ROYAL SOCIETY.

OCTOBER, 1866.

The monthly evening meeting of the Society was held on Tuesday, the 9th October, J. Barnard, Esq., in the chair.

The Rev. R. McLean, and J. Scott, Esq., M.H.A., who had been previously nominated by the Council, were after a ballot declared to be duly elected Fellows of the Society.

The following returns for the past month were laid on the table:—

1. Visitors to Museum, 748.
2. Ditto to Gardens, 2,578.
3. Seeds received—From Mr. C. F. Creswell, 70 papers.
4. Plants supplied from Gardens:—
   a. To E. M. Lloyd, R.E., for decoration of grounds of Royal Engineer Department, 103 plants.
   b. For grounds at salmon ponds, 235 plants.
   c. To A. Beames, Esq., Sydney, 50 papers colonial seeds.
   d. To L. Samuels, Esq., Sydney, 24 plants.
   e. To W. Forde, Esq., Sydney, 24 ditto.
5. Time of leafing, flowering, and fruiting of a few standard plants in Botanic Gardens.
6. Presentations to Museum.
7. Books and periodicals received.
8. List of specimens of Tasmanian gold and gems sent to Royal Exhibition Commissioners.

Meteorological Returns.

1. Hobart Town, from F. Abbott, Esq.
   a. Table for September.
   b. Summary and analysis of observations for ditto.
2. Swansea, from Dr. Story, table for August.
3. Westbury, from F. Belstead, Esq., table for September.
4. Ross, from M. Duncanson, Esq., tables for June, July, and August.

The Secretary read the usual monthly "Analysis of the Observatory records, together with those of Births, Deaths," &c., by E. S. Hall, Esq.

The presentations to the Museum and Library were as follows:—

1. From Mr. Horne, per Dr. Officer, two hermit crabs.
2. From Mr. G. W. Rex, one ditto.
3. From Mr. Baynton, Brown's River, jaws of small shark.
4. From Mrs. Ellis, Glenorchy, a specimen of native bread.
5. From Dr. Agnew, Van Diemen's Land almanack, 1832 and 1834, also a very curious old almanack for 1664, printed in London.

The Secretary intimated that he had been requested by Mr. Morton Allport, who was unable to be present, to lay before the meeting the following remarks in reference to an error in his (Mr. Allport's) report on the condition of the salmon ova on their arrival at the Plenty in May last:—

It may be in the recollection of some of the Fellows of the Royal Society now present, that in my report of the introduction of the salmon, read in May last, the following sentence occurs:—

"On the present occasion a large number of boxes were packed by Mr. Robert Ramsbottom, father of the Superintendent of the Plenty, the remainder by one of his sons and by Mr. Thomas Johnson. The boxes packed by Mr. R. Ramsbottom were all marked with his initials in pencil, and were found on unpacking to contain a far larger average of living ova than the others, though some of the latter were in better order than any of those

brought by the Norfolk," and I then proceeded to draw certain inferences from these circumstances.

By the last mail I received from England a letter from Mr. Thomas Johnson in which he assures me that none of the boxes were packed by him, all having been packed by Mr. R. Ramsbottom, assisted by Mr. Youl, and that the initials upon the boxes had relation only to that portion of the ova which was taken from the fish by Mr. Ramsbottom. In justice to Mr. T. Johnson and Mr. Westal Ramsbottom, therefore, I have now to correct the error contained in my report, and entirely to exonerate them from all blame in reference to the packing. How that error first arose I am unable to ascertain, but my fellow Commissioners and Mr. William Ramsbottom were clearly under the same impression as myself, or they would have called my attention to the mistake long ago.

As to two facts no doubt can possibly exist, as Dr. Officer and Mr. Buckland can both testify, namely, the larger percentage of living ova in the boxes bearing initials, and as to the dead ova in the other boxes being gathered into masses.

Mr. Youl, in a letter written to the editor of *The Mercury*, says that a number of the boxes not initialled were placed at the top of the ice in the ice-house, and were no doubt subjected to far rougher usage whenever the motion of the vessel was great, and that this would account for the death and aggregation of the ova. This may be so, and it is likely that the ova once dead, and decomposition going on, many of them burst, and their contents spreading amongst others possibly matted them together, in the manner noticed by Mr. Buckland and myself.

The SECRETARY reported on Mr. Allport's authority that several young trout had recently been hatched at the breeding ponds, from trout born and impregnated in the colony, and Mr. Allport had been informed that some had been hatched from those which had been placed in ponds, under Mr. McArthur's care, on the other side of the island.

The SECRETARY in calling attention to the section of an Armstrong shell, recently presented to the Museum, observed it might be interesting to the Fellows present to be informed of the views entertained by Sir W. Wiseman as to the best method of protecting our port against the attack of an enemy. Sir William thought that this, regard being had to our pecuniary resources, could be best accomplished by the erection of two revolving iron turrets, shot proof, and armed each with two heavy rifled guns of greater power than any which a hostile cruiser would be likely to carry. The turrets being placed on sites commanding the entire harbor, their fire would destroy any ship approaching near enough to inflict injury on the town. Vessels protected with the heaviest iron armor, and carrying guns of the largest calibre, could alone contend (although at a disadvantage) against such forts, but ships of this kind are perhaps not likely to visit these distant waters. The turret might be rendered still more formidable by having deep earthen embankments thrown up in its front. These should be raised just high enough to present no obstacle to the fire of the guns, and would not only afford additional protection, but would so screen the turret that its summit alone—even at moderate distances an almost invisible object to fire at—would be exposed to the enemy. The expense of a turret of this kind would be about £10,000.

Dr. AGNEW further observed that His Excellency the President was inclined from recent circumstances to think that no defence would be more effective than a steam ram, shot proof from iron plating, and capable of great speed. A vessel of this kind would not necessarily require guns; when prepared for action she could be guided by a crew of three or four hands, and, if driven at the top of her speed against an enemy's ship, she would inevitably sink her, no matter how heavily she might be protected, or how formidable her armament.

Mr. LLOYD (R.E.) had no doubt of the efficacy of the steam ram, but he feared the expense would be far too great for our means. He did not think

the cost of one would be much less than £60,000. There would always, too, be the risk of something going wrong just as she was wanted, and then we should be utterly defenceless; on the other hand, with the simple arrangement of guns, mounted either on earthworks, or in iron turrets, no machinery was required, and everything was ready at any time for instant service. In the case, however, either of earthen forts, or iron turrets, it should be borne in mind that a certain number of riflemen would always be required to keep in check any of the enemy who might land for the purpose of annoying the gunners. In the case of a town situated like Launceston, he (Mr. Lloyd) thought that the use of the torpedo would be found to be the most effectual and the least expensive mode of defence. In the narrow channel of the Tamar, at points over which a ship must necessarily pass, torpedoes might be sunk in a manner to defy detection, and as they could be exploded at the right moment from the bank, their effects would be in the highest degree destructive to an enemy.

Further discussion having taken place on the subject brought under notice, and the usual votes of thanks having been passed, the meeting separated.