

A CELEBRATED PICTURE.

On the table was exhibited an oil painting of an English salmon by S. Rolfe, the celebrated fish artist, who is familiarly known as the Landseer among fishes. In addition to his contributions to the Royal Academy, he painted many of the casts of salmon and other fish made by the late Mr. Frank Buckland, and exhibited in the South Kensington Museum. Our own museum is also the fortunate possessor of two of these artistically executed casts.

VOTE OF THANKS.

Mr. JUSTIN BROWNE, in rising to propose a vote of thanks to the authors of papers, and the donors of gifts to the Museum, said that it must be gratifying to the members of the society to note the tone of the papers, and their scientific tendency during the last two years. Previously we used to count our scientific members by ones and twos; now we seemed to be getting more science men amongst us. (Applause.) It might not be known to everyone present that the last speaker, Mr. Saville-Kent, had spent a great part of his life upon a work which had given him a great reputation. The society had this book, which would well repay any time spent in examining it. Another speaker had passed 10 years in Manchester, carrying out sanitary measures, which all civilized people now considered as essential. Such addresses as we had heard to-night would give a tone and a scientific turn to our papers which would add to the society the scientific character which it was presumed to possess under the name of the Royal Society. (Applause.)

Bishop SANDFORD, in rising to second the motion, said that he could say but very little after the able manner Mr. Browne had proposed the vote; he would, however, merely state that he was of opinion much might be done in keeping in check most of these diseases that were so fatal in many cases. (Cheers.) He was glad to see some members of Parliament present, and trusted that what they had listened to this evening would tend to encourage them to vote for strict sanitary measures. (Applause.)

Dr. H. A. PERKINS, in supporting the motion, said that no doubt the Fellows were aware that a Public Health Bill was shortly to be introduced by the Government, but he was sorry to see that the power in some cases to deal with this important matter was to be left in local hands, which, in his opinion, would not tend to work satisfactorily.

The motion was carried by acclamation.

 AUGUST, 1885.

The monthly meeting of the Fellows of the Royal Society of Tasmania was held at the Museum building last evening. Mr. James Banard, Vice-President, occupied the chair, and there were also present the Bishop of Tasmania (Dr. Sandford), the President of the Legislative Council (Hon. W. A. B. Gellibrand), and about 40 other gentlemen.

NEW MEMBER.

Mr. TURNBULL was re-elected a Fellow of the Society.

RETURNS.

1. Number of visitors to the Museum during the month of July:—
Week days, 2,150; Sundays, 780. Total, 2,930.

2. Number of visitors to Royal Society's Gardens during the month of June, 4,900.

Plants and seeds received at and sent from the Royal Society's Gardens during the month of July, 1885 :—

- To Messrs. Shepherd and Co., Sydney. Two bags Sphagnum moss.
- To Baron Ferd. Von Mueller. Collection of seeds.
- To Messrs. Shepherd and Co., Sydney. Collection seeds.
- To Mr. G. Brunning, St. Kilda, Victoria. Collection seeds.
- From Mr. S. Purvis, Waratah. Seeds.
- From Royal Gardens, Kew, London. Package seeds.
- From Mr. G. Brunning. Plant *Prunus pissardi*.
- From Mr. C. Traill, Stewart Island, N.Z. Case containing 38 plants.
- From Botanic Gardens, Cape Town. Seeds *Pentzia virgata*.
- From Messrs. Shepherd and Co., Sydney. Case containing 60 plants.
- From Botanic Gardens, Bombay. Fifteen packets seeds.
- From Mr. C. Purchase, Parramatta, N.S.W. Thirty-six dahlias.

Time of leafing, flowering, and fruiting of a few standard plants in the Royal Society's Gardens during July, 1885 :—

- 8th. *Eranthes hyemalis*, commencing to flower.
- 18th. *Garrya elliptica*, commencing to flower.
- 28th. Almond, commencing to flower.
- 30th. White mulberry, commencing to break.
- 31st. *Crocus aureus*, in full flower.

Meteorological Returns.

From the Government Observer, Captain Short, R.N., table of observations for July.

Additions to the library during the month of July :—

- Agricultural Gazette*, May 18, 25, June 1, 8, 15, 22.
- Annals and Magazines of Natural History*, June.
- Athenæum*, May.
- Bulletin de la Societe Imperiale des Naturalistes de Moscow*, tome lx. No. 3, Moscow, 1885.—From the Society.
- Cuvier's Animal Kingdom. By H. McMurtrie, M.D. Woodcuts; Lond., 1824.
- Class Pisces, arranged by Baron Cuvier, with Supplementary Additions by Edward Griffith and Lient. C. H. Smith. Woodcuts; London, 1834.

Class Insecta, arranged by Baron Cuvier, with Supplementary Additions to each order by Griffith and Pidgeon, and Notices of New Genera and Species by Gray. Vol. 1 and 2; plates; London, 1832.

Classified Index and Synopsis of the Animal Kingdom, arranged by Cuvier, with Supplementary Additions by E. Griffith. London, 1835.—Mr. J. Backhouse Walker.

Field Naturalists' Club of Victoria, fifth annual report, 1884, list of members, etc.—From the Society.

Gardener's Chronicle, May 23, 30, June 6, 13, 27.

Geological Magazine, June. From the Society.

Government Statistician's Report on the Vital and Meteorological Statistics of the registration districts of Hobart and Launceston for July, 1885. From the Government Statistician.

Journal of the Society of Arts, February, March, April, and May, 1885.

Journal of Science, June.

Journal of the Royal Microscopical Society, London, Vol. 5, pt. 3, June 1885. From the Society.

Journal of Science, New Zealand, No. 10, Vol. II., July, 1885.

Meteorological Observations for the month of December, 1884. From the Meteor. Office, India.

Midland Medical Miscellany, Vol. 4, No. 42. From the Editor.

Monthly Notices of the Royal Astronomical Society, Vol. 45, No. 7, May, 1885. From the Society.

Monthly Record Meteorological Observations, Melbourne, during February, 1885. From the Government Astronomer.

Nature, May, 1885.

Official No. 52, Quarterly Weather Report. Part 11, 1877. Official No. 54, Hourly Readings. Part 4, 1882. Official No. 57, Meteorological Observations at Stations of the Second Order, 1880. Official No. 65, Monthly Weather Report for January, 1885.—From the Meteorological Office, London.

On some New South Wales Minerals (plates). On the Chemical Composition of Certain Rocks, New South Wales (plates). By A. Livesidge, F.R.S., etc.—From the Author.

Proceedings of the Academy of Natural Sciences of Philadelphia. Part I., January, February, March, 1885.—From the Society.

Proceedings of the Royal Society of Queensland. Vol. I., Part II., III., IV., 1884.

Proceedings of the Linnean Society of New South Wales. Vol. X., Part 2nd, 1885.

Revision of the Genus *Lamprima* of *Laterella*, with descriptions of new species. By W. Macleay, F.L.S.—From the Author.

Reports of the Mining Registrars for the quarter ended 31st March, 1885. The Goldfields of Victoria.—From the Mines Department, Melbourne.

Report of the Superintendent of the U.S. Coast and Geodetic Survey, showing the progress of the work during the fiscal year ending with June, 1883. Part I., Text Part II. Sketches Washington, 1884.—From the U.S. Survey Office.

Statistical Register of Victoria, 1884. Part I. Blue Book.—From the Government Statistician.

Statistics of the Colony of New Zealand for the year 1884. Part I., Blue Book; Part II., Population and Vital Statistics; Part III., Trade and Interchange.—From the Government Statistician.

Synonymy of and Remarks Upon the Specific Names and Authorities of Four Species of Australian Marine Shells, originally described by Dr. John Edward Gray in 1825 and 1827. By John Brazier, C.M.Z.S.—From the Author.

Victorian Naturalist, The, Vol. II., No. 3, July.—From the Society.

PRESENTATIONS TO THE MUSEUM.

Mammals :

Tasmanian Tiger (*Thylacinus cynocephalus*), Mr. Dunbabin.

Two Tasmanian Tigers (*Thylacinus cynocephalus*), Mr. R. Douglas Bethune.

An Albino Ring-tailed Opossum (*Phalangista viverrina*), Mr. H. Morrisby.

An Albino Grey Opossum (*Phalangista vulpina*), Mr. G. Edwards.

Two Live Wallabys (*Halmaturus bennetti*), Mr. Triffett.

Two Skulls of Tasmanian Tigers, the Hon. W. Gellibrand, M.L.C.

Birds :

Wedge-tailed Eagle (*Aquila audax*), Mr. L. Wilson.

Wedge-tailed Eagle (*Aquila audax*), Mr. ———

A More Pork (*Podargus cuvieri*).

Two Blue-banded Grass Parrakeets (*Euphema chrysostoma*), Mr. Wilkins.

Spotted Owl (*Athene Maculata*), Mr. J. R. McClymont.

A More Pork (*Podargus cuvieri*), Miss Propsting.

Little Penguin (*Eudyptula minor*), Miss Featherstone.

Fishes :

- A Hapuku (*Oligorus gigas*), Mrs. Cearns.
A Fish (probably a new genus), Mr. T. Stanfield.

Crustacea :

- A Crab (*Leptomithrax Spinulosus*), Mr. ———

Mollusks :

- A Cluster of Oysters, adhering to portion of a bott'le, from Spring Bay, Mr. J. McCluskey.

Minerals :

Sample of Quartz Conglomerate, from the summit of Cabbage Tree Hill, 460ft. above sea level.

Samples of Friable Quartz, Gold-bearing. Three samples, surface caps of lode, 400ft. above sea level, the Tasmanian mine, Beaconsfield, Mr. J. Davies.

Coins :

A collection of Coins and Tokens, the Hon. Wm. Crosby, M.L.C.

A collection of Coins and Tokens, Mr. Easton.

Framed copy of diploma presented to the Commissioners of Tasmanian Fisheries, by the International Fisheries Exhibition Commission, London, 1883, from the Chief Secretary (Hon. Adye Douglas).

ABSENCE OF THE HON. SECRETARY.

The CHAIRMAN announced with regret the inability of the Hon. Secretary (Dr. Agnew) to be in his place, it being still undesirable that he should encounter the night air. The Curator (Mr. Morton) would officiate in his place.

PAPERS.

The following papers were read:—

ICELAND AND THE ICELANDERS,

BY THE REV. J. B. W. WOOLLSNOUGH.

1. Iceland is an unfinished corner of the world. Heat force which, after forming the earth's crust left it to cool, and become a home for man, is there still hard at work. Yet Iceland is but just outside the Arctic circle. It is so close that at midsummer on a northern hilltop the sun never sets; whilst the level of perpetual snow is but 3,000 feet, and the larger glaciers all but reach the sea. In this close embrace of heat and cold lies one of the claims of Iceland to the interest of members of a scientific society. If further apology for this paper be needed, it may be found in the fact that in such a land a race of men has lived for more than one thousand years, never conquered, holding their own, not only against their neighbours, but also against nature at her worst; first discoverers and colonisers moreover of Greenland and of America; possessing a rich literature; and at this day the very best educated people in the world. There is not throughout the island a child of ten who cannot, and who does not, read and enjoy the Sagas of his forefathers.

Of the land first. A few miles from the seaboard, except where the poor pasture struggles up the valleys of the larger rivers, extends inland a desert covering nine-tenths of the whole island, being a tract much larger than all Ireland, and this desert is altogether desolate. In one part 4,000 square miles are covered with one vast white mass of lava mountains, glaciers, and snow-fields. Elsewhere, within it, are isolated black hills standing out of rugged lava fields, barren and waterless, or, it may be, swelling belts of volcanic sand, or again, bare earth; but where soil is found it is waste, without even the tiny

fern frond or willow shrublet which I have sometimes, to my delight, found in the lava cracks, the one witness to the power of life in this great wilderness of death.

Thus only the seaboard of Iceland is habitable, whilst across the desert interior from south to north are three passes, though two are but rarely, and the third not frequently, used. The interior mountain ranges have never been, and probably never can be, explored.

Of the habitable seaboard, but one-third will grow even the coarsest herbage. Only a short distance from Reykjavik, the capital, I crossed wide tracts of bare lava, in one place level, where, I suppose, streams passing over a plain, had cooled evenly; in another, formed of blocks of all sizes, weathered into position like your stony field of Mount Wellington, though the boulders were not commonly so large.

Abruptly from such plains rise black detached conical hills of comparatively recent tufa, or a long flat topped basaltic ridge. The valleys, the wooded glens and gullies, which, running deep into the mountain recesses, make so much the beauty of mountain scenery elsewhere, are altogether wanting in Iceland. In these plains are set lakes, commonly with low shelving banks, and through them rush down the rivers, fed by the snows of the central desert; thus form and colour, two elements of the beautiful, are wanting, and in their place are barrenness and gloom, and yet there is also a great fascination. It arises partly, perhaps, from the stillness, the absence of life, the largeness of the waste, the sense that we look upon the two great forces, cold and heat, at their work on matter so nakedly, so largely, and with such grim results. Something, too, there is in the stimulating dryness of the air, and again in the feeling of separation by so wide a stretch of southern seas from all but this singular land, and equally singular offset of mankind.

The sense of strong contrast formed my first impression of this weird land. Coming on deck early in the morning I found not only that Iceland was in sight, but that we were hugging the shore somewhat closely. An ice mountain towered up 7,000 feet, not far from the shore, and from its lower spurs a wide glacier stream ran down, apparently straight into the sea. One flank of the mountain fell in rugged black precipice until it softened into the grassy bed of an upland valley, where the sun shone on a low farmstead and a large flock of scattered sheep. Yet close on the other flank, almost side by side with the glacier, and yet wider, was a broad stream of lava, which in past ages had sullenly forced its way from some volcanic mountain, hidden inland.

Hitherto I have painted in black and white, but there is yet a third colour marking Icelandic scenery—the yellowish green of the scanty vegetation. Much of this is marshy bog. Where forests once stood are now treacherous tussocky hillocks of rank grass rising out of quaking bog, ground almost impassable for the wayfarer on foot, but which the clever little ponies cross in a quick run without a stumble. The pasture lands where they exist, are left undrained, unworked, and unenclosed to the sheep, saving a few acres about the farmhouses carefully manured, and enclosed within low turf walls. These enclosures are called *tüns*, and here the few head of cattle graze, and the crops of hay are had upon which the prosperity of the Icelanders so largely depends, since it is the only provender they can raise for their beasts. The climate is now so severe that no grain will ripen, and there is but one tree throughout the south, with a few dwarf birch in the north. Here and there on the better land some brushes of willow and birch struggle for life. Sometimes, moreover, the summer in the north will be changed into winter by the drifting in of Greenland ice. Still, the land is not only habitable, but could be made far more

productive than it is. The pastures are excellent, and nowhere else have I enjoyed such rich thick cream, albeit, like the milk and butter, it is the yield, not of the cow, but the sheep. These pastures support 400,000 sheep, with a few cattle and a large number of ponies.

The pony fills a very large place in Icelandic economy since there are no roads, no carriages, and but two bridges. During the summer walking is impossible, and your Icelander jumps on a pony for a journey of one hundred yards. They receive neither grooming, stabling, nor feeding, and go far afield in search of pasture. I have seen them eat seaweed and fish offal. They neither trot canter, nor gallop, but usually amble, or move more quickly with a strange shuffle. They will go with a load of 100lbs. some 40 miles in the day, are great at hopping over lava blocks, discovering the one safe path across a morass, and that at a fair pace, and grand in wading a river against a rush of water. They are only puzzled on good level ground, where they are apt to stumble, and, in fording rivers, they need a firm hand. The rider must of necessity sit down to the saddle. The Icelander rides as often without stirrups as with them, guiding more by a touch of his seal skin covered heel than with the bridle, often giving way to a habit of his people of a constant drumming with his heels on his beast's ribs. The ponies are the carriers of Iceland, and strings of them tied head to tail are often met. They are largely bred, and during the last few years, rival sheep as the chief export of Iceland.

Apart from cattle, sheep, and horses, there are few animals wild or domestic. There are cats; and dogs not unlike the Esquimaux, clever as Scotch collies in gathering in the ponies; but no pigs, ducks, geese, and until lately not even the domestic fowl. The blue fox is found, with a few imported reindeer. In hard winters a stray bear crosses on a Greenland icefloe, but is very inhospitably treated. Amongst the birds ptarmigan are very numerous, and I saw also plover, snipe, and snowbirds, all very tame, a characteristic they are not likely to keep long now that the British tourist has made his way to them. The eider duck, however, is not likely to suffer from the Englishmans anxiety to kill something, as it is protected by a heavy fine. This bird lines its nest with down plucked from the breast, after which man robs the nest both of lining and eggs. This is done twice, and the third time the drake supplies the down, and they are then allowed to rear their brood in peace. Eider down, as those know who have a coverlet made of it, is very elastic, and I have met with this Icelandic riddle—"What is higher when the head is taken off?" with the answer—"An eider down pillow."

Together with ponies, and sheep; wool, eider down, dried and tinned fish, some Icelandic spar, and Icelandic moss, form, as far as I am aware, the chief exports of the island.

Geologists may be interested in the following account of Icelandic spar:—"This double refracting calc is found only in one place, filling a fissure of greenstone from two to three feet wide, and twenty to twenty-five long, on the north bank of the Reyder Fiord, about a thousand feet above the sea. A cascade rushing over the rock brings down fragments of the spar, whilst the whole mass is gradually loosened through the action of frost on the moisture between the laminae, wedging them apart in the direction of the cleavage of the crystals." Specimens more than a few inches in size are rare and valuable.

The Icelandic moss is not, I believe, so much used now as formerly. It is easily distinguishable, and widely distributed.

Fish abound both in the rivers and the sea. The Lax Elv or Salmon River is, I was told by some of my friends who fished there, only too full of salmon and trout, the chief drawback being the mosquitoes,

which have the dubious merit of a singular persistency. They make their way into the boots, under the trousers, and up the nostrils, until, in my friend's case, the guide, with an Icelander's patient endurance, retired to a lava block, covered his face with his hands, and surrendered.

The only vegetables I saw in Iceland were potatoes and turnips, but although they will ripen they are seldom grown. In sheltered places, there are many wild flowers. I have picked or seen buttercups, violets, forget-me nots, wild geraniums, thyme, dogdaisy, catchfly, seapink, with others whose names I did not know.

Hekla, the Geysers, even the sulphur springs of Kriusivik, have been so often described that it would be an impertinence to say much of them here. Hekla is in every way unworthy of her world-wide fame. Built up of sand and clay, the mountain, like so many more in Iceland, rises abruptly from a plain, a long low flat ridge, 5,000ft. in height, marked by three cones. Hekla is but one of eighteen intermittently active volcanic mountains in the island, and has not even to boast of being the most destructive—a distinction belonging to the Skapta Jokul, which in 1783 threw out a mass of lava greater in bulk than Mount Blanc, greater than has ever been known elsewhere in the world. But Hekla is isolated, can be seen from the sea, is easily approached, and has twenty-five times in the course of one thousand years spread desolation; circumstances to which she doubtless owes her reputation. Once only did I see Hekla as a thing of beauty, and happily it was for the first time, so that the impression remains as the clearest and most prominent. At Oddi the church and priest's house are built on the edge of a plateau some height above the lava fields. Wet, tired, hungry, and thirsty, after riding all day and half the night, fording two rivers, and running a madcap race after midnight over the boulders with an Icelandic farmer, who insisted upon trying issues with "the walking priest," as they called me, I dismounted on the platform before the long line of low-gabled buildings that made the priest's home. It was about two in the morning. Turning round, I saw far away on the edge of the desert plains, through a pure, still, yet dimmed light, that most beautiful atmosphere of an arctic summer night, the white mountain mass, standing out from its azure background. There, alone, and then, she looked worthy of the place men have given her.

The last eruption of Hekla was in 1878, and I ascended the mountain in order to see the new crater formed on one of its outlying spurs. We started on ponies from a solitary farm-house set down amidst some grass land, girt about by a vast level barren plain. Crossing a river, deep-sunk between precipitous banks, after riding some hours over sand and pumice, we tethered our ponies on the only bit of green sward between the farm and Hekla. The ascent was wholly over boulders and lava beds, on which lay a few patches of snow in the sheltered hollows. The lava of 1841, which we skirted, was easily distinguishable by its glossy black appearance, and the knobby vitrification of its blocks. The last arrête is reached by a long narrow ridge, with a somewhat steep fall on either side, across which the wind swept viciously. After reaching the summit, and whilst picking my way up the slope of the crater of '78, one leg sunk suddenly to the knee through a yellow, clayish substance, and with it, when I drew it out, came a considerable outburst of smoke, with an evil smell. I suppose it is owing to the presence of heat close to the surface everywhere, that the crater is not a basin, within which the volcanic force has been exercised. It is rather a large portion of the mountain slope, through which the lava had burst in many places, tossing about the surface soil over a considerable area. This eruption had covered the plain in one direction with new lava as far as the eye could reach, and

from it still rose in many places columns of smoke. It did not, I believe, do much damage, but lava streams have at different times and places overflowed some of the richest farmsteads and most fertile pastures in Iceland. The Skapta Jokull lava in 1783, of which I have already spoken, formed two streams, each some forty-five miles long, seven to twelve miles broad, and varying in depth from ten feet to six hundred feet. The greatest depth was reached in the sunken river beds which the lava first filled. In this eruption alone, it is estimated that 1,300 men, 20,000 horses, 7,000 cattle, and 100,000 sheep were destroyed. Some who discussed the cause of the remarkable afterglow last year may not know that the same phenomenon followed the Skapta Jokull eruption; was speculated upon by Benjamin Franklin, and alluded to by Cowper in the second book of the Task.

Of the Geysirs, I can probably say little that will be new. They spring from a narrow table land, about three hundred yards in length, raised by a few feet above a green marshy plain. This plain is separated by a river from the sandy desert, on the north side of which stretched away the vast snow-covered range of the Lang Jokull. The scene would be utterly desolate but for a farm house nestling under the trap hills which rise behind the Geysers.

The surface of the plateau is formed of reddish white thin layers of silica, deposited by the springs whose overflow of boiling water is running away in numerous tiny channels worn in the white flint floor. Although these springs number nearly one hundred, only three are active, the Great Geyser, the Strokr, and the Little Geyser. The Great Geyser has formed a shallow basin, about sixty feet in diameter, on the top of a coned mound. In the centre of the basin is a hole about ten feet across and eighty-three feet deep, in which the water is always bubbling, whilst frequently it rises a few feet, accompanied by a rumbling noise and a slight movement of the ground. I slept on the mound in the hope of seeing one of the great bursts, but was disappointed. Formerly they came every day or oftener, but now a week or fortnight will pass without one. I was awake indeed about two a.m. by the swaying of the ground beneath me, and scrambled out of the low tent opening, only to see the water rising a few feet. It was uncanny enough; the pale clear light over the snowy ranges and desert waste, the still, deathly solitude broken only by the intermittent throbbings of the geyser and the continuous murmur of the overflow trickling down the tiny channels it had formed everywhere in the flint deposits. The water in a great eruption is thrown up about two hundred feet. It is almost tasteless, and, *experto crede*, makes excellent chocolate and tea. An analysis shows that in every eleven parts of substance held in solution one-half is silica, about 4.90 soda and its compounds, and the rest alumina. The Strokr is but a poor relation of the Great Geyser, a well hole six feet across perhaps, where some ten feet down the water can just be seen, always seething, groaning, and now and again rising some height up the funnel as if making up its mind for an outburst. It is easy enough to provoke one by throwing in a heap of turf. This we did, and whilst about twenty minutes afterwards I was bending over the water rising at every effort a little higher and again falling, suddenly, with one vigorous protesting groan, up rose a column of dirty boiling water one hundred to one hundred and fifty feet, which I had barely time to escape by hard running. For about ten minutes one outburst succeeded another, each of lessening volume and height, until the Strokr had got rid of the meal we had given it, and contented itself with its accustomed perpetual motion and noisy accompaniment.

The sulphur springs of Kriusivik are another witness to great heat force working close to the surface. These springs are not without

danger to those who visit them alone, as I did. After walking for some hours over such ground as I have endeavoured to describe, my map and compass had brought me within sight of a broad high column of steam rising over some low hills. About me was coarse grass on a reddish clay, and I was about to take a step forward, when, hearing a bubbling noise, I looked down, and where my next footfall should have been was a small circular hole in which the sulphur was boiling, rising from time to time to the surface level. Making for the hillside I soon looked down upon a mud basin about twenty feet across, covered with a steam cloud, and from which came a confused noise of boiling and splashing. When the steam lifted at times I could see the boiling mud rising some six or eight feet into the air. From the lava rock close underlying the white clay and sulphur deposit came small sulphur jets over a considerable area about the central pool. The greatest care is necessary in choosing ground, for in many places a man's weight would break through the thin layer of clay or sulphur crust. An attempt is being made by a Scotch company to work this large surface deposit of sulphur, but the cost of transit has hitherto hindered the success of the adventure.

It will seem strange that even the hardy Norwegian Viking of the ninth century should have sought a home in such a land, but it is certain that in his day the climate was much milder than now. Their Sagas, covering the first four centuries of colonisation, mention both trees and grain crops. At the present day the mean temperature is in the south 47°, in the north 33°, but during the summer, though the latitude of the north is 3° higher, the temperature is about equal. This is said to be owing to a branch of the gulf-stream washing Iceland, with which the rain clouds cross, brought by the prevailing southerly winds. These rain clouds, as they pass over Iceland, meet a falling temperature, and discharge their moisture before they reach the north, so leaving it the larger share of summer sunshine, and enabling its inhabitants to raise the earliest and heaviest hay crops.

I have left myself no time to speak of the remarkable people who for one thousand years have kept up a hard constant struggle with difficulties such as no other race has had to encounter. They have done more. Separated from other men, unhelped by the appliances of modern civilisation, they have in intellectual development kept abreast of, and in some respects surpassed, the most civilised European nations. Their national hymn, set to the same tune as ours, is characteristic of the people, and shows to how great an extent love of country is independent of any beauty or advantage in the country itself. Thus the first verse runs, and with it I conclude this discursive paper:—

Most ancient Iceland,
Best loved fatherland,
Fair mountain queen!
Whilst the sea girdles land;
While men ask maiden's hand;
Sungleams on hillsides stand;
Thou art our Queen.

2. The Split Mosses, Bog Mosses, and Earth Mosses of Tasmania, by Mr. R. A. Bastow. The paper was a continuation of a series of Papers on Tasmanian Mosses that Mr. Bastow is engaged on.
3. Descriptions of some Fossil Leaves from Mount Bischoff, by Mr. R. M. Johnston, F.L.S. The two new fossil leaf impressions described by Mr. Johnston belong to the genera *Taxites* and *Eucalyptus*. The former was discovered by Mr. Thureau at Mount Bischoff associated with clays and in drift deposits underlying the basalt sheet formerly referred to in connection with the Tertiary Leaf Beds at this place. The species has been named *Taxites Thureaui* in honor of its

discoverer. The locality from whence the splendid new specimen of Eucalyptus (*E. Milligani*. Johnston) was obtained is not known, although supposed to be from Tertiary Leaf Beds at Macquarie Harbour, where probably it was discovered by the late Dr. Milligan. It is associated with well known forms in Tasmanian Tertiaries belonging to the genera *Fagus*, *Laurus*, *Cinnamomum*, *Magnolia*, etc.

EXHIBITS.

Mr. T. STEPHENS exhibited a specimen of the Coal which had been found at some distance from Longford, on the road leading from that township to Launceston, and near Jordan's Bridge. The existence of coal had been suspected in the neighbourhood for the last 40 years, but it had been left to Mr. Mason, a landed proprietor in the district, to prosecute a search, and he was rewarded by finding a seam which was stated to be 4ft. in thickness. He, Mr. Stephens, thought that these coal measures might be traced from near Hadspen to a place where he had reported favourable indications many years ago on the N. Esk, and eventually to the Fingal Valley. The infiltration of water had loosened its texture, and had given it a flaky character, and it was that appearance, together with some of the surface indications, which led some persons to suppose that it was a lignite, and not a true coal. It was, however, a true coal, and belonged to the same system as all the Southern and Eastern coal measures. There was an admixture of sulphide of iron, but not, apparently, in any objectionable quantity. The calcite present in the specimen was a point of resemblance between this and some of the Jerusalem and Fingal coal. It was not likely to prove prejudicial to the use of the coal for ordinary purposes. It seemed highly probable that the discovery would be a valuable and important one to those persons on whose property it was found. From some preliminary investigations, the proprietor had come to the conclusion that it rose in an easterly direction, and he was now driving from the lowest level that he could find in that direction, so as to strike it on a rise and eventually drain the mine by gravitation.

Mr. R. M. JOHNSTON remarked that the specimen which had been sent to him had rather a ligneous appearance. He had no hesitation, however, in saying that he believed it to be good coal, and from the presence of *Zeugophyllites elongatus*, *Phyllotheca*, *Taeniopteris* and *Sphenopteris*, identical with species in the coal measures at New Town and York Plains. There was no doubt in his mind that it belonged to the mesozoic coal measures.

The CURATOR drew attention to two fine specimens of fish that had been secured, both new to the Museum, during the month. One of these, the "Hapuku" (*Oligorus gigas*), a fish that attains to a large size, in New Zealand many of them reaching to 150 lbs. in weight, is a deep sea fish, the present one being caught off the Hippolyte Rocks. The "Hapuku" has a peculiar interest from its close relationship to the well-known Murray Cod (*Oligorus Macquariensis*). Dr. James Hector, M.D., F.R.S., in his "Notes on the Edible Fishes New Zealand," says in regard to the flavour of this fish: "The head and shoulders cut off this fish is most dainty food, but the flesh of the remainder is rather coarse and stringy; it is, however, well adapted for pickling, and may yet become an article of commerce." The specimen now on view to the Fellows weighed 53 lbs., and had a roe weighing about 5 lbs. The other fish was one that Mr. Morton stated he had been unable to identify with any species of Australian, Tasmanian, or New Zealand fish, in fact, he was in hopes at the next meeting he would not only be able to describe it as a new species, but to make a new genus. This specimen had during the month been washed on the bank at Bridgewater, and had been forwarded to him by Mr. T. Stanfield.

Mr. R. M. JOHNSTON said, in regard to the latter fish, he felt confident Mr. Morton would be perfectly safe in making a new genus, as it was altogether unlike any genus he had observed in Gunther's valuable work on Fishes.

The CURATOR also drew attention to two skulls of Tasmanian Tigers (*Thylacinus cynocephalus*) which had been presented by the Hon. W. Gellibrand, M.L.C., one being very large, the teeth in capital condition.

MICROSCOPE.

Mr. R. A. BASTOW showed some beautiful mounted specimens of Tasmanian Mosses.

VOTE OF THANKS.

Bishop SANDFORD proposed a vote of thanks to the authors of papers read at the meeting, as also to the donors to the Museum and Library.

Mr. C. T. BELSTEAD seconded the motion, which was carried unanimously.

SEPTEMBER, 1885.

The monthly meeting of the Fellows of the Royal Society of Tasmania was held at the Museum-building on Monday evening, September 7th, 1885. Mr. James Barnard, vice-president, occupied the chair, and about 40 gentlemen were present.

In the absence of the hon. secretary (Dr. Agnew) who was professionally engaged at New Norfolk, the secretarial duties were performed by the curator, Mr. Alexander Morton.

The following gentlemen, who had been previously nominated as Fellows, were ballotted for, and duly elected as Fellows of the Society, viz.:—Messrs. Chas. W. Garrard, B.A., Lond., W. Eldridge, W. Duffy, Joseph Tasman Facy.

The Curator brought forward the usual returns, viz.:—

1. Number of visitors to the Museum during the month of August:—Week days, 1,980; Sunday, 850; total, 2,830.

2. Number of visitors to Royal Society's Gardens during the month of August, 6,150.

3. Plants and seeds received at and sent from the Royal Society's Gardens during the month of August, 1885:—

From Messrs. J. Smith and Sons, Victoria—Case plants.

From the Botanical Gardens, Jamaica—Packet seeds.

From Mr. Elliot, Hobart—14 papers' seeds.

From — Emmett, Esq.—Seeds *Teloepa truncata*.

From Charles Traill, Esq.—Case plants, N.Z.

To Messrs. Vilmorin Andrieux, Paris—Package seeds.

To A. Van Geert, Belgium—Package seeds.

To Mr. Wm. Bull, London—Package seeds.

To the Royal Gardens, Kew, near London—Package seeds.

To the Botanical Gardens, Calcutta—Package seeds.

To the Botanical Gardens, Saharanpur, India—Seeds.

To the Forest Board, Madras—Package seeds.

To Messrs. J. Smith and Sons, Victoria—Plants and seeds.

To Charles Traill, Esq., Stewart Island, N.Z.—Case plants.

To the Botanical Gardens, Christchurch, N.Z.—Case plants.

To the Botanical Gardens, Melbourne—2 bags sphagnum.

To Mr. S. Purchase, Parramatta—Case plants.