## Sess. II.—1891. NEW ZEALAND.

## NEW ZEALAND INSTITUTE, 1890-91.

(TWENTY-THIRD ANNUAL REPORT.)

Presented to both Houses of the General Assembly by Command of His Excellency.

MEETINGS of the Board have been held on the following dates: 29th November, 1890; 10th April and 3rd August, 1891.

The following gentlemen were elected Governors of the Institute by the incorporated societies in conformity with the Act: Mr. J. McKerrow, Mr. S. Percy Smith, and Mr. A. S. Atkinson.

The members who retired from the Board in conformity with section 6 of the Act are the Hon. Mr. Mantell, Mr. W. T. L. Travers, and Mr. T. Mason, and all these gentlemen were reappointed by His Excellency the Governor.

During the year the following gentlemen have been elected honorary members of the Institute: Professor C. V. Riley, of Washington; Professor Otto Nordstedt, of Sweden; and Professor Liversidge, of Sydney.

The Board regret to have to record the loss by death of one distinguished honorary member—

viz., Sir Frederick A. Weld, G.C.M.G., who was elected in 1877.

The members now on the roll of the Institute are: Honorary members, 28; ordinary members

—Auckland Institute, 205; Hawkes Bay Philosophical Institute, 99; Wellington Philosophical Society, 151; Philosophical Institute of Canterbury, 98; Nelson Philosophical Society, 38; Westland Institute, 76; Otago Institute, 117; Southland Institute, 72: making a total of 884.

The volumes of Transactions now in stock are—Vol. I. (second edition), 266; Vol. V., 28; Vol. VI., 28; Vol. VII., 120; Vol. IX., 120; Vol. X., 153; Vol. XI., 43; Vol. XIII., 48; Vol. XIV., 70; Vol. XV., 183; Vol. XVI., 180; Vol. XII., 200; Vol. XVIIII., 163; Vol. XIX., 175; Vol. XX., 175; Vol. XXI., 100; Vol. XXII., 100; Vol. XXIII., not yet fully distributed distributed.

The volume of Transactions just published (XXIII.) was issued in July, and contains sixty-four articles, also addresses and abstracts of articles which appear in the proceedings. The volume contains 680 pages of letterpress and 49 plates. The following is a comparison of the contents of the present with that of last year's volume :-1001

			TOOT.	1000.
			Pages.	Pages.
Miscellaneous	 	 • • •	 136	$1\overline{4}2$
Zoology	 	 	 236	244
Botany	 	 	 72	56
Chemistry	 	 	 •••	4
Geology	 	 	 144	62
Proceedings	 	 	 48	52
Appendix	 	 	 44	47
			680	607

The cost of printing Vol. XXII. of the Transactions was £284 6s. 9d. for 607 pages, and that for Vol. XXIII. £296 12s. 6d. for 680 pages.

The Honorary Treasurer's accounts for the year is appended, and shows a balance in hand of £51 10s. 1d.

The amount devoted to the printing of memoirs, in accordance with resolution of May, 1885, is £525; and the sum of £150 has been allotted for the printing of papers postponed from previous

A memorandum giving an account of the work done by the Institute since its organization is appended hereto.

Approved by the Board, W. B. D. Mantell,

JAMES HECTOR. Manager.

Chairman.

3rd August, 1891.

## NEW ZEALAND INSTITUTE ACCOUNTS FOR 1890-91.

Rec	eipts.			£	s.	đ.	Expenditure.	£	s.	
Balance in hand, 23rd July, 1890							 296 1	2	6	
Parliamentary grant for 1890–91				0	0	Miscellaneous items	 17 1	.1	6	
Contribution from V	ellington	$_{ m Philoso}$	phical				Carried to Memoir Account	 200	0	0
Society	••	••	••	24	10	0	Carried to Deferred-papers Account	 50	0	0
Sale of volume		• •		1	1	0	Balance	 51 1	.0	1.
				£615	14	1		£615 1	4	1
										parent.

W. T. L. TRAVERS, Hon, Treasurer.

## MEMORANDUM REGARDING THE NEW ZEALAND INSTITUTE.

The first scientific society in New Zealand was founded in 1851, the first President being Sir George

Grey, K.C.B., D.C.L. It was named "The New Zealand Society," and was located in Wellington.

1n 1862 a second society was established in Christchurch as the Philosophical Institute of Canterbury, the first President being Mr. Julius Haast (since Sir Julius von Haast, R.C.M.G., Ph. D.). Much useful work was done by these societies, but they met at very irregular intervals, and the funds collected were inadequate for the proper publication of the papers that were communicated by the members. They therefore languished, owing to their being merely local societies, not having

the sympathy of the colony,

The Exhibition held in Dunedin in 1865 brought prominently before the public the advantage of a more general organization for the development of the resources of the colony, and soon after the establishment of a scientific department by the General Government the New Zealand Institute Act was passed in 1867, and its administration was placed under the present Director of the Geological and Natural History Survey.

The New Zealand Institute has now been in operation for twenty-four years, which is a sufficient period in the history of a new country to indicate how far the practical results obtained by the working of one of its institutions have fulfilled the anticipations of its original promoters.

The object sought was to foster public interest in the collection and discussion of original observations respecting the resources and natural history of the country. This is done to best effect by the organization of a scientific society; but it was obvious that the geographical circumstances of the colony precluded the formation of any strong central society capable of stimulating and directing such investigations by frequent meetings of its members, as can be done in other colonies possessing a chief centre of population, where all social institutions become naturally concentrated. constitution of the New Zealaud Institute was therefore intended to provide for the combination of local efforts in this direction by enabling the joint publication of the papers read and discussed before

Experience has shown that in old countries the subscribed funds are generally insufficient for the proper publication of the transactions of small societies; and this drawback is still more felt in the countries where the number of members is few, while the field for original research is large, so that in a few years such societies languish after accumulating much information in manuscripts that, if published, would be of great assistance in advancing the interests of the community.

Each member of the scientific societies affiliated to the New Zealand Institute receives a share of the Parliamentary grant in the form of an annual volume of the Transactions for the year of all the various societies. The presentation of this volume is regarded as a substantial equivalent for the subscriptions, and the fund which is created by the subscriptions is applied locally towards the maintenance of public museums and libraries in the different centres of population. In the case of Auckland, for instance, the public museum is almost wholly dependent on this source of revenue for its maintenance; and, if the vote which enables the annual volume to be distributed gratis is withdrawn, the Museum must either be closed or some other provision made for its support.

The educational effect of this organization can hardly be over estimated as a means of cultivating a love of knowledge and in disseminating information. To the influence of the Institute must in some degree be attributed the demand which is now expressed throughout the colony for elementary instruction in science, and the general recognition in New Zealand on the part of the public that it is necessary to obtain, as a branch of elementary education, the qualifications required for the comprehension and utilisation of the scientific literature that is so characteristic a feature of the present age.

The Institute commenced with four branch societies in 1869 and only 258 members, but there are now eight societies affiliated, and the number of members increased to 1,327 in 1881, but has since fallen off to about 950, each of whom pays one guinea a year, which may be considered as a voluntary tax for an educational purpose.

There have now been 1,623 original communications published in twenty-three volumes of the Transactions of the Institute, nearly all of which relate directly to the colony, and place on record matters of fact and observation that otherwise might not have been published. Of these papers, 378 are on miscellaneous subjects, chiefly relating to the ethnology of the aboriginal races, or connected with the industrial resources of the colony; 613 are descriptive of the zoology of New Zealand; 203 refer to its botany; 113 are on metallurgy and chemistry in its relation to the colony; and 216 are on its geology and physical geography. In addition to these papers, which are published at length, abstracts of about 970 different communications are given in the Proceedings of the societies. The total number of the communications to the Institute have thus been 2,593. Besides which, a number of popular lectures are given each year under the auspices of the various societies of which no record is kept. The average size of the annual volume of Transactions and Proceedings is 640 pages and about 40 plates.

3 H.—25

The funds at the disposal of the Board of Governors of the Institute have consisted only of the annual parliamentary grant of £500, an annual contribution from the Wellington Philosophical Society as an equivalent for rent of the library-room and the use of the lecture-hall, and a small sum arising from the sale of volumes. Nearly the whole of the funds are spent in the printing of the volume of Transactions, only a very small amount being devoted to the maintenance of the Library in the way of binding books. Nor is the information contained in these volumes confined to the colony, as they are widely distributed to the chief libraries in all parts of the world.

Forty-seven of the most distinguished men in science and literature, who have rendered special service to New Zealand, have been elected honorary members, while there are seventy-five corresponding societies and institutions that exchange their publications with the Institute. About three hundred volumes per annum are acquired in this manner, the greater number of which have been

placed in the General Assembly Library.

The Museum in Wellington, though nominally under the charge of the Governors of the Institute, does not constitute a charge on their funds, but is wholly supported out of the votes of the Geological Survey Department. The labour of editing the annual volumes and the preparation of the illustrations is undertaken by the staff of the Geological Survey in addition to their other duties, and without any further remuneration; and it is chiefly owing to this circumstance that a work, which actually produces in the form of subscriptions and contributions by way of exchange of books the value of over £1,700 per annum, is produced from the grant of £500 a year.

Besides the fostering of local societies the Act contemplated the establishment of technical schools throughout the colony; and at the request of the Government a scheme was submitted by the Board on the 20th July, 1870, to provide a normal technical school and to give practical instruction in applied science at the Museum, but no funds were provided for giving effect to this scheme. The functions of the Board under the Act for promoting local institutions for instruction in science have therefore remained in abeyance, and have to some extent been superseded by subsequent legislation and endowments for mechanics' institutes, public libraries, and technical schools for art, mining, agriculture, and other branches of applied science under the control of the colleges and the Education Boards.

Approximate Cost of Paper.—Preparation (not given); printing (1,300 copies), £2.

By Authority: George Didsbury, Government Printer, Wellington.—1891.

Price, 6d.