requires no protective duties to encourage. Perhaps a moderate outlay in establishing these fish in some rivers could not be applied in a manner better calculated to be highly reproductive (see note). When it can be shown that some of the rivers in the South are fairly stocked further importations may be discontinued, for the ova can be easily obtained in such rivers, and when reared in the ponds the fry hatched from them can be sent to other rivers. The Government has a direct interest in promoting this desirable result, for, as, through the operation of the rule of the Survey Department "to reserve one chain of land along the banks of the larger rivers," it is the greatest riparian owner in the South, it will have a prospect of deriving considerable rents from the leasing of the fishings, a profit subject to little deduction, for the fish will find their own food, and the lessees will look after their protection. I trust the Government will not decide upon discontinuing its efforts without due consideration; if they are to be continued it would be advisable to buy the section above referred to.

I have, &c.,
J. A. R. MENZIES,
Chairman of Southland Salmon Commissioners.

NOTE.—The English Commission reported that, in 1863, "The Tay furnished 800,000 lb. of salmon, which was equal in amount of food to 18,000 sheep, and thrice their value." In that year 700 net fishermen were employed on the Tay, whose wages amounted to £9,000. And the rents of four rivers—Tay, Spey, Dee, and Don—were about £40,000.

Mr. J. A. R. MENZIES to the Hon. the Colonial Secretary.

SIR,— Dun Alister, Wyndham, 27th February, 1880.

I have the honor to inform you that at a late meeting of the Southland Salmon Commissioners the following resolutions were agreed to:—

1. That the Commissioners are unanimously of opinion that a further importation of the ova of salmon from England is required in order satisfactorily to establish them in the rivers of the colony.

2. That the Commissioners trust that the Government will continue its operations and maintain a permanent fish-breeding establishment, until the rivers are stocked, on the present site of the ponds, if that can be retained on reasonable terms by lease or by purchase; but if not in either way on some other suitable place, for the selection and acquiring of which the Commissioners request authority from the Government.

In a former letter to you I had the honor to submit some reasons in favour of its continuance of its fish-breeding operations by the Government, and have now, in support of these resolutions, some further observations to make for the consideration of the Government.

The general progress of the science of fish-culture is extending evidently through the world. In various countries the Governments have established fish-breeding places to stock the rivers and keep up the supply of this valuable article of food; and in others, as in England and France, private enterprise has been both active and successful in the same direction.

A very instructive report by the Canadian Fish Commission for 1877 has lately been reviewed in an Edinburgh newspaper, of which I enclose a slip, and from which a few particulars may be quoted. The report says that nearly every State in the American Union is now aiding the work of fish-culture by public grants and the appointment of Fishery Commissioners. A pleasant rivalry exists among the several States as to which will be the most successful in stocking rivers and supplying a food so generally and highly prized.

The Canadians appreciate the benefits that will accrue to fisheries by artificially breeding salmon, trout, and other fish. The Canadian Government had seven fish-breeding establishments in 1877, which were maintained at a cost, in that year, of £5,000. Mr. Wilmot, the superintendent of these establishments, reports that the number of vitalized eggs in them in 1877 amounted to 30,694,000, which, added to the number of salmon distributed in various rivers in former years, amounting to 28,515,000, make a grand total of salmon eggs and fry up to the end of 1877 of 59,209,000. In the spring of 1877, he says, there were distributed from these places—Fry of *Salmo salar*, 5,451,000; of Californian salmon, 7,000; of speckled trout, 99,000; of whitefish, 7,000,000. The eggs laid down in autumn, 1877, were—*Salmo salar*, 6,004,000; Californian salmon, 40,000; salmon trout, 1,000,000; speckled trout, 150,000; whitefish, 23,500,000. The whitefish, it is said, are bred so extensively to supply the great falling off in the take in Lakes Ontario and Erie.

On the Fraser River, where it might have been supposed the supply would never have been exhausted, the unrestricted slaughter of salmon has created alarm, as it is seriously affecting the extensive export trade in salmon; and the people have applied to the Canadian Government for a grant to erect a salmon-breeding establishment on a large scale on the Fraser River. Now seeing that the supply of salmon in the American rivers, especially in those falling into the North Pacific, where their numbers were astonishingly great, is falling off so seriously that it is considered necessary to have recourse to artificial breeding in order to avert their extermination, how much more indispensable it is in this colony, where we have as yet had no proof that the imported salmon have bred in our rivers, to continue our fish-breeding operations until our rivers are fully stocked. Indeed, the argument goes further, and points to the establishment of Government breeding-places as auxiliaries to the natural operations in maintaining a full stock of fish in our rivers, and we may also gather the further lesson that, when we have naturalized this source of wealth, we should secure its permanence by protecting the fish against capture at improper seasons or by improper means. And the cost of such fish-breeding establishments need not be great; after a suitable site was obtained, buildings erected, and ponds formed, the salary of curator would be the chief item of annual cost. Salmon ova could now be obtained from England at a far less cost than the colony has heretofore paid for them. I have seen an estimate from a gentleman in England who is engaged in fish-breeding, and who has been most successful in sending trout ova to a southern colony. He thinks salmon ova could be delivered on board one of the large Australian steamers at from £3 10s. to £4 10s. per thousand, with a guarantee that not less than 80 per cent. were vitalized. The Commissioners' expression of opinion in favour of the English salmon (*Salmo salar*) is supported by the very marked preference given by the Canadian Commissioners to the *Salmo salar* over the Californian salmon, although, if the merits