

## SEPTEMBER, 1899.

The monthly evening meeting was held on September 18 in the Tasmanian Art Gallery, the acting president, His Excellency the Administrator (the Hon. J. S. Dodds, C.M.G., C.J.) presiding.

The SECRETARY read an apology from the senior vice-president (the Hon. Sir James Agnew, K.C.M.G.), regretting that, owing to ill-health, he was unable to attend, and also from Mr. A. G. Webster.

## PAPERS.

Mr. THOS. STEPHENS, M.A., F.G.S., presented an interesting work, entitled "Theory of the Earth," by James Hutton, M.D., F.R.S.E. Vol. III. This book, recently published by the Geological Society of London, at the instance of, and under the able editorship of Sir Archibald Geikie, comprises chapters IV. to IX. of the concluding volume of Hutton's "Theory of the Earth," the first two volumes of which were published as far back as 1795, two years before his death. The MSS. from which it is printed were not then quite ready for publication, and appear to have passed from hand to hand until they finally came into the possession of the Geological Society. The first three chapters will probably never be recovered. Hutton has often been styled the father of modern geology. Of his description of the Island of Arran, in the present volume, Sir A. Geikie says:—"This striking essay is a masterpiece of acute observation and luminous generalisation. Had it been published in his life-time it would have placed him at once as high in the ranks of field-geologists as he admittedly stood among those of the speculative writers of his time. It seems but a tardy act of justice to his fame that the merit of this practical side of his life-work should be now at last fully established."

The BISHOP OF TASMANIA (Right Rev. H. H. Montgomery, D.D.) read an interesting paper entitled "Notes on the Habits of the Cape Barren Goose (*Cereopsis nove hollandiæ*).

Mr. A. MORTON made some remarks on the subject matter of the Bishop's paper.

Messrs. W. A. MACLEOD, B.A., and O. E. White contributed two very interesting mineralogical papers entitled—

(1.) "On the occurrences of a new species of garnet at Port Cygnet."—This paper describes a new species of garnet discovered in a dyke formation on the beach between Port Cygnet and Lymington. As far as could be ascertained this dyke formation is contemporaneous

with permo carboniferous sediments. A detailed investigation then follows of the rock itself, its macro and microscopic characters being given, and its relationship to the trachyte family established. The garnets of a brownish, yellow tint are abundantly scattered through the rock, and show well developed crystalline form. From analysis conducted by the authors, the garnet was found to contain about 12 per cent. magnesia, 12 per cent. lime, and 12 per cent. manganese oxide (lower.) These percentages are entirely new so far as published lists of analyses go, and to this new species the authors have proposed the name of *Johnstonite*, as a slight token of appreciation of the arduous and excellent work done by Mr. R. M. Johnston, F.L.S., in the geology of Tasmania.

(2.) Notes on a Fayalite basalt from One Tree Point.—This paper gives a petrological description of a peculiar rock, the geological occurrence of which is given by Mr. R. M. Johnston (systematic account of the geology of Tasmania, p. 149.) This rock outcrops as a lava flow beside the electric lighting station, and runs down to the beach as a thin flow. The authors discuss the term "Basalt," its definition and application to this rock, and are of opinion that the present rock in texture is a basalt, and the ordinary ferromagnesian minerals are replaced by the peculiar iron-olivine fayalite, whence the term *Fayalite basalt*. A complete analysis of the rock is given, also its specific gravity and microscopical characters. These points are followed by a careful review of the various microscopical characters of the rock as exhibited in their sections, and the paper concludes by some remarks on structural characteristics. Both papers are accompanied by coloured drawings showing the microscopical appearance of the respective rocks.

Mr. R. M. JOHNSTON offered some observations on the papers read.

## TASMANIAN FORESTRY.

Following up the interesting paper read at the last meeting of the Society by Mr. L. Rodway, entitled "Forestry for Tasmania," Mr. E. C. NOWELL read an important paper "On the Conservation and Culture of Trees."

The writer, in the course of the remarks, said:—

For many years the tendency in this colony has been to substitute imported deals for our own hardwoods. The follow-

ing table shows the quantities of timber in superficial feet imported in 1897 :—

	Sawn.			Timber in log.	Baltic Deals 3in. and 4in.
	Boards	3in. and over.	Under 3in.		
Victoria	393,170	62,427	19,486	3,671	25,847
N.S.W.	27,264	248,449	497	28,892	295,923
Germ'ny	2,245	—	—	—	—
Sweden.	416,220	—	23,967	—	494,183
America	893	14,784	—	—	—
N. Zeal'd	—	64,551	4,125	—	—
S. Aus..	—	2,505	—	—	—
	839,792	392,716	48,075	32,563	815,953

Totals.—Victoria, 504,601; New South Wales, 601,025; Germany, 2,245; Sweden 934,370; America, 15,677; New Zealand, 63,676; South Australia, 2,505. Grand total, 2,129,099.

There does not appear to be any reason why this large demand for 2,000,000 superficial feet of soft timber, chiefly Baltic deals, should not be supplied in time from trees of our own growing. Mr. Rodway has suggested that some of our bush lands might be profitably employed in the cultivation of the black wattle for its bark; and I submit for the further consideration of those concerned, whether tracts of land in the higher and moister parts of the colony—in the Lake Country, for instance—and the slopes of hills and mountains, would not be suitable for the growth of those trees from which the deals are produced. If these trees could be successfully cultivated in such localities, the land

would be put to much better use than at present, more labour would be employed, the scenery would be more pleasing, and the climatic conditions would be improved. In the 23rd Annual Report of the Secretary of the Massachusetts Board of Agriculture (1875), Professor Sargent, Director of the Botanic Garden and Arboretum of Harvard University, has given an estimate of the profits of a plantation of European larch, which, in 50 years, including interest at 6 per cent. on interim profits (at 30 and 20 years), he reckons to be equal to about 13 per cent. per annum for the entire 50 years, after retaining the original capital invested. Whether similar profits could be made in this colony or not, is a matter for consideration; but there can be no doubt whatever, that very substantial benefit would result from the establishment of such plantations.

A discussion followed, in which Messrs. R. M. Johnston, T. Stephens, A. Morton, and L. Rodway took part.

HIS EXCELLENCY the Administrator of the Government moved a vote of thanks to the gentlemen who had read papers, and said the Government ought to be approached, and urged to take some steps to extend the close season for the Cape Barren goose, or for a close season for a number of years. He believed the geese were destroyed more through ignorance than wantonness, and that if people knew how rare the goose was they would assist to preserve it.