NOVEMBER, 1869.

The monthly evening meeting of the Fellows, the last of the session, was held on Wednesday, the 16th November, J. Barnard, Esq., in the chair.

The Secretary, Dr. Agnew, laid on the table the following returns for the past month:—

1. Visitors to Museum, 3204.
2. Ditto to Gardens, 2624.
3. Times of leafing, &c., of a few standard plants in gardens.
4. Books and periodicals received.
5. Presentations to Museum.

Meteorological Returns.

1. Hobart Town, from F. Abbott, Esq., table and summary for October.
2. Port Arthur, from J. Boyd, Esq., table for ditto.
3. Swansea, from Dr. Story, table for September.
4. Sydney, from G. R. Smalley, Esq., tables for July (printed).
5. Melbourne, from R. L. J. Ellery, Esq., table and notes for September.
6. New Zealand, from Dr. Hector, tables for June and July.
7. Westbury, from F. Belstead, Esq., table for October.

The presentations to the Museum were as follows:—

1. From Captain Garth, an albatross *(Diomedia exulans)*, caught on the East Coast of the colony.
2. From Miss Peck, an English barn owl *(Strix flammea)*, prepared and mounted.
3. From Salmon Commissioners, a Salmon Smolt, caught in the Derwent.
4. From Mr. M. Allport, two fish from Wedge Bay.
5. From the Hon. J. Maclanachan, Esq., a Pheasant, a cross between the English and Chinese varieties.
6. From Mr. J. C. Edgar, Sorell, 7 specimens of Land Shells.
7. From Mr. W. Legrand, 2 specimens of Land Shells. *(Bulimus Tasmanicus.)*
8. From Mr. E. D. Swan, polished specimen of Fluor Spar, from Derbyshire, England.
9. From Mrs. New, Bagdad, for Mr. J. Davies, a brown Trout *(Salmo fario)* caught in the Bagdad creek.
10. From G. Luttrell, shell impressions from Port Cygnet.
11. From Captain Williams, two samples of water from a mineral spring at Spring Bay. Also the tail of a large Tunny, which was driven on shore by a porpoise at Spring Bay. The fish weighed over 400 lbs.

Mr. J. Davies presented for examination a sample of gold, weighing about $1\frac{1}{4}$ oz., which he could state from excellent authority was obtained by two men, in two days' work by digging at the Black Boy Reef at Mangana.

Mr. Davies also submitted a sample of so-called jewel-sand for the purpose of obtaining the opinion of the Society as to the fact of its containing precious stones. (This sand has been examined under the microscope, but no valuable stones were found to be present; it contained, however, a considerable proportion of fine gold.)

Mr. M. Allport called attention to the presentation of a smolt by the Salmon Commissioners as placing upon record the first incontestable proof of the success of the grand experiment in which the Royal Society of Tasmania had from the first taken so deep an interest. The last of the smolts hatched from English eggs left for sea in October, 1868, and, if not destroyed, those fish must either be grilse or approaching grilse-hood; that is

to say fish of from two pounds to eight pounds in weight, whereas the largest of the fish now caught weighs under half a pound, and carries with it a proof of its having but just left fresh water, as the silvery scales came off at the slightest touch, leaving the colour and markings of the parr distinctly visible beneath. It is therefore certain that these smolts are the produce of the Colony, as the parent fish must have returned from sea to deposit the ova from which such smolts were hatched. Doubts have been expressed by many colonists as to the nature of the fish, one specimen of which has been just presented to the Museum, and a slight reference to the subject is therefore necessary. In the first shipment—which arrived in 1864—the only migratory species introduced was the salmon *(Salmo salar)*, while the second shipment—which arrived in 1866—contained two—the salmon and the salmon trout *(Salmo trutta)*,—and it follows that these smolts, caught in salt water, must belong to one of these two species, though one learned gentleman has expressed his opinion that they are river trout *(Salmo fario)*, in happy ignorance that the latter species cannot live in salt water. The second shipment arrived here early in the year 1866. In October, 1867, a portion of the smolts of that shipment left for sea. In October, 1868, the remaining smolts all left except a few salmon trout *(Salmo trutta)*, retained in a pond for breeding purposes. The salmon trout so retained, although well-grown, healthy fish, showed no signs of spawning till the winter just past, and their progeny are now about an inch and a half long. It is, therefore, probable that the fish which went to sea in October, 1867, did not return as spawners till the winter of 1869, in which case the smolt now exhibited can only be the young of the salmon *(Salmo salar)*. Again of the salmon *(Salmo salar)*, about 8000 are known to have left the ponds, and it is probable that about 2000 more ought to be added to that number, while of salmon trout *(Salmo trutta)* not more than 300 fish can have gone—in addition to which it must be remembered that the salmon have been two years longer in the river. In answer to those who unhesitatingly assert that these smolts are salmon trout, it may be mentioned that the first authorities in the world on the Salmonidæ expressly point out that the various species of the genus Salmo in their immature stages closely resemble one another, and that a very slight variation from the normal type, which variation is by no means uncommon, may make it most difficult to determine the species of any single specimen, and we should therefore receive the decisive opinions of gentlemen who have no specimens to refer to with some degree of caution, especially when those opinions are strongly opposed to the probabilities. One specimen has been sent to Dr. Günther (a leading authority on the subject) by the Salmon Commissioners with a view to obtaining his opinion as to its species before handing it to Mr. James A. Youl, to whom it is to be ultimately presented. After all if, with the chances so much against it, these should be salmon trout instead of salmon, the success of the experiment is none the less proved, as if one migratory species can succeed with a few hundreds turned out, how much more likely is the other to succeed when several thousands were liberated.

The Hon. Secretary read a paper by E. D. Harrop, Esq., F.R.M.S., of Launceston on the *Phyllactidium pulchellum*, one of the Confervoid Algæ. Specimens of this, and of several others of the same group, beautifully mounted by Mr. Harrop, were presented by him to the Museum.

The usual vote of thanks (proposed by Mr. Bilton) to the donors of presentations, and the author of the paper, being passed, the meeting broke up, and the fellows adjourned to the large room in which the Society's annual Microscopical Exhibition was being held.

Here twelve instruments were at work with objects in great variety, and, as Fellows have the privilege of introducing ladies to this meeting, the room was filled with pleased and interested visitors. The exhibitors

were Messrs. F. Abbott, F. Abbott, jun., Agnew, M. Allport, E. Giblin, W. Johnston, Legrand, Napier, W. Stone, and Roblin.

Mr. Abbott exhibited a great variety of instruments and objects of scientific interest, including groups of Diatoms, test lines after Nobert, specimens of diamond engraving, &c.

Mr. F. Abbott, jun., by means of a binocular instrument, showed a series of metallic substances, embracing Gold, Copper, Iron Pyrites, &c.

Dr. Agnew exhibited specimens of Confervoid Algæ, received from and mounted by Mr. E. D. Harrop, of Launceston.

The circulation in the Tadpole was well displayed by Mr. M. Allport, and by Mr. E. Giblin, who also showed a micrometer, together with various crystals by polarized light, insects, &c., &c.

Mr. Legrand had a series of twelve varieties of Tasmanian Polyzoa.

Mr. Napier displayed some exquisite crystals under polarized light, and also specimens of English Polyzoa.

Sections of Colonial Woods, and other objects, were shown by Mr. W. Johnston, Trinity Hill.

Mr. Stone and Mr. Roblin exhibited the circulation of the sap in the *Nitella flexilis*, and the latter also showed the cup-like covering of the larva of a manna-making insect *(Psylla sp ?)* from leaves of the Eucalyptus, presented by Mr. S. H. Wintle.

The various objects under view were carefully examined by the numerous visitors, many of whom before leaving expressed their sense of the gratification and pleasure which had been afforded to them by the exhibition.