

dust will go together even under water, and we have known instances on the Ottawa when the acid and pyroligneous carbon exploded in winter sending the ice into thousands of pieces.—C.

HATCHING SALMON.

The Government of the Dominion devotes a large amount of money annually for fish hatching, and a few men derive a very comfortable living from the business. But we doubt that since the hatcheries were erected the species of fishes hatched therein have increased to be of additional commercial value. What has become of the thousands of young fishes which were planted in Lake Ontario? Were any of them seen since? What have they produced? These are important questions to ask. The hatching establishment at Newcastle must make some kind of show, and the employees have to exhibit a little energy in order that the Government may see that they are working for their money. This is all very well if anything could be shown for the outlay. We say that nothing of apparent value has as yet been derived from hatching Salmon in Canada. On the contrary, the adult fish are taken from one river and killed to procure *ova* that other rivers may be stocked; yet the hatching of Salmon has been going on for years in the Provinces of Ontario and Quebec, and the fish are becoming scarcer year after year. This is pointedly the case on the south coast of the Gulf of St. Lawrence, where Salmon hatching houses are situated. It is true that there is too much netting and too many weirs set up in the tidal waters which are destructive to all marine fishes, and the Salmon have to suffer from these causes, but we deprecate against the evil mode in which adult Salmon are taken from their native river to procure material for the imaginary purposes of increasing the species. It is cruel, for the fishes are destroyed in the process, besides it is manifest that Salmon should be planted in a river, the water

of which is disagreeable to them. Of course the Fishery officials will say that we know nothing about hatching Salmon. True, we have not been in the business but possess a knowledge of the operations. There is this argument however, in our favour, that is to say, it is interfering with a course of nature, which if allowed to proceed in the old way would doubtless show that it is wrong. The object of these fish-breeders may be to make new species by transporting and transmitting. They would like to make a new species of Salmon (in fact, that has been tried already; it however turned out to be old *Salmo salar* after all), but it is impossible, the process is not natural. Instead of changing the form or flavour or increasing the true Salmon, they are merely helping to produce deperdition, and we wonder that the system has been so long allowed. It would be far better for the Government and the country to devote a portion or all of the money expended on hatching fish, to make the rivers easy for Salmon to reach their natural spawning-grounds. Artificial fish-leaps should be made in several rivers along the North Shore of the Lower St. Lawrence. If such work was taken in hand, there are several rivers now almost worthless that could be made profitable, and the Fishery Department are cognizant of the fact. The late Rev. Dr. Adamson, published a pamphlet on this subject. We have spoken of it before, but the Department will take neither advice nor instruction from any man—not even a lessee of a river, who, in many cases, knows more about it than they do. To show the cruelty and destruction of the fish culturists, we here take the liberty to quote from the *St. John News* of August 1881, where the editor attacks Professor Hind's theory regarding the migration of Salmon. We have had the pleasure of knowing Mr. Hind when Professor of Chemistry in Trinity College, Toronto, and have read some curious statements in regard to his knowledge of Natural History since he removed to Nova Scotia; but it matters not, we