

Fish Culture at Dunk River.

(From the *Summerside Progress*.)

Any person wishing to understand the process of artificial salmon hatching, go to the Fish-breeding establishment at Dunk River. A few days ago we paid a visit to the place, and we had the good fortune there to find Mr. Samuel Wilmot, the celebrated Canadian fish culturist, of the Fisheries Department, Ottawa, who kindly showed us through the establishment, and explained to us the process of hatching salmon ova. The hatchery is situated about three miles above what is known as Dunk River Bridge, and is about nine miles from Summerside. The situation is a beautiful one. The building is seventy feet long, thirty feet wide and fourteen feet post, and is of a handsome Gothic design. Mr. Wilmot informed us that all the buildings erected for the purpose of fish culture, throughout the Dominion are all of the same style and dimensions. The building and sheds were erected by Messrs. Tanton and Williams, and the reservoir embankment was built by Messrs. Alfred Schurman and Henry Clark. The contractors in both cases have performed their work well. The building is fitted up with all the latest and most approved apparatus for incubating fish. On the lower flat is the breeding room, office and stairway. The upper storey is occupied by the caretaker as a residence, and is well laid off with kitchen, parlor and bedrooms. The building is well lighted, and thoroughly finished throughout, with a view to securing the greatest warmth and protection from frost in winter. This is essentially necessary in carrying on the delicate work of hatching salmon ova. Mr. Wilmot informed us that the site of the Dunk River Hatchery is the most eligible and convenient of any establishment of the kind in the Dominion. The land on which it stands has been given, gratis, by the Hon. J. C. Pope, Minister of Marine and Fisheries. Just above the reservoir, the river runs through a thick wood, and the stream at this point is about twenty yards wide, with a high bluff or bank on each side. No fish-stair is needed to catch the salmon. The trap or flume is covered in, and through it the water rushes from the reservoir. The salmon make their way against the stream, through a narrow opening into the trap, and once in they cannot easily find their way out. Salmon never swim with the stream, until after they have deposited their spawn. About fifty or sixty large salmon were in the trap at the time of our visit, and so slow were they in their movements, that they might be caught without any trouble. In fact, they looked more like floating sticks than fish, so sluggish did they appear. The breeding room is supplied with water from the reservoir. The water comes through a pipe into a large wooden trough, about two feet square, which runs almost the whole length of the building. From this large trough the smaller troughs are supplied by taps. Those small troughs are made of wood, and are about twenty feet long, six inches wide and four inches deep. Those small troughs are set upon frames about two feet above the floor, and are ranged side by side across the building, and occupy the greater part of the breeding room. Each trough has a small shelf about half an inch from the bottom, and upon this shelf rests a lot of small sheet metal pans, each about ten inches long, and about an inch deep. The bottoms of those pans are perforated, and it is on them that the salmon ova are left to be hatched out. It must be remembered that in order to hatch the eggs, clear running water must be kept continually running over them. The small shelf at the bottom of each trough is made so that the perforated pans may be kept clear of the bottom, in order that all sedimentary matter may be carried off, leaving the eggs perfectly clean. The small troughs are placed on a small incline, so that the water from the large troughs flows out again through a trap, and passes out through the floor into the stream. The water is kept constantly running over the eggs during the process of hatching. When the fish are ready to spawn the salmon are taken from the trap, and the eggs extracted by merely passing the hand, with very slight pressure, along the belly of the fish. The eggs are then carried into the breeding room, and placed upon the perforated pans, before described. There they are allowed to remain until hatched. The pans may, if necessary, be placed in three tiers. Each pan holds three thousand eggs; and Mr. Wilmot informed us that, generally, five hundred eggs are obtained from every lb. weight of the female salmon. Thus a salmon weighing ten pounds will yield five thousand eggs. Dunk River establishment has capacity for hatching out from four to six million salmon eggs each season. Of course, a great deal of attention must be paid to the hatching process. Care must be taken that all bruised or added eggs, are removed from the pans, as an impure egg, if allowed to remain, would have much the same effect on the ova around it, that a rotten potato has in a cellar. The salmon-fry when hatched out, are kept until they are an inch and a half or two inches long, when they are placed in the stream, from whence they make their way to the salt water. None but experienced hands can be employed in the delicate work of fish breeding. The smallest neglect—to allow the temperature of the breeding room to become in the least degree too low or too high, would work ruin to the millions of embryo fish. Before a person can be considered competent to take charge of a fish breeding establishment, he must have served an apprenticeship of from five to seven years.

Mr. Mowatt, formerly of the Restigouche establishment, has been placed in charge of the Dunk River hatchery, and the process of laying the eggs is now going on. The spawning season here is during the month of November. At Restigouche it is somewhat earlier.

There are now in the Dominion nine establishments for the artificial propagation

of fish. Two of these have been established by the present Government during the past year, and two more are under construction. The Fisheries Department deserve credit for the energy which they have displayed in pushing this important work to completion in time to catch this season's salmon eggs, and we have no doubt but the establishment will prove of the greatest possible benefit in re-stocking our Island rivers with salmon. The next thing to be done is to see that the fish are not destroyed every fall in their passage up the river. Heretofore, the work of protecting Dunk River against poachers, has been a complete farce. Scarcely a salmon ever made its way up Dunk River, and returned to the sea alive, but now, that we have an efficient and vigorous Fishery Inspector, we have no doubt but matters will improve. It will, of course, be some time before salmon will be as plentiful around our coast as they once were, but we have no doubt that, in the course of a few years, salmon fishing—at the proper season of the year—will become quite an important industry.

Under the late listless Minister of Marine, the work of fish-culture languished. The head of the Department took no interest in the work, and of course the minor officials followed his example. A fish-breeding establishment might have been erected in the Island long ago, had things been otherwise. It remained, therefore, for the present Government to take up the work neglected by their predecessors, and make an effort to rescue from total destruction our valuable inland fisheries.

STOVES, STOVES, AND TINWARE.

M. STEVENSON calls attention to his Stock of Stoves. On hand: the **Gurney Range**, for coal, and the **Golden Age**, and others for wood.

TINWARE and STOVEPIPE constantly on hand and made to order.

Nov. 8, 1879—1m 3tw

Hewson, McDougall & Seaman

BEG leave to acknowledge thanks to the public generally for the very liberal patronage extended to them since commencing business, and intimate that they have on hand a large and select stock of material for the manufacture of sleighs, etc. They have recently received photos of all the latest prize sleighs of the Ottawa Exhibition. Parties requiring new sleighs would do well to call at their factory and examine before ordering elsewhere.

They keep on hand and make to order Top Buggies, Phaetons, the famous Dexter Spring Wagons, and carriages of every description. Repairing of all kinds done with neatness and despatch, and warranted to give satisfaction to those who favor them with a call, at prices to suit the times.

N. B.—Parties having their Sleighs repaired and painted would do well to leave them at once in order to have them in time for the first snow.

Wagons stored at moderate charges. Parties having their wagons repaired and painted in the spring will have them stored free of charge for the winter.

Ch'town, Oct 27th, 1879.



"LORNE HIGHLAND WHISKY.—Sole proprietors, Greenlees Brothers, London and Argyleshire. This Whisky is a pure unadulterated spirit, very mellow, in quality excellent, and in our opinion perfectly wholesome. Where a stimulant is required, it is to be preferred to brandy."—*London Medical Review*.

Agents:— MESSRS. OWEN CONNOLLY & CO., Charlottetown, P.E.I. June 24, 1879.—6m

WONDERFUL Improvement in Jacobs' Lithogram, PATENTED 16th JULY, 1879.

One Hundred impressions can now be taken from "One Original."

AFTER a series of experiments conducted at great cost and involving much labor, "Jacobs' Lithogram" has been so completely perfected that it is not alone more durable, but so altered in construction and thickness, that the Patentee of this wonderful labor and time-saving apparatus, is enabled to offer "a guarantee" with each Lithogram sold, providing the directions furnished are complied with.

Postal Card, Note, Letter, Legal and Folio sizes. Prices respectively \$2.50, \$5.00, \$7.00, \$9.00, and \$12.00. Special sizes made to order.

A LIBERAL DISCOUNT TO THE TRADE.

Agents wanted throughout the Dominion. Send for circular.

J. M. JACOBS, Patentee & Manufacturer. Eastern House, 557 St. Paul Street, Montreal. Western House, 36 Front St. East, Toronto, Ont.

Headquarters for the United States: 3 Arch St., Boston, Mass. N. B.—Composition for refilling Tablets furnished at one half the original cost.

BREMNER BROS., Agents for P. E. I. Ch'town, Oct. 21, 1879.



REGULATIONS

Respecting the Disposal of certain Public Lands for the purposes of the Canadian Pacific railway.

DEPARTMENT OF THE INTERIOR, Ottawa, Oct. 14, 1879.

"Public notice is hereby given that the following provisions, which shall be held to apply to the lands in the Province of Manitoba, and in the Territories to the west and north-west thereof, are substituted for the Regulations, dated the 9th July last, governing the mode of disposing of the Public Lands situate within 110 (one hundred and ten) miles on each side of the line of the Canadian Pacific Railway, which said Regulations are hereby superseded:—

1. "Until further and final survey of the said railway has been made west of the Red River, and for the purposes of these provisions, the line of the said railway shall be assumed to be on the fourth base westerly to the intersection of the said base by the line between ranges 21 and 22 west of the first principal meridian, and thence in a direct line to the confluence of the Shell River with the River Assiniboine.

2. "The country lying on each side of the line of railway shall be respectively divided into belts as follows:

- "(1) A belt of five miles on either side of the railway, and immediately adjoining the same, to be called belt A;
- "(2) A belt of fifteen miles on either side of the railway adjoining belt A, to be called belt B;
- "(3) A belt of twenty miles on either side of the railway adjoining belt B, to be called belt C;
- "(4) A belt of twenty miles on either side of the railway adjoining belt C, to be called belt D; and
- "(5) A belt of fifty miles on either side of the railway adjoining belt D, to be called belt E.

3. "The even-numbered sections in each township throughout the several belts above described shall be open for entry as homesteads and pre-emptions of 160 acres each respectively.

4. "The odd-numbered sections in each of such townships shall not be open to homestead or pre-emption, but shall be specially reserved and designated as Railway Lands.

5. "The Railway Lands within the several belts shall be sold at the following rates, viz: In Belt A, \$5 (five dollars) per acre; in Belt B, \$4 (four dollars) per acre; in Belt C, \$3 (three dollars) per acre; in Belt D, \$2 (two dollars) per acre; in Belt E, \$1 (one dollar) per acre; and the terms of sale of such lands shall be as follows, viz:—One-tenth in cash at the time of purchase; the balance in nine equal annual instalments, with interest at the rate of six per cent. per annum on the balance of purchase money from time to time remaining unpaid, to be paid with each instalment.

6. "The Pre-emption Lands within the several belts shall be sold for the prices and on the terms respectively as follows: "In the Belts A, B and C, at \$2.50 (two dollars and fifty cents) per acre; in Belt D, at \$2 (two dollars) per acre; and in Belt E, at \$1 (one dollar) per acre. The terms of payment to be four-tenths of the purchase money, together with interest on the latter at the rate of 6 per cent. per annum, to be paid at the end of three years from the date of entry; the remainder to be paid in six equal instalments annually, from and after the said date, with interest at the rate above mentioned, on such portions of the purchase money as may remain unpaid, to be paid with each instalment.

7. "All payments for Railway Lands, and also for Pre-emption Lands, within the several Belts, shall be in cash, and not in scrip or military or police bounty warrants.

8. "All moneys received in payment of Pre-emption Lands shall inure to and form part of the fund for railway purposes, in a similar manner to the moneys received in payment of Railway Lands.

9. "These provisions shall be retrospective so far as relates to any and all entries of Home stead and Pre-emption Lands, or sales of Railway Lands obtained or made under the Regulations of the 9th of July, hereby superseded; any payments made in excess of the rate hereby fixed shall be credited on account of sales of such lands.

10. "The Order-in-Council of the 9th November, 1877, relating to the settlement of lands in Manitoba which had been previously withdrawn for railway purposes, having been cancelled, all claims of persons who settled in good faith on lands under the said Order-in-Council shall be dealt with under these provisions, as to price of Pre-emptions, according to the belt in which such lands may be situate. Where a person may have taken up two quarter-sections under the said Order-in-Council, he may retain the quarter-section upon which he has settled, as a Homestead, and the other quarter-section as a Pre-emption, under these provisions, irrespective of whether such Homestead and Pre-emption may be found to be upon an even-numbered section or otherwise. Any moneys paid by such person on account of the land entered by him under the said Order-in-Council, will be credited to him on account of his Pre-emption purchase, under these provisions. A person who may have taken up one quarter section under the Order-in-Council mentioned will be allowed to retain the same as a Homestead, and will be permitted to enter a second quarter section as a Pre-emption, the money paid on account of the land previously entered to be credited to him on account of such Pre-emption.

11. "All entries of lands shall be subject to the following provisions respecting the right of way of the Canadian Pacific Railway or of any Government colonization railway connected therewith, viz:

- a. In the case of the railway crossing land entered as a homestead, the right of way thereon, and also any land which may be required for station purposes, shall be free to the Government.
- b. Where the railway crosses Pre-emptions of Railway lands, entered subsequent to the date hereof, the Government may take possession of such portion thereof as may be required for right of way or for station grounds or ballast pits, and the owner shall only be entitled to claim payment for the land so taken, at the same rate per acre as he may have paid the Government for the same.
- c. "In case, on the final location of the railway through lands unsurveyed or surveyed but not entered for at the time, a person is found

in occupation of land which it may be desirable in the public interest to retain, the Government reserves the right to take possession of such land, paying the squatter the value of any improvements he may have made thereon.

12. "Claims to Public lands arising from settlement, after the date thereof; in territory unsurveyed at the time of such settlement, and which may be embraced within the limits affected by the above policy, or by the extension thereof in the future over additional territory, will be ultimately dealt with in accordance with the terms prescribed above for the lands in the particular belt in which such settlement may be found to be situate, subject to the operation of sub-section c of section 11 of these provisions.

13. "All entries after the date hereof of unoccupied lands in the Saskatchewan Agency, will be considered as provisional until the railway line through that part of the territories is located, after which the same will be finally disposed of in accordance with these provisions, as the same may apply to the particular belt in which such lands may be found to be situated, subject, as above, to the operations of sub-section c of section 11 of these provisions.

14. "With a view to encouraging settlement by cheapening the cost of building material, the Government reserves the right to grant licenses, renewable yearly, under section 52 of the "Dominion Lands Act, 1879," to cut merchantable timber on any lands situated within the several belts above described, and any settlement upon, or sale of lands within, the territory covered by such licenses, shall for the time being be subject to the operation of such licenses.

15. "The above provisions, it will of course be understood, will not affect sections 11 and 29, which are public school lands, or sections 8 and 26, Hudson's Bay Company's lands. Any further information necessary may be obtained on application at the Dominion Land's Office, Ottawa, or from the agent of Dominion Land's Office, Winnipeg, or from any of the local agents in Manitoba or the territories.

By order of the Minister of the Interior, J. S. DENNIS, Deputy of the Minister of the Interior.

LINDSAY RUSSELL, Surveyor General. [nov 5, 7f]

MAIL NOTICE.

MAILS for Great Britain will be closed at 10 o'clock, p. m., on WEDNESDAY in each week, to be forwarded via Rimouski, and also on MONDAY, the 19th and SATURDAY the 22nd inst., at 4 o'clock, a. m., to be forwarded via Halifax.

Mails to be forwarded via Summerside and Shediac and also for all places on the route to Summerside and in Prince County, will be closed daily at 5.30 o'clock, a. m., also for Summerside direct, at 5 p. m.

Mails for Pictou direct will be closed every MONDAY, WEDNESDAY, THURSDAY and SATURDAY, at 5 o'clock, a. m.

Mails for Georgetown and Souris East, and all places on those routes, will be closed daily at 6 o'clock, a. m.

Post Office open from 8 a. m., till 9 p. m. A. A. MACDONALD, Postmaster.

Post Office Charlottetown, Nov. 5th, 1879.

Mortgage Sale.

TO BE SOLD BY PUBLIC AUCTION, ON SATURDAY, the Twenty-second day of NOVEMBER next, at the hour of Twelve o'clock, at the Court House, in Charlottetown, under and by virtue of a Power of Sale contained in an indenture of Mortgage bearing date the 15th day of August A. D. 1876, and made between Joseph Wright of the one part, and Henry Warren, of the other part,—

ALL that tract, piece or parcel of land, being part of Lot number Seventy-three in the fifth hundred of Lots in Charlottetown, bounded and described as follows, viz: Commencing on the eastern side of Hillsborough street at a distance of forty feet from the southwest angle of a piece of land purchased by William Lowe, and running thence at right angles to the said street northwesterly eighty-four feet to the northeast boundary line of the said Town Lot, thence along the same southwestwardly thirty-eight feet, thence parallel to the first mentioned line eighty-four feet, to the street aforesaid, and thence along the east side of the same northwesterly thirty-eight feet to the place of commencement, together with all rights and appurtenances thereto belonging.

For further particulars apply at the office of Messrs. Hodgson & McLeod, Solicitors, Charlottetown.

Dated this 20th day of October, A. D. 1879. HENRY WARREN, Mortgagee.

Oct. 21, 1879.—oaw tla tues

Mortgage Sale.

TO be Sold by PUBLIC AUCTION, at the Court House in Charlottetown, in Queen's County, in Prince Edward Island, on Tuesday, the second day of December Next, 1879, at the hour of twelve o'clock, noon, by Virtue of a Power of Sale in an Indenture of Mortgage dated the eight day of May, 1873, and made between Alexander Martin, of the one part, and Edward Jarvis Hodgson, of the other part,—

ALL that tract, piece or parcel of land situate, lying and being on Township number Sixty-two, in Queen's County, in the said Island, and bounded and described as follows, that is to say: Commencing at a stake fixed at the edge of the Creek making John Nicholson's southern boundary line and running from thence due east fifteen chains, fifty links; thence south three degrees east thirty-four chains; thence west ten degrees north sixteen chains and fifty links; thence west fifteen degrees north to the edge of the dry land; thence following the courses of the dry land along the inner edge of the marsh northwesterly and easterly to the place of commencement, containing eighty-seven and a half acres of land, a little more or less, together with the appurtenances thereto belonging. For further particulars apply at the office of Messrs. Hodgson & McLeod, Solicitors, Charlottetown.

Dated the 27th of August, 1879. EDWARD J. HODGSON. [aug 28, oaw till sale]—mon

Prince Edward Island RAILWAY.

TIME TABLE NO. 12. Summer Arrangement.

ON AND AFTER TUESDAY, MAY 27th, 1879.

TRAINS GOING WEST.

STATIONS.	Nos. 1 & 3, Express.	No. 5, Mixed.	No. 7, Mixed.
Georgetown	Dp. 7.10am	Dp. 3.45pm	
Cardigan	Ar. 7.30 "	Ar. 4.14 "	
Mt Stw' Jc	Dp. 8.40 "	Dp. 6.00 "	
Royalty Jc	" 9.38 "	" 7.18 "	
Ch'town	Ar. 9.55 "	Ar. 7.40 "	
Royalty Jc	Dp. 6.20am	Dp. 10.05am	Dp. 5.25pm
Wiltsh' re	" 6.27 "	Dp. 10.25 "	" 5.47 "
Hunter R'r	" 7.13 "	" 11.25 "	" 6.40 "
Breadal'n	" 7.25 "	" 11.40 "	" 6.57 "
C'ty Line	" 7.53 "	" 12.23pm "	" 7.35 "
Kensing'tn	" 8.00 "	" 12.34 "	" 7.45 "
S'mm'rside	" 8.28 "	" 1.16 "	" 8.25 "
Welling'tn	Ar. 8.55 "	Ar. 1.50 "	Ar. 9.00 "
Port Hill	Dp. 9.10 "	Dp. 2.25 "	
O'Leary	Ar. 9.48 "	" 3.20 "	
Alberton	" 10.20 "	" 4.07 "	
Tignish	" 11.17 "	" 5.31 "	
	" 12.00pm "	" 6.40 "	
	" 12.40 "	Ar. 7.40pm "	

TRAINS GOING EAST.

STATIONS.	Nos. 2 & 4, Express.	No. 6, Mixed.	No. 8, Mixed.
Tignish	Dp. 5.15am	Dp. 6.20am	
Alberton	" 5.55 "	Ar. 7.15 "	
O'Leary	" 6.41 "	Dp. 7.45 "	
Port Hill	" 7.38 "	" 8.54 "	
Welling'tn	" 8.09 "	" 10.20 "	
S'mm'rside	Ar. 8.45 "	Ar. 12.05pm "	
Kensing'tn	Dp. 5.30pm	Dp. 12.40 "	Dp. 9.05am
C'ty Line	" 5.52 "	" 1.16 "	" 9.41 "
Breadal'n	" 6.24 "	" 1.55 "	" 10.20 "
Hunter R'r	" 6.31 "	" 2.05 "	" 10.31 "
NWiltsh' re	" 6.57 "	" 2.44 "	" 11.07 "
Royalty Jc	" 7.12 "	" 3.01 "	" 11.25 "
Ch'town	Ar. 7.49 "	Ar. 3.50 "	" 12.18pm
Royalty Jc	Ar. 8.05 "	Ar. 4.15 "	
M. Stw' Jc	Dp. 4.30pm	Dp. 6.50am	Ar. 12.40 "
Cardigan	Ar. 4.49 "	" 7.13 "	
Geotown	Ar. 5.45 "	Ar. 8.50 "	
	Dp. 6.00 "	Dp. 8.50 "	
	" 7.03 "	" 10.16 "	
	Ar. 7.25 "	Ar. 10.45 "	

SOURIS BRANCH.

Trains Going West.

STATIONS.	No. 9 Express	No. 11 Mixed.
Souris	Dp. 6.15 a. m.	Dp. 2.50 p. m.
Harmony	" 6.33 "	" 3.13 "
St. Peter's	" 7.30 "	" 4.29 "
Morell	" 7.53 "	" 5.00 "
Mt. Stw' Jnc.	Ar. 8.25 "	Ar. 5.40 p. m.

Trains Going East.

STATIONS.	No. 10 Express	No. 12, Mixed
Mt. Stw' Jnc.	Dp. 5.55 p. m.	Dp. 8.45 a. m.
Morell	" 6.27 "	" 9.25 "
St. Peter's	" 6.50 "	" 9.56 "
Harmony	" 7.47 "	" 11.12 "
Souris	Ar. 8.05 "	Ar. 11.35 "

ALEX. MACNAB, Sup't and Engineer. Railway Office, Ch'town, May 22, 1879. —pat pres h a nes p j kca 6i

Steam Navigation Co. Steamers

MAY, 1879. UNTIL FURTHER NOTICE the Steamers "St. Lawrence" and "Princess of Wales" will leave as under:—

NOVA SCOTIA. From Charlottetown to Pictou, every MONDAY, WEDNESDAY, THURSDAY and SATURDAY mornings, at five o'clock. Returning from Pictou every TUESDAY, WEDNESDAY, FRIDAY and SATURDAY, on arrival of morning train from Halifax.

CAPE BRETON. Leave Pictou for Hawkesbury every MONDAY and THURSDAY, on arrival of morning train from Halifax, connecting both ways with stage and Steamer "Neptune," to and from Sydney and Bras d'Or Lake. Returning to Pictou same nights, connecting with 10 a. m. Train TUESDAY and FRIDAY for Halifax.

FOR CANADA AND UNITED STATES. Leave Summerside for Point Du Chene EVERY DAY about 9 a. m., on arrival of morning train from Charlottetown. Returning to Summerside EVERY NOON, on arrival of morning train from St. John. By order, F. W. HALES. Charlottetown, May 6, 1879.

GRAY'S SPECIFIC MEDICINE

TRADE MARK. The Great English Remedy, an infallible cure for Seminal Weakness, Spermatorrhea, Impotency, and all diseases that Before Taking follow as a result of Taking:—

quency of self-abuse; as loss of Memory, Universal Lassitude, Pain in the Back, Dimness of Vision, Premature Old Age, and many other Diseases that lead to Insanity or Consumption. Full particulars in our pamphlet, which we desire to send free by mail to every one. The Specific Medicine is sold by all druggists at \$1 per package, or six packages for \$5, or will be sent free, by mail, on receipt of the money, by addressing

The Gray Medicine Co., Toronto, Ont., Canada. N. B.—The demands of our business have necessitated our removing to Toronto, to which place please address all future communications. Sold in Charlottetown by all Druggists and by all wholesale and retail Druggists in the United States and Canada. January 24, 1879.