

1903.
NEW ZEALAND.

NEW ZEALAND INSTITUTE:

THIRTY-FIFTH ANNUAL REPORT, 1902-3.

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

MEETINGS of the Board were held on the 21st October and the 8th December, 1902, and the 2nd April and the 3rd July, 1903.

Messrs. Tregear, Mason, and Young retired from the Board in compliance with the Act, and were renominated by His Excellency the Governor. The following gentlemen were elected by the incorporated societies as Governors of the New Zealand Institute: Hon. C. C. Bowen, Mr. Martin Chapman, and Mr. S. Percy Smith.

The members now on the roll are—Honorary members, 29; Auckland Institute, 163; Hawke's Bay Philosophical Institute, 62; Wellington Philosophical Society, 150; Philosophical Institute of Canterbury, 69; Otago Institute, 112; Nelson Institute, 17; Westland Institute, 66: making a total of 668.

The volumes of Transactions now on hand are—Vol. I. (second edition), 215; Vol. V., 4; Vol. VI., 8; Vol. VII., 90; Vol. IX., 90; Vol. X., 120; Vol. XI., 20; Vol. XII., 25; Vol. XIII., 25; Vol. XIV., 48; Vol. XV., 150; Vol. XVI., 160; Vol. XVII., 160; Vol. XVIII., 125; Vol. XIX., 150; Vol. XX., 154; Vol. XXI., 85; Vol. XXII., 85; Vol. XXIII., 160; Vol. XXIV., 165; Vol. XXV., 160; Vol. XXVI., 170; Vol. XXVII., 168; Vol. XXVIII., 173; Vol. XXIX., 290; Vol. XXX., 345; Vol. XXXI., 395; Vol. XXXII., 396; Vol. XXXIII., 400; Vol. XXXIV., 400; Vol. XXXV. not yet fully distributed.

The volume just published (XXXV.) contains sixty articles, also addresses and abstracts which appear in the Proceedings. It consists of 623 pages and fifty-four plates. The following is a comparison of the contents of Vol. XXXV. with those of Vol. XXXIV. :—

	1902.	1901.
Miscellaneous	305	156
Zoology	77	96
Botany	64	166
Geology	16	86
Chemistry and physics	77	44
Proceedings	29	43
Appendix	55	54

623 pages. 645 pages.

The cost of producing and printing Vol. XXXIV. was £452 2s. 6d. for 645 pages and forty-two plates, and that for the present volume (XXXV.) £482 11s. 6d. for 623 pages and fifty-four plates. Both these volumes were entirely turned out at the Government Printing Office.

From the Honorary Treasurer's statement of accounts it appears that the amount received for the year was £964 1s. 3d., including the balance carried forward, and the expenditure £604 12s. 8d., leaving a balance in hand of £359 8s. 7d.

MUSEUM.

There have been 100 entries as additions to the Museum since last report, a list of which will be published in due course. The collections have been regularly cleaned and arranged.

Library.—This is, as far as possible, being kept scientifically up to date.

METEOROLOGICAL.

The returns of the principal stations for 1902 have been supplied as usual to the Registrar-General to be included in his annual statistics, and the monthly rainfall returns from 180 stations have been regularly supplied to the *Gazette*. The monthly returns for vital statistics has been supplied, and the daily weather exchange by cable is continued between this colony and Australia.

COLONIAL TIME-BALL OBSERVATORY.

Mr. Thomas King, the officer in charge, reports as follows: "The work of the time service has proceeded as usual. Regular observations for the determination of clock-error have been taken, and exact time has been distributed throughout the colony as heretofore. The clocks have maintained very good rates. The time-ball at Wellington has been dropped daily (Sundays excepted), and galvanometer signals have been sent hourly from the Observatory in the manner described in previous reports. During the stay of the relief ship "Morning" at Lyttelton, prior to her start for the antarctic regions, signals were frequently transmitted to her by special telegraph-wire direct from the Observatory to the officers' cabin, and the vessel was thus enabled to rate her chronometers accurately for some days before the beginning of her important voyage. The value 11h. 39m. 5.3s. E. has, since the beginning of 1903, been assumed as the longitude of the Observatory in computing time. This longitude has, of course, been for very many years recognised as the correct one; but owing to the fact that the old value—viz., 11h. 39m. 9.3s. E.—was retained on the Admiralty charts it was not deemed wise to employ the amended longitude for the purposes of the time service, as the advantage from a navigator's point of view of having a value in harmony with the one shown on the charts was obvious. The Admiralty, however, has at last found it practicable to adopt the true longitude in one or two of its harbour-charts; and, although in view of the smallness of the error involved and of the expense of regraduating a large series of charts the Admiralty has no present intention of amending the majority of the coastal charts, this partial recognition of the corrected longitude has opened the way for a reconsideration of the matter, and, after submission of the point to the Hydrographer to the Admiralty, the value 11h. 39m. 5.3s. has, with that official's entire concurrence, been adopted as the one for use in calculations necessary for time-determination. The whole question is discussed at length in a paper which I had the honour of reading before the Wellington Philosophical Society on the 18th March, 1903 ('On the Longitude of the Colonial Observatory, &c.'), and I would respectfully ask reference to that paper for details of the whole subject."

The balance-sheet, duly certified, is appended, and the schedules and correspondence will be published with the report in the usual pamphlet form.

Approved.

JAMES HECTOR, Manager.

MARTIN CHAPMAN, Chairman.

3rd July, 1903.

NEW ZEALAND INSTITUTE ACCOUNTS FOR 1902-3.

<i>Receipts.</i>				<i>Expenditure.</i>			
		£	s. d.			£	s. d.
Balance from last year		408	2 11	Printing Vol. XXXV.		482	11 6
Vote for 1902-3		500	0 0	Expenses of library		20	0 0
Contribution from Wellington Philosophical Society		17	10 0	Expenses, "Maori Art"		36	8 8
Sale of "Maori Art"		37	7 4	Postages, foreign volumes		3	17 6
Sale of Transactions		1	1 0	Expenses, International Catalogue		15	0 0
				Miscellaneous items		46	15 0
				Balance ..		359	8 7
		<u>£964</u>	<u>1 3</u>			<u>£964</u>	<u>1 3</u>

Examined and found correct.
3rd July, 1903.

MARTIN CHAPMAN,
Acting-Treasurer.

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