factor in the cultivation of migratory Salmonidæ, restricting myself for the present to those species placed by Dr. Gunther in the group Salmones either with a wide geographical range, as *salar*, *trutta*, and *cambricus*, or limited to Great Britain and Ireland, as *brachypomus* and *gallicensis*, merely pointing out that while touching on the general conditions common to the increase of the above named species, the extermination of the Bull Trout on the Tweed and the Sea Trout on the Forth forms a very serious point to discuss in treating of the culture of the Salmon, and that the best results can only be obtained by the careful protection and artificial production of the species best suited to each particular district. The objects here are to increase Salmones whose pastures are in the sea, and whose nurseries are in the rivers. The size of the river has no fixed relation to the number and weight of fish caught in its estuary and contiguous seaboard, and if a very large number of smolts were annually turned in immediately above the tidal waters the stock of Salmones would be increased by a proportion of the number turned in, fixed only by the conditions of food and of natural enemies in the estuary and adjoining sea. I do not mean to say for an instant that all the fish reaching maturity would return or attempt to return to the mouth of the river in which they were liberated as smolts, but I think that the evidence tends to show that most of them would do so. The question at this point resolves itself into a matter of pounds, shillings, and pence. Salmon smolts of two years old can now be raised at less than sixpence apiece, and Salmon in the estuary on their return are probably worth on an average five shillings each; rent and the expense of nets, wages, and rates probably add another five shillings, of course if there was a much increased take the proportion to each fish would be less and all the fish that return to the estuary are not caught, but it will be sufficient for our purpose if we assume that a Salmon on his road to destruction is worth while still free five shillings two years after it has been liberated as a smolt; if, therefore, 10 per cent. of the smolts turned in are caught two years afterwards no profit will result, for the increase would only equal the first cost, and the interest on the outlay would be nil. The old idea in this country was to turn out young fish big enough (and big enough does not necessarily mean sufficiently educated) to take care of themselves. The results from the Stormontfield experiment at first, when everything was new and in working order, were sufficiently marked; but they have not been permanent, and if pisciculture had achieved no more, Salmon culture, in this country at least, would be an interesting exotic, with magnificent results in some cases, far oftener with none; but fortunately it is not necessary to depend on two-year-old smolts for the future increase of our Salmon fisheries. Mr. Spencer Baird, who I am glad to see so ably represented at this Exhibition, in a letter to the Commission of Fisheries of the Dominion of Canada, refers to the magnificent increase of Salmon in California, an increase in five years from five to fifteen million pound weight in one river, an expenditure of merely two million Salmon fry per annum, which in this country would entail less than a thousand a year after making a full allowance for all expenses. But stocking with fry or with smolts is but a small portion of the great question; parts of some of our Salmon rivers are too fouled by pollution to rear fry after they are liberated; it is only by adapting the means to the end that Salmon culture can reach the highest degree of success. In many parts of the country where the pollution is only moderate, we can meet it by taking advantage of the pure water above or by turning smolts in directly above the tidal waters, but I am certain the surest remedy for pollution is to make pure water pay. It is easier to shake an industry to its foundation than to put something better in its place, and if, through fish culture, pure streams and more plentiful food would displace the black sewers of our midlands without the intervention of harassing legislation, fish culturists will not have laboured in vain. The Hatchery can supply eyed ova for the redds and fry for the shallows, and ponds should be constructed near the Hatching-house for yearlings, but where it is necessary to stock with smolts ponds for the purpose must be constructed near the head of the estuary, as the carriage of two-year-old samlets is neither easy nor economical. The time that intervenes between the smolt just entering the tidal water and its first return towards the river varies considerably on the east coast of Scotland; two summers may sometimes intervene, and we must be careful not to assume that all fish return or attempt to return in the grilse stage, for I have found in the case of the Lochleven