1925. NEW ZEALAND

DEPARTMENT OF INTERNAL AFFAIRS

(ANNUAL REPORT OF THE) FOR THE YEAR ENDED 31st MARCH, 1925.

Laid on the Table of the House of Representatives by Leave.

Department of Internal Affairs, Wellington, 30th June, 1925. SIR.— I have the honour to submit herewith the annual report of the Department for the year ended 31st March, 1925. I have, &c.,

J. HISLOP, Under-Secretary.

The Hon. R. F. Bollard, Minister of Internal Affairs.

R E P O R T.

LOCAL GOVERNMENT.

Counties .-- No new counties were constituted, but there is a proposal to divide the existing Waimea County into two counties. The matter was brought before this Department with a view to ascertaining what attitude would be taken by the Government if a Bill were introduced. The policy of the Government does not favour the division of existing counties unless there is some very good reason justifying such action. In order to assist in determining whether there is any good reason in this case a Commission was set up to inquire into the matter and report to the Government. The matter is still under consideration.

The boundaries of several counties were altered and redefined, and riding boundaries were also altered in a number of cases.

Boroughs.--The Municipal Conference again met, and passed a large number of resolutions asking for amendment of the existing law affecting boroughs and town districts. These resolutions are being carefully considered as opportunity offers.

There was a larger number than usual of alterations of borough boundaries, and a number of Commissions of inquiry were set up during the year to assist in determining whether alterations should be made.

Regulations were issued authorizing Renewal Fund Commissioners to invest their funds in the Common Fund of the Public Trust Office, in the bonds, debentures, or other securities of certain local authorities, or in advances by way of first mortgage on real securities in New Zealand.

Town Districts.--The boundaries of the Ohura Town District were altered, and the Kaitaia Town

District was declared not to form part of the County of Mongonui. Road Districts.—Only one road district was merged, leaving now thirty-four road districts in the Dominion.

River Districts.—Quite a number of matters connected with river districts were considered during the year, but only two alterations of boundaries were made.

Land-drainage Districts.--A number of drainage-district matters were considered, but only two new districts were constituted.

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Local Bodies' Finance Act.-This Act is now working smoothly, and the only provisions which have given rise to any amount of work are sections 3 (5) and 7. The former section deals with the borrowing-powers of a local authority during its first year of existence, and has been exercised in a number of cases. The latter section empowers the Minister to authorize borrowing by a local authority under such exceptional circumstances as flood, earthquake, fire, or other accident, and this section has been widely used during the year on account of the several floods which occurred throughout the Dominion.

War Memorials.—Three local bodies were authorized to erect and maintain war memorials under the powers given by section 15 of the Finance Act, 1919.

By-Laws of Local Bodies .- As usual, a large number of by-laws of County Councils were approved by the Governor-General under section 109, Counties Act, 1920, and confirmed by the Minister under the By-laws Act, 1910.

Public Bodies' Leases Act.—The Feilding Borough Council was declared a leasing authority under this Act.

Designation of Districts Act .-- Names were assigned to two districts, and the names of two districts were altered under this Act.

LEGISLATION.

Motor-vehicles Act, 1924.—The most important Act affecting this Department passed during the 1924 session was the Motor-vehicles Act, which provided for the registration, licensing, and regulation of the use of motor-vehicles. The Act gave rise to considerable discussion throughout the whole of the Dominion, and a large volume of correspondence was conducted by the Department. The work of registering and licensing motors, and issuing number-plates, is being carried out by the Post and Telegraph Department, the Secretary of that Department having been appointed Registrar of Motor-Local authorities will, as hitherto, deal with the licensing of drivers of motor-vehicles. vehicles.

After the Act came into force action was immediately taken to issue regulations dealing with the more urgent matters, such as registration and licensing of motor-vehicles and licensing of drivers, and the issue of general regulations is now under consideration. Throughout consideration of the Bill it has been the policy of the Department to consult local authorities, motor unions, and others affected. Matters connected with the Act are all being very closely watched. The following report has been received from the Secretary, General Post Office, as Registrar of

the Motor-vehicles Act, 1924.

"On the 1st January, 1925, the date on which the Act came into operation, everything was in readiness throughout the Dominion for the acceptance from motor-vehicle owners of applications for registration and licenses. Certificates of registration and licenses could not be issued at that juncture, however, as registration-plates, which require to accompany the issue of such documents, had not arrived. Owing to the short time available it was quite impossible to obtain registration-plates in the Dominion ; and it was necessary to obtain a supply from California. Pending the receipt of the plates from America, motorists were permitted to carry on with the old number-plates issued by local authorities.

'The first batch of standard plates arrived in February; but it was insufficient to cover the whole Dominion. At the time the plates were ordered it was impossible to ascertain even approximately how many would be required. Until the second batch of plates arrived, in April, motorists in the Postal Districts of Napier, New Plymouth, Oamaru, Timaru, Dunedin, and Invercargill were required to continue to use the plates issued by local authorities. All districts have now been supplied with standard plates; and the police have been asked to challenge motorists using vehicles that have not attached a set of standard plates.

"The plates obtained from America are quite satisfactory. The numbers and distinguishing marks are embossed; the plates are distinctive in design and cannot easily be imitated. They are lettered in white on a background of green. The cost of the plates was such that, after paying freight, insurance, Customs duty, wharfage, handling, and other incidental charges, it was possible to sell the plates to motorists at the very reasonable price of 2s. a set. The quantity of plates obtained was as follows :-

				Car-plates.	Cycle-plates.	Dealers' Car-plates.	Dealers' Cycle-plates
First order	• •			76,000	15,000	1,000	
Second order	•••	• •		32,000	10,000	2,000	500
			-	108,000	25,000	3,000	500

"It will be necessary to place a further order for plates; but the placing of this order is being delayed until such time as it is possible to estimate requirements up to the end of the present motorregistration year.

"Between the 1st January and the time of receipt of the first batch of plates from America, temporary plates, painted locally, were issued to enable owners of new vehicles to put the vehicles on the road. Such vehicles, not having been registered by local authorities, had no number-plates under which to run. The number of new vehicles registered in January and February exceeded all expectations, and it was not without difficulty that the supply of temporary plates was made to equal the demand. The registration work was particularly heavy during the months of January and February, but is now practically confined to new vehicles and to a few old vehicles which owners have apparently kept in garages until they were prepared to register them.

"Up to the end of March, 1925, the number of motor-vehicles of all descriptions registered throughout the Dominion was 99,233. The amount of money paid up to the end of March, 1925, into the Main Highways Account to the credit of the Main Highways Revenue Fund was £267,500.

"The Post Office has catered well for motorists in the direction of affording them every reasonable facility for registering their vehicles, without undue delay or inconvenience. Most permanent Postmasters have been appointed Deputy Registrars of Motor-vehicles, and are thus enabled to accept applications for and issue certificates of registration, licenses, and registration-plates. In addition, each Postmaster who has not been appointed a Deputy Registrar, but who is in charge of a money-order office, and each Postmistress in charge of a money-order office, has been authorized to accept applications for registration and license, and to collect the prescribed fees. Applications accepted by such officers are dealt with by the nearest Deputy Registrar, who forwards the required documents and registration-plates to the Postmaster or Postmistress concerned for delivery to the vehicle-owner. Under the present system, motor-vehicles may be registered at almost every village in the Dominion.

"The system of operation drawn up by this Department has worked smoothly from the commencement; and, in view of the fact that the registration of motor-vehicles is the first of its kind in the Dominion, the successful and smooth working of the system is a matter for satisfaction. The Post Office, with its widespread ramifications, is admirably suited for the work of compiling Dominion registers; and in the case of the motor registration I think it must be conceded that no other Department of State could have made such complete and satisfactory arrangements."

Other Legislation.—There were, as usual, quite a number of local Acts touching directly or indirectly on matters administered by this Department, and the Department furnished to the Local Bills Committee a number of reports on various Bills which were introduced. There were also a large number of clauses affecting this Department inserted in the Appropriation, Finance, and "Washing-up" Acts.

With respect to the "Washing-up" Act, it has now been decided that it be brought down in two parts, the first relating to Crown lands, public reserves, &c., and the second part being a Local Bodies' Empowering Act. Part I will be dealt with by the Lands and Survey Department, as hitherto. Part II, which will contain all provisions other than those affecting Crown lands and public reserves, will be promoted by this Department. It is anticipated that it will throw a considerable amount of additional work on this Department, and I am making arrangements to cope with this additional work. I have advised all Departments of the procedure which will be adopted with respect to Part II, in order to facilitate matters.

LAND AGENTS ACT.

During the year 1,188 licenses were issued and seventeen transfers granted. Further cases of defalcation were also considered.

Animals Protection and Game Act.

As usual, open seasons for game-shooting and deer-stalking were provided in a number of acclimatization districts. The Government continued to assist, by way of bonuses for each deertail submitted, in the thinning-out of deer in the South Island, bonuses having been paid in respect of over 7,500 deer killed. An open season was again fixed for opossums in a number of districts, and the season proved a very good one, 95,991 skins being taken. Questions affecting opossums are still being closely watched by the Department.

NATURALIZATION.

The British Nationality and Status of Aliens (in New Zealand) Act, 1923, was, by Proclamation dated 13th May, 1924, declared to come into operation on that date. Naturalization was granted to 248 persons during the year, and in addition three certificates were issued to persons in regard to whose nationality a doubt previously existed, and one to a person previously naturalized.

THERMAL FISHERIES.

Trout hatchery operations commenced on the 11th June, when the first rainbow-trout ova were collected, and daily collections were made up to the 16th September, thus showing, as compared with last year's operations, that the fish generally were a month late in spawning. A total of 2,451,000 ova were dealt with, as follows: 1,197,000 were reared to the fry stage, and 1,254,000 were disposed of in the eyed stage. 100,000 rainbow-trout ova were received from Lake Hawea, and liberated as fry in Lake Taupo. The fish taken from Lake Taupo this year have shown a marked improvement in both condition and size as compared with last year, and the general average weight of the fish taken is stated to be about 10 lb. This is attributed to the enormous increase of the introduced food-supply that has taken place.

Rotorua and Rotoiti Lakes.—Here again the fish have improved in size and condition, but, partly owing to the very late past spawning season and the present bountiful food-supply, large numbers have not been taken by means of fly fishing as compared with other seasons, although a fair number have been caught by means of trolling.

Rotomaha, Okataina, and Okareka Lakes.—The fishing in these lakes has given good results, the fish taken averaging about 4 lb.

Tarawera and Green Lakes.—The fishing on these lakes, as in Lake Rotorua, was not, during the early part of the season, as good as usual, but as the season advances good fish will be taken. As in previous years, free fishing licenses were issued to the invalid returned soldiers residing at the King George V Hospital. For the convenience of fishermen and others, arrangements were made whereby anglers' trout could be smoke-cured at Taupo and Rotorua, with the result that eighty anglers and others had 807 fish cured at Taupo, while twenty-seven persons had 276 fish cured at Rotorua.

Shags.—During the past season efforts have been made to reduce the number of shags on Lakes Rotorua and Taupo, with the result that 208 were shot on Lake Taupo, and on Lake Rotorua the number shot was 203.

CINEMATOGRAPH-FILM CENSORSHIP.

During the year 1,821 films, of a total length of 4,692,440 ft., were censored. Of this number, thirty-two were rejected wholly, 108 passed subject to excisions, and eleven passed for adult audiences only. Five appeals were lodged against the decision of the Censor in regard to the rejected films. In three instances the Appeal Board upheld the Censor's decision, and in two cases the appeals were allowed, subject to an excision in one film. Mr. Walter Alfred Tanner has been appointed an Assistant Censor of Films.

FIRE BRIGADES ACT.

Westport, Eltham, and Otaki have been constituted fire districts, bringing the total number of fire districts up to forty.

Amendments affecting administration of the Fire Brigades Act have been made in the Finance Act, 1924, in regard to the maximum amount which may be borrowed by Fire Boards, and in respect to contributions by insurance companies insuring property in New Zealand although not having any established offices in the Dominion.

The Department, following upon direct requisitions received from Fire Boards and the United Fire Brigades Association, has again indented and distributed a large quantity of fire-hose, fire appliances, and other equipment not manufactured in the Dominion.

PASSPORTS.

During the year 4,197 passports were issued, and 1,395 renewals granted.

Passports issued since the 1st December, 1924, are valid for five years from the date of issue. At the expiration of that time they may be renewed for periods of one, two, three, four, or five years, at the option of the holder, the fee being 1s. for each year of renewal.

RAFFLES.

As usual, a large number of applications have been received to raffle works of art, alluvial gold, &c., and in the majority of cases the necessary permission has been granted. The conditions under which licenses to raffle are granted provide that only the articles specified are to be raffled, and that there must be no substitution of other prizes or payment in cash. Certain cases have, however, come under notice in which advertisements have been placed on the tickets in which private firms offer to give to the winner a motor-car, suite of furniture, &c., for the prizes indicated on the tickets. To prevent any evasion of the Act a condition is now inserted in the license that no advertisements will be permitted on any part (back or front) of the tickets, or any part of the book of tickets.

DISTINGUISHED VISITORS.

During the year the Dominion was visited by the British Imperial Service Squadron, in command of Vice-Admiral Sir Frederick L. Field, K.C.B., C.M.G., detachments of the squadron visiting various This Department was privileged to carry out the arrangements relative to the entertainment ports. of the officers and men of the fleet, and its sincere thanks is due to other Government Departments, and to local bodies and other organizations, as well as the people of the Dominion for their wholehearted co-operation and assistance. The Admiral of the Fleet expressed appreciation of the hospitality extended throughout the Dominion on the occasion of the visit.

SOLDIERS' AND HISTORICAL GRAVES.

Veterans' and Historical Graves .--- Much progress was made in locating and recording graves of the Maori wars, and it is intended to permanently mark these as work on graves of the Great War is carried out in the various districts. Arrangements were completed for thorough renovation and beautification of the following cemeteries containing graves of early settlers and soldiers of the Maori wars: Onepoto (Lake Waikaremoana); old cemetery, Gisborne; Russell Churchyard; Taupo old military cemetery; Opepe (graves of the victims of the massacre); Ngongotaha (Bainbridge's grave); Opotiki (Kelly Street burial-ground); Tuakau; Mauku (burial-ground on Mr. Edkin's farm, con-taining graves of those who fell in Titi Farm engagement); Boulcott's Farm (monument under con-struction at corner of old Military Road, Lower Hutt); Waitara; Ohawe (Taranaki).

Great War Graves in New Zealand.—The total number of deaths of returned soldiers and those who died while undergoing training in New Zealand is 3,191, and of this number the graves of 2,022, whose deaths are considered to have been due to disabilities arising from war service, have been accepted as The definition of a war grave in New Zealand allows of the acceptance of the grave of any war graves. soldier who dies of a war disability, but in all other Dominions death from war disabilities must have taken place not later than August, 1921 (the official date of the termination of the war) before graves can be accepted.

Owing to the contractors for the supply of headstones being unable to obtain granite from the quarries at Coromandel, the output of completed headstones almost ceased for some months, and the number of graves to be permanently marked has therefore been much lower than was anticipated. Although headstones were not available in the numbers required, the work of providing the graves with concrete kerbing, &c., was continued, and excellent progress in this direction was made.

The number of headstones ordered during the year was 478, bringing the total since the work began to 1,121. The number of headstones erected during the year was 194, which brings the total to date to 612. Pending the carrying-out of permanent work, wooden crosses were placed on the 112 additional war graves accepted during the period.

The cemeteries in which permanent work, including the erection of headstones, was completed is as follows (the number of graves being shown in parenthesis): Auckland District—Waikaraka (2), O'Neill's Point (1), Purewa (2), Motuihi Island (1), Bombay (1), Waiuku (3), Kaikapakapa (1), Papakura (2), Rotoroa Island (1), Tuakau (1), St. Andrew's Churchyard (1). Hawke's Bay District—Taradale (4), Wairoa (6), Main Trunk district—Te Kuiti (4), Taumarunui (1). Wellington District— Martinborough (2), Taita (3), Trentham (2), Petone (3). Canterbury District—Sydenham (45), Bromley (25), Tuahiwi (5), Papanui (1), Kaiapoi (2), Brookside (2), Fairlie (1), West Oxford (1), Timaru (8), Geraldine (2), Waimate (8), Temuka (6), Hororata (1), Glenavy (1), Brookside Churchyard (1), Linwood (27), Methven (1), Ashburton (14), Springston (1). Westland District—Kumara (1).

In addition to the above, contracts were entered into and permanent work partly completed in eighty-six cemeteries containing 388 war graves.

War Graves Abroad.—The work of erecting headstones on war graves in the various theatres of the war, at ports of call and at bases, which has been entrusted to the Imperial War Graves Commission, has been completed in Egypt (475 graves in 8 cemeteries), Palestine (238 graves in 9 cemeteries), Gallipoli (405 graves in 22 cemeteries), Gibraltar (9 graves), Greece (2 graves), Arabia (1 grave), Malta (73 graves in 3 cemeteries), Mesopotamia (4 graves), South America (2 graves), Switzerland (3 graves), United Kingdom (368 graves in 17 cemeteries), France and Belgium (1,305 graves in 29 cemeteries): total, 2,885 graves in 95 cemeteries. Expenditure on this work for the year was approximately £28,300. The total completed since the work began is 4,001 graves in 149 cemeteries, these figures applying only to cemeteries in which New-Zealanders are buried. New Zealand's total expenditure on this work is approximately £121,000.

PUBLICITY.

The activities of this office have increased to a great extent in each of its branches. Probably the greatest development can be recorded in the preparation of cinematograph-film. To meet the incessant demands from every part of the Dominion it was found essential to obtain the services of an additional operator. Some 39,000 ft. of new negative was obtained, while since the fulfilment of the requirements of the British Empire Exhibition over 46,000 ft. of film has been despatched to London, partly for the use of the High Commissioner for lecture purposes and partly for the second session of the Exhibition. The standard of the film and the large quantity being received has been very favourably commented on by the High Commissioner. When the year closed arrangements were in hand for the building of 40,000 ft. of film for the use of the American Fleet, 30,000 ft. for the Dunedin Exhibition, and 10,000 ft. for showing throughout New Zealand. Short lengths of negative film of a pictorial nature have frequently been despatched to the Publicity Officer in London, and these have been disposed of at a remunerative figure to film exchanges.

Heavy demands were made on the photographic branch for the supply of whole-plate prints, enlargements, and lantern-slides. The visit of the New Zealand Football team to England was taken advantage of as an advertising medium, and an album of pictures was prepared for each member of the team. Albums were also prepared for the Samoan Faipules who visited this Dominion during the year, while several others were presented to distinguished visitors. Altogether 10,000 photographs, 700 enlargements, and 3,500 lantern-slides were prepared for publicity purposes, in addition to work done for other Departments. A large number of coloured panoramic enlargements were purchased for display in overseas hotels. The Department's already large collection of negatives was added to to the extent of 1,000 new photographs. The Department's Agents in Australia, Canada, United States of America, and Africa were authorized to have photographs framed for display in hotels, shipping, offices, &c., which form of publicity promises good results.

shipping, offices, &c., which form of publicity promises good results. In addition to the finalizing of the Wembley Exhibition requirements in the way of booklets and folders, two new publications were completed. The reopening of the Exhibition necessitated the reprinting of four tourist folders and four farming booklets, which delayed the issue of publications required by the office for other purposes. Every advantage was taken of the visit of the British Service Squadron to distribute large quantities of literature.

On the completion of the work caused by the Wembley Exhibition the office was able to devote its energies to the preparation of new booklets (of which several are now in hand), and the opening-up of new channels of distribution for its propaganda, and the mailing-list has now been increased to 600 persons, including Government Agents, shipping and railway companies, hotels, libraries, newspapers, &c., in England, Australia, Canada, America, South Africa, France, Belgium, Switzerland, China, Japan, India, Honolulu, Fiji, and Strait Settlements, to whom regular supplies of material are regularly sent. The inquiries from prospective immigrants numbered 540, and are steadily on the increase. In addition to the rapidly increasing volume of correspondence, the growing importance of the office is evident from the extensive number of interviews, of which many are by overseas journalists gleaning information for publication abroad. The activities of the Publicity Officer in London are evident from the number of articles appearing in a vast number of daily and weekly publications throughout England. These articles were supplemented by a number sent forward from New Zealand.

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During the year an advisory board, comprising the Publicity Officer, the General Manager of the Tourist Department, the Commercial Manager of the Railway Department, and the Secretary of the Department of Industries and Commerce, was set up to discuss overseas publicity matters in order to avoid overlapping of effort which may have arisen had the various Departments operated individually.

Publicity matters in the United Kingdom were greatly augmented during the year by a full-page advertisement appearing in the London Times and also in the Financial Times.

WAR FUNDS.

In furtherance of the policy which has been maintained since shortly after the conclusion of the war, four Patriotic Societies were closed by transfer of funds to the provincial centres; three were closed by disbursement of funds; and two funds, being Returned Soldiers' Club Building Funds, were brought within the provisions of the Act. It is hoped to make further progress in the carrying-out of this policy of amalgamation of the smaller funds with the provincial centres, which will eventually enable a uniform basis for the administration of relief and assistance to be formulated.

Excluding the funds held by the National War Funds Council, the sum of $\pounds 1,238,160$, as shown by the latest returns, is held by eighty-four societies operating under the provisions of the Act, as follows :—

						£	s.	α.
33	incorporated societies					947, 177	5	8
11	Red Cross organizations			• •		184,790	19	11
	Blind Soldiers' or Veterans' Homes	Fund				39,603	7	7
16	administering societies					5,472	1	8
	Memorial Funds					5,292	12	4
2	Navy League Funds					5,756	3	11
10	Returned Soldiers' Clubs and Build	ing Fund	ls		• •	47,896	-0	1
	Social Funds	0		• •	••	2,171	8	11
84					£1,	,238,160	- 0	1
						£	s.	d.
	National War Funds Council					113,065	14	9
	Funds with High Commissioner					-)		
				••		8,615	6	11

Although the funds held by the various incorporated societies and Red Cross organizations are relatively a large sum, it should be noted that a large proportion of the assets are represented by loans to soldiers, disabled soldiers' homes (Red Cross), farm property (Sheepowners' Fund), and other fixed assets. Through soldiers breaking down in health, having bad luck, or through their reduced ability, it will be easily understood that a proportion of the loans will eventually require to be written off.

Funds held by the Treasury

31,737 14 9

The National War Funds Council, although functioning by statutory power, desired to be incorporated and to have a common seal. Accordingly legislation was enacted by an amendment to the principal Act providing therefor, and more definite powers were given to enable the Council to accept and administer any gifts or bequest for purposes for which a war fund could be established under the Act. The amendment also provided for the extension of the powers of the Supreme Court, with a view to enabling the definition of new purposes for funds raised for objects which have been fulfilled, or have become incapable of fulfilment, or which for other reasons require definition. The legislation further provided that the patriotic funds in the hands of the High Commissioner in London should be definitely brought within the provisions of the principal Act, and provided for their transmission to the National War Funds Council upon request by that body. This has been preferred, and the High Commissioner has been asked to arrange for the transfer, less a sum of £500 which is to be retained by him as an imprest account for the relief of New Zealand ex-soldiers in the United Kingdom.

Funds raised for the establishment of returned soldiers' clubs were declared in 1918 to be war funds, but several such clubs were acquired without necessary approval under the Act. The trustees of these clubs have been advised of the position, and arrangements are in hand to bring the properties formally under the provisions of the Act.

During the year certain sums, raised for war-funds purposes, but which, through changes in trusteeship or for other reasons, had lain dormant for a considerable time, have been transferred to the provincial organization, or are awaiting decision as to disposal.

Many Imperial ex-soldiers have settled in New Zealand, and the National War Funds Council accepted the responsibility for the assistance granted to these man and their dependants. The United Services Fund, England, forwarded a sum of £3,000 through His Excellency the Governor-General for the relief of such cases.

The first occasions on which application to the Supreme Court under the 1918 Amendment Act for decision regarding the purposes of war funds became necessary occurred during the year. They were those of the Hawarden Agricultural and Pastoral Association's Belgian Relief Fund and the Hobson County Committee of the Auckland Provincial Red Cross Campaign.

The personnel of the administration of the Patriotic Societies has undergone very little change since their inception, and the desire to promote the welfare of the soldiers is evidenced by the keen interest which is still shown by those concerned. Close co-operation has been maintained with the National War Funds Council during the year, and the assistance and consideration given to the matters placed before it is much appreciated.

GOVERNMENT ASTRONOMER AND SEISMOLOGIST.

Astronomical Observations.—Observations of the meridian transits of the stars and of the sun have been made for the purpose of controlling the time service. During the year the sun was observed 171 times, and 236 observations were made of stars.

Astronomical Equipment.—A new transit micrometer for use with the Observatory No. 1 transit instrument was obtained from Messrs. Cooke, Troughton, and Simms, London, and fitted to the instrument. Improvements were also made in No. 2 transit instrument by fitting two setting-circles on the tube : this provides for the rapid reversal of the transit instrument and improves the accuracy of the observations. A machine for measuring photographs taken by the photographic telescopes has been lent to this Observatory by the Melbourne Observatory.

Time Service.—The time service has been maintained and regular signals have been sent out. When the wireless time service was started, part of the signals was sent from the Observatory and part by the operator at the wireless station. With the alteration of the astronomical day the opportunity was taken to send the whole of the time signals from the Observatory, including the transmission of the Morse signals. The total number of time signals sent from the Observatory was 1,588 : of these, 386 were sent by wireless telegraph, 919 were sent by special circuit to the Telegraph Office, 255 by the signal lights at the Observatory, and 28 by telephone. In addition, time signals were also given from the Observatory by switching off lights on the Harbour Board building at Auckland and by dropping the time-ball at Lyttelton twice every week.

Reception of Wireless Time Signals.—The wireless receiving-set at the Observatory consists of two stages of high-frequency amplification, one detector valve, and two stages of low-frequency amplification. With this set the following mean-time signals were received at the Observatory: From Honolulu, 271 signals; from Malabar, Java, 168; from Kavite, 72; from Bordeaux, 2. Scientific time signals were also received as follows: Bordeaux, 41; Saigon, 102; Honolulu, 213; Nauen, 11.

Sunspots.—Observations of sunspots are made on every available occasion, and the reports are published in the Monthly Notices of the New Zealand Astronomical Society. The number of observations made during the calendar year 1924 was 217, when sunspots were recorded on 146 days. Forty-nine separate groups of sunspots were observed.

Transit of Mercury.—A transit of the planet Mercury over the sun's disk took place on the 7th May, 1924, Greenwich mean time, and observations were made at the Observatory. The beginning of the transit was not observed, as the sun was not visible until 11h. 5m. From then until sunset at 16h. 49m. 33s. the sun was visible through passing clouds. At meridian transit the sky was clear and observations were then made. A report of the observations is published in the Monthly Notices of the Royal Astronomical Society, Vol. 84, p. 775, 1924.

Opposition of Mars.—The planet Mars was nearer the earth in August, 1924, than it had been for many years before or than it will be for many years to come, and every opportunity was used to keep the planet under careful observation during this period, both with the telescopes available in Wellington and with those at Wanganui.

Commencement of the Astromical Day.--The astronomical day has for many centuries begun at noon, and has been counted from 0 to 24 hours, while the civil mode of reckoning time is to begin at midnight. Some years ago proposals were made to alter the astronomical day and make it begin at midnight; the proposals were approved by a majority of astronomers, and in a letter from the Admiralty, dated 19th February, 1919, addressed to the Secretary, Royal Astronomical Society, London, the announcement was made that the change in the astronomical day would take place commencing on the 1st January, 1925. Accordingly it was necessary, on the 1st January, 1925, to put the Observatory mean-time clocks forward twelve hours, as all the time signals in New Zealand are sent out in accordance with Greenwich mean time.

International Astronomical Union.—By courtesy of the Central Astronomical Bureau arrangements have been made for the Observatory to receive telegraphic advice of all important astronomical discoveries. The telegrams are forwarded by the Bureau at Copenhagen to this Observatory through the Melbourne Observatory. The following discoveries were announced in this way: A comet of the eighth magnitude discovered by Finsler on the 19th September; a planet of 10.5 magnitude discovered by Baade on the 23rd October; a nebular object of magnitude 16.0 discovered by Wolf on 23rd December; a comet of magnitude 11.0 discovered by Schain on the 23rd March; a comet of magnitude 8.0 discovered by Reid on the 24th March. Prompt steps were taken to notify New Zealand astronomers of these discoveries, with the result that satisfactory observations were made and reported to this Observatory of the three comets. The planet discovered by Baade and the nebular object discovered by Wolf were not observed in New Zealand.

Astronomical Research.—The following astronomical equipment is available for astronomical research in the observatories belonging to the Astronomical Section of the Wellington Philosophical Society and to the Wellington City Corporation. The Astronomical Section's observatory contains a 5 in. equatorial telescope made by Sir H. Grubb. The telescope has attached to it a 4 in. Dallmeyer lens of 33 in. focus, to which is fitted a 4 in. objective prism. The camera takes quarter-plates. The City Corporation's telescope is a 9 in. photo-visual equatorial, and is well equipped with eye-pieces, eye-piece micrometer, camera attached to main telescope, a 5 in. guiding telescope, a $2\frac{1}{2}$ in. finding telescope, and an Evershead two-prism solar spectroscope.

Seismology.—The Milne and Milne-Shaw seismographs have been in continuous operation. The number of earthquakes recorded on the Milne machine was eighty-six, and on the Milne-Shaw machine,

which was started on the 8th February, 1924, seventy-eight earthquakes were recorded. Particulars of the numbers of earthquakes registered on both machines are given in the following table :-

	Date.								Milne 10grapi	Milne-Shaw 1. Seismograph.
1924 -	-January	••							15	••
	February					• •		• •	9	5
	March		· •	• •			• •		6	6
	April		• •			• •			14	15
	May				• •	• •			12	13
	June		• •						4	4
	July								7	8
	August								5	7
	September				• ·				4	6
	October								$\overline{2}$	3
	November								2	5
	$\mathbf{December}$	• •	••		• •	• •		••	$\overline{6}$	6
									86	$\overline{78}$

Another Milne-Shaw horizontal component seismograph has been ordered, and will be used to record the east-west component; inquiries are being made for a suitable vertical seismograph.

The twin-boom Milne seismograph at Fiji has continued in action, and the records are posted regularly to this Observatory, where they are of value in supplementing the records obtained at Wellington.

Officers of the Post and Telegraph Department and private observers have given valuable assistance in the reporting of earthquakes felt by them in New Zealand.

The total number of earthquake shocks felt locally for the year 1924 was seventy; sixty of these were felt in the North Island and ten in the South Island.

The maximum intensity of the shocks felt in 1924 was 7 on the Rossi-Forel scale. The maximum intensity of shocks felt in 1921 and 1922 was 8, and the maximum intensity of the shocks for 1923 was 6 on the same scale.

Thirty-six earthquake reports were received from officers of the Post and Telegraph Department, thirteen reports from other observers, and seventy-three reports were obtained from the newspapers.

An article on earthquakes in New Zealand was prepared for and published in the New Zealand Maps have been prepared showing in considerable detail the distribution and intensity Year-book. of the earthquake shocks felt in New Zealand ; these are now being made ready for publication.

Photographic copies of the records of the earthquake of the 11th November, 1922, were sent to Professor Bailey Willis, Stanford University, California, and of the earthquake of the 26th June, 1924, to Mr. James B. Macelwane, University of California, as those gentlemen were making special investigations into the earthquakes.

The work in seismology has increased very considerably since the new Milne-Shaw seismograph has been running; and, in addition to the technical reports on the earthquakes, contact photographic prints are made of all important records, and are sent regularly to Professor H. H. Turner, President of the Seismology Section of the International Geodetic and Geophysical Union.

Publications.-The following Observatory publications have been issued during the year :---

Bulletin No. 54—" The Origin of Planets," by A. C. Gifford, M.A., F.R.A.S. Bulletin No. 55—" Report of Government Astronomer and Seismologist, 1923–24."

Bulletin No. 55—" Report of Government Astronomer and Seismologist, 1923-24." Bulletin No. 56—" The Mountains of the Moon," by A. C. Gifford, M.A., F.R.A.S. Bulletin E. 3—" Earthquake Reports, New Zealand," for January, February, and March, 1924. Bulletin E. 4—" Earthquake Reports, New Zealand," for the year 1921.

As in past years, the Observatory is again indebted to individuals and to institutions for valuable gifts of publications. Some of these are presented in exchange for the bulletins.

ALEXANDER TURNBULL LIBRARY.

Cataloguing.-Twenty-four thousand volumes have now been classified, numbered, and placed on the shelves. The whole of these volumes deal with Pacific literature, most of those dealt with during the year being pamphlets of miscellaneous dates, many dating back to the earliest days of settlement in Australia and New Zealand. About a thousand volumes were sent for binding.

Additions.-Nearly six hundred books have been added during the year (including about two hundred donations), among them one Chinese, two Danish, sevontcen Dutch, two French, three German, six Greek, twelve Latin, three Spanish, and thirteen Pacific Island dialects. The additions were of a similar nature to those of previous years.

Donations.—The following are among the donations of the year: M. Crompton Smith, papers (manuscript and printed), pamphlets, Maori newspapers, &c., belonging to his late father, S. Percy Smith; Mrs. Mason, up-to-date medical library (about one hundred and thirty volumes) belonging to her late husband, Dr. Mason; Lady Leigh-Wood, Wedgewood medallion of Captain Cook; W. F. Barraud, forty-six original etchings, chiefly of New Zealand subjects; Mrs. B. Trapp, Carterton, photo copies of four drawings of Wellington by her great-grandfather, W. Mein-Smith, first Chief Surveyor of Wellington; H. Hamilton, manuscript letters of Darwin, Tennyson, Huxley, Owen, and others, and many original drawings by J. Buchanan of New Zealand plants. &c.; F. P. Wilson, large watercolour drawing of Lyttelton in 1861; Maggs Bros., London, six morocco-bound volumes of their

illustrated catalogues; Mrs. Blyth, folio edition of J. Dryden's "Fables"; Mrs. Porter, three manuscript notebooks kept by the late Colonel Porter during the South African War, and Robley's plan of Gate Pa; G. Mair, twenty-two notebooks, diaries, and miscellaneous papers of the late Captain G. Mair; Rev. F. R. Isom, twelve volumes in New Hebrides dialects; Mr. Scott, nine volumes of works by Cicero; Mrs. Bradney Williams, four volumes of the *Poetry Review*, and odd volumes of the *Little Review*, the *Musical Times*, the *British Music Bulletin*, &c.; H. M. Prins, odd philatelic publications; E. G. Pilcher, Coghlan's "Wealth and Progress of New South Wales," New South Wales Railway Reports, and miscellaneous publications; anonymous, eleven numbers of the rare Maori newspaper *Te Paki o Matariki*; W. F. Gordon, manuscript and notes of events during 1868, &c., and two large sheets of photographs of veterans and other early settlers.

Besides the above, donations of various volumes and pamphlets have been made by J. C. Neill; Burns, Philp, and Co.; A. P. Harper; J. McLean; Hon. W. H. Triggs; New Zealand University; Messrs. Lord and Scott, R. G. Collins; Dr. C. Chilton, and Mr. B. C. Aston; and the thanks of the Government are due to all these donors.

The late S. Percy Smith's papers: These included, among many other things, the manuscript report and field-book of Mr. Smith on the disastrous Tarawera eruption of 1886, together with about sixty photographs taken of the country immediately afterwards; also a copy of Maunsell's "New Zealand Grammar" of 1842, interleaved and very fully annotated, and with inserted songs and invocations in Maori and English, printed and in manuscript; also letters from many eminent scientists.

The Wedgewood medallion presented by Lady Leigh-Wood : This is a fine medallion, $10\frac{1}{4}$ in. by $7\frac{1}{4}$ in., in black oval frame and under convex glass ; and Lady Wood wrote saying that whilst the medallion was willed to her by her brother, Robert Turnbull, she thought its proper place was the Alexander Turnbull Library, and sent it out to New Zealand accordingly. It adds to the number of valuable Cook relics already in the library. Notebooks and diaries by G. Mair : These are apart from a mass of manuscripts and printed

Notebooks and diaries by G. Mair: These are apart from a mass of manuscripts and printed papers for the purchase of which negotiations were entered into during the previous year, as mentioned in last annual report. These are documents which G. Mair would not sell, but presented them to the library. Among them were many Maori letters relating to the eruption of Tarawera; and it was strange that these should come to hand very soon after the papers on the same subject by the late S. Percy Smith.

Etchings by W. F. Barraud : Mr. Barraud presented forty-six original etchings, which it is hoped will form a nucleus for a collection of work by New Zealand artists. There are in the library nearly two hundred examples of the work of Australian artists, including Ashton, Lindsay, Shirlow, Hopkins, Mather, Robertson, and others; besides over six hundred by European artists—Rembrandt, Claude Lorraine, Poussin, Cuyp, Duerer, Van Dyck, and others—these latter being part of the Bishop Monrad collection formerly in the Parliamentary Library.

Copies have been allowed to be taken of valuable letters : those of one writer, dating from 1791 to 1838, were written from Australia, Norfolk Island, East Indies, &c., one letter giving an account of the taking of Cape Town from the Dutch ; those of another writer are dated from 1843 to 1848, and contain a great deal of matter regarding early colonial life. These run from four hundred to five hundred typed foolscap pages. Copy was also made of notes by Lieutenant McRae on his visit to New Zealand on the "Dromedary" in 1819. Other documents and books have also been placed on deposit. Acquisitions by Purchase.—It was noted last year that negotiations were in progress for the acquisition of the papers of the late Captain Mair. This matter was completed during the year, and a

Acquisitions by Purchase.—It was noted last year that negotiations were in progress for the acquisition of the papers of the late Captain Mair. This matter was completed during the year, and a large amount of manuscript and printed matter secured. The former includes a long list of Maori proverbs, many not published; the start of a Maori dictionary; Maori notes and letters regarding the moa and its extinction, forming the basis of an unpublished essay on the subject by Captain Mair; the essay of the moa referred to; notes on Maori musical instruments; words of songs, tales, and invocations; account-books relating to Maori wars, &c. Included among the printed matter were a good many Maori periodicals and newspapers, some of great rarity. The purchase also included the fine oil portrait by Mrs. Sperry of Sir W. Fitzherbert, now hanging in the Dominion Museum. Sixty-three coloured drawings of New Zealand flowers by Miss Harris were acquired.

Exhibits.—During the year there were deposited, among other things, the Frits Holm medal, commemorating the scientific and other work of His Excellency Frits Holm, who with great difficulty secured a replica of the Nestorian Tablet and transported it from China; the large silk-bound album of Japanese signatures, numbering some thousands, collected by the "League for collecting Signatures as a Mark of Gratitude" in connection with the Japanese earthquake.

Correspondence.—More than seven hundred letters were received and answered during the year. These letters are from correspondents wishing to know the value of books (New Zealand and otherwise), pictures, prints; from students and others, regarding historical data; from book and book-plate collectors—and through the latter the collection of book-plates is being augmented. Correspondents also want Maori names for children, houses, and roads.

Historical Collection.—Some publications and manuscripts are received by the library for this collection, which was formerly lodged in the Dominion Museum. As the whole Alexander Turnbull collection is historical, however, at any rate as regards Pacific material, the publications and manuscripts referred to are incorporated in the collection when they refer to the Pacific : such are the photographed copy of instructions of Lord John Russell, dated 9th December, 1840, to the first Governor of New Zealand; a private letter from Sir Robert McClure, dated 10th April, 1853, dealing with his voyage to the Arctic Ocean; presentation copies of books, printed or in manuscript, dealing with New Zealand. Apart from these are the histories of the part taken in the Great War by the various British regiments

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such as the eight fine volumes of Ireland's Memorial Records, 1914–18; "Work of the Royal Engineers in the European War"; "History of the Norfolk Regiment"; &c. These, numbering over a hundred volumes, are kept separately for the time, to be incorporated later on, together with several hundreds of volumes dealing with the Great War, in the British History Section. *Incunabula*.— The great list of the world's incunabula, for which the New Zealand list was

Incunabula. — The great list of the world's incunabula, for which the New Zealand list was prepared here, is now ready for publication, the first volume, one of twelve, having been announced. They will be published, volume by volume, at intervals.

Readers and Students.—Fifty-two new permits were issued during the year. In addition to these, permits were issued to a hundred and fifty students at Kelburn Training College, and the results of their reading in the library were seen in an exhibition held afterwards in the college. There were essays and short treatises on history, ethnology, and natural history; also maps illustrating early voyages to New Zealand, and showing in graphic form the vegetable and mineral products, &c.; also exhibits of books, pictures, artifacts, clothing, collections of insects, shells, &c. This exhibition showed of what practical use the library can be. Several classes from the primary and secondary schools again visited the library.

Visitors.—There were seven hundred visitors during the year, and it is gratifying to hear from many of those coming from abroad that the library is well known outside New Zealand.

CENSUS AND STATISTICS OFFICE.

Steady progress in all branches of work has been made during the year, and extensions of activities have been made in several directions. Two entirely new branches of statistical inquiry, so far as New Zealand is concerned, have been inaugurated.

Land-tax Statistics.—The system of annual statistics of incomes and income-tax, instituted in 1923, has proved eminently satisfactory, and valuable information is contained in the statistics now published. Equally valuable material is contained in the annual returns of land supplied to the Commissioner of Taxes for the purpose of the land-tax assessment, and arrangements were made during the year whereby annual statistics will be compiled from the land-tax returns on a system similar to that used for the income statistics. The compilation of the statistics for the first year is now under way, the mechanical plant of the office being utilized. A card is punched in the Tax Department by members of the staff of this office, and the tabulation from the cards, which contain only the statistical items, is done in the Census and Statistics Office.

Statistics of Industrial Accidents.—The other new branch of statistical inquiry referred to above covers the collection and compilation of statistics of industrial accidents. This is a subject which has come into considerable prominence during the last two or three years, principally through the activities of the International Labour Office of the League of Nations. Fairly valuable data was found to exist in the reports of accidents filled in by Inspectors of Factories under section 41 of the Factories Act, 1921–22, and, with a little necessary modification in the form, these reports now give sufficient detail to enable statistics to be compiled for New Zealand in conformity with the scheme drawn up by the International Labour Office. The work is being done by the Census and Statistics Office in co-operation with the Labour Department.

Life Tables.—From the results of the last three quinquennial censuses, in combination with the records of death, life tables are now being prepared by this Office under the supervision of the actuaries of the Government Life Insurance Department. A special difficulty has been presented by the temporary and permanent loss of men on account of overseas service during the war. To enable the requisite allowance to be made for this factor, cards showing dates of birth, of embarkation and of debarkation, have had to be written in respect of a hundred thousand soldiers who left our shores, and then brought together and summarized to show the effect on the population at risk in New Zealand.

Census.—The tabulation of the 1921 census results is now nearing completion, only three of the fifteen Parts—viz., Part X, Fertility; Part XIII, Life Insurance; and Part XIV, Households—not yet having been published. These, and the General Report on the whole of the census results, are in the press, and their publication will not long be delayed.

Another census is due to be taken early next year, and preliminary work in connection with this is already under way.

Insurance Statistics.—The immense amount of detail work involved in the compilation of statistics of fire risks is being handled smoothly and expeditiously as the returns come in from month to month. The tabulating plant is invaluable for work of this nature.

The compilation of the annual statistical tables of life and accident insurance, formerly carried out by the Government Life Insurance Department, has now been transferred to this office. *Statistics of Venereal Disease*.—For some years special statistics of venereal disease among

Statistics of Venereal Disease.—For some years special statistics of venereal disease among in-patients of public hospitals have been compiled, and have furnished very useful information as to the prevalence of this disease. It has now been decided to extend the scope of the statistics to cover out-patients also, and the necessary preliminary steps towards this end have been taken in conjunction with the Health Department.

Sports Statistics.—The results obtained from the collection of these statistics last year proved of considerable interest generally. It was found that owing to the excellent organization obtaining in most sports very little work is involved in the collection of the statistics, and it has therefore been decided to make the collection annually, but at separate appropriate times, for the summer and winter sports.

Adelaide Statistical Conference.—A conference of the Commonwealth and State Statisticians of Australia was convened for August, 1924, with a view to co-ordinating the statistics of the various States of the Commonwealth. In keeping with the policy of co-operation in statistical matters between Australia and New Zealand, an invitation for this country to be represented was extended by the Federal Government, and the Government Statistician attended on behalf of the Dominion, and a full report of the Conference was furnished on his return.

Publications.—Notwithstanding an increase of over one hundred pages by comparison with the previous issue, no difficulty was experienced in again having the Year-book available before Christmas. For the third year in succession the book has appeared before the standard time set in 1922—viz., January.

The Municipal Handbook reappeared during the year after a lapse of four years, the issue which should have been published in 1922 having had to be omitted for financial reasons. The 1924 publication, 500 additional copies of which were printed off for distribution at the British Empire Exhibition, shows a distinct improvement in matter and general get-up on its predecessors.

Dominion Museum.

Board of Science and Art.—Meetings of the Board were held on the 3rd October, 1924, and 8th January, 1925, and various aspects of the Museum's work were discussed, including the desirability of more regular expeditions for collecting purposes, the necessity for dry fireproof accommodation for the herbarium, and the need for the appointment of a taxidermist. Matters of a more general nature dealt with included the adoption of a comprehensive report by the Meteorology Committee on the meteorological needs of the Dominion, copies of which were supplied to the Ministers of Marine and of Internal Affairs, and the passing of resolutions advocating a hydrographic survey of the New Zealand coasts with the aid of sonic depth-finders, and the appointment of a research officer in vulcanology for a period of two years.

Maori Collection.—During the year as much as possible of the Maori collection was removed to a floor in the Dominion Farmers' Institute building, Featherston Street, which had been fitted as a temporary museum, and was opened to public exhibition on the 23rd June, 1924. A better classification of exhibits is now possible, and public interest in the collection and exhibition is growing as it becomes better known.

Collecting Expeditions.—In accordance with the resolution of the Board of Science and Art, a more vigorous policy of collecting has been carried out during the past year. During the winter Mr. H. Cox was engaged to collect Tertiary fossils from localities in south Canterbury and north Otago in order to enable exchanges with the Paris Museum to be made. In December, 1924, Messrs. Oliver and Hamilton explored the Poor Knights and Hen Islands, in company with Mr. W. M. Frazer, Whangarei Harbour Engineer, who kindly provided a launch, and made extensive collections of plants, fishes, mollusca, and other specimens. Subsequently Mr. Hamilton visited Coromandel and secured specimens of the New Zealand frog, including live specimens for liberation on Kapiti Island. Mr. Phillipps visited Mahia Peninsula in December and secured some Maori specimens, and in February spent some time in the Bay of Islands district collecting fish and making ethnological investigations. In February Miss M. K. Mestayer spent a week at Paraparaumu collecting mollusca and other marine organisms in the neighbourhood. In February also Dr. Thomson made extensive collections of Tertiary fossils in South Canterbury, Oamaru, and Clifden (Southland).

Herbarium.—Additions to the herbarium during the past year include collections from the Poor Knights and Hen Islands. From the former islands 120 species were collected. The number previously recorded for the group was sixty. A small collection of plants was also received from Mr. P. G. Morgan.

Ornithological Collections.—Several hundred New Zealand and foreign bird-skins were added to the collections by purchase from the Youill Estate.

Fish Collections.—A considerable amount of systematic classification has been carried out during the year, and twelve papers have been published. Six new species have been added to the collections and described. Twenty-four other species have been received and added to the large reference collection.

Conchology.—During the year the New Zealand collections have been rearranged, and four more show-cases set out. The arrangement of the foreign mollusca is now being taken in hand, and a series is being placed on exhibition in the gallery. The following are the principal accessions during the last year: Turrids from various dredgings, presented by Miss M. K. Mestayer, and recent species from Poor Knights and Hen Islands; also the following fossils: 210 species from the Eocene of France, by exchanges from Paris Museum; tertiary mollusca from Castlecliff, Wanganui, collected by Dr. Thomson; from Kakahu, White Rock River, Blue Cliffs, Waihao, Mount Harris, Duntroon, Otiake, Pukenui, Target Gully, Kakanui, and Clifden, collected by Mr. Cox and Dr. Thomson; others from various localities, presented by the Geological Survey Branch.

Entomology.—For accessions in all orders the Museum is indebted to Colonel R. W. Tate, who during the past season collected over five hundred specimens. Several of these are the subject of a short paper in the *Journal of Science and Technology*. Other accessions include Coleoptera from G. V. Hudson; Lepidoptera, Hymenoptera, Neuroptera, Diptera, and Orthoptera, from Messrs. R. Grimmett, T. R. Harris, and A. V. Wilson. Messrs. H. A. Maunsell and W. R. Wranch presented Lepidoptera from Australia and Singapore.

Ethnology.—Accessions to the Maori collections are : Foot-rest for *ko*, dug up in swamp; Ohaeawai, presented by Louis Te Hara; *kaheru*, presented by Mr. Brandon, Paraparaumu; collection of artifacts of southern Maoris, acquired by purchase; cast of pendant of unusual design, presented by G. Graham (per Mr. Elsdon Best); stern-post of Maori war-canoe, presented by Mr. Ormond, Mahia Peninsula. In foreign ethnology the principal accessions have been a collection of a hundred Egyptian antiquities, presented by the Egypt Exploration Society, and a collection of West African objects, acquired by purchase.

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Library.—The botanical and zoological sections of the library have been substantially increased by the addition of a selection of the works purchased from the library of the late Mr. T. F. Cheeseman. In addition the usual exchanges for Museum publications have come to hand.

Publications.—The following works have been published during the year: Monograph No. 7, "A Bibliography of Printed Maori to 1900," by Herbert W. Williams; Bulletin No. 10, "Maori Religion and Mythology, Part I," by Mr. E. Best.

A considerable part of the time of Mr. Oliver, Museum Assistant, has been devoted to the editing and proof-reading of the late Mr. Cheesemen's Flora. Practically the whole of the work is now in type, and the compiling of the index is being kept apace with the printing of the sheets.

Owing to the funds for printing provided by the Board of Maori Ethnological Research, publication of several museum bulletins written by Mr. Best has now become possible.

REGISTRAR-GENERAL.

Registration of Europeans.-Births, 29,353; deaths, 10,835; marriages solemnized, 10,317, of which 2,036 were solemnized by Registrars.

Registration of Maoris.—Births, 1,206; deaths, 763; marriages, 194.

Dentist's Register.—Number on register, 802. There were 47 additions to and 10 removals from the register during the year.

Officiating Ministers.—On the 31st December last there were 1,840 ministers on the list of officiating ministers under the Marriage Act having authority to solemnize marriages in New Zealand, as follows: Church of the Province of New Zealand, commonly called the Church of England, 463; Presbyterian Church of New Zealand, 394; Roman Catholic Church, 296; Methodist Church of New Zealand, 261; Salvation Army, 164; Congregational Independents, 31; Baptists, 65; Church of Christ, 32; other denominations, 134.

Revenue.--The revenue received was in excess of the expenditure.

DOMINION ANALYST AND CHIEF INSPECTOR OF EXPLOSIVES.

The number of samples submitted by various Departments for examination in Wellington was as follows: Customs, 259; Defence, 19; Explosives Branch, 19; Police, 25; Mines, Head Office, 89; Mines, Geological Survey, 98; Mines, Engineers and Inspectors, 68; Prospectors, 381; Post and Telegraph, 223; Public Health, Auckland, 97; Public Health, Christchurch, 172; Public Health, Dunedin, 40; Public Health, Wellington (including Napier and Wanganui districts), 2,545; Plunket Nurse, 219; Public Works, 85; Railways, 9; State Forest, 14; Stores Control, 10; other Departments, 40; public bodies, 56; research and miscellaneous, 80: total, 4,548. *Police.*—The Superintendent of Police submitted several exhibits relating to cases of suspected

Police.—The Superintendent of Police submitted several exhibits relating to cases of suspected poisoning, in two of which strychnine was found, and in another case caustic soda. Other samples had reference to an attempt to defraud a dairy company by improper sampling of cream, and to the sale of cider containing 14 per cent. of proof spirit as a non-alcoholic beverage.

Mines.—The work undertaken for the Mines Department comprised the analyses of type rocks and minerals for the Geological Survey Branch, which are published in the Geological Reports on the various localities concerned; of samples from reputed mineral finds, for the Head Office; of coal and rock dusts, and mine-air, for the Inspectors; and of specimens submitted by prospectors and others. It may not be generally known that any person finding a mineral specimen may have it examined free of charge, provided that the exact locality is given, thus enabling a correct mineral record to be kept.

Health.—A great variety of foodstuffs was forwarded by Inspectors under the Sale of Food and Drugs Act. The list comprises—Aerated water, arrowroot, bacon, beer, blanc-mange powder, bread, butter, castor-oil, chocolates, citric and tartaric acids, cocoa, coffee and chicory, cordial (artificial), cream, cream-mould, cream of tartar, curry-powder; drainage, &c., Rotorua; dyes for foodstuffs; egg-pulp, Epsom salt tablets, ether, flour, flour-improver, fruit (lemons, &c.), Fruitella table dainty, fruit-essence, fruit laxatives, gellatine, gin pills, goitre cure, hop and ginger beer, ice-cream and ices, icing-sugar, incrustation on milk-bottle, infants' and invalids' food, jam, jelly-crystals, lard, lemon and lime squash, lemonade crystals, lime-juice, local anaesthetic, Lucca oil, malt-extract, maraschino cherries, medicines, milk, Morning Salt, oatmeal, pepper, pineapple-squash, preserved fruits, quinine (tincture of), rag flock, raspberry-crush, raspberry-crystals, rice, rum, salt, sago, sausages, silds in oil, soda-water, sugar, sweets, syrup of figs, tanning preparations, tea, tooth-powder, vanilla-essence, vinegar, water, white-lead, Yadil, zinc-oxide.

The examination of beer for the presence of arsenic, mentioned in the previous year's report, was continued, but only one sample contained traces of the metal, and the amount was considerably less than the limit imposed by the regulations.

Butter was again frequently examined, and in three samples only was there a large excess of water. In three others the amount found was slightly over the standard of 16 per cent.

Flour was obtained from the principal mills in the Dominion and tested for artificial bleaching agents, but in no case were any detected. Some attention was also given to so-called "flour-improvers."

Examination of samples of hop-beer and ginger-beer from all parts of New Zealand showed that it was a common practice, amounting almost to a trade custom, to add saceharin to such drinks. The practice has received a salutary check.

A considerable amount of work was done on genuine and artificial extracts of vanilla. The analytical differences were quite marked, and manufacturers of the genuine extract need not fear unfair competition from artificial preparations.

The use of artificial colours in foodstuffs appears to be under better control than formerly, and labelling regulations are complied with to a much greater extent.

Milks.—The number of samples taken under the Sale of Food and Drugs Act was 2,230. Of these 1,740 came from Wellington City and suburbs, and almost all the remainder from the chief towns of Taranaki, Hawke's Bay, Wellington, and Nelson.

Wellington City: The City Inspector was responsible for over 80 per cent. of the samples taken in and around Wellington. The laboratory results show the supply to be almost free from adulteration in the ordinary sense. Of the 1,740 samples analysed, only eight were seriously deficient in fat, and eight watered. In these respects the high standard of the previous year was maintained. The conditions as regards dirt, and staleness arising from insufficient cooling after milking, or prolonged keeping prior to sale, were again not so satisfactory. There were six prosecutions for such defects, and a large proportion of the thirty-eight warnings issued were due also to one or other of these causes.

To facilitate testing of milk for staleness the Inspector has now been provided with an ice-chest in which to place the samples immediately after collection.

The use of preservatives in milk, which was very prevalent some years ago, is seldom practised now. Only one sample during the whole year contained preservative, in this case boric acid.

Country Districts : The milk-samples taken in the country districts also indicated that, while deliberate adulteration is not general, more cleanly conditions are desirable in many supplies. The results for these districts are summarized in the following table :---

Locality.		Samples received.	Seriously skimmed.	Watered.	Slightly below Standard.	Warned for Dirt.
Blenheim*		23	· · · · · · ·		1	1
Carterton .		4				
Dannevirke		35	· · ·	1		
Eltham		13			1	1
Featherston		$\tilde{2}$	i .			
Feilding		$\overline{5}$				••
Foxton		$\overset{\circ}{2}$		1	1	••
Gisborne		$5\overline{4}$	1		$\frac{1}{2}$	1
Greytown		1				
Hastings		37		1	1	$\frac{1}{2}$
Hawera		51		1		3
Levin		1	••	-		
Masterton		12^{-1}	$\frac{1}{2}$	••		••
Napier	••	62			$\frac{1}{2}$	1
Nelson	••	53	••	$\frac{1}{2}$	1	8
New Plymouth	•••	55		1	3	$\frac{1}{2}$
Palmerston North	•••	4	_	_		2
Dalaiatara	•••	3	••		••	••
Datas	•••	1	1	_	••	••
Distant	•••	9		••	••	
hannen	••	$\overset{o}{2}$	••	••	••	0
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Totals		486	6	9	13	24
Totals, 1923		562	12	7	1	4

* One sample contained boric acid.

Plunket Society: During the year 217 analyses of human and humanized milks were made for Plunket nurses.

Post and Telegraph.—The Engineering Branch of this department forwarded samples of various supplies for examination for purity. Among them were beeswax, faulty cable, French chalk, galvanized fittings, paraffin wax, petroleum jelly, shellac, solder, Stockholm tar, sulphuric acid.

Public Works.—The laboratory is now equipped with an almost complete set of apparatus for testing bitumen, and numerous samples were examined for the Main Highways Board, and for some local bodies. A thorough test was made of the galvanized coating on several brands of iron for the Engineering staff. The conditions of the Rotorua sewage system were carefully examined with the object of recommending a suitable jointing-material for the pipes to replace cement, which is subject to attack by acid-fumes.

Stores Control.—Numerous samples of cloth, fuel oil, motor-spirit, lubricants, soap, &c., submitted with tender or supplied on contract, were forwarded by the Stores Control Board, and the Stores Branch. Post and Telegraph Department, to determine compliance or otherwise with the Board's specifications,

Other Departments.—The samples analysed for the Railway Department were principally paints, and for the State Forest Service creosote and wood-distillation products. Copra from Samoa was also examined for the Department of External Affairs.

Research.—Apart from minor investigations undertaken for various Departments, research during the year was confined to preliminary work on the briquetting of slack from brown coal. The experimental press purchased by the Mines Department and erected at the Laboratory required several minor alterations, but is proving satisfactory for the work.

Auckland Branch.

To meet with an increasing demand for analytical work in Auckland, a branch laboratory was established early in the year, under the charge of Mr. K. M. Griffin, M.Sc., A.I.C. The number of samples analysed was—Health Department, 1,024; Police, 29; Customs, 7; Public Works, 1: total, 1,061.

Explosives Branch.

Importation of Explosives.—Licenses were issued for the importation of the following explosives : Gelignite, 932,200 lb.; gelatine-dynamite, 40,000 lb.; blasting-gelatine, 47,500 lb.; A2 Monobel, 242,500 lb.; Samsonite No. 3, 125,550 lb.; blasting-powder, 179,000 lb.; sporting-powder, 27,611 lb.; pellets, 126,250 lb.; detonators, 1,850,000 lb.; E.D. fuses, 635,000 lb.; fireworks (packages) 2,064 Licenses.—The number of licenses issued for the year is as follows: Conveyance, 287; storage,

339; sale, 667.

Government Magazines.—Government magazines are now available at Wellington, Westport, Greymouth, Dunedin, and Invercargill. The arrangements under which the Department takes over explosives at the ship's side and arranges delivery to the consumer as required are now complete at all Government magazines. This extension of the magazine services has resulted in a considerable reduction in cost to the trade.

Dangerous Goods.—Local Authority Administration: The Explosive and Dangerous Goods Amendment Act, 1920, which controls the storage of dangerous goods (petrol, kerosene, calcium carbide, &c.) is administered in most boroughs and town districts by the local authority under the supervision of the Department. Inspections made during the year showed that the local authority administration is in most cases very satisfactory, and in only a few instances was it necessary to call the attention of the local authority concerned to unsatisfactory conditions. Departmental Administration: The Act is administered by the Department in a number of smaller

Departmental Administration : The Act is administered by the Department in a number of smaller boroughs and town districts and in county areas. Greater attention has been given to this work during the year, and 906 licenses were issued, as compared with 563 during the previous year.

Inspection: Most of the licensed magazines and registered premises have been inspected during the year. Shipment of explosives arriving in New Zealand have been examined and tested for stability. Occasionally tests have been made on explosives stored in Government and private magazines, and tests have been also carried out on samples of cordite for the Defence Department and the Admiralty. Most of the boroughs and town districts where the Act is administered by the local authority have been inspected during the year. The use of motor-cars by the Inspectors has enabled them to cover much more ground than in previous years.

Cinematograph-film: Cinematograph-film was declared "dangerous goods" by Order in Council under the Act, and regulations have been prepared covering the storage and use of film both in the film exchanges and cinematograph-theatres. Several conferences have been held with the trade regarding the proposed regulations, and it is intended to submit the proposals to all theatre-proprietors before they are finally gazetted. It is hoped to bring the regulations into force as from the 30th September, 1925.

CONCLUSION.

Various other matters have received attention during the year, the activities of the Department covering a very wide range of subjects.

I have pleasure in again acknowledging the zeal displayed by my officers and the loyal co-operation of the heads of sub-departments and sectional officers, all of whom have assisted in the smooth running of the Department; also in expressing my appreciation of the valuable and willing assistance afforded by other Departments.

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