

## 84.—PENNING OF SALMON IN ORDER TO SECURE THEIR EGGS.

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[From a letter to Prof. S. F. Baird.]

In the Dutch "Economist" of 1874 I gave a description of the fish-breeding establishment of the State of New York, and therein I mentioned the United States salmon-breeding establishment on the Penobscot, principally for the penning of the salmon from June till breeding time. As you are likely aware, the Dutch Government pays yearly \$4,800 to salmon breeders for young salmon delivered in spring, at the rate of 10 cents for yearlings, and not quite ( $\frac{4}{5}$ ) one dollar per hundred for those that are about rid of the umbilical sac, and ready to shift for themselves. For the latter they receive payment only if there is money left after delivering the yearlings.

The breeders get their eggs from Germany from Schuster in Freiburg, and from Gloser in Basel; but complain always that the eggs are from too young individuals, that there is always too much loss in transportation, that the eggs are so weak that after the fish have come out there is great mortality in the fry, &c.

In this month's "Economist" I published the results on the Penobscot, and figured out that if breeders here set to work in the same style they would get at least four eggs to one, at the same price, and be independent.

We have an association here for promoting the fresh-water fisheries, of which the principal salmon fishermen are members, and also several gentlemen not in the business, including myself. In the December meeting I told them all I knew about the Penobscot; and one breeder got a credit for \$200 for getting ripe salmon and keeping them in a scow till he had what he wanted, and he has succeeded pretty well. Still this is only on a limited scale. I want to put up larger pens and in the style of the Penobscot. In order to do this I must know exactly what is done on the Penobscot and how.

What is the size of the pen, how large area, how deep? Is it above tidal water? (This I take for granted.) What is the situation of the pond compared with the river? What kind of failures were there, and the probable reasons therefor? In short, I would like a complete description of the place, with the history of it. I hope you will excuse my drawing on you for such an amount, but as the United States is the authority in practical fish-breeding, we are obliged to come to you.

I am sorry to say that I cannot report the catch of any *S. quinnat*, yet three fish have been sent in for the premium we held out for the first fifteen caught, but they proved not to be *quinnat*. Lately I heard that there were so many salmon caught in the Ourthe, near Liege, Belgium (the Ourthe is one of the feeders of the Maas), which was an astonishing fact, as salmon are seldom taken there.

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