

WELLINGTON PHILOSOPHICAL SOCIETY.

At the Council meeting held in March, 1916, to fill the vacancy caused by the death of Mr. Thomas King, Dr C. Monro Hector was elected President, Mr. A. C. Gifford was elected Vice-President, and Dr C. E. Adams Secretary and Treasurer.

FIRST GENERAL MEETING 24th May, 1916.

The President, Dr Hector, in his introductory remarks, made sympathetic reference to the death of the late President, Mr. Thomas King. Dr Hector announced that Miss Jessie King, sister of the late Mr. King, had presented to the society, for the use of the Astronomical Section, the 5½ in. equatorial telescope, made by Sir H. Grubb, Dublin, and the astronomical books of her brother, as a memorial to him, and that the Council had accepted these valuable gifts on behalf of the society.

Life Member.—Mr. C. W. Adams was elected a life member of the society.

New Rules—The new rules of the society were adopted.

Address.—Dr. Hector delivered an interesting address on "National Efficiency."

Exhibit.—Dr. J. A. Thomson exhibited a model of the Pittdown skull.

Lecture.—Mr. J. L. Elmore delivered an address on the "Pictorial Art of the Australian Blacks and the South African Bushmen," illustrated by tracings of rock drawings and carvings in their natural size and colours.

SECOND GENERAL MEETING 28th June, 1916

Exhibit.—Mr. P. W. Burbidge, M.Sc., exhibited and described a new X-ray bulb—the Coolidge type.

Lecture.—Professor Kirk delivered a lecture on "Fly-control in Camps and Cities."

THIRD GENERAL MEETING 26th July, 1916

Discussion.—Professor Easterfield introduced a discussion on the organization of scientific and industrial research. Many members of the society took part in an interesting discussion, and a committee, consisting of Mr. W. Ferguson, Mr. G. Hogben, Mr. E. Parry, Dr. L. Cockayne, Professor Easterfield, and Mr. S. H. Jenkinson, with power to add to their number, was appointed to consider the best means of organizing scientific and industrial research, and the study of science within New Zealand, and to confer with similar bodies in order that action may be taken.

FOURTH GENERAL MEETING: 23rd August, 1916.

The President announced that the society had applied for £150 of war bonds.

On the motion of Dr. L. Cockayne, F.R.S., the society resolved to protest to the Minister of Lands against the killing of fur seals, as reported in the *New Zealand Times* of the 23rd August, and to ask the assistance of the New Zealand Institute in preventing the killing of the fur seals.

Lecture.—Mr. W. S. La Trobe, M.A., delivered a lecture on "Big Guns and Big-gun Shooting," illustrated by lantern-slides.

Paper.—A paper, "Notes on Floristic Botany of New Zealand, Part II," by Dr. L. Cockayne, F.R.S., was taken as read.

FIFTH GENERAL MEETING: 27th September, 1916.

Lectures.—Mr. C. W. Adams, a life member of the society, delivered a lecture on "Daylight-saving."

Dr. J. Allan Thomson delivered an address on "The Distribution of Brachiopods in the Southern Hemisphere," with exhibits and lantern-slides.

FORTY-NINTH ANNUAL GENERAL MEETING: 25th October, 1916.

The following officers and Council were elected for the year 1917
President—G. Hogben, M.A., F.G.S., C.M.G. *Vice-Presidents*—C. Monro Hector, M.D., B.Sc., F.R.A.S.; R. W. Holmes, M.Inst.C.E. *Council*—J. Allan Thomson, M.A., D.Sc., F.G.S.; A. C. Gifford, M.A., F.R.A.S.; W. S. La Trobe, M.A. (Chairman of Astronomical Section); F. W. Furtkert, A.M.Inst.C.E. (Chairman of Technological Section); C. A. Cotton, D.Sc., F.G.S. (Chairman of Geological Section); T. H. Easterfield, M.A., Ph.D.; Evan Parry, B.Sc., A.M.Inst.C.E.; H. B. Kirk, M.A.; L. Cockayne, Ph.D., F.R.S.; D. M. Y. Sommerville, M.A., D.Sc. *Secretary and Treasurer*—C. E. Adams, D.Sc., F.R.A.S. *Auditor*—E. R. Dymock, F.I.A.N.Z. *Representatives on the New Zealand Institute*—T. H. Easterfield, M.A., Ph.D.; H. B. Kirk, M.A.

Film.—By the courtesy of the Tourist Department, a fine film of "A Tour of the Southern Alps" was shown by Mr. Taylor.

Papers read.—1. H. Hamilton, "Notes on the Occurrence of the Crab-eating Seal *Lobodon carcinophaga* in New Zealand Waters."

2. J. C. Andersen, "Further Notes on New Zealand Bird-song."

Papers taken as read.—C. E. Adams, "Harmonic Tidal Constants of New Zealand Ports," and "Harmonic Analysis of Tidal Observations."

King Observatory.—The President exhibited a plan, by Mr. W. S. La Trobe, of the proposed King Observatory, and stated that a deputation of the Astronomical Section would wait on the City Council on the 26th October to make application for a site in the Botanical Gardens on which to erect the Observatory.

Meteorological Returns.—On the motion of Dr. Thomson, seconded by Mr. Holmes, the society resolved to urge upon the Government the im

portance, both from the educational and the economic standpoint, of the more extensive publication of the meteorological observations of a larger number of stations in New Zealand

ANNUAL REPORT OF THE COUNCIL

Death of President.—Before the opening of the 1916 session the society suffered a severe loss in the death of its President, Mr. Thomas King, F.R.A.S., and at a special meeting of the Council the following resolution was passed. "The Council, on behalf of the Wellington Philosophical Society, desires to place on record its deepest sympathy with the family of its late President, Mr. Thomas King, F.R.A.S., in their bereavement, and at the same time to express its highest appreciation of the valuable services which he rendered for so many years to the Wellington Philosophical Society, as Secretary and member of the Council"

Roll of Honour.—The following members of the society have volunteered for active service. Mr. E. H. Atkinson, Dr. C. M. Begg, Mr. Val Blake, Mr. F. K. Broadgate, Mr. C. Freyberg, Mr. J. Fulton, Mr. G. W. King, Mr. C. G. Johnston, Professor E. Marsden, Mr. D. McKenzie, Mr. H. M. Millet, Dr. J. M. Mason, Mr. W. L. Moore, Dr. T. D. M. Stout, Mr. H. S. Tily, Mr. H. Vickerman, Mr. C. J. Westland. Lieutenant Val. Blake was killed in action at Gallipoli on the 9th December, 1915

The Sections.—The Astronomical, Technological, and Geological Sections have been very active during the session, and a number of important papers have been read before them.

Membership.—Since the last report two members of the society have died, and five have resigned their membership. Eighteen new members have been elected. The roll at present contains 169 names, including those of sixteen members on active service, nine life members, and one life member of the Otago Institute.

The Hamilton Memorial.—The committee appointed to provide a memorial to the late Mr. Augustus Hamilton reports that arrangements are now well forward for the erection of a suitable monolith and tablets over the grave at Russell, Bay of Islands.

Statement of Receipts and Payments.—A statement, duly audited, of receipts and payments for the year ended 30th September, 1916, is presented with this report. The total receipts were £128 4s. 6d., and the total payments were £101 17s. 5d. The balances at the end of the year were—Bank of New Zealand, £34 8s. 6d., Savings-bank, £137 10s. 3d., war bonds, £150 (including Research Fund, £49 13s. 1d., and Life Subscription Fund, £80 7s. 1s.), Hamilton Memorial Fund, £123 13s. 4d. total, £445 12s. 1d. The liabilities were—Library Account, £48 8s. 2d., Hamilton Memorial Fund, £123 14s. total, £172 1s. 6d. leaving a balance in favour of the society of £273 10s. 7d.

Library Account.—In accordance with the rules of the New Zealand Institute, one-third of the revenue of the society is devoted to the upkeep of the library. The amount so available this year is £42 14s. 9d. this with the balance carried forward from last year makes £78 4s. 2d. available for the library. The payments on the library have been £29 16s., leaving a balance of £48 8s. 2d. to be spent on the library.

Interim Report of the Committee on Organization of Scientific and Industrial Research.—The committee appointed at the July meeting of the society has held several meetings, and has got into touch with the Philosophical Societies in the other large centres, and also with various industrial bodies. By invitation of the Philosophical Institute of Canterbury, the chairman of the committee visited Christchurch on the 4th October, and delivered a lecture on the importance of scientific research to industries and commerce.

ASTRONOMICAL SECTION.

The following papers were read during the year (6th October, 1915) "Some Points in the Theory of Optical Instruments," Professor E. Marsden, D.Sc. (3rd November, 1915) "Tidal Waves of the Earth's Crust," Mr. G. Hogben, M.A. (7th June, 1916) "Notes on Californian Observatories," Dr. C. E. Adams (2nd October, 1916) "Facts and Fancies of the Fourth Dimension," Professor D. M. Y. Sommerville, "Methods of calculating Moonrise," Mr. C. J. Westland, F.R.A.S.: (6th September, 1916) "Circular Errors in Pendulums," Mr. W. S. La Trobe, M.A.; "Novae," Mr. A. C. Gifford, M.A., "Wireless Time Signals and Notes on Recent Eclipse of Sun," Dr. C. E. Adams.

Members.—The total number of members of the Astronomical Section is about fifty-one

Committee and Officers for 1917 — *Hon. Member* — Miss Mary Proctor, F.R.A.S., *Chairman* — Mr. W. S. La Trobe, M.A.; *Vice-Chairmen* — Mr. C. P. Powles, Professor D. M. Y. Sommerville, Dr. C. E. Adams; *Committee* — Mr. W. E. Spencer, Mr. G. Hogben, Mr. E. Parry, Mr. A. C. Gifford, Dr. C. M. Hector, Captain G. Hooper, Miss C. Helyer. *Director and Curator of Instruments* — Dr. C. E. Adams; *Hon. Treasurer* — Mr. C. P. Powles; *Hon. Secretary* — Mr. C. G. G. Berry.

GEOLOGICAL SECTION.

During the year seven meetings have been held, with an average attendance of fourteen. The papers read have dealt with widely different aspects of geology, and, together with the numerous exhibits, have combined to maintain interest in the meetings, and to mark the year as one of steady progress.

The following papers have been read: J. A. Bartrum, "A Phase of Shore-line Erosion"; S. S. Buckman, "Terminology for Foraminal Development in Terebratuloids"; C. A. Cotton, "The Continental Shelf"; W. Gibson and M. Ongley, "The Geology of Petroleum"; J. Henderson, "The Structure of the Paparoa Range"; R. W. Holmes, "An Artesian Trial Bore at Westshore, Napier"; P. G. Morgan, "Notes of a Visit to Marlborough and North Canterbury, with Especial Reference to Unconformities post-dating the Amuri Limestone"; J. A. Thomson, "Stage Names applicable to the Divisions of the Tertiary in New Zealand"; G. H. Uttley, "The Volcanic Rocks of Oamaru."

Election of Officers for 1917.—*Chairman*—C. A. Cotton, D.Sc., F.G.S.; *Vice-Chairman*—J. Henderson, M.A., D.Sc., B.Sc. (Eng.); *Hon. Secretary*—E. K. Lomas, M.A., M.Sc.; *Committee*—The above and Messrs. Holmes, Morgan, Ongley, Dr. Thomson, and Mr. Uttley.

TECHNOLOGICAL SECTION.

Papers were read during the year as follows: (31st May) "Electricity in the Smelting and Refining of Iron," E. Parry, B.Sc., A.M.Inst.C.E.; (14th June) "The Thomas Transmission System as applied to Road and Rail Traction," K. J. Thomson, M.I.A.E., M.I.E.E.; (12th July) "Coal Resources of New Zealand, with Some Consideration of its Economic Use," P. G. Morgan, M.A., F.G.S.; (9th August) "Design and Construction of Ferro-concrete Structures, with Special Reference to Marine Works," J. E. L. Cull, A.M.I.M.E.; (11th October) "Alloys from the Point of View of Modern Chemistry," Professor Easterfield, M.A., Ph.D. Mr. Cull also gave the results of the tests of some steel rolled at the Otago Ironworks, and Mr. Parry exhibited an Edison storage battery, some aluminium wire corroded while in electrical use, and some samples of aluminium soldered by a new process invented by two New-Zealanders.

On the 13th September Mr. W. S. La Trobe, M.A., conducted the section through the Wellington Technical College.

The office-bearers for 1917 were elected as follows. *Chairman*—F. W. Furkert, A.M.Inst.C.E. *Vice-Chairmen*—J. Marchbanks, M.Inst.C.E.; E. Parry, A.M.Inst.C.E. *Committee*—W. Ferguson, B.E., M.Inst.C.E.; A. Atkins, F.R.I.B.A., A.M.Inst.C.E.; R. W. Holmes, M.Inst.C.E.; H. Sladden, Member Surveyors' Board; J. S. Maclaurin, D.Sc., F.C.S. *Secretary*—S. H. Jenkinson.