No. 2.

To the engineer in charge of the salmon ova placed on board the s.s. "Arawa" by Sir Francis Bell, Agent-General for New Zealand.—You will take particular care that the cases containing the ova are fully charged with ice, and the lids securely fixed and screwed down, and placed in a cool position (not freezing) until the large ova-case has been charged with ice, the doors fixed, and landed, when you will see the eight salmon-boxes placed inside of it and securely fixed, so as to avoid accidents during transit up country. The journals you have kept during the voyage will be given up to the officials in the colony, requesting them to transmit one copy to London. The Agent-General will give instructions that you be paid, on the satisfactory completion of your work at the end of the voyage, the sum of £10, and your assistant the sum of £5.

THOMAS JOHNSON.

To the officer deputed by the Government of New Zealand to receive the salmon ova from the engineer in charge on the arrival of the s.s. "Arawa" at Otago.—On taking over the shipment of salmon ova, previous to sending the ova-boxes forward to the hatchery, it will be necessary to examine them as carefully as possible, and to take care before they are finally closed to see that the ice-trays in each box are fully charged with pulverised ice. For the purpose of transport from the ship to the hatchery, every precaution should be taken to provide an easy and safe mode of carriage. If a cart, van, or wagon is used it would be necessary to make up, on the bottom, a good bed of straw in sacks, so as to protect the ova in the cases from the evil effects of the wagon jolting; and each case should be well blocked off, to prevent any other kind of movement of the wagon. In case the ova has to be sent to any great distance from the Port of Otago, the large insulated case, well charged with ice, should be used; in which case, and before placing the ova in it, it should be got into the cart, van, or wagon, resting on the straw-bed, already named, and securely blocked off. The ova-cases when put into this case should also be well secured.

THOMAS JOHNSON.

The AGENT-GENERAL to the Hon. the MINISTER of MARINE.

Sir,— 7, Westminster Chambers, London, S.W., 8th February, 1889.

The s.s. "Aorangi" takes out the second shipment of salmon ova. Full preparations had been made for twenty-eight Howietoun boxes in the cool-chamber, as it was probable that a half million ova would be safely incubated. The actual number, however, is about 490,000, in twenty-seven boxes, and the rest of the space is made up with 27,000 Lochleven trout ova. All the ova of both kinds are in very fine condition; and Sir James Maitland was kind enough to come up from Scotland to see them safely put on board. I beg to enclose herewith a statement showing the contents of each box.

So large a shipment at one time has required especial care in the preparation of the coolchamber. You will have seen from my last letter (24th January, No. 68), reporting the shipment by the s.s. "Arawa," that it was my intention to send some of the boxes on shelves without special insulation, but on consulting with Sir James Maitland we came to the conclusion that we had better not run the risk. There was no time to make separate insulating-cases to take in all the Howietoun boxes, and, besides, they would, together with the large additional space (thirty tons more freight), have cost more than £200. We accordingly had to devise another plan for insulating the Howietoun boxes as securely as if each set of four boxes was in a separate case. But this makes it all the more necessary that there should be no risk of sudden exposure to high temperature on arrival; and I trust you will have given the orders I asked in my last letter—for rough cases to be ready for putting together in which the boxes which are not in separate cases may at once be placed for transport to the ponds.

All the ova on board the "Aorangi" are in charge of the chief engineer and second engineer, to whom proper instructions have been given, as in the case of the "Arawa." I enclose copies of these, and of a memorandum which the engineers will hand to the officer appointed to meet the ship. The chief engineer is to receive a gratuity of £15 and the second engineer £7 10s. in consideration of the large number of boxes they have to look after on the voyage; and I have to ask

that the necessary orders may be given for the payment of these gratuities accordingly.

It is very fortunate that we have been able to collect such a large number of ova this season, because a new Bill relating to the salmon fisheries of Scotland is before the Imperial Parliament, and if it is passed in the ensuing session the Fishery Board are sure to adopt extensive measures for breeding, and will want all the salmon ova they can collect, so that it will be very difficult for us to get leave to net a Scotch river for the next three or four years. I enclose a copy of the Bill.

The colony is under exceptionally great obligations to Sir James Maitland in connection with the present shipment, on account of the immense pains he has personally taken in the incubation and packing of the ova; and I do not hesitate to say that to his care and to the exertions of his officers at Howietoun Fishery, as well as to the good work of the men I employed in netting the rivers, the success of this season is entirely due. I wish also to express the fullest acknowledgments due to Messrs. Johnson and Gregson for the excellent arrangements made on board in respect of the cool-chamber, the provision of ice, and a multitude of details without which no successful shipment is ever possible.

I have, &c.,

The Hon the Minister of Marine, Wellington.

F. D. Bell.