

(No. 73)



1862.

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TASMANIA.

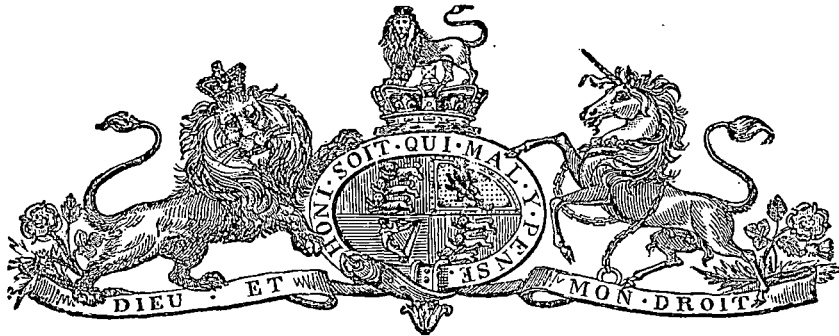
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SALMON.

CORRESPONDENCE.

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Laid upon the Table by Mr. Chapman, and ordered by the House to be printed,  
22 August, 1862.



APPENDIX No. 3.

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No. 10, Water-street, Liverpool, 9th May, 1861.

DEAR SIR,

We are in receipt of your esteemed favor of the 8th instant, and enclosure, which has been forwarded to Tyson, in the absence of our Senior, who is at present in Yorkshire.

We cannot give any specific information such as you require; but may remark, it would be more easily managed to get a large ship to Hobart Town *viâ* Melbourne than *vice versâ*. We mean, that the extra insurances would fall so heavily on ship and goods destined for Melbourne that it would prevent them being sent by the route of Hobart Town. It is pretty certain that either the *Red Jacket*, *White Star*, or *Morning Light* would be our Packet for January,—all ships of the very largest size, the two latter being above 2300 tons register.

The mere freight to Melbourne might not be more per ton than we charged before; but the extra insurance to touch at Hobart Town on ship alone would be a large sum, besides the *détour* expenses.

If it were at a more favorable season for passengers, it might be possible to secure such a number as to make it worth while to go direct; but in January that would be impossible.

If you cannot get a large ship to Hobart Town direct from London, then, undoubtedly, it would be most economical to employ a very large ship, of known speed, to Melbourne, and transfer them to first steamer thence to Hobart Town.

The *S. Curling* was a notorious fast ship, but the Captain had never been in these seas (if we remember aright), and made a long passage; whilst Captain Kerris's longest passage in the *White Star* was 74 days, his next 71 days, his fastest 69 days,—about the length of time at which your Agent lost his ice.

We shall have the pleasure of addressing you again as soon as ever Mr. Wilson returns. Meanwhile,

We are,  
Sir,

Yours faithfully,

H. J. WILSON & CHAMBERS.

JAMES A. YOUL, Esq., Waratah House,  
Clapham Park, in London.

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Liverpool, 21st June, 1861.

DEAR SIR,

We duly received yours of 18th instant, and called upon Wilson & Chambers, who read over their reply to you of 9th May. Mr. Wilson is still out of town from ill health, but is expected back to-morrow, when they will again write you.

He thinks it will be impracticable to get a Melbourne ship to go *viâ* Hobart Town; and it would not do to keep the *Ova* on board whilst she discharged cargo at Melbourne, neither would it do to send them by a small ship direct, as she might take a long time on the voyage.

The best way, we think, would be to ship by a large and powerful ship—a fast liner, whose Captain knows the trade. You would thus ensure a quick passage, and have them immediately transhipped into a steamer for Hobart Town when the ship reached the Heads,—the passage at most would only be two days, and could be done.

We will see Mr. Wilson in a few days. Meantime we will be glad to receive your instructions, which will be properly attended to.

We are,  
Dear Sir,  
Yours truly,

A. C. STEWART & CO.

JAMES A. YOUL, *Esq.*, *London.*

*Liverpool, 28th June, 1861.*

DEAR SIR,

WE are in receipt of your esteemed letter of yesterday's date. We have seen Mr. Wilson, who has minutely considered the matter about his Melbourne vessel calling at Hobart Town, and he finds that such a deviation of the voyage would not answer at all, as shippers of fine goods would not send them by such a vessel. It will be quite impossible to get one of the Melbourne ships to make the *détour*. However, Mr. Wilson is expecting several of his large crafts into London in a few months, and he will consider about causing one of them to call at Hobart Town on their passage out from London to New Zealand; and you may rest assured the moment any determination has been arrived at we will advise you. In the meantime, if there is anything else we can do for you here, our services are at your command.

Yours truly,

A. C. STEWART & CO.

JAMES A. YOUL, *Esq.*, *London.*

*London, 21st November, 1861.*

DEAR SIR,

THE owner of the *Gottenburg* has decided that he will not keep her in London later than 10th December. We fear, therefore, that all chance of arranging to send the Ova by her is at an end. We will not fail to look after a ship for the purpose; but we are not very sanguine of success, as the trade is so dull.

We are,  
Sir,  
Yours faithfully,

DEVIT & MOORE.

J. A. YOUL, *Esq.*

*Note by Mr. Youl.*—Devit & Moore, received November 22nd, 1861; answered. Went to D. & M., and tried to get to 20th December,—the earliest date I could get ready after communication with Ramsbottom. Was obliged to give up this vessel, as they would not give me a day longer than the 10th December.

*London, 21st November, 1861.*

DEAR SIR,

WE have had further conversation with the owners of the *Kensington* respecting their ship taking the Ova, and we find there is no chance of our being able to submit you an offer on terms which you would consider reasonable. The objections against the deviation of the voyage are very great.

We hope you have been able to utilise the steamer; and, failing her, we really think some one of the Van Diemen's Land Brokers would put on a large suitable ship, as such vessels are now to be had on unusually cheap terms. We fear there is no prospect now of our being soon able to offer you a ship fit for the service, which we very much regret.

Dear Sir,  
Yours faithfully,

SHAW, SAVILLE, & CO.

J. A. YOUL, *Esq.*

London, 22nd November, 1861.

DEAR SIR,

WE are favored with yours of to-day's date. Since writing you, we have seen the Canterbury Emigration Agent, and have asked him whether he would object to a large ship taking out his passengers calling in at Van Diemen's Land. His reply is not favorable; and he does not appear to think that the Ova would do in the Canterbury waters, where their floods are so very heavy and sudden. This shuts out the most obvious channel through which the service could be performed by a New Zealand vessel. But we shall nevertheless keep the matter in view; and it is quite possible that something may occur, of which we will give you immediate notice.

We are,

Dear Sir,

Yours respectfully,

SHAW, SAVILLE, & CO.

J. A. YOUL, Esq.

Liverpool, 23rd November, 1861.

MY DEAR SIR,

I RECEIVED your letter this morning, and immediately set about your business. Messrs. H. J. Wilson & Chambers have no ship that can go direct, but will give every facility in their ship for Melbourne, 20th January,—the *Merchant Prince*, a large fast three-decker,—at about 40s. per ton, measurement.

I have seen both Mr. Mackay and Mr. Baines, and showed them what *eclât* it would bring to their line if they could do this thing successfully. They will do their best.

They intend sending the *Cairngorm* from London to New Zealand, in January. The great drawback to ships loaded with valuable cargoes calling, is the objection of Shippers and the extra demand of Underwriters. On this point they will make full enquiry. They are also in treaty for a splendid steamer, now building in London, to sail in January for Sydney, and will, if possible, send her round by Hobart Town with the Ova. I told them I had power to pay a fair rate; and if it can be managed, you may depend upon me doing it, as I know all the men intimately.

I suppose the ship would only require to bring up outside, and send the Ova ashore in a steamer. Mr. Mackay has heard of a new ice-making machine.

Yours truly,

A. C. STEWART.

J. A. YOUL, Esq.

Liverpool, 26th November, 1861.

MY DEAR SIR,

I DULY received yours of yesterday. J. Baines & Co. have not got the steamer, and intend to send the *James Booth* (Aberdeen clipper) in January to New Zealand, instead of the *Cairngorm*. Mr. J. Baines goes to London to-morrow; so I have given him your address, and hope something may be done. I wish it had been Mr. F. M. Mackay, as he seems more impressed with the matter than Baines; but I have talked to Mr. Mackay to-day, to give Baines a proper idea of its importance before he leaves.

If a steamer was ready at Hobart Town Bay when the ship arrived, would it not do? Failing this, Melbourne ships are large and swift.

Yours truly,

A. C. STEWART.

J. A. YOUL, Esq.

*Note by Mr. Youl.*—A. C. Stewart & Co., received November 27, 1861; answered December 21, 1861. Nothing came out of this. Would not call at Hobart Town.

London, 3rd December, 1861.

DEAR SIR,

WE have this morning been looking after a ship admirably adapted for the conveyance of the Salmon Ova to Tasmania. She is a clipper, inasmuch as she has made the passage to the Colony in 69 days, and quite large enough, as she is 900 tons register. Our principal difficulty in the matter is the scarcity of goods to fill up, say by the 15th February; but it seems a pity to let such

a good opportunity as this slip. We shall therefore feel obliged if you could give us a call in the course of to-morrow, to talk over the matter.

We are,  
Dear Sir,  
Yours faithfully,

J. A. YOUL, *Esq.*

DEVIT & MOORE.

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*Note of Mr. Youl.*—Devit & Moore, received December 3, 1861; answered. Inspected ship, and found her admirably adapted for the purpose. Brokers, however, could not get owners to lay on for Hobart Town, although I offered £600 for Salmon.

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London, 7th December, 1861.

DEAR SIR,

THE owners of the *Sir W. F. Williams* have declined our offer. We must, therefore, look out for some other opportunity.

There is a very general feeling that, if we have a rupture with America, outward freight will rise considerably, in consequence of the dearness of wages and provisions, increased assurances, &c.

We are,  
Dear Sir,  
Yours faithfully,

J. A. YOUL, *Esq.*

DEVIT & MOORE.

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London, 12th December, 1861.

DEAR SIR,

WE have communicated with the owners of the *Zealand*, who are inclined to entertain your proposal. But there are two or three points on which we require further discussion with you. One is, Why is it absolutely necessary to place all the required space in the 'tween decks only? It is feared that a great weight of ice or other heavy material in that position might cause inconvenience. They also want to arrange, if possible, where the ship is to deliver, and what she is required to deliver; also, when you would have your material on board.

The latest date we give for ordinary goods is the 25th January; but we should want yours earlier.

We remain,  
Dear Sir,  
Yours faithfully,

J. A. YOUL, *Esq.*, *Waratah House, Clapham Park.*

WILLIS, GANN, & CO.

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*Note of Mr. Youl.*—Willis, Gann, & Co., received December 12, 1861; answered. Had an interview, as requested, and gave particulars of what I required.

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London, 13th December, 1861.

DEAR SIR,

WE have seen Captain Barclay, and have overcome his objection to the *Zealand* going up to Hobart Town. But it is, of course, understood this shall not involve a necessity for the vessel to pass the Custom House, and the delay consequent thereupon.

The owners require for the service £750. And as we are now rapidly engaging passengers who will occupy the space you require, we can only hold to this offer up to Monday next.

Requesting, therefore, the favor of your early reply,

We remain,  
Dear Sir,  
Yours faithfully,

J. A. YOUL, *Esq.*, *Waratah House, Clapham Common.*

WILLIS, GANN, & CO.

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*Note of Mr. Youl.*—Willis, Gann, & Co., received December 13, 1861; answered. After repeated interviews declined, thinking the *Beautiful Star* the best.

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(AGREEMENT.)

9 Billeter-street, E.D., London,  
18th December, 1861.

*MEMORANDUM of Agreement between REGINALD WHITTAKER, (Owner of the New Iron Screw Steamer "Beautiful Star," of about 320 tons burthen, now lying in the Tyne,) and Mr. J. A. YOUL, of London.*

The said Reginald Whittaker engages to place the said ship at the disposal of Mr. J. A. Youl for the conveyance of Salmon Ova from London to Hobart Town, giving him the entire use of the vessel for the sum of £500, payable in England on the clearing of the ship at the Custom House,—the said J. A. Youl promising a gratuity of £50, in addition to the aforesaid sum, should 1000 Ova or Fish be landed alive in the Colony.

The ship to leave the Tyne on or about the 17th January, 1862, for this Port. 21 days to be allowed the freighter for fitting up the ship here, to commence from the date of the mooring of the vessel in the London Docks; and two days grace.

Provisions to be found for one passenger to mess with the Captain, and one assistant in the steerage.

The said vessel to go out under canvas only.

The said J. A. Youl engages to provide all the fittings, water, &c., required for the conveyance of the said Ova.

Should any question arise under this agreement, the matter to be referred to Messrs. Devit and Moore, whose decision shall be final.

Three clear working days to be allowed for landing the said Ova in Hobart Town; and tanks and all other materials used for the conveyance of the Ova to be delivered up to the Government.

The Government to have the option to tow the vessel in any safe anchorage up the Derwent that they may deem necessary, bringing her back to Hobart Town at their risk and expense.

(Signed)

R. WHITTAKER.  
J. A. YOUL.

Witness to both signatures—J. MOORE, jun.

Certified a true copy; original lodged with us.—DEVIT & MOORE.

Office of Public Works, Custom House,  
Dublin, 24th December, 1861.

MY DEAR SIR,

I AM in receipt this morning of your favor of the 21st instant. I see you are meeting with a great many difficulties in getting a vessel. I hope you won't be too late in February for Ova. Would it not be well to try and get some before February. I got about 10,000 from Ballina the other day, and have them in my apparatus. You do not say if you wish to take out the gravelline, or if I will have any for you. I am sorry it is out of my power to go over and see your apparatus, I would like it above all things; but, since Mr. Hemilles' removal, I am kept quite busy. It strikes me that you ought to try the Ova in moss also. I got it up the other day in beautiful order in moss; and it kept very good for several days in the damp moss, and might keep so a very long time I think. I send you a sketch of what I would propose. If by means of the ice-water you can retard the hatching of the Ova, I think it will be the easiest way of preventing them being tossed about by the rolling of the ship, as the moss will keep the Ova steady. I never saw Ova in such good condition as that I lately received in the moss; and I am trying an experiment with it, and also purpose sending some Ova to Italy in this way. At any rate, a small trial in this way would do no harm, and it can easily be watched to ascertain if they are coming to life. If they don't hatch before the arrival, it will be a decidedly safe way of transporting them. If this sketch is not sufficiently explanatory to you, I will do anything I can to assist you. Mr. Ashworth has lately put out 659,000 Ova round Lough Mask, propagated by Ramsbottom.

I think Mr. Millar, at Galway, could get you 50,000 easily; and I will keep them for you here, if you wish. But I so much fear that February will be late to get Ova.

Anything I can do, pray do not hesitate to call on me.

Believe me,

My dear Sir,

Yours very truly,

J. A. YOUL, *Esq.*

THOS. F. BRADY.

*Note of Mr. Youl.*—T. F. Brady, Esq., received December, 26, 1861; answered 27th. Requested Mr. B. to have made for me an apparatus such as he describes, to hold from one to two hundred Ova. I will feed them with ice-water from the melted ice drawn from ice-house.

*Clitheroe, 31st December, 1861.*

DEAR SIR,

I RECEIVED your letter of the 21st instant, while in Ireland; but, as I have not been two days at one place since, before the present time, so I have not been able to write sooner. Now I have finished all except your work, and that I am well prepared for.

I shall feel glad that you have got a steam-ship. I cannot think but it will be much better, and give the thing a better chance of success. I find, by practical experience, that I cannot keep Ova living, with the best water, on glass trays. I have lost a great many thousands, because the Ova could never be stationary,—always moving a little, and dying every day in consequence. I have now partly covered them with sand and gravel, so as to fix the Ova fast to the place, and I have not lost a single Ova since.

My son is witness to this work, and it gives him a thorough understanding of what he will have to do. I had him also in Ireland for a week; and I let him take the Spawn from the Salmon. By the time the ship is ready he will be able to manage his undertaking, I have no doubt, with success. I have two fine female Salmon and two males in a safe place in the river in Ireland, waiting until the ship is ready. I have promised two of Mr. Ashworth's Water Bailiffs, under whose care I have left them, that if they will keep them safe I would give them each 10s.

There is no doubt of the good care that will be taken of the Fish. But the question is, whether the fish will keep in good health or not for that length of time; but I shall know that before I need to go. So, in case the Fish in Ireland should not answer our purpose, I want you to get permission from Sir Watkin Wynn and Mr. Buckley's nephew, Mr. Peck,—as Mr. Buckley has given his fishing to his nephew, and requested that you would ask Mr. Peck in future, as he wished to give his nephew the honor of giving that permission. So then, if we can only manage to get a bellyfull or two of Ova near the time of sailing, there will be three chances; and I have no doubt but this time we shall transport more or less Salmon to Australia.

I am,

Dear Sir,

Yours very truly,

J. A. YOUL, *Esq.*

R. RAMSBOTTOM.

*Clitheroe, 7th January, 1862.*

DEAR SIR,

I HAVE yours this morning. My son got the gravel yesterday. I am writing to Mr. Millar, at Galway, this day; and, if the Fish be all right, I will fetch the Ova about the end of next week.

The Spawn I have here is doing well; and I intend sending a small portion of it, at all hazards, to the Colony. I am sorry to say that I have not Mr. Peck's address, nor can I find it in the *Manchester Directory*; but I have no doubt he lives with his Uncle, and if you will direct — Peck, Esquire, care of Edmund Buckley, Esquire, Higher Ardwick, Manchester, it will be all right. I should like you to get leave from this man, as his liberties are the most suitable for getting spawning Fish.

I am,

Dear Sir,

Yours very truly,

J. A. YOUL, *Esq.*

R. RAMSBOTTOM.

Clitheroe, 13th January, 1862.

DEAR SIR,

I HAVE a letter from Galway which informs me that the Water Bailiff has got a later pair of Salmon besides those I left; so I intend going on Wednesday for the Ova. Now, if you could tell me when you have got leave for me to get a pair of Fish in Wales, I might get the keeper to secure a pair for me in the Salmon crib by giving the two men that got the other about a pound or thirty shillings; and if so, it would not only make the thing safe, but would save a great expense. However, I can write to that effect as soon as you send me word that you have got leave.

I am,

Dear Sir,

Yours very truly,

R. RAMSBOTTOM.

P.S.—If we put trust to getting a pair of Fish at the last moment before the ship sails we might be disappointed with floods or other causes.

Yours,

J. A. YOUL, *Esq.*

R. R.

Waratah House, Clapham Park, London, 18th January, 1862.

MY DEAR ARCHER,

FOR the information of your fellow Commissioners appointed to make preparation for the Salmon, should they arrive safely in the Derwent, I enclose a copy of the Agreement made with the owner of the *Beautiful Star*, and also letters from different brokers and shipowners, that they may learn the difficulties I have had to contend with in getting a suitable vessel to convey the Ova direct to Hobart Town,—a difficulty I had foreseen, and have tried every means in my power to meet for a long time. When we made the first attempt, two years ago, I found the same difficulty, and was driven to Liverpool, and had then to ship them to Melbourne. There is, at this season of the year, only ships of the lowest class laid on for Hobart Town,—slow sailers, and not sufficient space to make an efficient ice-house. I offered Messrs. Devit & Moore,—the more respectable ship brokers connected with Tasmania,—two months ago, £600 if they would lay on a suitable vessel for the purpose to Hobart Town, and they tried all they could, but without success; although for one particular vessel which I had seen I led them to believe I would even give more. I cannot tell you how anxious I have been, and really began to fear the experiment would have to be deferred for another year. The reason I have preferred the *Beautiful Star* to the only other vessel offered, namely, the *Zealander*, was the high price, £750. They would only wait 6 hours in the Derwent to land the Ova; they would be paid in full before starting,—the owners or captain would therefore have little or no interest in the success of the experiment. Being full of Emigrants, their curiosity might lead them to touch the apparatus, and, in a rolling sea, this would be the destruction of the Ova. As I found, in my experimental trip to Scotland, the ice would have to be put on board many days before starting; and now I have the whole vessel to myself, and plenty of time to try the working of the apparatus before the Ova is deposited, and also the advantage of getting advice as to any difficulty I may meet with in providing for a perpetual stream of cold water. I very much wish the vessel had been larger, and that she could have been got ready to sail this month.

Ramsbottom has now 20,000 Ova doing well for me at Clitheroe, and is, at this present moment, getting more; and I mean, if possible, to have at least 20,000 taken from the Fish only a few days before sailing. I shall then have Ova in three different stages of incubation. The best judges declare the Ova for my purpose ought to be at least 3 weeks advanced before putting them into the ship,—so many die in the first week; but they forget that the most delicate state is for 3 weeks after they are hatched, and if this occurs in the tropics, I fear they will die. Should the Ova live through the tropics, there is but little doubt of the success of the experiment.

I would now draw your attention to the difficulties you will have to contend with in their removal from the ship, should they arrive alive; and I would entreat you not to be led away with any assertions that this is an easy matter with the Fry. It is not so difficult with Ova. First, then, you must not leave them for many minutes (say 15) without fresh supplies of pure cold water, not exceeding, if possible, 45°: a continued stream, however small, is best. Do not, on any account, have the Fry or Ova touched by the hand. Be very careful to shade them from the direct rays of the sun, or too much light. If you have to remove them on a warm day, if possible put some ice into the water, and give them a more ample supply of water. When I brought some from Dublin, I got most of them alive and well until within 30 miles from London; it then came out warm, and I lost most of them. Be sure and do not deposit them in water over 4 inches in depth, or the young Fry will be all drowned.

Believe me to be,

Yours very truly,

Hon. W. ARCHER, *Tasmania.*

JAMES A. YOUL.



Clapham Park, London, 19th March, 1862.

MY DEAR ARCHER,

FOR the information of yourself and brother Commissioners on the Salmon, I have to state that the ship *Beautiful Star* sailed from the London Docks on the 4th March with about 50,000 Ova and a few little Salmon Fry, just hatched, on board, deposited in the apparatus by old Mr. Ramsbottom on the morning of that day. The Spawn was taken in in Galway; above 8,000 Ova in number some 40 days previously; and the remainder was obtained in Wales on the 20th February. I saw the whole deposited myself: they were in the best possible condition.

Ramsbottom had entreated me to let him bring up and try with some 400 or 500 young Fry, just hatched from Ova brought by him from Galway. I gave a reluctant consent to him to bring a couple of dozen. However, he tried to bring them all, and, as I had anticipated, notwithstanding all his care, they every one died before he reached London from his house at Clitheroe;—so very difficult is it to remove young Fry in any numbers. I went down the Thames as far as Blackwall; a miserable cold N.E. wind blowing; which, with my previous anxiety in superintending all the fitting up, completely placed me *hors de combat* with a severe cough and cold. Everything appeared to work well, with the exception of the apparatus hung in gimbals; but, having had the water pumped out of the well in the centre and left it dry, I had hope of its working favorably. I would just pause and say, that, when I got over the side of the vessel at Blackwall, I thought all my labor and anxiety would have a favorable end.

Many scientific people and breeders of Salmon had inspected the whole working of the scheme for six days previously, and on the day of sailing after the Ova were deposited, and all approved of the means adopted. I have, however, to tell you of a series of disasters which followed, all having a tendency to weaken the chances of success. The vessel sailed from the Downs on Saturday afternoon, the 8th March, with a fair wind, but at night increased to a severe gale dead against her, which compelled her to run back on Sunday morning, in doing which she came in collision with another vessel. On Tuesday following, hearing she was at anchor in the Downs, I ran down by rail to Deal, and boarded her. I found the apparatus, or gimbals, a complete failure, and out of some 12,000 Ova in it not as many hundreds alive. On the other hand, the swinging apparatus acted as well as possible, and all the Ova and little Fry in it were in the most perfect health,—in fact, doing as well as in their native river.

I was also much pleased with what young Ramsbottom had done during the gale, and found the man I had engaged to work under him a most valuable assistant: being a sailor, he had kept everything in order. They told me they were perfect masters of their work. I was not able to stay long on board, the motion down below being too much for my stomach. My visit, however, enabled me to write a series of further instructions for Ramsbottom's guidance. On the 17th March I received a letter from him a long way down Channel, saying he had done what I recommended, and everything was going on most favorably. The Ova had then been twelve days on board ship, had encountered a gale of wind, and were in the most healthy state in the swinging trays,—a certain proof that they were properly lodged; for, if they had not been suitably placed and supplied with pure water, they would have died as rapidly as in the gimbals,—which he had dismantled, and had placed the Ova which remained alive in another vessel. But, alas! our misfortunes have not yet ended; for since I began this letter, I received one from young Ramsbottom, stating that the ship had put into Scilly or Penzance to repair damage sustained in another gale, and he expressed great fear from these delays that the ice will be melted before it is even wanted in the Tropics. It took upwards of a month to fit the vessel up, and I had to watch all day and every day the workmen, to see that no deleterious materials were used in a way to poison the water; and I used upwards of 2000 gallons of pure water to wash out repeatedly the tanks, &c., before I dare put the Ova in them. With reference to the gimbals, which have so entirely failed, I must plead guilty to a want of firmness on this head, and deserve severe reprehension from the Government of Tasmania, as the following statement will sufficiently prove:—At the outset, I was strongly recommended to employ a Mr. Berth, a ship's joiner in a large way of business; and he placed at my disposal, to work my plans, a very intelligent young man named Johnson, a carpenter in his employ. After paying a visit to Dublin, and seeing the artificial breeding carried on there under the superintendence of Mr. Brady, one of the Commissioners of Trial Fisheries, (who had made for me, under his own inspection, two trays, and as he thought would answer our purpose,) I set Johnson to work to make rough apparatuses,—to swing, and on gimbals. I obtained permission from the General Steam Navigation Company to place these on board one of their ships trading to Edinburgh, and took with me old Ramsbottom and Johnson, with Ova, sand, gravel, &c.; and it was at sea, on this experimental voyage, that we found out the faults of our apparatus, devised and tried the remedies arranged for those we should use. Now, we found the gimbals answered as well as the swinging apparatus; and my instruction to Johnson, (who was first to make the working models of the alterations to try their fitness,) was to make the gimbal frame exactly like that which we found to answer so well; but, instead of doing this, he stated he had hit on a better plan for the arrangement of the trays, without altering the principle of their hanging. I was for letting well alone, but every one who saw his model (and they were many,) gave it the preference, and so I was foolishly induced

to give my reluctant consent. Although I tried it many times when set up on board ship, I could not discover any fault in it until the gravel was all placed and the Ova deposited, with a full stream of water running through the trays, and then, by accident, a young gentleman treading on it sent it right down on one side, when, to my dismay, I found it would not right itself,—which, if properly made, it would have done. The old gimbal frame is on board, and you can compare them. I have insured the freight and goods for £1000 in case of the ship being lost or stranded; the cost will be something over £1400.

I will write to you further, by way of Marseilles, and forward bill of lading, copy of charter, Ramsbottom's agreement and his account, together with some other documents which I thought might interest you.

I remain,

Yours very truly,

*The Hon.* W. ARCHER.

J. A. YOUL.

FORWARDED to the Chairman of the Salmon Commission.

W. ARCHER.  
29th May, 1862.

*Clapham Park, London, 26th March, 1862.*

MY DEAR ARCHER,

SINCE I wrote to you by way of Southampton, I have heard again from young Ramsbottom at St. Mary's, Scilly, to say they had repaired damages to the ship, but that the crew had ran away, and amongst them the man Mark New, who, as I wrote to you, had acted so well. Ramsbottom had, however, got another man; and they had shipped a fresh crew, and all ready to sail the first fair wind. This letter was dated 23rd March,—twenty days since the Ova had been deposited; and he writes that they were still doing well, and he had good hopes of a successful termination of the experiment, notwithstanding these serious delays. He had been able (so he writes) to make many little improvements in the supply of water; first by a sponge, and then by a sand and gravel filter, all of which had been suggested to him; but the difficulty was to apply them so as to work on board ship.

It is probable that the experience he has gained by these provoking delays may, after all, be beneficial, as he has been able to do in the harbor that which he could not have done at sea, however necessary. You cannot tell how anxious I have been to get on board with a fresh supply of ice.

If the vessel had put into a Port within reach of a railway, I would have filled up his ice-house again, and then there would have been little doubt of success.

Great as has been the cost of this trial, even if it should not succeed, it has been money well spent; for no one who has not been to sea with Salmon Ova and tried to keep them quiet and free from motion (which is absolutely necessary), and at the same time have a continuous flow of water, can tell the difficulties to be encountered. That the difficulties appear to have been completely overcome in the swinging trays, and the arrangement for the flow of water down through the gravel in one compartment and up through the gravel and over the top of the next compartment, is worth half the money spent. You must also recollect that this may be considered as the first real experiment; for the first attempt made by Mr. Boccins failed from the commencement, and no experience was gained by it, and the second made under Black likewise failed from the first, and no trustworthy experience was obtained from him.

I hope, therefore, the Government will not give up, but make another trial, even should this fail.

Ramsbottom appears to be a trustworthy person, and his experience in a second trial would be most valuable. I have to beg that the Government will, under any circumstances, return to me the top and middle trays of the swinging apparatus, together with the iron universal joint which sustains it, and also the old gimbal frame. The spare one, which we found to answer so well in the trial trip to Edinburgh, it can be taken to pieces, but let me have it all. Nothing could act better, and it will be a model for any future attempt.

I trust to you to have my request complied with.

I have not yet paid all the bills. Some of the prices charged me were exorbitant; and in some cases I have got  $7\frac{1}{2}$  per cent., 5, and  $2\frac{1}{2}$  taken off. I find I made a mistake in the pure tin per lb.,—the 2s. 3d. included work; it can be bought for 1s. 9d. per lb. I believe I could get the whole work done again for at least 25 per cent. what this cost.

The preliminary expenses of models, &c., would also be saved; and if any suitable vessel could be got going direct to Hobart Town, £350 would be an ample freight charge for the whole concern.

If you examine the apparatus, you will find it requires a vessel to be a great height between decks, in order to get a fall into your receiving rack. And I think it necessary to have a pure atmosphere in the place the Ova are in. You will find, on examining the *Beautiful Star*, small as she is, there are many advantages in her over an ordinary merchant ship.

I have had several applications from the Agent of New Zealand to make a joint attempt with the funds of both Colonies. They have first-class ships sailing every month throughout the year, which is an advantage; but my wish is to give Tasmania the benefit of the first supply.

Believe me to be,  
Yours very sincerely,

Hon. W. ARCHER, *Tasmania.*

JAMES A. YOUL.

FORWARDED to the Chairman of the Salmon Commission.

W. ARCHER.  
29th May, 1862.

*Waratah House, Clapham Park, London, 19th April, 1862.*

MY DEAR SIR,

FEARING that Mr. W. Archer has left Hobart Town, and gone to reside at Cheshunt, I write to you, as one of the Resident Commissioners for the introduction of Salmon to Tasmania, to say that I heard from Mr. W. Ramsbottom, who goes out in charge of the Salmon from Scilly on the 24th March—twenty days after the Salmon had been on board—to say that they were all doing well, and that he had been able, by returning to Port, to effect several improvements for the filtration of the water, which I was prevented from carrying out for the want of time and the difficulty of arranging, which could only be done by seeing how the matters would work at sea; although one of the things I always dreaded—a deposit of earthy matter on the Ova,—which no one will believe until they find it out, as I have done, from actual experience. The only fear Ramsbottom felt was, that this long detention would tell upon his supply of ice. And if it had been possible I would have ran down with ice enough to have filled the ice-house up again.

I wrote to Mr. Archer last mail, enclosing bill of lading, Ramsbottom's agreement, and sundry accounts, &c. which I make no doubt will be handed to you by Mr. Archer, if he has left Hobart Town. And I have particularly to request that the Government will do me the favor to send me home the middle and top tray of the swinging apparatus, with the iron universal joint, and also the old gimbal frame complete, which was put on board for use in case of accident. Supposing this attempt should not prove successful, I hope the Government will not give it up, but send Ramsbottom home for another trial next year. Recollect the immense benefit that would accrue to the Colony from the introduction of this valuable Fish, and that we can only hope to succeed by the experience acquired by actually being at sea with the Ova or young Fry. Many difficulties have been overcome by the short trip made by me to Edinburgh and back last year, and the arrangement of the trays, with the flow of water up and down through the gravel without imparting any motion to the Ova, is worth all the money spent. My best services are at the disposal of the Government.

I would caution you as to the great difficulty there is in moving young Salmon Fry any distance, and would recommend their being kept in Hobart Town under running water, and a few taken at a time to their destination.

A very warm sunny day increases the difficulty, and I would have you bear in mind that they will be drowned if put into deep water, over 6 or 7 inches; the shallower the better, until they are 6 or 7 weeks old.

I have only to add, that the experiment will cost somewhere about £1420; and, should another attempt be made, it ought to be done for £1000, provided 25 tons of ice is enough. The tanks, pure tin, pumps, &c., ought to sell for as much as they cost. The pure tin is very expensive, and should be worth 2s. the lb. with you.

I hope you will visit the ship when she arrives, and see all the things at work, and hear from Ramsbottom where it was if anything failed.

I would particularly ask you to note if there was any leakage in the ice-house, either from the iron pipes or from the deck.

Believe me to be,  
Yours very truly,

MORTON ALLPORT, *Esq., Hobart Town, Tasmania.*

JAMES A. YOUL.