring up—and he did halt for a few seconds—but then, down the boiling stream he darted, until he had run out a line of two hundred and forty yards. When it had reached the last turn on the reel I proceeded after him as far as I could; wading deep along a rocky ledge; but when the water got up to my elbows I began to consider the case as nearly hopeless—stopped and *gave butt*—whilst Mr. Salmo was plunging and making summersaults so far down the river as to be reduced in apparent size to one-third of his bulk. All at once, to my great surprise, he became suddenly quite passive, and I wound up the long line without difficulty, having only the *vis inertiæ* of the fish and strength of the current to overcome. Back, therefore, we both came to the head of the rapid, and then to the deep hole, the fish turning up his white belly and appearing much distressed. He was soon gaffed, and turned out a fine shaped salmon of seventeen pounds, quite fresh from the St. Lawrence. The secret of his sudden succumbing and quietude when he had it all his own way was this —when tumbling in the stream he had somehow twisted the

casting line three or four times round his head and snout; knotted it then very ingeniously, and thus gagged and half suffocated himself—the water necessary for breathing not being able to enter and pass to the gills.

As the river fell the fish were able to mount the impetuous canal rapid, so strangely excavated out of the live rock, and were caught in considerable numbers by Louis, at his "Pêche" near the bridge, and then deposited alive in the clear pond, which had been formed for their reception under a copious spring, gushing out of the neighbouring bank. Here they swim about freely, although the space is limited, apparently unconscious of their captive condition; seeking the coolest and deepest part of the reservoir where they can enjoy a little shade. They do not appear to suffer or lose flesh from confinement and want of food, or from the difference between the purer water of the river, and the hard spring in which they are now placed.

We frequently visited this reservoir, and my little boy would amuse himself flinging crumbs to the poor prisoners, but to no purpose, as they have never been observed to eat any thing. Often would he scream with delight to see one of the salmon dart through the pond, at the rate of thirty knots an hour, when he touched his tail with a rod—disturbing all the rest, and causing such a splashing of the water, as frequently gave us a good sprinkling when standing near the brink. The last evening we were there we counted forty-five finny captives, and Dery talked of sending them in next morning to the Quebec market. Morning came, and when the poor man went to the reservoir to take out his fish, he was horrified to find that forty-three of them had been stolen during the night, and only two little ones remained.

A further proof of the capabilities of this river is found in the following peculiar and interesting occurrence. Interesting so far as shewing what could be done, and at the same time affording another evidence of the destruction practiced by a thoughtless people.

Mr. Boswell of Quebec, who is well known to be an ardent and zealous fisherman, and who is ever ready to aid in all measures, that will conduce to the proper protection of the fisheries; seeing the destruction brought about by Dery's system of scooping; purchased of the Seignior in 1849 the right of the fishery; thereby preventing Master Louis from practising his abominable netting system,—observe the result. The fish were enabled to get up into the higher waters, and they did so in large numbers. But alas, for the perversity of man—a few miles above the bridge, there is a small tributary into which the salmon made their way, which, having been observed by some residents near the place; they took a net, barred the mouth of the stream, drove the fish into shallow water; and captured no less than ninety five breeding fish. Alas? that no means are taken to prevent such villainous work.

What would have been the result, had those fish spawned in safety. The Jacques Cartier, would the ensuing year or two, have literally been "alive with fish," supposing only one-half had been spawning fish, we would have had above 30,000 fine salmon in this river. No wonder persons get disgusted with men and manners, seeing such self suicide perpetrated; and no means used to prevent it, by those whose duty it is to look after the interests of the people.

When Mr. Boswell bought the right of fishery on the Jacques Cartier, he did it with the intention, in conjunction with others, of introducing into Canada, the artificial system, but inasmuch as there was no Government protective measure, they were obliged to abandon it.

To shew the value of the artificial rearing of the salmon, the following circumstance, will, I hope, be sufficient to convince the most sceptical. And if such vast results proceed from the culture of a single river, what may not be done, with such immense resources as we have. But to the point—Mr. Boswell has informed me, that his brother, John Boswell, Esq., Attorney at Law, of the City of Dublin, four years since purchased in the Encumbered Estates Court, a barren river, or rather a fishery, or what had once been one, for the purpose of breeding and rearing of salmon; so successful was he in stocking the river, that in October last, (1856,) he sold his rights to a London Company, and cleared *nine thousand pounds sterling* by the operation.

If such facts as these fail to induce our Legislature to do their duty, all the reasonings that I can bring to bear on the subject, will be of little or no avail; however, I shall have done my duty.

Journeying onward we reach the Portneuf, where formerly salmon were taken in abundance,—latterly but few have been captured. The artificial propagation could be carried on in this river under very favorable auspices, as there is very fine ground well adapted for this purpose.

River St. Anne is not inferior to the Jacques Cartier, as a salmon river, indeed the river is in every respect longer and larger, with a greater bulk of water. Bouchette says:—"It is about 70 miles long, and its branches may be said to drain 1750 square miles of land. Salmon fishing in the St. Anne is very considerable, and might be improved to great profit." The principal cause of the destruction of the

fish in this river, as well as at the Portneuf and the Jacques Cartier, is the ruinous practice of spearing them on their spawning beds, a practice which must be put an end to throughout the Province. Did the mass of the people know the evils resulting to the use of the spear, and that by the use of it they are deprived of an abundance of that delicious fish; which ought to be on the table of every habitant at least once a week—they would rise *en masse*—burn every spear in the country, and duck the owners of them once a day for a month, in the rivers of each district; which would be but a slight punishment for the evils they have brought upon the community.

CHAPTER XIII.

RIVER CHAUDIERE TO RIVER DU SUD.

We will now take a hasty glance of the rivers on the South shore, and although in the upper waters few salmon are now taken, yet, formerly, every one abounded with this fish.

Crossing the St. Lawrence from our last resting-place, the River St. Anne—a westerly breeze will bring us to the mouth of the Chaudière, where, between the mouth of the river and the falls, considerable quantities of fine fish were formerly taken. Only preserve the nurseries of the lower tributaries of the St. Lawrence, and the bays, creeks and streams of the upper waters, will soon be as prolific as ever.

The Chaudière can scarcely be called a salmon river, and must be placed in the same category with the Morenci and one or two others; the height of those falls prevent the possibility of the erection of the chute or slide. In many rivers where there are falls of lesser magnitude, as the St. Anne, the du Sud, and some few others, the difficulty can soon be overcome by the erection of the slide, and at a very little expense.

The falls of the Chaudière are truly delighful, and tourists to Quebec should always take an opportunity of visiting them; the height of the fall is sixty feet, they are of considerable breadth, and very rugged and broken. Over this river a massive but elegant bridge has been built, for the passage of the Grand Trunk Railroad Cars; and visitors are carried in a very short time, from the depot to the bridge; when a short walk will bring them within view of this splendid cataract.

The Etchemin flows within a short distance east of the Chaudière. It issues from a lake of the same name, and was formerly a most splendid river and lake for trout fishing. Trout from 20 to 30lbs. weight have been taken from the lake, and the river always afforded fine sport for the angler. At the entrance of this river salmon were formerly taken in great plenty, but the erection of mills, and other causes, have led to their abandoning it, and unless now and then a fish may be taken near the mouth, the Etchemin cannot be said to be a salmon river.

"Lake Etchemin is in a most central situation, and is within a mile or two of the head waters of the River St. John, and it is in the direct line of the nearest and only prac-

ticable route with that river; and is by nature appointed the great highway between Quebec and the lower provinces."

Rivière du Sud,—with its tributary the St. Nicholas,—falls into the St. Lawrence, at the town of St. Thomas. This town is at the easternmost extremity of the Grand Trunk Railroad, though it is to be hoped it will continue to Trois Pistoles, and ultimately to New Brunswick. At about a quarter of a mile from the mouth of this river is a very beautiful ledge of rocks, of great length, but of no great height; before reaching these, the du Sud receives the waters of the St. Nicholas, itself no mean river; at present, these falls oppose a barrier to the upward progress of the fish, but on which a slide could be erected at a very small expense. Between the mouth of the river and this ledge of rocks, salmon were formerly taken in plenty, led, doubtless, by instinct to attempt the passage. This river would become valuable in a few years merely by the erection of a slide built on proper principles.

The following incidents will show what was effected in former years. W. Price, Esq., stated to me, that he would leave Quebec of a morning, visit his mills on this river, fish for an hour or two of an evening—kill his two, sometimes three salmon; do the same thing the next morning—and return to Quebec with some six or eight fish; so far, so good. Again, Charles Panet, Esquire, told me a very funny story relative to this river, quite an original way of fishing, and which I beg to commend to the notice of some of my brother amateurs. Mr. Panet was at St. Thomas, on circuit, they had nothing to eat, and asked the people of the house, could they get no fish?—as they had no meat. They were answered,—perhaps they could. They sent for "le

grand pêcheur." Very soon in stalks "the article" in the shape of an old woman, (which fact, however, was doubted by many in the village, I mean as regards the gender.) "Well, bonne femme, can you get us any fish?" The complaisant dame went to work in scientific style; —she produced two long sticks, to which was attached an old piece of net,—down she stalks to the river, tucks up her petticoats, and in she wades;—the tide was low, she gets astride on two rocks, down she peeps into a deep pool, left by the receding tide; and soon an exclamation is heard, "J'en ai une," and up she scoops a fine salmon, to the great amazement of Mons. Panet, and his friends.—Disciples of Isaac! Down rods, and take the scoop.

In relating these circumstances, my object is to shew how abundant salmon were here in former years; also to induce reflection, in the hope that my readers may use their influence to bring about a proper protection for such a valuable fish.

Rivière Joli, and the Des Trois Saumons, at St. Jean, Port Joli, so called from the circumstance of three salmon having been taken therein.—We generally imagine that where salmon have once been they can go again; but I have been informed, and on good authority, that the peculiar formation of the falls; at some distance from the mouth of the river, renders it impossible for the salmon to get up. All I can say on the subject is, that the word *impossible* is seldom found in the salmon's dictionary, or, if met with, they often *skip* it over. I believe the great evil arises from the usual plague—the mill without the salmon slide.

Rivière Ouelle.—A few fish are taken at the entrance of this river, but in no great quantity. There are various other fisheries on the bays and shores.

Rivière Kamouraska is formed by the junction of the Grand Bras and the Petit Bras. The front of the Seigniory is studded with islands, which are admirably adapted for the purposes to which they are applied—namely, the capture of the finny tribe. There are several fisheries on the shore and amid the islands, the principal of which are for the capture of salmon, shad, herring, and sardines. Bouchette says—"the annual catch of salmon is about 120 barrels." I much question if they take half the quantity now.

The revenue that should be derived from the fisheries alone, ought to enable the Seignior to revel in a truly baronial style of living; for, with only common prudence, they could be made to yield an income far exceeding the expectations of the most sanguine.

Rivière du Loup, Green River, and Trois Pistoles, may be placed in the same category with that of the Kamouraska; that is to say, there are a few salmon to be taken in each, but not in any considerable quantities. The fisheries are prosecuted along the shores and bays.

We are now approaching what may be termed fishing ground, the eastern shores and rivers of the County of Rimouski, and within which we find included the following rivers:—Rimouski, Great and Little Metis, Tartigo, Blanche, Matanne, and the River Chatte. There are many smaller streams within this district.

The Rimouski is formed by the confluence of two tributaries, and is a river of considerable size. The fisheries

around the shore and in this river are very considerable, and vast quantities of salmon-trout and other fish are taken.

Great and Little Metis.—Within this district are extensive fisheries for the salmon and other fish. I have been told that formerly the salmon were so numerous that they were literally killed with sticks. I can well believe it; for I have known that when the course of a river, where salmon were wont to congregate, was partially cut off, the poor creatures in the run up actually floundered amid the water, which was insufficient for them to swim in, and were captured by the dozen, by blows from poles, sticks, and stones. This district is greatly indebted to the enterprise of Mr. McNider, who did much to advance the interests of settlers in this place.

The other rivers in this district are the Tartigo, Blanche, Matanne, and Chatte. There are valuable salmon fisheries on all these rivers and in the vicinity. They are worthy of encouragement, and might produce very considerable advantages to the inhabitants. The average price of salmon is £4 per tierce. The rivers also abound in salmon-trout, weighing from 4 to 7 lbs.

With the necessary protection as regards spawning-time and the erection of salmon slides where necessary, this district would soon become a mine of wealth and a source of great profit to both fisherman and purchaser.

In estimating the value of the salmon fisheries within this county, I shall use the same basis of calculation as heretofore. I will take seven as breeding rivers, and give to each 20 breeding fish, which, escaping spear and net, deposit their ova in safety in their spawning beds.

After deducting nine-tenths, as being destroyed by freshets and from other causes, leaves us 140,000 young salmon fry. A further deduction of one in four, or twenty-five per cent., during their salt water ramble, reduces the number to 105,000, which would return within a few months as grilse—or virgin fish—weighing from 4 to 7 lbs., and which, valued at 2s. 6d. each, gives the value of the Salmon fisheries within this district to be £13,125.

CHAPTER XIV.

GASPE AND BONAVENTURE.

Richer than gold—more valuable than the mines of Australia and California combined—a never-failing source; a nation's wealth, contained within the bosom of the waters that lave your shores—God's special gift to man,—the treasures of the deep, requiring no labor to cultivate, no purchase of seed, no manure, suffering no blight from rot or fly.—Wealth unbounded coming to your shores, depositing its precious offspring in countless millions in the sands of your rivers, saying,—Let us alone for a few short weeks, and we will return and provide yourselves and your little ones with an abundance of wholesome and nutritious food, "for all things are created for your *use*." But no, it shall not be! Man, the destroyer, man—blind to his own interests, has determined to exterminate the whole of the salmon tribe, and, by net, by spear, by dam, before spawning, while spawning, and after spawning, —has hunted these noble creatures, until at last but a remnant of the species remain.

The late Robert Christie, so many years the Member for Gaspé, and by whom I have been urged to do battle in behalf of the salmon fisheries, has often told me, that while he resided there he never took less than 2000 tierces in the Restigouche alone; to use his own expressive words:—"They are richer than the diamond mines of the East." He has left evidence of his opinions in the Parliamentary and other reports. Bouchette, in speaking of the same river, says "2000 to 3000 tierces are taken;" and he adds, "which is a considerable diminution upon the produce of former years, attributable to the deficiency of proper regulations; restricting the time of fishing to certain seasons, and otherwise regulating the mode of taking the salmon." Alas! if it were necessary so long since, to change the mode of procedure in taking the fish, what must be required at this period; since year after year the vile practices have increased. What would that talented gentleman say could he know that the 2000 or 3000 of his day, had dwindled down to 200 or 300 at the present time? He also, with Mr. Christie, has left his protest on record. They were men to whom the Province owes a deep debt of gratitude; and their opinions are worthy of being well received and attended to. Again, I find recorded in a very interesting work lately published the following notice of this section of the country:—"But as the Restigouche is a famous river for fishing, a considerable revenue is derived from this business. The fish are taken in set nets (which should be done away with) and at every ebb-tide during the summer, are conveyed to the shore in canoes, salted, and shipped to Great Britain, or, as has of late years been the

case, sold on the spot to American vessels, which have visited Campbelltown for that purpose. Mr. Ferguson informs me that his father was in the habit of exporting 2000 barrels of salmon annually, but that he is quite content if he can manage to catch 300 barrels per year. He attributes the great falling off in their numbers to the spearing and netting by the Indians and other barbarians while on their spawning-beds in the back settlements."

Can anything more clearly demonstrate the truth of what has been so repeatedly stated, or the pressing necessity of immediate action to prevent utter destruction from coming on such a branch of public wealth. It has been said that no law will prevent the Indians from spearing and netting the fish at any time. I here enter my protest against any such assertion, and exclaim,—'tis a libel against the poor Indian, to cover the evil practices of the white man! It is only when in a state of starvation that the child of the forest will take the life of a breeding animal. They know that were they to do so, they would soon have to leave their hunting-grounds. 'Tis against their oral teachings and their traditions. Their future both here and hereafter is involved in the question. The good Spirit would be angry, and no pleasant hunting-grounds would be prepared for their hereafter. Consequently no one is more careful to guard the life of forest animal or fish, when in the breeding state, than the native Indian. True, indeed, it is, that some few half-breeds: tinctured alike with the blood of the whites and with their vices, urged on by the offer of that bane of the savage, drink,—and the glittering silver coin,—urged on by the white man, they may use spear and net. But whose the

fault !—who is the tempter !—and what the temptation ? Say not, 'tis the Indian's. Punish the white man, who employs the poor half-breeds, or purchases from them the speared fish,—weltering in blood and spawn. Punish with heavy fine, the *purchasers*, and the battle is half won. Punish the man who, with a few paltry dollars, urges on the poor half-bred savage to destroy in value thousands. Let him be looked upon as a common enemy, aye, and treated as such, for he is a public pest and nuisance.

In what state were the fisheries, e'er the white man trod the soil of America ? The answer has been given,—they were in countless myriads in every bay, river and stream. Are there any Indians at home who destroy the fisheries ? You answer, no. How comes it, then, that their fisheries are destroyed ?—by spear, by net, by lister, and by lime. For truth's sake, let us not blame the Indian any more !

Gaspé.—The whole of this district is intersected with numerous and splendid rivers, the principal of which are the St. Anne's, the Magdaleine, York, St. Johns, Malbaie, Grand River, and the Great and Little Pabos. These rivers receive many valuable tributaries, and they are all more or less noted for the vast quantities of the finny tribe that shoal both river, bay, and stream.

The following extract will give some idea of the value of this favored place ; and although I agree with the writer in most instances, and admit that it will be a happy day for the people when a different system of fishing is adopted, yet I must be excused in saying, that we do not want "that smartness of the Yankee race" which

he speaks of, exemplified in our own waters. We have seen the result of it on the north shore, and they proved too smart for us, or the poor fish either—urging on the half-cast and others to catch them, by net and spear, while spawning. The same writer admits that the Americans have *ruined their own salmon fisheries;* therefore they must hold us excused if we take the liberty to recommend them, to show a little of that same *smartness* in artificially propagating the fish in their own destroyed rivers.

THE BAY CHALEUR.

"With regard to the fishy treasures of the sea of fishes, I can only say that they are astonishingly abundant. One of the fisheries located on the south shore has been engaged in the business for fifty years; and besides employing about a thousand men, has been in the habit of annually building a ship to send to Europe during all this time, as a kind of memento of its success. As early as the year 1635 there was established at the mouth of the Bay the 'Royal Company of Miscou,' at the head of which was the King of France.

"It is said that some of the finest palaces in France were built with funds realized by the early French fishermen. The remains of the buildings erected by this company may still be seen on the island of Miscou. The harvest-time for the fishermen of the Bay of Chaleur is from March to September, and the great majority of those who fish in these waters are of course birds of passage, so that the fleets of ships and brigantines which come with the opening spring are certain to disappear before the blasts of autumn. To give an idea of the wealth of these northern waters, it may be mentioned that formerly the black whale, white porpoise, black seal, the salmon, cod, sea-trout, haddock, herrings, halibut, shad, bass, mackerel, capeling, and lobster were all found here in immense quantities.

"But while some of these treasures of the sea are now seldom or never captured, others are only occasionally taken, and those which chiefly support the several fisheries are not rendered one-twentieth part as profitable as they might be. The varieties which monopolize the present business are the herring, cod, mackerel, and the salmon. The modes employed in catching all these are of course various, but all behind the present progressive age; and that will be a happy day for this region of the world when the capital and smartness of the Yankee race shall be permitted to develop themselves there."

This is a very pleasing picture of the resources of this district, wealth unbounded and annually replenished, but which, from a want of proper caution, is rapidly decreasing in value. Let us be hopeful for the future, and see if we in Canada cannot follow the example of the early French fishermen, and build up for ourselves—not palaces, but a national exchequer, and, from the immense resources to be derived from our fisheries, ease the burden of the people by a reduction of duty on those imports, which are principally consumed by the poorer classes. Let us supply the States and the West Indies with fish, and bring back return cargoes of necessaries for our own consumption.

We will now ascend the Bay, and as we proceed onward we will find on our right the Grand Bonaventure River; still further up,—the Grand and Little Nouvelle,—Grand and Little Cascapediac—Metapediac—and, to crown the whole, the grand, the majestic river Restigouche, with its numerous tributaries, besides many other valuable rivers of considerable size.

Bouchette enumerates sixteen rivers within this district; therefore in computing the number and value of the fish,

I prefer taking his enumeration as my guide. I will presume that within these districts about 480 escape to the nurseries and deposit their ova in safety in the spawning beds—and which number ought to be preserved in the Restigouche alone. Giving nine-tenths of the spawn to destruction, while in the rivers; and a further deduction of one-fourth during their migration, we find preserved to our use 360,000 fish, which, at 2s. 6d. each, gives the value of the Salmon fisheries of the Districts of Gaspé and Bonaventure to be the sum of £45,000 per annum, and which in reality is much less than their value, if we may compare our bays and rivers to those of the Mother Country,—the Tweed alone, as before stated, yielding its 150,000 fish, with a rental of £20,000 per annum.

As a general rule, the salmon on the South shore are much smaller than those on the north. But very large salmon were formerly taken in the Restigouche, fish as heavy as 35 to 40 lbs. The average weight of the fish now taken is from 12 to 15 lbs. Sea-trout in abundance are also caught in this district.

And now, having accomplished our tour of the north and south shores of the River St. Lawrence, and having, as far as this little volume would permit of, endeavoured to show the wealth that could be produced were the necessary protection afforded: it will be well to sum up the value of each district, and the number of fish which ought to be taken in each. In some of the rivers the artificial propagation would be necessary, and the cost would be very little indeed, but the results would be, *immense wealth to the Province.*

In the lower districts,—both on the north and south shores, happily, the artificial process is not required, but *protection* must be afforded. It has been shown the destruction that has been, and still is carried on, on both shores; by injudicious netting and spearing while on the spawning beds. Due care must be taken that on all dams erected or to be erected, the necessary salmon slide shall be placed. We will then, not only compete with the world, but, if they wish it, supply them with the article; always taking care, however, to prevent interlopers from coming and destroying our fisheries, after they have ruined their own.

SUMMARY BY DISTRICTS.

Districts.	No. of Fish.	Value.
Ance au Sablon to Saguenay,	300,000	£37,500
Saguenay and tributaries,	105,000	13,125
Saguenay to Murray Bay,	15,000	1,875
Murray Bay to St. Charles,	nil.	nil.
St. Charles to River St. Ann,	15,000	1,875
South Shore.		
Chaudière to River Ouelle,	nil.	nil.
Rivière Ouelle to Trois Pistoles,	nil.	nil.
Trois Pistoles to Rivière Chatte,	105,000	13,125
Gaspé and Bonaventure,	360,000	45,000
Total,	900,000	£112,500

It will be seen that it was necessary to fix on some data, to arrive at certain conclusions. I have chosen the lowest estimate I possibly could. The breeding fish have been

the youngest, and the price the lowest. Many rivers that I have not enumerated, are to be found in each district; but I have chosen the principal in each. It will also be perceived that I have attached no value to most of the rivers of the upper waters. It would not be well to do so, as here, the artificial process would be required before they would come to be of value.

In the other districts, it would only be necessary to afford the proper protection, and I would observe that the laws should be strictly enforced—no reserve. Where a breach of the law takes place, punishment should follow.

It gives me great pleasure to be able to lay before my readers, the following valuable article, which I have copied from that highly intellectual work, "Chambers Journal," to which my attention was directed by a friend a few days since, and which cannot fail to give both pleasure and instruction.

I am happy to be able to copy it, as it proves that my calculations are based on a good, true, and solid foundation.

PISCICULTURE OR THE BREEDING OF FISHES.

"It is not so generally known as it ought to be, that efforts are being made upon a considerable scale to augment our supply of salmon by means of artificial hatching and breeding. This mode of increasing our stock of fish is denominated pisciculture by our allies the French, and has been practised in France for some years, particularly by the late Joseph Remy and his coadjutor M. Gehin, who, strange to say, rediscovered this art in 1842, unaware that it was supposed to have been well known among the ancient Romans, or that it had been carried on by modern naturalists for more than a century. The early Romans, we are told, knew and cultivated the art extensively; and not being contented with merely breeding fish, they studied also how to impart new flavours

to the flesh, and were particularly zealous in fattening them to the largest possible size. Another branch of the art was likewise studied with great attention; it was that of acclimation, or the breeding of salt-water fish in lakes and fresh-water rivers. This was, in many instances, as may be supposed, a work of some difficulty; but the arts of the epicure, in those ancient times, were many, and generally very successful. We need scarcely, however, extend our researches into the knowledge of the ancient Romans or Chinese on this subject; it is not the antiquarian, but the modern phase of pisciculture, particularly in its utilitarian aspect, with which we have business.

"The honour of being the modern discoverer of this long-forgotten art undoubtedly belongs to M. Jacobi, who published, in 1763, a minute and interesting account of his thirty year's practice. This gentleman was not satisfied with his discovery as a mere scientific curiosity, for to him also belongs the still greater merit of making the art commercially useful as a means of keeping up the supplies. At the date we have indicated, great attention was devoted to pisciculture by various gentlemen of scientific eminence. Count Goldstein wrote on the subject to M. de Fourcroy, and Duhamel du Monceau gave it publicity in his treatise on fishes. The Journal of Hanover also had papers on this art, and an account of Jacobi's proceedings was likewise enrolled in the memoirs of the Royal Academy of Berlin. The discovery of Jacobi was the simple result of a keen observation of the natural action of the breeding-salmon. Observing that the process of impregnation was entirely an external act, he saw at once that this could be easily imitated by careful manipulation; so that by conducting artificial hatching on a large scale, a constant and unfailing supply of fish might readily be obtained. The results arrived at by Jacobi were of vast importance, and obtained not only the recognition of his government but also the more solid reward of a pension.

"The labours of Gehin and Remy deserve generous record, for it is to their exertions we are most indebted for the activity and enterprise which are now displayed in the art of hatching and breed-

ing all kinds of fresh-water fish. Although, as we have already stated, this curious art was evidently known to the ancients, as also to certain *savans* who flourished about a century ago; still, to these two unlettered fishermen we must accord the same credit as if their discovery of the artificial process had been the original one. When they commenced the practice of this art, they were in utter ignorance of its ever having been practised before. These men lived at La Bresse, an obscure French village in the department of the Vosges. This district is rich in lakes and streams, and includes the Moselle and its tributaries, which are famed for trout, the supply of which was at one time so considerable as to form a very large portion of the food of the surrounding community. The experiments of Gehin and Remy were crowned with almost instant success; and to encourage them to make still greater efforts, the *Société d'Emulation des Vosges* voted them a considerable sum of money and a handsome bronze medal. It was not, however, till 1849 that the proceedings of Gehin and Remy attracted that degree of notice which was demanded by their importance, economic and scientific. Dr Haxo, of Epinal, then communicated to the Academy of Sciences at Paris an elaborate paper on the subject, which at once fixed attention on the labour of the two fishermen—in fact, it excited a sensation both in the Academy and among the people. The government of the time at once gave attention to the matter; and finding, upon inquiry, everything that was said about the utility of the plan to be true, resolved to have it extended to all the rivers in France, especially to those of the poorer districts; and at once made offers of employment to the two fishermen, through whose exertions many of the finest rivers in the country have since been stocked with fish.

"The system has since extended to Spain, Holland, Great Britain, and many other countries. As shewing the extent to which artificial hatching is carried on in other countries, we may state that the reservoirs, breeding-places, and other suitable constructions of the government establishment at Basel, occupy a space of about twenty-five acres of ground, devoted to the propagation

of salmon, carp, tench, and those other kinds of fish of which the French people are so very fond. At Huningen, also, there is another extensive establishment for the production of fish, in which trout and other fresh-water fishes are propagated in myriads, and the neighbouring rivers and streams are supplied with stock from this useful reservoir.

"Mr Shaw was the first person in this country, we understand, to direct his attention to the subject. His experiments were made about twenty years ago; but differed in their object from these of Jacobi, inasmuch as they were undertaken principally to solve a problem in the natural history of the salmon. In 1848, Mr. Boccius, civil engineer, published a work on *Fish in Rivers and Streams: a Treatise on the Production and Management of Fish in Fresh Water, &c., &c.* This gentleman had taken up the subject in 1841, and made several very successful experiments. In the rivers of one estate alone he is said to have reared upwards of 120,000 trout. He was also employed to conduct experiments at Chatsworth and many other places.

"The system of artificial fecundation has likewise been tried in Ireland. Two English gentlemen of capital and enterprise, Messrs. Ashworth, of Egerton Hall, near Bolton, having purchased the fishery of Lough Corribb, were determined, if possible, to solve the much-discussed question—"Can the salmon-fisheries of this kingdom be restored to their former abundant state of productiveness?" Mr. Ramsbottom, of Clitheroe, was engaged by these gentlemen to conduct the experiments, which were made as follows, and are described by Mr. Halliday in his letter to the Commissioners of Fisheries in Ireland, a passage of which we beg to quote :—

"'On the 14th December, 1852, a small rill at Outerard, was selected for the experiment, by a rude check thrown across; a foot of water-head was raised over a few square yards to insure regularity in the supply. From this head, half-foot under surface-level, three wooden pipes, two inches square, by a few feet long, drew off respectively to the rill-bed and to the boxes all the water required—the surplus of the supplying rill passing

away in its usual course. The boxes are six feet long, eighteen inches wide, nine inches deep, open at top, set in the ground in a double row, on a slope of two to three inches on each box, the end of the one set close to the end of the other in continuous line, and earthed up to within one inch of the top. They are partly filled, first with a layer of fine gravel, next coarser, and lastly with stones, coarser somewhat than road-metal, to a total depth of six inches. A piece of twelve inches wide by two inches deep is cut from the end of each box, and a water-way of tin nailed over this, with a turn up on either side to prevent the water from escaping. These connect the line of boxes, and carry the water to the extreme end, whence it is made to drop into the pond which receives and preserves the young fish.

"'The artificial rill is in all respects similarly prepared, excepting that its channel-course is in the soil itself. The pipe now introduced into the upper box of each line, and of the water-head, the spawn-bed is prepared; two hours' running will clear away the earth from the stones. The water will be found about two inches in depth over the average level of the stones in the boxes.

By an iron-wire grating, the boxes can be isolated, and the pipe protected against the passage of insects and trout.

"It is satisfactory to note that this Irish experiment was quite successful, as might be expected from the skill and experience of the gentleman engaged to conduct the trial. Mr. Ramsbottom has been the first to conduct the proceedings in each of the three divisions of the United Kingdom, with salmon-ova, to a successful termination; having, in 1852, hatched about 5000 ova on the estate of Jonathan Peel, Esq., of Knowlmere; and more recently he has taken a prominent part in carrying on the attempt to restock the river Tay by artificial fecundation and nursing, which we will now attempt to describe.

"The immense fecundity of all kinds of fish is well known. They shed spawn sufficient to produce myriads of young. A salmon, for instance, of ten pounds weight, it has been calculated, will yield 10,000 young. But when the spawn is deposited, in the usual course of nature, in the rivers frequented by the fish, it

is exposed to so many dangers, that not more than one-fourth of the quantity deposited ever comes to life. Hence the urgent necessity for bringing forth the young, securely sheltered in these breeding-ponds from the most destructive of their natural enemies, and securing for all the fish which comes to life a safe asylum, till the period when they may be safely sent on their travels.

"The largest experiment in salmon-breeding yet made in Great Britain has been tried on the banks of the River Tay, at a spot called Colinhaugh, but better known as Stormontfield, on the property of the Earl of Mansfield. The operations at Stormontfield originated at a meeting of the proprietors of the river, held in July, 1852, when a communication by Dr. Eisdale was read on the subject of artificial propagation; and Mr. Thomas Ashworth, of Poynton, explained the experiments which had been conducted at his Irish fishery-station. He said that 'he had entertained the opinion for a long time, that it would be as easy artificially to propagate salmon in our rivers as it was to raise silk-worms on mulberry-leaves, though the former were under water, and the latter in the open air. It was an established fact, that salmon and other fish may be propagated artificially in ponds in millions, at a small cost, and thus be protected from their natural enemies for the first year of their existence, after which they will be much more capable of protecting themselves than can be the case in the early stages of their existence. His brother and he have at the present time about 20,000 young salmon in ponds, thus produced, which are daily fed with suitable food. Mr. Ashworth also observed, that a great deal had yet to be discovered in the artificial propagation and feeding of salmon. They knew but comparatively little of the habits of salmon, and in order that a greater amount of knowledge might be obtained, he had recommended to the Commissioners of Fisheries in Ireland to take a portion of the fish propagated in the way he had mentioned from the ponds, and immerse them annually in the sea for a period of three months, and to be again deposited in the ponds for other nine months—to be repeated for several years. The

Commissioners had taken about a dozen of these young salmon from the ponds, and had had them many weeks in the Dublin Exhibition, were they were kept in a model of a wear, with a salmon-ladder in it, the model being supplied by a pipe with a constant run of water. These little creatures shewed their agility by mounting the ladder, and so passing over the wear to the amusement of the bystanders; and he was informed they were alive and thriving, being perfectly healthy in this small run of pure water, and were fed with chopped meat every day. It was only in this way a more accurate history of the ages and habits of the salmon species might be written. The expense of this plan of artificial propagation he did not estimate to exceed a pound a thousand, which was at the rate of one farthing for each salmon.' In conclusion, Mr. Ashworth said: 'The great consideration that weighed with him, was, that by the artificial propagatiou of salmon a vast increase to the quantity of human food would be obtained.' He then strongly impressed upon the meeting the importance of sending for Mr. Ramsbottom to commence operations in the Tay, and instruct others as to the plans to be adopted for increasing the salmon in that river.

"The plan proposed by Mr. Ashworth was unanimously agreed to, and a committee was at once appointed to have the resolutions arrived at by the meeting carried into effect.

"The breeding-ponds at Stormontfield are beautifully situated on a sloping haugh on the banks of the Tay, and are sheltered at the back by a plantation of trees. We have visited the place, which is situated about five miles from Perth, and about a mile and a half from a railway station. The ground has been laid out to the best advantage, and the whole of the ponds, water-runs, &c., have been planned and constructed by Mr. Peter Brown, C. E., and they are said to answer the purpose admirably well. There is a rapid-running mill-stream parallel with the river, from which the supply of water is derived. The necessary quantity is first run from this stream into a reservoir, from which it is filtered through pipes into a little water-course at the head of the range of boxes, from whence it is laid on. The boxes are fixed

on a gentle slope of ground on the pleasant bank of the silvery Tay; and by means of the gentle inclination, the water falls beautifully from one compartment or box to another, in a gradual but constant stream, and collects at the bottom in a kind of dam, and thence, runs into a small lake or depôt where the young fish are kept. A sluice made of fine wire-grating, admits of the superfluous water being run off into the Tay, and thus keeps up an equable supply. It also serves as an outlet for the fish when it is deemed expedient to send them out to try their fortune, in the greater deep near at hand, for which their pond-experience has been a mode of preparation. The planning of the boxes, ponds, sluices, &c., has been accomplished with singular ingenuity, and we cannot conceive anything better adapted for the purpose. Our only regret is, that it has not been constructed on a much larger scale. If the number of boxes had been doubled, there would then have been accommodation for breeding one million of salmon.

"The operation of preparing the spawn for the boxes was commenced here on the 23d of November, 1853, and in the course of a month, 300,000 ova were deposited in the 300 boxes, which had been filled with gravel and made all ready for their reception. Mr. Ramsbottom, who conducted the manipulation, thinks the Tay is one of the finest breeding-streams in the world, and says that 'it would be presumption to limit the numbers that might be raised there, were the river cultivated to its capabilities.' We prefer giving this gentleman's own description of the process of shedding the spawn, and the manner of impregnating it. 'So soon as a pair of suitable fish were captured, the ova of the female were immediatedly discharged into a tub one-fourth full of water, by a gentle pressure of the hands from the thorax downwards. The milt of the male was ejected in a similar manner, and the contents of the tub stirred with the hand. After the lapse of a minute, the water was poured off, with the exception of sufficient to keep the ova submerged, and fresh water supplied in its place. This also was poured off, and fresh substituted previous to removing the impregnated spawn to the boxes prepared for its recep-

tion. The ova were placed in the boxes as nearly similar to what they would be under the ordinary course of natural deposition as possible, with, however, this important advantage: in the bed of the river, the ova are liable to injury and destruction in a variety of ways; the alluvial matter deposited in times of flood will often cover the ova too deep to admit of the extrication of the young fry, even if hatched; the impetuosity of the streams when flooded will frequently sweep away whole spawning beds and their contents. Whilst deposited in boxes, the ova are shielded from injury, and their vivification in large numbers is thus rendered a matter of certainty, and the young fish reared in safety.'

"The date when the first egg was observed to be hatched was on the 31st of March; and during April and May most of the eggs had started into life, and the fry were observed waddling about the breeding-boxes; and in June they were promoted to a place in the ponds, being then a little more than an inch long. Sir William Jardine, in a paper read at the recent meeting of the British Association, with a copy of which we have been kindly favoured, says, of the first year's experiment, that the results have been satisfactory in shewing the practicability of hatching, rearing, and maintaining in health a very large number of young fish for a period of two years, and, not reckoning the original expense of the ponds, at a comparatively trifling cost. Sir William also reports the second series of experiments begun last winter as most satisfactory. The work was commenced on the 22d of November, and finished on the 19th of December last, up to which time 183 boxes had been stocked each with 2000 ova. There seems, as we learn from the report, to be a very great scarcity of male fish, as may be gathered from the following entry in the pond journal, kept by Mr. Marshall—'Peter of the Pools.' 'When we [Mr. Ashworth and Mr. Buist of Perth] arrived at the river, they had caught two female fish, and at the next cast two other female fish were taken. At the third cast they captured a male fish in fine condition, from twenty-four to twenty-eight pounds weight. We had now full opportunity

of seeing the whole process of spawning performed. The female fish, after being relieved of their ova, swam away quite lively, and each was marked by punching a hole in the tail.' The same disparity between the quantity of males and females was observed in Ireland. The males were found to be in the proportion of 1 to 14 at Lough Corrib; but we mention this only incidentally, having no intention, in the present paper to enter into the salmon controversy, or to trace the young fish further than its birth.

I have also copied a very excellent paper which more particularly concerns the people of this country. It is from the pen of one who thoroughly understands the subject:

The Decrease, Restoration and Preservation of Salmon in Canada. By the Rev. WILLIAM AGAR ADAMSON, D. C. L. Read before the Canadian Institute, December 6th, 1856.

Brillat Savarin, in his "Physiologie du Gout," asserts that the man who discovers a new dish does more for the happiness of the human race than he who discovered the Georgium Sidus. If this be true, then he who could devise means for the preservation and increase of an old, wholesome and highly coveted article of food would not labor in vain, nor would, I imagine, his endeavors be despised by the members of the Canadian Institute, however humble his abilities, and however unskilled he might be in scientific lore. Actuated by this belief, as well as desirous to respond to the demand for co-operation among the members of the Canadian Institute, I would venture to lay before you some notes upon the decrease, restoration, and preservation of the Salmon (*Salmo Salar*) in Canada.

It is unnecessary to magnify the importance of this fish as an economic production, or as an article of commerce. As food it is beyond comparison the most valuable of fresh water fish, both on account of the delicacy of its flavor, and the numbers in which it can be supplied. By prudence, a little exertion, and a very small expense now, it may not only be rendered cheap and accessible to almost every family in Canada, but also an article of no small commercial importance as an export to the United States, in which country, by pursuing the course which Canada has hitherto imitated, this noble fish has been almost exterminated. Twenty-five or thirty years ago every stream tributary to the St. Lawrence, from Niagara to Labrador on the north side, and to Gaspé basin on the south, abounded with salmon. At the present moment, with the exception of a few in the Jacques Cartier, there is not one to be found in any river between the Falls of Niagara and the city of Quebec. This deplorable decrease in natural production of great value has arisen from two causes; 1st—the natural disposition of uncivilized man to destroy at all times and at all seasons whatever has life and is fit for food; and 2nd—the neglect of those persons who have constructed mill-dams, to attach to them slides, or chutes, by ascending which the fish could pass onwards to their spawning beds in the interior. It is supposed by many that dust from the sawmills getting into the gills of the salmon prevents them from respirating freely, and so banishes them from the streams on which such mills are situated, but I am persuaded that this is a mistake, for salmon are found in considerable numbers at the mouths of many such streams, below the dams. In the Marguerite, in the Saguenay, at

the Petit Saguenay, the Escoumins, Port Neuf, Rimouski, Metis, and others that might be named; the real cause of the decrease is the insuperable obstacles presented by mill-dams, which prevent them from ascending to the aerated waters, high up the streams, which are essential for the fecundation of their ova, and so for the propagation of the species. Would you then—it may be asked, pull down our mills in order that we might have salmon in our rivers? most certainly not, I reply, for it is quite possible to maintain all our mills, with all their mill-dams, and yet afford to the fish an easy and inexpensive mode of passing upwards to their breeding places.

Marvellous stories are told of the great heights which salmon will leap in order to surmount the obstacles which nature or art may have erected between the lower parts of a stream and the upper waters which are suited to breeding purposes. Natural historians used gravely to tell us that salmon, in order to jump high, were in the habit of placing their tails in their mouths, and then, bending themselves like a bow, bound out of the water to a considerable distance, from twelve to twenty feet. The late Mr. Scrope, in his beautiful book "Days and Nights of Salmon Fishing," calculates that six feet in height is more than the average spring of salmon, though he conceives that very large fish in deep water, could leap much higher. He says, "Large fish can leap much higher than small ones; but their powers are limited or augmented according to the depth of water they spring from; in shallow water they have little power of ascension, in deep they have the most considerable. They rise very rapidly from the bottom to the surface of the water by means of rowing and

sculling as it were, with their fins and tail, and this powerful impetus bears them upwards in the air, on the same principle that a few tugs of the oar make a boat shoot onwards after one has ceased to row." However this may be, we know that salmon use almost incredible efforts to ascend their native rivers. Modes have recently been adopted in France, in England, Scotland and Ireland, by which they can do so with ease, and which can be much more cheaply applied to mill-dams in Canada, than in any of the countries above mentioned. This is simply by constructing below each mill-dam a congeries of wooden boxes proportioned to the height of the dam—which could be done, in any weirs I have seen requiring them, for a sum not exceeding twenty dollars. We will suppose that the mill-dam to be passed over is fifteen feet high from the surface of the water, and that the salmon can surmount the height of five feet at a single bound, then it would be only necessary to erect two boxes, each five feet high, one over the other (as in the illustration) to enable the salmon, in three leaps, to reach the waters which nature prompts him to seek for the propagation of his species. In many Canadian rivers—such as Metis, Matane, Rimouski, Trois Saumons, &c.,—this simple apparatus might be put in operation for one-half the sum I have mentioned, and I trust it has only to be suggested to the gentlemen residing on their banks to arouse their patriotism and excite them to activity in the matter. There can be no doubt that were the mill-dams removed, or boxes constructed adjacent to them, and protection afforded to the spawning fish, many of the rivers in *Upper Canada* would again abound with Salmon. I have myself, within a few years, taken the true Salmo

Salar in Lake Ontario, near Kingston, and many persons in Toronto know that they are taken annually at the mouths of the Credit, the Humber and at Bond Head, in the months of May and June, which is earlier than they are generally killed below Quebec. Whether these fish come up the St. Lawrence in the early spring, under the pavement of ice which then rests upon its surface, or whether they have spent the winter in Lake Ontario, is a question which I must leave to naturalists; merely mentioning that there is some foundation for believing that salmon will not only live, but breed, in fresh water, without visiting the sea. Mr. Lloyd, in his interesting work on the field sports of the North of Europe, says: "Near Katrineberg, there is a valuable fishery for salmon, ten or twelve thousands of these fish being taken annually. These salmon are bred in a lake, and, in consequence of cataracts, cannot have access to the sea. They are small in size and inferior in flavor," which may also be asserted of salmon taken in the neighbourhood of Toronto. Mr. Scrope, in his work previously quoted, states that Mr. George Dormer, of Stone Mills, in the Parish of Bridport, put a female of the salmon tribe, which measured twenty inches in length, and was caught by him at his mill-dam, into a small well, where it remained twelve years, became quite tame and familiar, so as to feed from the hand, and was visited by many persons of respectability from Exeter and its neighborhood.

But the fact that salmon are annually taken near the Credit, the Humber and Bond Head is sufficient ground on which to base my argument for the probability that, were the tributary streams of the St. Lawrence accessible to them they would ascend and again stock them with a

numerous progeny. Even were this found not to be the case,—then we have the system of artificial propagation to fall back upon—a system which according to the Parliamentary Reports of the Fishery Commissioners has been practised with immense success in different parts of Ireland—according to M. Coste, Member of the Institute, and professor of the College of France, in his reports to the French Academy and the French Government, has answered admirably in France, and according to Mr. W. H. Fry and others, quoted by him in his treatise on artificial fish-breeding has been generally effective in Scotland. This system, as is well known, consists simply of transporting from one river to another the impregnated eggs of the salmon, and placing them in shallow waters with a gentle current where they are soon hatched, and become salmon fry or par and able to take care of themselves. In consequence of the ova of the salmon, which are deposited in the spawning beds in the months of October, November and December, becoming congealed by frost in the subsequent months, Canada appears to offer greater facilities for their safe transport than those countries in which the system has been so successful, but whose climates are more temperate. Surely, supposing this is a mere untried experiment—which is far from being the case—it would be well worth the while of some of the many wealthy and intelligent dwellers upon the banks of our beautiful rivers to test its value, particularly when they call to mind the well known fact in the natural history of the salmon, that he invariably returns to the stream in which his youth was spent, and that so they may culculate upon having their present barren rivers stocked with as valuable articles of consumption and of commerce as their fowl-houses or their farm-yards.

I shall, for brevity's sake, abstain from enlarging on this subject, merely observing that ample information can be obtained upon it by consulting the works of MM. Coste and Fry, which are to be found in the libraries and book-shops in this city; and that in the streams in which it may be put into operation—if there are mill-dams upon them—the artificial construction to enable the fish to descend and ascend to and from the sea will still be requisite.

Having said so much on the decrease and restoration of salmon in Canada, let us now turn our attention for a few moments to their preservation in the rivers in which they still abound. These rivers I believe to be as valuable and inexhaustible as any others upon the face of the globe, but so circumstanced that their capabilities have not been developed, and that one year of neglect will cause their serious injury, if not their utter destruction, as salmon streams. They extend along the northern shore of the St. Lawrence from Quebec to Labrador, a distance of about 500 miles, and are many in number. They are chiefly held under lease from the Government of Canada, by the Hudson's Bay Company, who fish some of them in an unsystematic manner, with standing nets, because they can be conveniently and cheaply so fished, whilst others are left wholly to the destructive spear of the Indian. In the smaller streams on which the fishermen of the Company are employed, a series of standing barrier-nets, (which kill indiscriminately every fish of every size and weight,) is used, a process, which in European rivers, would have long since banished salmon from them. But in Canada the high water in the spring, enables some of the largest and strongest of the breeding fish to ascend the streams before those

nets can be set, and when they get beyond them, they are comparatively safe in the mountain rivers and lakes which never hear a human footfall till winter—which congeals their surfaces into ice—tempts the poor Indian to tread their banks in pursuit of the bear, the marten, the mink and the otter.

In well regulated salmon fisheries in Europe, the fish—by the construction of proper weirs and reservoirs—are almost as much under the control of the managers as the sheep on their farms or the fowl in their poultry-yards. They can send such of them as they please to market, permit the fittest for the purpose to pass on to propagate their kind, allow the young to enjoy life till they become mature, and suffer the sick and unhealthy to return to their invigorating pastures in the depths of the ocean. But no portion of this system is practised in our American rivers. There is not a salmon weir in the province; and the consequence is, that young and old, kelt and grilse, worthless and unwholesome, the fish are killed by the undiscriminating net and the cruel spear.

It appears to me that the Hudson's Bay Company set little value on these fisheries, and maintain them merely as an accident appertaining to the fur trade which is far more profitable. The approaching termination of their lease and the consequent uncertainty of their tenure may perhaps appear a sufficient reason for their not incurring the expense of erecting weirs, by which much more profit could be made of their fisheries. Unproductive and wasteful as their mode of fishing is, *the protection the Hudson's Bay Company affords, is the only present safeguard for the existence of Salmon in Canada.* I am persuaded that *were that protec-*

tion withdrawn for ONE SUMMER, *without the substitution of some other as effective, this noble fish would be utterly exterminated from our country.* Fishermen from Gaspé, Rimouski, New Brunswick, Labrador, Newfounland, the Magdalene Islands and the United States—whose numbers and skill would enable them to do thoroughly what the servants of the H. B. C. from their paucity and inexperience do ineffectually—would swarm up our rivers, and with nets, spears, torches, and every other engine of piscine destruction, would kill, burn and mutilate every fish that ventured into the rivers. Already has this been attempted. For the last two or three years schooners from the United States, have regularly arrived, in the salmon season, at the Bay of Seven Islands, their crews well armed, and have set their nets in the river Moisie, in despite of the officers of the H. B. C. Similar circumstances have occurred at other fishing stations in the tributaries of the St. Lawrence; no means, that I am aware of, having been resorted to for punishing the aggressors or preventing a repetition of their outrages. The River Bersinies has this year (1856) been altogether in the hands of a speculating and rapacious American, who employed the spear of the Indian to furnish him with mutilated salmon, several boxes of which he brought to this city, in the month of September, when they were out of season, unfit for food and flavorless having previously glutted the markets of Portland, Boston and New York with more palatable fish.

There can be but little doubt that many of the salmon streams in Lower Canada would be as productive, under proper management, as rivers in Europe for which large annual rents are paid; but it must be admitted that the great

distance at which they are situated from civilization, the want of the means of intercourse between them and the inhabited parts of the country, the liability to trespass by armed ruffians, and the dreadful rigor of the climate in winter, present very serious obstacles to those who might wish to undertake such management: for obviating some of which I see no better method than the employment, during the summer months, of one or two armed steamers of light draught of water, such as are used for a similar purpose on the east coast of Denmark. These steamers should each have a commander on board, who should be a magistrate and empowered by Parliament to act summarily in cases of infraction of the Fishery Laws, and beside supplying the lighthouses and other public works with stores, oil, building materials, &c., conveying the workmen, managers and fishermen to their several stations, and protecting the lessees of the Province, might also be profitably employed as the means of transporting the fresh caught salmon from the several rivers, packed in ice, to the Railroad stations at St. Thomas and Quebec, from whence they could be distributed to the markets of Canada and the United States. Two Bills for the protection of salmon and trout in Lower Canada have recently become Acts of Parliament. These may possibly be productive of some good in civilized and inhabited districts, but must be utterly ineffective in those parts of the Province where there are no settled inhabitants, no magistrates, and no tribunals before which those who infringe the law can be cited; and this is the case of all the best rivers in Lower Canada.

I cannot close these observations without endeavoring to impress on all who hear me, the necessity for prompt action

in this matter; for there can be no doubt upon the mind of any man who is acquainted with the localities, that if the King's Posts should be abandoned by the Hudson's Bay Company, before some well devised system be adopted for carrying on the work which they have hitherto effected, two melancholy results will be the inevitable consequences, viz.—the salmon rivers will be taken possession of by hordes of lawless men, who will in no way contribute to the revenue of the country, but will quickly and recklessly exterminate the fish, and then desert our shores, leaving behind them no trace of their temporary occupation except the destruction they have wrought—and more terrible still—a whole tribe, of Indians (the Montagnards) will be reduced to a state of positive starvation, for upon the Hudson's Bay Company they have hitherto been, and are now dependent for their ammunition, guns, and other means by which they obtain their food and clothing.

I have considered it my duty to bring every authority I could find to bear on the important subject of the Salmon Fisheries. I should not be doing myself or my subscribers justice, were I not to do so, and having been kindly favoured by a friend, with that admirable governmental document on the fisheries of New Brunswick, by S. Purley, Esq., who appears to have left no stone unturned to attain the information sought for, and who has done the inhabitants of New Brunswick such good service. I have conceived it right to make such extracts, from his work as more nearly bears upon the subject of the Salmon Fisheries, inasmuch as the principle river is a dividing line between the two provinces.—The RESTIGOUCHE—which forms part of the boundery between Canada and New

Brunswick. To Mr. Parley, I would return my best thanks, for enabling me, to cull so much valuable matter from his FISHERIES OF NEW BRUNSWICK.

There is probably no part of the world in which such extensive and valuable Fisheries are to be found, as within the Gulf of the Saint Lawrence. Nature has bountifully provided within its waters, the utmost abundance of those fishes which are of the greatest importance to man, as affording not only nutritious and wholesome food, but also the means of profitable employment.

These fisheries may be prosecuted as well in the open waters of the Gulf, as within every bay, harbour, creek, cove, and inlet in connection with it. Whether on the bleak and sterile coast of Labrador; or on the western coasts of Newfoundland and Cape Breton; or along the eastern shores of Nova Scotia and New Brunswick; or within the Bay of Chaleur; or around Prince Edward's Island, Anticosti, or the Magdalen Islands, the fisherman may pursue his labours with nearly equal chances of success, and the full prospect of securing an ample reward for his toil.

Of those Rivers of New Brunswick which flow into the Gulf of St. Lawrence, the two largest, the Miramichi and the Restigouche, furnish the greatest supply of this well known and delicious fish; but all the smaller rivers also furnish salmon, in greater or less numbers. There are also various bays, beaches, islands, and points of land along the coast, where salmon are intercepted by nets, while seeking the rivers in which they were spawned, to which salmon always return.

The salmon of the Gulf are noted for their fine flavour; thy are precisely similar to the *salmo salar* of Europe.

The quantities of salmon in the Rivers Restigouche and Miramichi, at the first settlement of the country, were perfectly prodigious; although many are yet taken annually, the supply diminishes from year to year. And this is not surprising when it is considered, that many of the streams formerly frequented by salmon, are now completely shut against them, by mill dams without "fishways," or those openings which the British Fishery Re-

ports designate as "migration passes;" that in the branches of the large rivers, as also in the smaller rivers, nets are too often placed completely across the stream, from bank to bank, which take every fish that attempts to pass; that "close time" in many of the rivers is scarcely, if at all, regarded; and that, besides the improper use of nets at all seasons, fish of all sizes are destroyed by hundreds, in the very act of spawning; by torch light and spears, at a time when they are quite unfit for human food.

The preservation and maintenance of the salmon fisheries of New Brunswick generally, is a subject well worthy of earnest attention. To prevent the destruction of the fish during the spawning season, and by improper modes of fishing, as also to provide for the passage of the fish up those streams which they have formerly frequented, but from which they are now excluded by mill dams, some further enactments are absolutely necessary, and more efficient means are required for enforcing the provisions of the law. The most valuable river fishery of the Province is in a fair way of being rendered valueless, or wholly destroyed; and as the rivers are the natural nurseries of the salmon, the fishery on the coast will, of course, be destroyed also.

Aided by railways, the fisheries of the Gulf of Saint Lawrence, now of so little importance, and such limited value, would take rank as one of the highest privileges of New Brunswick—its unfailing source of wealth forever hereafter. And while the efforts of the people were successfully directed towards securing these bounties of Providence, lavished with such unsparing hand, they would rejoice in the goodness of an all-wise Creator, and offer up humble but earnest thanks to Almighty God, for his exceeding goodness and mercy towards his erring and sinful creatures.

The Restigouche is about 220 miles in length, and it has four large tributaries, each more than 60 miles long; with its numerous affluents, it is supposed to drain more than 6000 square miles of territory. At present, this river is the dividing line between New Brunswick and Canada, and the fisheries in

its waters are, therefore, under the control of each Colony, to the centre of the channel.

No river in North America, (except perhaps the Columbia,) yielded so large a supply of salmon as the Restigouche. But its character, in this respect, is fast passing away; the numbers have fearfully diminished of late years; and, if the present state of things continues, very likely a brief period only will elapse, ere the salmon fishery of the Restigouche will be numbered among the things that have been.

Mr. John Duncan, a very intelligent and respectable farmer near Campbellton, stated, that he has followed salmon fishing on the Restigouche for forty years; the fishing has greatly fallen off within the last ten years. Twenty years since, according to Mr. Duncan, 3000 barrels of salmon were shipped annually from the Restigouche; in his opinion, not more than 300 barrels were taken the past season. The largest salmon taken, within Mr. Duncan's own knowledge, weighed *sixty pounds.*

Mr. Duncan, stated, that drifting for salmon was practised on the Restigouche, all along the river, for eighty miles above the tide-way; a net, stretched between two canoes, is dragged down stream, and this is called "drifting." Nets are set, at night, quite across the river, where the channel is narrow; at the same time, parties are engaged with torch and spear, in taking salmon, or driving them into the nets.

Mr. Duncan, however, thinks that the greatest injury to the salmon fishery, arises from the salmon being speared on their spawning beds, up to the very latest moment in the season before the river closes, when the fish are quite worthless; and that the great means of improving the fishery, would be, to preserve the upper part of the river.

The Honorable John Montgomery stated, that salmon are destroyed on the Restigouche, by nets of great length, which are set, as well from the New Brunswick as the Canadian side of the river, and overlap each other, by which the channel is closed and the passage of the fish obstructed. These nets are kept constantly set during the season, on Sundays as well as other

days. Drift nets, extending entirely across the river, are likewise used; spearing on the spawning beds, and drifting over these beds, are also practised. Mr. Montgomery said that spearing goes on at all times, when possible, without regard to season.

Mr. Mann mentioned, as a fact within his own knowledge, that the first salmon which enter the rivers every season, are almost invariably females, and fish of large size. In a hundred fish of the first run, not a single *male* will be found; the males ascend the river later than the females.

The Act of Assembly in New Brunswick, (8 Victoria, cap. 65,) for regulating the salmon fisheries in the County of Restiguche, contains some very stringent and salutary provisions, but then, *they are not enforced.* In practice, the Act seems almost a dead letter, as regards the Restigouche River.

A "close time" should be established, during which salmon should not be taken in any way. The taking of "grilse," or small salmon, under a certain weight, should be restricted, and their sale prohibited. Spearing should be disallowed, and the regulations generally, for this fishing, should be as uniform as possible.

The salmon fishery of the Restigouche, once so abundant and so valuable, requires special attention. The action of the Canadian authorities is also required, to give full efficacy to a prohibitory law within that bay.

The fisheries belonging to the Crown, in the rivers whose banks are ungranted, should be leased, on condition that each lessee should fish only at the proper season, and protect the river at all other times. By this arrangement, the fisheries of the rivers flowing through ungranted wilderness lands, which are now being destroyed in the most wasteful and reckless manner, might be preserved, and rendered profitable. In Ireland, where rivers, whose salmon fishery was nearly exhausted, have been preserved for a time, the salmon have increased most wonderfully; and the salmon fishery, in some cases, has become of exceeding value, in places where, previously, it had almost ceased to exist.

Salmon proceed up the Saint John to the Grand Falls, upwards of 200 miles from the sea ; and they ascend many of its branches and tributaries, for very considerable distances. The writer, at various periods, and at different seasons of the year, having traversed the Saint John, from Partridge Island to the head of Lake Temiscouata, (about 300 miles) and proceeded up nearly all its principal tributaries, generally in light canoes, is enabled to offer a general view of the state of the different rivers usually resorted to by spawning fish from sea.

The first river which the fish enter, after passing the Falls above the Harbour of Saint John, is the Kenebecasis, flowing in from the eastward. Salmon ascend the main stream to Sussex Vale ; and also the Hammond River, one of its branches, to Titus' mill-dam, which has no fish-way, and stops their further progress upward to their former spawning grounds, very far up that river. From Darling's Lake to Titus' mill-dam, on this tributary, and from Hampton Ferry to the head of Sussex Vale, on the main stream, the salmon are hunted and destroyed, in every possible way, by nets, and with torch and spear,—in season, and out of season. The inhabitants appear to be actuated by an insane desire to destroy every salmon which appears in these rivers : and no sooner is it reported, that salmon have been seen, in any particular pool, than the whole neighbourhood is in commotion, with preparations for their destruction—the fish are pursued with untiring zeal, until all are captured, except a very few, which, perhaps, escape to some place of shelter and safety.

The next river, in ascending the Saint John, is the Nerepis, which falls in from the westward. This is a swift-flowing river, with a rocky and gravelly bed. In the summer season, there is but little water in it ; but it is subject to sudden floods, from the high hills in its vicinity, which pour down great bodies of water after rain storms. Fortunately, there are no mill-dams on this river, and therefore, no obstruction, to the free passage of fish. The spawning grounds are far up the Nerepis, in secluded places, near springs of very cold water ; and, as the salmon are able to reach these distant spots, they breed in comparative safety.

There is a valuable salmon fishery near the entrance to this river, at Brittain's Point, (Alwington Manor,) where from 1500 to 2000 salmon have been taken annually, for a long succession of years.

The Jemseg is a narrow, deep channel, which connects the Grand Lake with the River Saint John ; its entrance is three miles above Gagetown, flowing in from the eastward. Salmon pass through the Grand Lake, in order to ascend the Salmon and Gaspereau Rivers, at its eastern extremity. The Gaspereau River is now barred at its very entrance by a mill-dam, which wholly excludes fish from that river. The Salmon River was also barred by a dam for some years; but this was swept away by a flood, about seven years ago, and salmon have returned to the river in large numbers, as it is a favourite breeding place They are, however, poached and destroyed in every way, throughout the entire season, both by Indians and lumbermen, in every part of this fine stream, up to the Richibucto portage, and even beyond it.

The Nashwaak flows into the Saint John from the eastward, nearly opposite the City of Fredericton. Salmon formerly ascended this river, for forty miles or more, but are now prevented by the substantial mill-dam which crosses the river, from bank to bank, about three miles from its mouth. From the vigour with which the salmon have been persecuted below the dam, while struggling to ascend, very few are now taken in the river, and shortly they will cease entirely to frequent its bright and swift-flowing waters.

Mr. Edward Sydney Dyer, who resides at Calais, stated that his father's residence was near the Salmon Falls; he was born there, and resided beside those falls until after he attained to manhood. About thirty years since, salmon were exceedingly abundant in the St. Croix; the average catch at the Salmon Falls was 200 salmon per day, for three months in each season.

The Tobique is a magnificent river, which waters a wide extent of country, east of the Saint John. A mill-dam which was erected at the Red Rapids, about fourteen miles above its mouth

was cut away by the lumbermen, because it obstructed the navigation, and was therefore a public nuisance. There is nothing now to prevent salmon ascending this river, and very many still go up it every year; anciently, they passed up in thousands. There is an Indian village at the mouth of the Tobique, which is the principal settlement of the Milicetes of the Saint John; and these Indians, aided by lumbermen, and poachers of all shades, from every clime and country, pursue the salmon up to the very sources of the river, and destroy them by every species of contrivance, without the slighest regard to season, or the condition of the fish.

The Arestook is another noble tributary of the Saint John, entering it from the westward, about two miles above the Tobique, on the opposite side. Owing to some lofty falls on this river, about four miles from its mouth, and within British territory, salmon can ascend it no farther, and here also, they are subjected to great slaughter. Very few salmon ascend the Saint John above the Arestook, although some occasionally reach the basin below the Grand Falls; when they do they are netted and speared in such an effective manner, that few ever escape.

From this brief notice of the principal tributaries of the Saint John, frequented by salmon, it will be seen how greatly fish-ways are required in the various mill-dams, and the necessity that exists for some superintendence over these rivers, as otherwise the breeding fish will be wholly destroyed ere many years elapse, and the valuable fishery in the Harbour of Saint John, and along the lower part of the river, will scarcely exist.

The settlers here said, that before the dams were built across Salmon River, the fishing was excellent, and persons came from all parts to catch salmon there. One man had caught as many salmon there, during a single season, as sold for £90; and during another season, fifty years since, Wright and the Tufts caught 40 barrels, while some others who fished in company, caught 20 barrels more—now, not a single salmon is caught in the river!

Although the lower part of this river, so far as the tide-way extends, is excessively muddy, yet above the tide, its waters are

bright, and ripple gently over a gravelly bed, forming an almost constant succession of pools and rapids. Great numbers of salmon, generally of small size, formerly frequented this river: but latterly, owing to the unmerciful and cruel manner in which this fish has been hunted and persecuted, as well in the tide-way as above it, they have greatly diminished, and are at present in a fair way of being extirpated altogether.

In August, 1848, the writer was on the upper part of this river, near the head of the tide, and at night, saw thirty-five hay-makers making war upon a few salmon which had reached a pool the day previous. They built large fires upon the banks, and entering the pool, some wading, and others in canoes with torches, each man armed with a pitchfork, they pursued and mangled the fish until the whole were killed. At a pool farther up the river, the next day, the writer saw a boy in a canoe, with a pitchfork, pursuing a solitary salmon in a shallow pool, from which it could not escape; the fish was killed at last, but so mutilated as to be almost worthless. Every where on the river, the same destruction appeared to be going on; it was said by the inhabitants that no regard was paid to season, but that salmon were always taken, whenever and however they could be had.

Unless it be intended, that the salmon fishery of the Petitcodiac shall be allowed to cease altogether, as a thing of no value, it is absolutely necessary, that steps should be taken to restrain this wanton destruction of fine fish. If the river is not put under some superintendence, to restrain the destructive inclination of the sojourners on its banks, it cannot be expected, but that the salmon shery of the Petitcodiac will fishortly be remembered as a fishery that has been, but which no longer exists.

The salmon enters the rivers of Nova Scotia during the latter part of April. Those rivers of New Brunswick which fall into the Bay of Fundy, the salmon enters at the latter part of May; while it seldom enters the rivers which fall into the Gulf of Saint Lawrence, until the month of June. The female salmon first enters the rivers; the male fish follows, about a month later than the female; and lastly, come the grilse, or young

salmon, which continue to ascend the rivers during July and August.

Before entering the rivers, they live a while in the brackish water of the tide-ways, as they do also when they descend to the sea, to render the change from one to the other less abrupt, and to rid themselves of certain parasitical animals, which attach to them, when they remain long either in fresh water, or in salt, as the case may be.

The spawn is not deposited until the water is greatly below its summer temperature. Professor Agassiz stated personally to the writer, that 42° of Fahrenheit's thermometer, or 10° above the freezing point, was the temperature at which salmon usually cast their ova. It is absolutely necessary, that the water should be aerated, or highly supplied with oxygen; hence the salmon resort to shallow, pure water, and swiftly running streams, the rapidity and frequent falls in which, impart purity and vitality, by mingling their waters with the atmosphere.

In this state the young salmon fry are called parrs, and are readily known by their silvery scales, and by their having perpendicular bars, of a dusky gray colour, crossing the lateral line. In this state, the fry remain a whole year in the fresh water, not going down to the sea until the second spring after being hatched. As they readily take both fly and bait, great numbers are often destroyed in mere wantonness; and it is desirable all colonists should know, that the destruction of these fry, (which from their dark cross-bars and small red spots like the young of trout, are supposed not to be the young of salmon) will inevitably destroy the run of salmon in any river, and tend, with other causes, to the extirpation of this magnificent fish. When parr are taken in angling, they should, if uninjured, be immediately returned to the stream, and every true sportsman will carefully do so.

The growth of the parr is very slow, but when it has attained the length of 7 inches, a complete change takes place in its colour. The dark cross-bars disappear, as also the small red spots, and the fish assumes a brilliant silvery appearance. It

then bears the outward semblance of what it really is, a young salmon, and is termed a salmon-smolt.

As soon as this change has taken place, the smolt evinces the most anxious desire to visit the sea; and it is alleged, that if it is prevented doing so, by any insuperable obstacle, it will throw itself on the bank and perish. Up to this time, the growth of the young salmon has been very slow, but on reaching the sea, it is exceedingly rapid; a smolt of six or seven ounces in weight, after two or three months absence in the sea, will return as a grilse of four or five pounds weight; this has been proved beyond all dispute. Smolts have been taken by hundreds, marked with numbered tickets of zinc attached to their dorsal fins, then set at liberty, and recaptured in the autumn of the same year, as grilse, varying from two to eight pounds in weight. These have been released with the labels unremoved, and have been seen in the spring of the third year, returning to the sea, with weight not increased; in the succeeding autumn, they have been once more taken, as full grown fish, from 16 to 25 pounds weight.

Fly-fishing for salmon, in Nova Scotia and New Brunswick, increases annually, as the various rivers become known, and the proper localities and seasons are ascertained. The two most noted rivers in Nova Scotia, are the Gold River, which flows into the Atlantic, west of Halifax, and St. Mary's River, to the eastward of that port. In New Brunswick, the best rivers are the South West Miramichi, from Boiestown upwards, and the Nepisiguit River, which flows into the Bay of Chaleur at Bathurst. It is known, however, that there is good salmon fishing in several other rivers, of both Provinces; while it is believed, that there are many rivers, especially in the northern part of New Brunswick, yet untried, which if visited by experienced sportsmen, not afraid of rough work at the outset, would afford good sport, and heavy fish during the whole of every season.

By these extracts relating to the RESTIGOUCHE (which

more nearly concerns ourselves) and the fisheries of the province of New Brunswick, it will be perceived that the same foul practices were followed there, as in our own waters; but, it is satisfactory to know that much good has been effected through the attention, that His Excellency Sir Edmund Head, (the then Governor of that province,) caused to be given to the subject.

The following extract will shew the great interest that the GOVERNOR GENERAL evinced on behalf of the Fisheries of New Brunswick:

At the meeting held at Campo Bello, for the formation of a Fishery Society there, Captain J. J. Robinson, R. N., spoke at some length.

The gallant captain said, that the formation of Fishing Societies was the commencement of a new era for fishermen, as by such combinations, they would acquire a position that would not only benefit themselves, but also benefit the general trade of the country. He alluded to the value of the exports of fish from Nova Scotia last session, more especially from Halifax; to the impetus which had been given to agriculture, by the formation of Agricultural Societies in every district, to the money that had been spent for procuring agricultural information, and for Professor Johnston's survey and report,—and said, that the like expenditures would be made for the promotion of the fisheries, if the fishermen united and made common cause. "We have already many friends," said Captain Robinson, "and shall get many more. Last year, SIR EDMUND HEAD sent Mr. Perley down to inspect our fisheries, (and considering the limited time he had to do it in, his report is an able one, in my opinion; and our Wardens state to me, that wherever they have been, it is correct,) and I would mention here, THAT NO ONE IN THE PROVINCE HAS THE WELFARE OF THE FISHERIES MORE AT HEART THAN OUR RESPECTED GOVERNOR. I am persuaded, that he at least will give us all the assistance in his power; he has repeatedly written to me, expressing his

lively interest in the subject, and approving of such proceedings as those we are now met for." It was then explained to the meeting, that if they subscribed £20, they would be entitled to draw three times that amount from the Provincial Treasury; and that the money would be entirely under the control of the Society itself, to be expended in objects connected with the advancement of the fisheries.

The following note shews the value attached to the fisheries by our neighbours of the United States, and the enormous bounties given by them in aid of the fisheries, whereas our poor fishermen have to rely on their own resources for their means of support,—nor is the payment of bounties necessary with us.—Let us protect our own waters, and we will soon be in a very flourishing state, which no bounty, on the part of the States, will ever be able to effect. The following is from a letter received by Mr. Purley from the Collector of Customs at Boston.

"*We pay at this office annually, about the sum of* $225,000 *for fishing bounties. The business is one in which I take a great interest, and when your Report is published, I shall hope to receive a copy of it.*"

AN ACT FOR THE PROTECTION OF FISHERIES IN LOWER CANADA.

[*Assented to* 30*th May*, 1855.]

Whereas it is expedient to provide against the destruction of Salmon, Maskinongé and Trout Fisheries in Lower Canada, which would result from a continuance of the present practices of killing and taking those Fish during the spawning season, and with stake or barrier nets, and by the aid of artificial lights at night: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Canada, constituted and assembled

by virtue of and under the authority of an Act passed in the Parliament of the United Kingdom of Great Britain and Ireland, and intituled, *An Act to re-unite the Provinces of Upper and Lower Canada, and for the Government of Canada*, and it is hereby enacted by the authority of the same, as follows :

I. It shall not be lawful to take or kill any Salmon, Maskinongé or Trout, or to buy, sell, or possess any Salmon, Maskinongé or Trout taken or killed in any River, Lake or Stream in Lower Canada, between the first day of October in any year, and the first day of February following.

II. It shall not be lawful at any time to take or kill Salmon, Maskinongé or Trout in any river, Lake or Stream in Lower Canada, by means of stake nets or barrier nets, or any other self-acting machine, nor by the aid of torch-light or any other artificial light; Provided always, that during the months of June, July and August in every year, the Proprietors of Salmon Fisheries may take and kill Salmon by means of nets other than stake or barrier nets, and having meshes of at least two inches in diameter each.

III. Every offender against any of the provisions of this Act, shall for each offence incur a penalty not exceeding two pounds ten shillings, currency.

This Act became law during the Session of 1855, and although not what it should be, yet it has effected some good within certain districts. It is a matter of congratulation to be able to state that the Hon. J. Cauchon, Commissioner of Crown Lands, is about to introduce an effective measure for the proper protection of the Fisheries, against all parties who may be found destroying them, as heretofore. The Hon. Gentleman deserves the support of the combined Legislature—and the thanks of the whole community, in his laudable efforts, to effect so great a public good, and after years will find his name spoken of

with thankfulness by every poor Canadian of Lower Canada ; for I feel confident that a proper protection of the SALMON FISHERIES will bring about a great field for employment, and a large increase of valuable food for all classes.

CHAPTER XVI.

The subject of the protection of the Fisheries, and the Artificial propagation, is of far greater importance, than it is generally supposed to be. In it is involved the social condition of the people.

I have always been of opinion, that true Legislation consisted, in devising the means whereby the people shall be made contented and happy. To produce these results, it is necessary that they should be enabled to procure the food, which is essential to their existence. Idleness produces want—crime, discontent, and numerous other evils follow in the train,—hence it becomes apparent, that employment should be found for the people, if these results are to be obtained.

In Lower Canada where there are abundant resources for the employment of the inhabitants, amid their forests and their fisheries ; the people are being led,—not into crime,—for it is against the principles which are early instilled into them, but,—to emigrate. We constantly hear, that our rural population are leaving us, and emigrating into the States and elsewhere, for want of employment.—This should not be!—Here is a vast field for employment.—The fisheries alone could be rendered so abundant and lucrative,

as to absorb all our surplus labour. The fishing, the salting, the packing in ice and in tins; the facilities given us by rail and steam, enable us to send the fish, fresh from the rivers, to the States, the West Indies, and even to Europe.

In fact, it involves labor of all description, and the great peculiarity of the whole is, that the "Article" itself is provided us, free of cost, or nearly so, the calculation that has been made says, "about a farthing per salmon," for the necessary protection. How is it!—that the people from the States can come here, after making the necessary preparation, pay duty for the apparatus and material in which to place the fish: cook, prepare and hermetically seal some,—pack in ice others; and even then make large profits. While our people from the same districts where this wealth is obtained, are compelled to emigrate, to obtain a livelihood! It appears perfectly absurd, but so it is.

CHAPTER XVII.

CONCLUSION.

In the compilation of this little work I have been sustained—by the reflection of the honour conferred—and invigorated by the often expressed good wishes of my many friends; and, by an ardent desire on my part of seeing the boundless resources of my adopted country, developed and made available.

Should this little seedling tend to produce the fruits hoped for,—should it in any way tend to awaken public opinion, to a right appreciation of the value of the rich harvests

that successive seasons bring to our shores,—should it tend to bring about a determined expression of opinion on the part of the legislature and the people,—*that the seed of the salmon shall be protected;* and that *seed time* shall be given, to vivify and bring it into life,—should it tend to destroy every spear and negog in the country, and to the giving the fish a *right of way*, up every river in the province, —should it tend to abolish the use of the illegal net, and lead to the adoption of seines of the proper sized mesh; to the encouragement of the valuable artificial process, to the propagation of the salmon of the Lower, and the salmon-trout of the Upper province—I shall be indeed well repaid, and I shall be thankful, that I have been permitted to be the instrument of some little good, to the inhabitants of a country, among whom I have found many friends.

I have ever considered it a duty we owe to each other, and to society, to endeavour to effect what possible good lay in our power. We are all endowed more or less with some peculiar talent, which we are called upon to exercise; and, where a great public good is concerned, we ought to use every energy to accomplish it. Here is a great public question. SHALL THE FISHERIES BE PROTECTED? Reader, I have done my duty! Do thou go, "and do likewise."

ARTIFICIAL FLY FISHING.

Of the many appliances, which the ingenuity of man has devised for capturing the finny tribe, the gentle art of fly fishing, soars at an immeasurable distance above all others.

In the structure of the fly, and in its use, in tempting the fish from the pebbly brook, the dashing river, or the lake, (give me river fishing,) the most fastidious can have nothing to object to. The hand requires no glove to keep it clean, no baiting hook with writhing worm, or living minnow. Freed from all such annoyances, the sportsman wends his way—o'er mountain, hill or dell, with rod and book. Arriving at the stream, his flies are chosen, attached to his collar of well tried gut, his line of silk and hair; and thus prepared he wanders on, along the grassy dell, or craggy rock, using his judgment, to determine where the fish lie hid. And now he takes a cast, if for a *salmon* with a single fly; the line is in mid-air, and with a gentle, but firm motion of the wrist, is brought to hover near yon curling eddy, or projecting rock. The fly with fairy foot-steps dances in measure to the murmuring stream, skimming its surface in its airy march, but ah! the dance is o'er, the fly's invisible, but the music still is heard,—the music of the reel. Seeking his prey, "the biter's bit."

> The keen eye of the fisher saw the rise,
> A motion of the wrist secured the prize.

The barb is felt, and maddened with the pain the noble animal seeks to relieve himself, and makes successive dashes clean out of the water; the dash of the tail resounding as a pistol shot; and now down stream he hies, the ringing of the reel is heard, and now he dogged grows, seeking deep water, there he holds his own, with the tenacity of a limpit to a rock, and yet 'tis no avail. Throw pebbles, stones or mud. Give him the butt, and let him feel the hook. Be wary! inch by inch, you feel him move, and now he dashes headlong from the stream in quick successive leaps. At last he weaker grows,—behold his silvery sides! press gently on him, drawn him to the shore; and now, with gaff prepared and practised hand, strike him with care, and haul him on the beach.

I would all men were fishers! I love the sport, and not being selfish, would have them love it too. Apart from fishing, 'tis a field for contemplation, wandering o'er hill and dale, 'mid grassy glade and upland lawn,—'tis nature's school! and he who will not therein learn a lesson, is a dull soulless clod, and ne'er deserves the name of man.

ARTIFICIAL FLIES.

The little experience I can bring to bear upon the choice of flies, is briefly given. I copy nature as nearly as I can, and go provided with the necessary appliances for making flies; and many a dish of fish I've killed by acting thus. Fish are coquettes, and like the fair sex, very fanciful, sometimes they'er tempted by the scarlet, and then again by green and gold; sometimes they'll turn their tails upon the tinsel, and chose the sombre shades of black and brown.

I have found that on certain rivers, there are certain flies, which one may call favourites. I purpose giving a few, but very few examples, always premising that experience is the best teacher.

The size and colour of the flies to be used in salmon fishing must always vary according to circumstances; the state of the waters, the season, the bright or dull day, and many others which the judgment of the angler must determine.

As a general rule, I prefer the dull coloured to the gaudy. When the river is turbid and swoollen I choose the larger fly, and when clear and tranquil, the smaller, with finer casting line. Again, I copy nature as nearly as I can, and oft have found the benefit therefrom.

No. 1. Drake wing; fiery red body; red hackle, twist of green peacock herl,—attennæ same as wing.

No. 2. Grey mallard wing; orange body, gold tinsel and ginger hackle,—same with black hackle very good.

No. 3. Grey mallard wing; body dark green, black hackle, silver tinsel.

No. 4. Grey duck wing; body grey; ginger hackle, silver twist, attennæ, same as wing.

No. 5. Dark turkey wing; yellowish brown body, red hackle, peacock's herl and head, attennæ, green peacock herl.

No. 6. Mallard wing; dark green body, turkey's green and brown herl intermixed, tipped with red—attennæ black.

No. 7. Grey turkey wing; body straw coloured, black hackle, silver tinsel—attennæ, long straw coloured.

No. 8. Wing, turkey; claret and orange mohair body, black hackle, gold tinsel.

No. 9. Wing, English jay; distended, lightish green body, silver tinsel, black hackle, attennæ, green peacock herl.

No. 10. Wing, grey goose; body claret, tipped with red, a twist of peacock's green herl, black hackle, attennæ, thin herl of peacock, green.

No. 11. Wing, grey goose; body peacock's green herl, and yellow tip, black hackle, body large.

No. 12. The favorite, (*or nettle fly*) Wing; brown bittern; body yellowish brown, red hackle, twist of peacock's green herl around the body, attennæ same as wing.

I claim this fly (No. 12) from the following incident:—Fishing for trout in the River St. Charles, I arrived at a broad deep pool, and having thrashed the water for some time, was standing on a rock; when, from a high tree behind me came hovering down a natural fly: scarce had he reached the water ere a salmon sprang, and caught him as his prey.

I danced the green sward with delight, and immediately sought among the trees for a similar fly; having found one, I chose nature for my guide, and scarcely had I thrown a second cast, when a fine fellow rose and took my fly. Alas! my poor trout line had seen much service and was rotten. I held my fish for scarce three minutes when dashing down the current off he went, and off, too, went

my line. Again I tried, and with the like success,—the fish were monsters, and again I broke my line. I'll try no more with such weak tackle! I was stopping for a few weeks at the village, and having hastened home prepared my salmon gear, made a few good flies, copying my natural fly as near as possible. The early dawn saw me at the river's brink,—two friends were with me to see the sport, I threw, and threw again, at each successive cast a fish rolled up, shewing their backs and fins. My friends exclaimed, "They're porpoises, not salmon!" I got enraged, I could not strike a fish. At last a fellow rose and took the fly, I struck and hooked him,—no fear now, my tackle's good, and so with some slight caution, and a little time, I killed my fish: a small one in comparison with those I killed the ensuing week.

That was in '51, and every year I have killed fish with flies of the same make. Last year I beat the waters with larger and different flies, some I had given me by my friend Dr. Adamson, favorites of the Moisie and other streams below the Saguenay,—'twas no avail. I saw a heavy swirl, and though it was a fish, hastening ashore, I put on my favourite fly, and in less than five minutes had hooked a monster fish, which, after an hour's hard stand up fight,—o'er rapids, rocks, and falls, I landed, and that without a gaff,—a splendid fish of eighteen pounds, and just three feet in length.

Therefore, my piscatorial friends will sure admit:
The claim I make, to name my favorite.

TROUT FISHING.

Several of the Subscribers to this little work having expressed a desire that I would devote a short space to the subject of Trout fishing, I have felt great pleasure in complying with their request, and now devote a few leaves to the mode of fishing—the when—and the where to fish, &c.

As in Salmon fishing, so in Trout: a little practice is worth a volume of theory, and that particularly in fly fishing; in fact, nothing but practice will make a fly fisherman. Bait fishing, though requiring a little judgment, is more accidental in its results. I have been beaten by a lady, fishing from the same boat; the fish appeared to prefer being taken by her line and hook, and very few came to my share. The fly fisher is ever called on to bring into practice those reasoning faculties which we must suppose the fisher to possess. He must know that the soft warm breezes of June, bring into existence the innumerable Ephemera tribe; and that more particularly the evening, shews them skipping and dancing lightly o'er river, lake and stream. He will then—

> "See the Trout in speckled pride
> Sportive to the bosom spring."

Consequently, the best thing that he can do is to see what sort of a fly, or flies, the fish are rising at, and choose from his fly book those that more nearly approach, in color and size, *the natural fly*, and by his skill try to imitate their

hovering motion. A quick eye, and a peculiar turn of the wrist, is essential to make a good fly fisher, for though sometimes the fish may hook themselves, still it is only by chance that such an occurrence happens.

It is scarcely necessary to say that for Trout fishing, your apparatus must be finer than for Salmon.

In the selection of a rod, unless you are experienced in the matter, I would advise you, in all cases, let an old fisherman choose one for you. I know nothing that is more tedious than to have a badly balanced rod, and therefore, let your chief care be to guard against such an error; or you will find perchance, that you have made toil of what would have been pleasure. With a nicely balanced rod, you may fish all day, and not feel the least fatigued. A rod of from twelve to fourteen feet is sufficiently long for trout fishing. The butt should be hollow, to contain one or more spare *tops*. I prefer the spliced rod, without the ferrels, as giving a greater pliancy; but they require more care, and a young fisherman had better chose the ferrelled one.

The line should be silk and hair, dark coloured, and about thirty to forty yards in length; and after fishing, care should be taken always to dry it, as, if reeled up when wet, it will soon rot. I generally rub my line down with a little sweet oil, and afterwards with a dry piece of flannel; it throws off the water when fishing, and prevents the line from *kinking*.

The reel should be a multiplier, without the stop, the *check* of which has lost many a fine fish.

TROUT FLIES.

I here give a selection of a few that I have ever found to be good killing ones. As I have remarked in another place, I copy nature as nearly as I can, and it is what I am particularly fond of. I could sit all day and make flies. I catch the natural fly, and with my magnifying glass view the different colours, and, as near as possible copy them. I am of opinion, that the water acts as a magnifier on the vision of the fish: else, why do the salmon and the large sized trout rise at the small midge fly? I may be wrong, but such is my opinion. This fly is scarcely larger than a pin's head, and yet we find the fish rise eagerly at them. It cannot be from any nourishment they receive;—but even here comes diversity of opinion. I have read lately, that fish of the same weight were kept in a confined water; one portion were fed on worms and such like food; the others on flies alone. After a few months they were taken out and weighed; and the result was greatly in favour of those fed on flies alone. I do not wish to dispute the matter, but would only remark, that it appears very singular. This is mere speculation, and apart from our subject.

No. 1. The red hackle and red palmer are flies that invariably kill in the early seasons.

No. 2. The Dun Fly—bittern wing, brown body, and red hackle; tinsel gold.

No. 3. Brown Fly, for June—English partridge wing; body, brown mohair; red hackle, twist of green peacock's herl.

No. 4. Grey Drake wing, black body and hackle, with silver tinsel.

No. 5. The Orange Dun—starling's wing; body, squirrel's fur; red hackle, and gold tinsel.

No. 6. Black Ant Fly—light coloured wing, ostrich black herl, black hackle, twist of peacock's green herl.

No. 7. English partridge wing; fur of hare's ear for body; dirty red hackle; silver tinsel; attennæ, partridge wing fibres.

No. 8. Blue Bottle Fly—pale wings; body, peacock's green and copper herl mixed; hackle, black.

No. 9. Guinea Fowl wing; blue body, black hackle and silver tinsel.

No. 10. Green Drake—Mallards mottled wing, stained olive; head and tail, coppery peacock's herl; body, yellow floss silk, ribbed with brown; attennæ, rabbit's whiskers.

No. 11. Gray Drake—Mallards mottled feathers, to stand upright; body, white floss silk, ribbed with brown; attennæ, rabbit's whiskers.

No. 12. Partridge wing; body, peacock's green and coppery herl mixed; red hackle; attennæ, red hackle fibres.

No. 13. Grouse wing; body claret, (pigs down,) red hackle, gold tinsel, (a deadly killer.)

There are various other that are excellent killing flies, and which must be found in a well stocked book.

Within a few miles from Quebec, there are very excellent rivers and lakes, which afford good sport.—Lake St. Joseph, Lake St. Charles, Lake Laurent, Lake Joan, Lake McKenzie, Lake Beauport, Lac Sagamité, and several others. Rivers Montmorenci, St. Charles, River Joan, St. Pierre, and many others; and should the sportsman

desire to pass a few weeks down the river, he will find plenty of sport on either shore—either lake or river fishing.

Lake St. Joseph, distant about 25 miles from Quebec, is a most magnificent sheet of water. It affords excellent fishing for both Trout and *Bass*—the Trout fishing in June and July, and the Bass (black) in August. With proper care and a due regard to the proper time for fishing, this lake would prove the fortune of any person who would attend solely to the business; indeed, hundreds of families could subsist by the sale of the fish that could be taken here. This lake empties into the Jacques Cartier river, and with but little trouble, the Salmon could make their way up to the lake; and if such was the case, there can be no computing the vast results that would arise from such a circumstance. All that is required, is to make a Salmon slide with one or two rests, and all obstacles would be overcome. It is not a fortnight since some splendid fish were brought to our market from this lake, one of which was said to have been a salmon. I was asked to go and see it. I did so, at the house of the gentleman who had purchased it for twenty shillings; and I much regretted to find that it was only a very large lake trout, though it had many scales. I should suppose it weighed from 14 to 15 pounds. The other lakes that I have mentioned abound in trout, but those that are nearer to the city are being destroyed, by the evil habits of fishing during the spawning season. This last fall and winter has seen less fishing, and the *Act*, I think, has been of some benefit. An example was made of one most notorious fisher. Legal proceedings were taken against him, which I think, and indeed know,

deterred others from fishing. It is unpleasant to have recourse to law, but better do so than have the fisheries destroyed.

Lake Saint Charles has long been famous for affording some splendid sport. This lake is in shape like an hour-glass, narrowing at the centre. Immense fish are occasionally taken here. Formerly they were much more abundant. The narrows is a favourite spot for fishing. At the head of the lake there is a different species of trout caught—the silver trout—owing solely, as I believe, to there being fine sand banks in the locality. Some persons prefer fishing in the lower lake. The large fish are generally taken at day break, with bait lines.

Lake Beauport is my favourite lake, and here the finest fish in Canada are taken. In shape, in colour, and in flavour, no other trout can equal them. It is indeed a fairy spot, embosomed on all sides by woods, with here and there a farm. I can conceive no enjoyment equal to a day or two spent in the month of July, at this lovely spot. I ought to speak well of it, for a short residence there restored me to health, after having been seriously ill for above two months; and I would certainly advise invalids to pass a few weeks in this locality. I consider that one Lake Beauport trout to be worth a half dozen from any other lake; and on an evening in the months of June, July, or August, you may chance to get some very good sport The green drake is the fly for this lake in July, though have killed some fine fish with the black fly, body tipped with red or yellow:—and with the yellow wing, brown body and red hackle. This last summer some fine fish were taken in this enchanting lake.

My readers must excuse me from entering more fully into the subject of Trout fishing. I had not intended to have touched on it in this little volume, but to oblige my many friends, I have given this brief sketch. Should it be the means of affording the least information, I shall be satisfied; and I now conclude, as at the beginning, by impressing on the minds of my young friends especially, the adage that we all must have heard, viz. :—That "practice makes all things perfect."

TRIP TO THE SAINT MAURICE AND THE "SHAWENEGAN."

Having made arrangements with two friends (H. S. Scott and W. Hossack, Esqrs.,) to visit the Shawenegan Falls, we left Quebec in the Steamer *John Munn*, for Three Rivers, with a great many passengers on board; the Provincial Exhibition being to be held at that place on the following day. Spending a very pleasant evening, we arrived at our destination at about 11:30, P.M. We found the town all alive, noise, and confusion; here a bull roaring—there a cock *neighing*—all manner of cattle roaming the streets at large, and half the town in the same predicament—every hotel being filled to overflowing, and not a place to put one's head in.

Fortunately, a Steamer lay alongside the wharf for the accommodation of visitors. We went on board, secured good berths for ourselves, and turned in to take an hour or two of rest; being far better off than we could have been at the best hotel in the place. Up at about 5 o'clock; wandered through the town, and having made arran

ments for a good conveyance to be ready at about 8 o'clock, returned on board the steamer to breakfast. Having prepared the necessaries for creature comforts in the shape of plenty of eatables, off we started for the Greis; a distance of sixteen miles, where is situated "Baptist's Saw Mills." After a pleasant drive of about three hours—having passed the St. Maurice Forges—we arrived at our destination, at least so far as land carriage was concerned, where we had the noble St. Maurice first brought into view. Here we hunted up an Indian, and having desired him to prepare his airy bark—his birch canoe, we went to the carriage to get our provisions, as we felt disposed for a lunch. Alas! for the cravings of the inward man—all our provisions had been left behind. "A pretty fix!" cries one. "'Twas your fault," says another. Fortunately, our drinkables had been stowed away by Mr. W. Poston, a friend who had joined us.—"In *clover!*" so far, so good. Now, let us hunt the village. We manage to get a loaf of bread and some butter, and away we start. Reader! if thou hast not visited these falls, or been wafted up and down this river; I would advise you to embrace the first opportunity and do so; for you will enjoy a rich treat. A more magnificent sheet of water is not to be seen in any part of the Province. What a splendid ground for the artificial propagation of the Salmon! Enough could be procured here to supply the whole district of Three Rivers—I had almost said, for the whole Province.

From the Greis to the Falls is nearly seven miles, two-thirds of which is boomed with logs of immense size; erected by Government to facilitate the lumberer in his arduous task of bringing down the timber from the upper waters, which otherwise would float down the falls at the

Greis. After a most delightful paddle for about two hours, crossing and recrossing the river to take advantage of the smooth water,—now and then taking a cast with the rod; we arrived within a short distance of the Falls, which an angle of the river still hid from our view. Leaving the canoe, and placing ourselves under the guidance of our Indian, who led us through the windings of the forest, we at last heard the thunderings of the dashing torrent, and in a short time the grandeur of the Shawenegan Falls burst upon our view. We were indeed repaid "for our loss of provender." The sight was sublime. We sat and gazed in delight. What a field for contemplation! Here man feels his own insignificance, and if his mind is rightly *attuned*, must bow in reverence and gratitude to that Creator who has made "all things for his use." It is not a correct term to apply the word *falls* to the "Shawenegan;" it is rather an immense volume of water running down a vast inclined plane, which, if laid bare, would possibly present the appearance of a succession of steps, at an angle of about 30°. Here is the "meeting of the waters," the confluence of two branches of the river, on one of which there is a very pretty fall of about ten to sixteen feet. Our guide directed our attention to the height the river attains at the spring freshets, at which time it must be grand indeed, and scarcely exceeded in the volume of water, even by the Niagara. It was with reluctance we left this pleasing scene, but time waits for no man; so, returning to our canoe, we embarked, and caused our guide to paddle as near the fall as he could with safety; to give us a view of an artificial slide; down which the lumber is sent from the upper waters, into the boiling foam below, and thence on its onward course.

Seated comfortably in the bottom of our frail canoe, enjoying with a keen appetite our bread and butter and the "cup of brown ale," we glided swiftly and pleasantly along till we arrived at the *Greis*, whence, after viewing the Saw Mills, we drove home, spending a most delightful day. It was dark when we arrived at the Forges. They were busily engaged smelting; consequently we had a good opportunity of viewing the works, which appear to be in rather a languishing state. The iron from these forges equals the best Swedish, and the prices that are now obtained for the metal, ought to cause active operations. We reached Three Rivers at about 9° 30': remained a short time, awaiting the "John Munn," on her downward trip, and during that time, the steamer from Quebec arrived with a great many passengers on a visit to the Exhibition. Soon a hue and cry went around. I have been robbed, says one; some one has stolen my purse, says another; and in a short time, some dozen persons found that they had been robbed of their purses, some from their pockets, others from their bags; three in one family were sufferers,—the brother and cousins of one of our party. Some fifty pounds were stolen in less than a quarter of an hour, and the next day several shared the same fate, on the grounds of the Exhibition. The pick-pockets, it appears, were a party of infamous scoundrels from the States; who calculated on making a rich harvest among the simple habitans at the Agricultural Show.

At 11, P. M., we embarked on board the 'John Munn,' and the next morning, at about 10, reached Quebec, much gratified with our trip.

FINIS.