Astronomical observations. There would then, he thought, be no difficulty in having the surveyors' field notes sent direct to the central office, and there plotted, with the check lines and angles also furnished, and a well-established conection with a trigonometrical station or some accurately learned point or line. It would doubtless, under existing circumstances, involve too much time, and therefore cost, to connect all surveys with the trigonometrical standard, but the great importance of doing so should always be kept in mind, and every effort made at the central office to correctly plot each new survey on the land plan of the colony; and, as far as practicable, correct any errors discovered, rather than allow them to indefinitely accumulate. The matter of the paper now read being of such great importance, and the necessity of a change in the present system being urgent, he desired to suggest that the Secretary be requested to forward copies of Mr. McIntyre's valuable communication to each of the town and district surveyors of this colony, and that they be asked to favour the society with their views thereon, in order that the subject may be more fully discussed here, and some practical suggestions arrived at for the improvement of the present anomalous system of the land surveys.

A vote of thanks having been accorded to the authors of the papers read, and to the donors of presentations, the proceedings terminated.

JUNE, 1882.

The usual monthly evening meeting of the Society was held on Tuesday, 13th June, Mr. T. Stephens, M.A., Vice-President, in the chair.

The following gentlemen, who had previously been nominated by the Council, were balloted for and declared duly elected :—As Fellows of the Society, Mr. William Knight. M.A., and Mr. Patrick Mackay ; as a corresponding member, Mr. George McIntyre, of Christchurch, New Zealand.

The Hon. Secretary (Mr. BARNARD) brought forward the following returns for the past month, viz.:—

1. Number of visitors to Museum, May—On Sundays 747, on week days 601; total 1,348.
2. Do. to Gardens, 3,319.
3. Plants and seeds received at Gardens :—From Baron von Müeller, Government Botanist, Victoria, a collection of miscellaneous seeds, comprising 402 varities. From Messrs. Shepherd and Co., Sydney, 20 varities of Eucalypti. From the hon. the Colonial Secretary, a packet of seeds of Typha Latifolia, received from the Italian Consul, Melbourne. From Mr. J. Latham, Hobart, a collection of imported seeds.
4. Seeds, etc., sent from Gardens :—To Mr. C. F. Creswell, Melbourne, 20 varieties of seeds and bulbs.
5. Periodicals received.
6. Presentations to Museum and Library.

Meteorology.

1. From Captain Shortt, Government Meteorologist. Monthly means of observations taken at Hobart during May.
2. From Mr. F. Abbott, jun., register of rainfall at Botanic Gardens for May.
3. From Mr. H. W. F. Kayser. Do. at Waratah, Mount Bischoff, do.
4. From Mr. D. C. Purdy. Do. at Strahan, Macquarie Harbour for April and May.
5. From the Marine Board, Hobart. Tables from Mount Nelson for May Swan Island for April, South Bruny, for April and May.
6. From Dr. Hector. Printed abstracts of observations taken in New

Zealand, from October, 1881, to March, 1882, inclusive; and monthly tables from Wellington for February, March, and April, 1882.

The following are the results of observations above referred to :—

Hobart, May, 1882.

Barometer.—Mean, 29·656,

Thermometer.—Means, Max., 55·4deg.; Min., 43deg.; Dry bulb, 50·2deg.; Wet bulb, 47·5deg.

Humidity.—Dew Point, Mean, 43·9deg.; Humidity, do., ·816; Elastic Force of Vapour, do., ·297.

Condensation.—Number of days on which Rain fell, 16; amount collected, 5·91in.

Cloud.—Mean daily amount, 5·9 (scale 0-10).

Wind.—Mean force, 1·8 (scale 0-12); prevailing directions, South and West, and calms.

Remarks.—Rain fell on 16 days. The heaviest fall, registered at 9 a.m. on the 8th, was 1·18in. The greatest temperature in shade, 62deg. 5in. on the 2nd, 11th, and 16th. The lowest on the night of the 19th, 34·8deg. Heavy gales passed over Hobart from the westward on the 7th, 16th, and 17th. Snow fell on Mount Wellington on the nights of the 2nd, 6th, and 31st. The Aurora Australis appeared about 10hrs. 30min. on the night of the 14th, but not very brilliant, and with no streamers. Foggy on the morning of the 27th. A few cold and frosty nights. Wet month throughout. The fall of rain for month, 5·91in.

J. SHORTT, Meteorological Observer.

Rainfall Botanic Gardens, Hobart, May.—Number of days on which rain fell, 14; amount collected, 4·49in.

Do. Waratah, Mount Bischoff, do.—Number of-days, 27; amount collected, 14·55in.

Do. Strahan, Macquarie Harbour, April.—Number of days, 14; amount collected, 4·73in. Do. May.—Number of days, 21; amount, 7in.

Time of leafing, flowering, and fruiting of a few standard plants in the Botanic Gardens during May :—

8th. Dutch Medlar, commencing to ripen.

16th. Photinia serrulata, commencing to flower.

20th. Diosma alba, do.

25th. Ailanthus, leaves all shed.

The presentations were as follow :—

To Museum—

1. From Captain Langworthy. Specimen of a rare Fish (*Gastrochisma melampus.* Rich.), caught off the mouth of the Derwent. [Mr. R. M. Johnston remarks :—"This is the second specimen only of the fish known. It should be preserved if possible."]
2. From Mr. J. H. Grant. A Stockwhip Handle, made from a Queensland wood known as "Ringed Giddia." In a note which accompanied this presentation, the donor refers to the wood of which it is formed as one of the handsomest in Queensland, and adds :—"It was made by a half-caste stockman on the Paroo River, who merely used a knife, glass, and sand-paper for the purpose."
3. From Mr. George Fry, per the hon. Minister of Lands and Works. A fine specimen of Tin Ore, from Upper Ringarooma.
4. From Mr. James Grant. Specimen resembling fossil wood, from a boring at Tullochgorum, at a depth of from 66ft. to 76ft.
5. From Mr. A. J. Taylor. Model of a Gold Nugget found at Long Plain, West Coast, Tasmania. [In reference to this presentation, the donor has furnished the following note. "The nugget was discovered by a man named Buckner at Long Plain, W. Coast, and weighed a little under 9oz., (avoir.). I have named it the 'Little Welcome,' as it resembles in shape, somewhat, the large 'Welcome' nugget found at Ballarat, Victoria, some years back."]

6. From Mr. R. M. Johnston. Specimen of a Cone, probably of a species of Lepidostrobus, from the auriferous sandstones of Campania. [In reference to this presentation, Mr. Johnston read a short descriptive paper.]

To Library—

1. From the Author, Baron von Müeller. "Fragmenta Phytographiæ Australiæ." Vol. II.
2. From Dr. Schomburgk. Report of Progress and Condition of the Botanic Garden and Government Plantations, Adelaide, 1881.
3. From Mr. C. Todd, C.M.G., Government Astronomer, Adelaide. Meteorological Observations made during 1881 at Adelaide.

The CHAIRMAN read an elaborate and interesting paper on the remains of Trilobites from the Mersey River district, and on other fossils from the boulders in the conglomerate beds near Table Cape, with figures and descriptions, communicated to the Society by Robert Etheridge, jun., F.G.S., etc., of the Museum of Natural History, London, and a corresponding Member of this Society.

Mr. STEPHENS said that the specimens which formed the subject of the paper consisted of a collection of Trilobites and other fossils sent to England by himself several years ago, and comprising representatives of all the forms which have yet been discovered in the Silurian rocks of the Mersey district. Mr. Etheridge having very kindly consented to examine and describe them, a large collection of similar specimens was contributed by Mr. Hainsworth, who also furnished several specimens from the boulders near Table Cape. The result is that two entirely new Trilobites belonging to the genera *Conocephalites* and *Dikelocephalus* are described and named by Mr. Etheridge, and six others noticed, which are too imperfect to be described, together with an *Ophileta*, and the internal cast of a bivalve; the fossils identified from the Table Cape conglomerate being a new *Pentamerus*, a *Tentaculites*, an *Orthis*, three species of *Spirifer*, and some doubtful forms. The Trilobite beds might now, in Mr. Etheridge's opinion, be confidently classed as Lower Silurian, and some at least of the Table Cape boulders as Upper Silurian. The arduous nature of the task which Mr. Etheridge had so kindly undertaken might be imagined by anyone who had seen the refractory matrix in which the fossils were found, and he (Mr. Stephens) was sure that a cordial vote of thanks would be unanimously accorded for his valuable paper.

Mr. R. M. JOHNSTON stated that the paper read was one of very great importance, as the determination of the horizon of the Caroline Creek beds at Latrobe, with their included Trilobites, and the fossiliferous conglomerate at Table Cape, will materially help Tasmanian geologists in relating the undetermined ancient rocks which are found largely distributed all along the western part of the island from North to South. Mr. Johnston further pointed out that the Crassatella bed of the Table Cape Tertiary series, which was formerly described by him, rested immediately upon the conglomerates referred to. Much credit was due to Mr. Stephens for the careful selection of fossils made by him in order to have the positions of these important geological horizons truly determined. The members of the Society were under deep obligation to Mr. Stephens, as well as to the able palæontologist, Mr. Etheridge, for this very valuable contribution to the Society's papers

A communication was received from Mr. Aug. Simson, of Launceston, announcing his discovery at "Brady's Look-out," Swansea, of a plant *(Helipterum exiguum)*, new to the flora of Tasmania, and its identification by Baron von Müeller.

A special vote of thanks having been unanimously accorded to Mr. Etheridge for his admirable paper, the proceedings closed with the usual acknowledgment to the donors of presentations.