

1919.
NEW ZEALAND.

DEPARTMENT OF INTERNAL AFFAIRS

(ANNUAL REPORT OF THE) FOR THE YEAR ENDED 31ST MARCH, 1919.

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

SIR,—

Department of Internal Affairs, Wellington, 5th September, 1919.

I have the honour to submit herewith the annual report of the Department for the Year ended 31st March, 1919.

I have, &c.,

J. HISLOP, Under-Secretary.

The Hon. J. B. Hine, Minister of Internal Affairs, Wellington.

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REPORT.

I. THE WORK OF THE YEAR

1. WORK ARISING OUT OF THE WAR.

A HEAVY volume of correspondence with the Government Statistician and the Defence Department respecting persons drawn in ballots has been dealt with.

The Military Service Act, 1916.—The year was almost equally divided between the drawing of ballots and the winding-up of the Military Service Branch of the Government Statistician's Office consequent upon the signing of the Armistice. This latter work was duly completed. The records are kept available for reference as required.

A number of applications by Reservists under section 42 of the Act for permission to change their names were received and dealt with.

Permits and Passports.—During the first half of the year the issue of permits and passports remained normal, the number of passports issued being 238. With the signing of the Armistice, however, and the consequent removal of the various restrictions upon travel (particularly those prohibiting the passage of women and children through the danger-zone), there was a very considerable increase in the number of applications for passports, and 1,108 were issued during the period 1st October, 1918, to 31st March, 1919.

There is at the present time no indication of relaxation on the part of the various countries of their requirements in regard to travellers; in fact, the contrary appears to be the case, and passports are required for travel to all countries with the exception of British possessions in the Pacific, where, by arrangement, a permit to leave New Zealand is accepted as sufficient.

As there still appears to be some misconception in regard to passports and permits, it may be explained that a passport, being merely a document establishing the nationality and identity of the holder, does not confer the right to leave New Zealand, it being necessary to obtain a special permit for that purpose as provided by War Regulations.

The issue of passports must be continued as long as they are demanded by other countries.

Special vigilance is being exercised by the Department to see that those desirous of leaving the Dominion have fulfilled their obligations in regard to military service and maintenance of dependants, and cases have not been uncommon where it has been found necessary to prevent from leaving the Dominion persons endeavouring to evade such obligations.

Advice having been received from the High Commissioner in London that hotel accommodation in England was taxed to its utmost limits, a pamphlet was prepared and is being issued to intending passengers warning them of the position.

Registration of Aliens Act, 1917.—The Government Statistician's Report gives the registration figures as at the 1st July, 1919.

The executive machinery is now working smoothly, and aliens in the Dominion have come to the stage of regarding the necessity for registration as a matter of course.

Changes of Names of Persons other than Reservists.—A large number of applications for permission to change names were received and, where the reasons given and the result of inquiries were satisfactory, granted.

War Funds Act, 1915.—The ending of the war, while lightening the work of the War Funds Office in certain directions, has increased it in others. In particular the satisfactory disposal of no less a sum than £457,125, being moneys held by societies on the cessation of hostilities, which can no longer be expended on the objects for which they were raised, is causing no little difficulty. The report of the Officer in Charge shows that voluntary subscriptions received by societies during the year amounted to £279,298 15s. 7d. Tables setting out the transactions of 599 societies, and a summary of the total effort of societies operating since the outbreak of war, will, as last year, be printed as a separate paper.

Sub-Departments.—The effect of the closing stages of the war on these branches of the Department is shown in the reports of the officers in charge printed in the Appendix hereto.

New Zealand Gazette.—51 *Gazettes* Extraordinary, containing exclusively matter dealing with the war, were published during the year.

National War Museum.—The Imperial Government, having consented not to press the proposal that the authorities of the Imperial War Museum should be allowed to make the first selection from all trophies whether captured by British or by Dominion troops, but to hand over to the respective Dominion Governments the various war trophies in England claimed by their units, the task of collecting exhibits for the New Zealand War Museum is lightened. Already a great number of trophies have come to hand and are temporarily stored in the Dominion Museum.

The Board of Science and Art suggests that the War Museum would be most economically established and administered in connection with the Dominion Museum. The matter is being held in abeyance until it is possible to ascertain what material is available for the formation of the museum.

In addition to specimens of implements of war captured from the enemy it is hoped to exhibit—

- (1.) Arms : Munitions and equipment used by the British Army.
- (2.) Art : Battle pictures, &c., painted by New Zealand Expeditionary Force artists.
- (3.) Photographic : Enlargements of interesting war photographs.
- (4.) Medical : Orthopædic, jaw surgery, limbs, and other appliances.
- (5.) Sanitary : Models of sanitary arrangements in the field, trenches, hospitals.
- (6.) Allied section : Arms, clothing, and equipment on models of all Allied troops.
- (7.) Disabled soldiers : What New Zealand does to re-educate disabled soldiers.
- (8.) Miscellaneous : Paper currency, medals, &c., in different countries.
- (9.) Home Service section : Exhibits of various Home Service organizations in Great Britain, her possessions, and Allied countries.
- (10.) Full-dress (parade) uniforms of crack regiments of Britain, France, Italy, and Belgium.
- (11.) A few examples of medieval armour.

The official war films produced during the war will also be deposited in the museum. They are received in duplicate, one copy being kept as a record and the other hired to the New Zealand Picture Supplies (Limited), which pays a fee of 6d. per foot, with special rates for feature films. The Department has the right to declare every fourth film a feature. During the year £823 10s. 6d. was earned for film-hire.

Peace.—Almost immediately after the conclusion of hostilities by the signing of the Armistice in November last preparations for the celebration of peace were begun. The first step was to provide authority (section 30, Appropriation Act, 1918) for local bodies to expend moneys for the purpose of contributing towards funds for celebrating peace, "local body" being defined as meaning Borough Council, County Council, Road Board, Town Board, Harbour Board, River Board, Drainage Board, Education Board, agricultural and pastoral society, friendly society, and any society incorporated under the Incorporated Societies Act, 1908.

The drawing-up of a suitable programme for the celebrations caused much difficulty, but a circular letter setting out the Government scheme in detail, and giving full particulars of the subsidies that would be granted, was sent early in March to all local bodies.

The Government subsidy is not to be payable on anything of the nature of permanent memorials, but Parliament will be asked to authorize local bodies to spend moneys on suitable memorials.

2. THE ORDINARY WORK OF THE HEAD OFFICE.

(1.) *Local Government.*

Town-planning.—The year was a good example of how local-government activity shifts from one sphere to another. The respite from ordinary legislation caused by the war; the circulation of the Minister's Town-planning Bill of 1917; the rise in the cost of building-materials, and the decrease in building operations generally (bringing with them, in Wellington particularly, where the population increased suddenly through the employment of large numbers of war workers in Government Departments and the camps at Trentham and Featherston, a scarcity of houses); the revelations of the epidemic; the shortage of coal, the inquiries concerning which gave prominence to the conditions under which miners live—all these influences combined to make town-planning the prominent subject of interest in local-government matters. An invitation to send a delegate to the Australian Town-

planning Conference was accepted, Mr. S. Hurst Seager, of Christchurch, consenting to represent the Government. His report on the proceedings, a very ably compiled and interesting document illustrated with plans and photographs, has been printed and circulated. Subsequently, the Minister having decided to call a Dominion Town-planning Conference, Mr. Seager was appointed honorary organizing director. The Conference itself took place after the close of the year, but it will not be out of place to refer here to the preliminary work done by Mr. Seager.

He began with the Department early in December, and in the next four months travelled through both Islands lecturing and organizing. In consequence of his efforts public interest in the subject was stimulated to a degree which undoubtedly ensured a successful gathering at the Conference. The Government and the people generally are indebted to his genuine enthusiasm and ability.

Boroughs and Town Districts.—The boundaries of only one borough (Birkenhead) were altered. No new boroughs were constituted. The boundaries of the cities of Auckland and Christchurch and of the Boroughs of Ohakune, Takapuna, and Birkenhead were redefined.

In previous years the growth of a metropolitan spirit in Auckland, Christchurch, and Dunedin resulted in extensions of the boundaries of these cities either through the medium of amalgamation with contiguous boroughs or by the inclusion of adjoining areas of counties which had become purely residential. In these three cities metropolitan activity seems to be resting for the moment, but in Wellington the spirit is moving indeed. The union during the year of Wellington and Onslow gave it a great impetus. In the Boroughs of Karori and Miramar, which are essentially but outlying portions of the city, amalgamation has become a live issue, and the cross-harbour suburbs of Eastbourne (a borough) and Day's Bay (a portion of Hutt County) are beginning to consider seriously the advisability of it. The position and geographical features of Wellington give it problems of its own, some of which—means of access and transport, water-supply, and drainage—are of such a nature as to demand, ultimately, one large body to deal with them. The creation of the Hutt Road Board alone, with its representation of all the suburban districts and its utilizing the City Council's plant and staff for the actual work of maintenance, has helped to familiarize those at present outside with city management, and to give the city a sympathetic understanding of the suburban point of view. But that which more than anything else is most significant of the metropolitan spirit in the capital is the fact that even in the Boroughs of Petone and Hutt the subject of amalgamation is now being discussed.

Now that the war is over, metropolitan government in the four cities can receive the attention it requires. In 1914 and 1915 the Department gave considerable thought to the question, and the possibility of legislation being required in the near future caused it to begin the task of collecting information. The reference made to this question in the annual report of 1916 is even more true of to-day, and this, in certain directions, not in spite of but because of the war. And the epidemic, if it did nothing else, has made more adequate legislation a necessity. I wish, with regard to legislation for the cities, to repeat the following from my 1916 report: "The needs of each, moreover, are so particularly and peculiarly individual that I doubt whether one Act dealing with the four of them would be sufficient. Each one of them needs special legislation, which in one case at least must make provision for metropolitan areas beyond the city proper."

Two new town districts, Nightcaps and Papatoetoe, were constituted, and one, Nightcaps, was declared not to form part of a county. The boundaries of Castlecliff and Papakura were altered. The number of members of the Kaponga Town Board was increased. A petition for constitution of a town district at Henderson was not granted.

Counties.—The report of the Northern Counties Boundaries Commission was given effect to, the boundaries of Bay of Islands, Hokianga, Hobson, Mangonui, Whangarei, and Whangaroa Counties being altered accordingly. The fact that only one protest against any of the alterations was received is a tribute to the thoroughness of the Commission's work. Other counties the boundaries of which were altered were Rangitikei and Wanganui, Waipua and Waikohu.

The boundaries of Heathcote, Eden, Waimarino, and Waitemata Counties were redefined.

The policy of the Government for some years past has been to object to the constitution of new counties. In any comprehensive measure of local-government reform one of the most necessary provisions will be one considerably reducing the number of counties, extending the boundaries of those remaining, and endowing the Councils thereof with wider powers. This has been generally recognized, and Parliament itself has thrown out a number of County Bills of recent years. In the meantime, however, settlement has gone ahead in hitherto sparsely populated areas, and groups of settlers have found themselves altogether out of touch and sympathy with the rest of the counties within which their lands are situated. The conclusion to which this has led is that, pending new local-government legislation, there must be—but only under certain well-defined circumstances—a modification of the policy of no new counties. Last session the new Uawa County, comprising Tolaga Riding of Cook County, was constituted by Act, and has since been divided into ridings, the representation thereof fixed, and arrangements made for the first election. Two other County Bills—Inglewood and Hauraki Plains—were withdrawn, the Minister agreeing to set up Commissions to inquire and report as to the necessity for the new counties. The Commissions were duly appointed, and since the close of the year have reported.

Several questions of importance to County Councils generally received consideration during the year. A very vexed question is the power of County Councils to expend loan-moneys on existing roads. The Audit Office holds that loan-moneys may not be raised for or expended on maintenance of any public works. The first metalling of existing roads or the re-forming of them is clearly new work, but the difficulty arising out of the latter is what work actually amounts to remaking. Until it is possible to legislate or until it has been made the subject of a test case, the matter must remain in doubt.

County riding accounts kept pursuant to sections 118 and 128 of the Counties Act and various amendments thereof are the cause of much accounting difficulty, though some County Clerks have succeeded in drawing admirably clear forms. Power was taken in 1915 to make regulations prescrib-

ing the form in which county accounts shall be kept, and the Audit Office has been asked to draft suitable forms.

In view to its importance to public health the Minister has approved legislation being prepared to allow County Councils to supply water for domestic purposes. Nothing in the Counties Act, the Public Health Act, or the Water-supply Act authorizes this.

Road Districts.—The following road districts were merged: Waitara West, Matakana East, Matakana West, Upper Wangaehu, Wairoa, Oero, Patangata, Porangahau, Mangatarata, Taumarunui, Wanstead, Wallingford, Papakura, Parihaka, and Purimu.

The constitution of road districts in Taupo West County, referred to in last year's report, has produced good results.

It is proposed at the first opportunity to bring down an amendment of the Road Boards Act, similar to section 27 of the Reserves and other Lands Disposal and Public Bodies Empowering Act, 1916, to enable the Governor-General to constitute road districts in parts of New Zealand at present not included within the boundaries of any county.

Land-drainage and River Districts.—One new drainage district—Norfolk Downs—was constituted, and a petition for another—Mangaorongo—is receiving consideration. The boundaries of Kirikiriroa, Oroua, Elstow, Hungahunga, Huntress Creek, and Oanui Irrigation Districts were altered.

Three petitions for constitution of river districts—Mangawara (Waikato), Matau, and Tokomairiro (Otago)—were received, and are now under consideration.

A Commission was appointed to inquire and report on the Palmerston North-Kairanga River District, consequent upon the presentation of a petition praying for abolition of that district. Its report recommended the carrying-out of certain works by the River Board, failing which the district should be abolished. The Board expressed its willingness to carry out the works, and asked for the help of the Public Works Department in drawing up a scheme. This request was granted.

A Commission under the River Boards Amendment Act, 1917, was appointed to inquire and report respecting allegations that the Otautau River Board had failed to protect certain lands in its district. The Board has undertaken to carry out works recommended by the Commission.

The culmination of some four years' work by the Department and various Commissions was the introduction into Parliament of three Bills—the Wairau River Bill, the Orari and Waihi Rivers Bill, and the Rangitata River Bill—each providing for the constitution of a large river district comprising practically the whole of the watershed of the rivers affected, thus ensuring a single body having undivided control of each river from source to mouth. The distinctive features of the Bills were that the Public Works Department should in each case draw up a scheme of protective works, and an estimate of the cost of carrying it out, and submit the same to the River Board; that the scheme should be available for public inspection and the Board should call for objections, which were to be forwarded to the Minister of Public Works, who, after considering them, was to approve a final scheme; that the approved scheme should be submitted to the River Board; that if the Board adopted the scheme it could submit a loan proposal to the ratepayers of the district; that if the poll was carried, the loan-moneys were to be paid into the Public Works Fund, to the credit of a special account, and that the Public Works Department should carry out the scheme, handing over the completed works to the Board, which was then to be charged with the maintenance thereof, the employment of a duly qualified engineer approved by the Minister of Public Works being mandatory.

The scheme of the Bills was not a hastily concocted thing but the result of long and thoughtful consideration of every practicable alternative. It was finally adopted after submission to the local authorities concerned and in the belief that they concurred in it. The Orari and Waihi Rivers Bill and the Rangitata River Bill were passed without opposition, but the Wairau Bill was withdrawn as the result of strong opposition.

Public Works Engineers are now busily engaged preparing schemes for both the Orari and Waihi and the Rangitata districts.

Representations made by the Hurunui Rabbit Trustees respecting inroads made by the Waiaru River at Spotswood give an idea of the damage that is being caused daily in New Zealand by the lack of proper river-control. Floods in the past eighteen months have washed away much land as well as several chains of costly rabbit-fence, and about 3,000 acres of valuable leasehold lands worth between £30 and £40 per acre and four miles of rabbit-fence will be carried away in the future unless adequate protective works are constructed. The Public Works Department is reporting on the matter.

The decisions of the Commission appointed under the Hawke's Bay Rivers Board Amendment Act, 1917, were gazetted. A petition received for alteration of boundaries of this district could not be dealt with under the River Boards Act.

Balance-sheets of Local Bodies.—Warrants varying the mode of publication of balance-sheets were issued at the request of the following local bodies: Amuri, Bruce, Cheviot, Clutha, Levels, and Mackenzie County Councils; Auckland City Council; Blenheim (2), Eastbourne, Invercargill, Mataura, Mosgiel, Palmerston, Pukekohe, Sumner, Timaru, Waimate, Whakatane, and Waikouaiti Borough Councils.

By-laws of Local Bodies.—By-laws were approved, confirmed, gazetted, or disallowed as under:—

Approved under section 107, Counties Act, 1908: Manawatu, Hutt, Inangahua, Kairanga, Ohinemuri, Whakatane, Whangarei, Mangonui, Patangata, Waipukurau, and Waitomo Counties.

Confirmed under By-laws Act, 1910:—

Borough Councils: Lower Hutt (two), Thames, Waimate, Hastings, Shannon, Ohakune.
Town Boards: Ngaruawahia, Otorohanga, Bull's.

County Councils: Kairanga, Patea, Ohinemuri, Whakatane (two), Awakino.

Gazetted:—

Fire Boards: Waihi, Balclutha.

Road Boards: Huntly, Avondale, Mangaorongo, Upper Ashburton.

Disallowed under Motor Regulation Act, 1908: Clause 5 of schedule to Lake County Motor By-law.

Lake Coleridge Water-power Act, 1915.—Powers of Borough Councils with respect to lighting and the supply of electricity were conferred on the Eyre, Rangiora, and Wairewa County Councils.

Extension of Time.—These were granted as under :—

For holding elections : Palmerston North - Kairanga and Waipu River Boards ; Inter-Wanganui and Te Puke Drainage Boards.

For preparation of valuation rolls and rate-books : Grey and Southland Counties (rolls) ; Woodville County (rate-book).

For holding annual meetings : Hawke's Bay and Tuapeka County Councils (see also below, under "Epidemic.>").

Milk-supply Regulations.—Applications for the War Regulations of the 10th September, 1918, to be declared in force in their respective boroughs were received from Sumner, Devonport, and Cambridge Borough Councils and the Wellington City Council. The only one granted was the last-mentioned.

Proportional Representations.—The Christchurch City Council abandoned proportional representation, and the city was once more divided into wards. The Woolston Borough Council adopted proportional representation.

A special point having been made that many returned soldiers possessing residential qualifications might have been struck off municipal rolls for not voting at the last elections in 1915, and so unjustly disqualified, a circular was issued to all Borough Councils pointing out that a soldier does not lose his residential qualifications by absence on active service, and drawing attention to the power possessed by Councils to reinstate names on their rolls.

Rating on Unimproved Value.—Rating on the unimproved value was adopted in the following districts during the year : Manawatu County, Taihape Borough, Otaki Town District, Moa and Mangaorongo Road Districts, and Waitatarua Drainage District.

Housing.—The workers' dwellings provisions in both the Counties and Municipal Corporations Acts were clearly shown by the experience of several Councils to be far too narrow in their scope. It is intended to amend them as soon as possible.

Epidemic.—The influenza epidemic made it necessary for County Councils to postpone their annual meetings, the date for which is fixed by statute. Legislation (section 66 of the Reserves and other Lands Disposal and Public Bodies Empowering Act, 1918) was passed enabling statutory meetings of local authorities and other public bodies postponed on account of the epidemic to be held at any time before the 1st February, 1919. Other legislative measures arising directly out of the epidemic were section 65 (empowering Borough Councils to fill by appointment, in lieu of election, extraordinary vacancies occurring between the 1st October, 1918, and the 30th April, 1919), and section 66 (validating expenditure of local authorities and other public bodies in connection with the epidemic) of the same Act.

Commissions of Inquiry.—The following Commissions of Inquiry were appointed during the year by the Governor-General in Council on the recommendation of the Minister of Internal Affairs :—

Act under which Commissions appointed.	Subject of Inquiry.
1. Town Boards Amendment Act, 1912 ..	Proposed Nightcaps Town District.
2. Commissions of Inquiry Act, 1908 ..	Control and management of Manawatu River.
3. River Boards Amendment Act, 1917 ..	Alleged failure of Otautau River Board satisfactorily to protect from damage lands within the district.
4. Town Boards Amendment Act, 1912 ..	Proposed Henderson Town District.
5. Commissions of Inquiry Act, 1908 ..	Proposed alteration of boundaries, Papakura Town District.
6. Commissions of Inquiry Act, 1908 ..	Proposed alteration of boundaries, Oanui Irrigation District.
7. Commissions of Inquiry Act, 1908 ..	Proposed Hauraki Plains County.
8. Town Boards Amendment Act, 1912 ..	Proposed Papatoetoe Town District.
9. Commissions of Inquiry Act, 1908 ..	Proposed Inglewood County.
10. Commissions of Inquiry Act, 1908 ..	Boundary between Takapuna Borough and Waitemata County.

Legislation.—The only local-government legislation of general importance (apart from the River Acts and the epidemic legislation already referred to) passed last session was the Public Health Amendment Act. The provisions dealing with unhealthy buildings and the improvement of insanitary areas considerably extend the powers of local authorities. The Assistant Under-Secretary, as the officer in charge of local government in this Department, is made a member of the Board of Public Health constituted by the Act. His experience and knowledge of local-government matters will be of great value to the Board.

The Local Acts were fewer than usual. The Invercargill Borough Council Special Rate Empowering Act is an interesting experiment. The present Invercargill Borough Council is under the liability of meeting twenty-two separate loans. Distinct special rates have been struck in respect of these, the rating-areas for the most part not comprising the whole of the present borough, but the areas of the five boroughs the union of which, at various times, produced the Invercargill of to-day. The Act, while safeguarding the rights of debenture-holders, empowers the Borough Council to cease levying or collecting all the existing special rates and to make and levy one special rate to provide interest and sinking-fund charges in respect of the various loans. It is a consolidation of rates without a consolidation of the loans.

The Dunedin City Fish-markets and Empowering Act follows closely similar Acts passed in previous years empowering the Auckland and Christchurch City Councils to engage in fish-dealing

and to establish a fish-market. Section 9 empowers the Council to buy and sell sheep and to depasture the same on any of the domains, reserves, parks, gardens, or other lands held or controlled by or vested in the Council. This provision and section 10 of the Reserves and other Lands Disposal and Public Bodies Empowering Act, 1918, which empowers the Auckland City Council to purchase and sell live-stock, machinery, and other farm requirements and produce in connection with any lands used by it for grazing or farming purposes in connection with its civic operations are interesting examples of how the carrying-out by the larger local bodies of their ordinary functions paves the way for operations that ordinarily are not considered within the scope of local-government activity.

As usual the Reserves and other Lands Disposal and Public Bodies Empowering Act contains sections which are really Local Acts. Passing by the validations and the general empowering sections already referred to, the following may be noted: Section 13, empowering the Onehunga and Mount Albert Borough Councils and the Mount Roskill and One Tree Hill Road Boards to meter ordinary as well as extraordinary water-supplies (requests made in the past by the Municipal Conference for the conferring of this power on Borough Councils generally have always been declined); Section 14, empowering the Avondale Road Board to make by-laws prescribing the route by which loose horses, cattle, sheep, pigs, or other animals may be driven along streets or roads within the road district. Section 59, empowering local authorities in Canterbury and Otago Provincial District to subscribe to the funds of the Canterbury Progress League or the South Canterbury Development League, or the Otago Expansion League, is interesting as showing the survival of the old provincial feeling and its direction to new ends. There has arisen an active feeling that there is still a community of interest which demands the co-operation of all within each province for the economic and civic advancement of every part of it. This working together of town and country within definite areas that are large enough to admit of action on a big scale, and yet compact enough to make for real community of interest, can only result in good not only for the provinces but the whole Dominion.

Reference has already been made to section 30 of the Appropriation Act, authorizing local authorities to contribute towards funds for the celebration of peace.

(2.) *Inland Fisheries.*

The improvement in condition of trout in Lake Rotorua has been maintained, and in consequence no fish was taken from it for sale. Lake Rotoiti was again utilized for supplying the local and Auckland markets, 19,163 fish, weighing nearly 25 tons, being sold. At Lake Taupo operations could hardly be described as successful in comparison with the previous season, though 10,060 fish, weighing about 12½ tons, were placed on the market, the decline being principally attributable to the work not being started until January and the increased number of poor fish taken. The bad condition of the Waimarino Road and delay in train services also told against success.

The public demand for the fish was as keen as ever, and it is satisfactory to note that the Department was able to sell it on the same terms as last year. In Wellington this ensured its sale to the public at 6d. per pound fresh and 8d. per pound smoked, these prices allowing dealers margins of 2½d. and 3d. per pound respectively.

New Markets.—An effort was made to meet numerous orders from Napier, but the reduced quantity coming to hand would only allow of small supplies being sent. The practicability of placing the fish on southern markets at a cost which would allow of its being sold to the public at a reasonable price was considered. A few years ago several small lots were despatched from Rotorua to Christchurch via Auckland, where they were frozen and sent on by steamer. Though sold at Rotorua for 4d. the cost to the purchaser on arrival at Christchurch was 1s. 6d. per pound. After investigation during the year it appeared to me that fresh trout brought on to Wellington in the usual way, repacked in ice in lots of not less than 4 cwt., might, after paying extra shipping, wharfage, and rail charges, be sold wholesale at the Christchurch Railway-station at 6d. per pound without loss to the Department. Next season, if the supplies coming to hand warrant the exploiting of a fresh market, it is hoped to despatch at least a few trial consignments to Christchurch.

Scientific Investigation.—Several of the lakes in the thermal regions have been stocked with more than one species of trout. With a view to ascertaining the present effect of this and, if possible, the ultimate result, a scientific investigation of the various species is being made by Mr. Phillipps, of the Museum Staff. Until his work is completed it is impossible to state whether hybridization has taken place to any extent, if at all. It is hoped, too, that Mr. Phillipps will be able to clear the doubt which exists as to the identity of the fish in Lake Taupo which, generally held to be Rainbow trout, are in some quarters thought to be either American land-locked or American steel-head salmon.

Fresh Stocks.—Excellent as the results have been of the Department's work in the last six years, it is considered that further improvement in the size of the fish in the lakes is dependent upon the introduction of fresh stock. None being available in Canada, inquiries are now being made in the United States for half a million rainbow trout-ova. The reduction that has been made in the number of fish will ensure a plentiful supply of food for the imported stock.

Hatchery.—As usual, the work at the hatchery was carried out under the difficulties inseparable from the lack of skilled labour. Despite this, 1,020,000 ova and 625,000 fry were sold and distributed, as against 780,000 and 350,000 last year.

The report of the Conservator is printed in the Appendix.

(3.) *Animals Protection Act.*

Acclimatization Districts.—The boundaries of Hobson Acclimatization District were defined and those of Hawke's Bay and Rotorua redefined. It is proposed to include in the Auckland District an area of Rotorua adjoining the Waimarino district,

An endeavour has been made to revive the Inangahua Society, but little interest has been aroused. The Nelson Society has petitioned for the inclusion within its district of a portion of Inangahua. The matter is still under consideration.

A long-standing dispute between the Otago and Southland societies was brought to a head by the latter petitioning for an alteration of boundaries that would, *inter alia*, include in Southland the whole of the Mataura River. After considerable correspondence, in the course of which the Department endeavoured, without success, to arrange a conference between both societies to agree upon a new boundary, it was decided to appoint a Commission, consisting of a Magistrate, the Commissioner of Crown Lands, Dunedin, and the District Valuer, Milton, as official members, and one representative of each of the two societies. The Southland Society then took up the extraordinary attitude of objecting to the official members on the ground that they were resident in Otago, and declined to be represented. Under the circumstances it was decided to take no further action.

Amended rules of the Buller Society were deposited as required by the Act.

Shooting Season.—Game was plentiful, open seasons being declared in all districts. It is pleasing to note that the Department's policy of strictly protecting paradise duck for a number of years has been rewarded by the increase of these birds to such an extent as to warrant short open seasons being declared in the Ashburton, Lakes, North Canterbury, South Canterbury, Waitaki, and Waimate Acclimatization Districts. Licenses to sell game were not issued, and requests for permission to sell game for patriotic purposes were declined.

Importation of Frozen or Chilled Game.—An inquiry was received from an Auckland firm as to the legality of importing frozen or chilled game for sale to clubs and hotels. The legal position is that such game may not be sold except during the period within which it is lawful to sell game killed in the Dominion, which, even when authorized, must be between the 1st June and 31st July. For several seasons past game-selling licenses have not been issued.

Deer.—A special season for culling purposes was declared in the Rotorua district. In the Otago District protection was removed from fallow deer in certain localities at Tapanui where they have proved destructive. At the request of the Southland Acclimatization Society Mr. Moorhouse was sent to Stewart Island to report on the deer there. He found them plentiful enough to warrant a season being declared. Accordingly certain portions of the island were opened to a limited number of stalkers. The question of augmenting food-supplies by deer flesh was considered, but the cost of marketing makes impracticable any action on a large scale. A little venison was, however, sold by an acclimatization society in aid of patriotic funds.

Sanctuaries and Protection of Birds.—Two new sanctuaries were declared. The very severe winter of 1918 caused a decrease in numbers of many of the smaller birds in the Goulard Downs sanctuary. The caretaker reports that there will, however, be abundant food this winter.

Protection has been removed from birds as follows: Californian quail (in Murchison County); hawks of all species; the kea; black shag, white-throated shag, and sea-shag.

The rapidity with which many native birds die out has been exemplified recently by the unsuccessful efforts of Mr. E. F. Stead, of Christchurch, to secure a few pairs of brown ducks for liberation on the Avon. A few years ago they were plentiful, but now it would appear that only in the far north and south is there any likelihood of their being found.

The Tuatara.—Good work has been done by the keepers on the various island sanctuaries in destroying cats, hawks, and goats. The small island to the north of Somes Island, in Wellington Harbour, has been declared a sanctuary, and it is proposed to place a few tuataras on it.

Opossums.—A considerable volume of correspondence has taken place between the Department and acclimatization societies during the past year on the subject of opossums. The general desire of these bodies now is that there should be a definite season each year during which opossums may be killed, instead of, as at present, its being a question of their absolute protection or liberty to kill them indiscriminately. With a keen demand for the skins there is much poaching in protected districts, but legislation will be required before there can be any satisfactory solution of the present difficulties, which are that under the present law a shooting season can only be arranged if opossums are declared game, and that if they are to be declared game it must be for the whole of New Zealand. That is not at all desirable. Again, the Animals Protection Act provides only for the shooting season to run between the 1st May and 31st July. Opossum-skins are not at their best until late in the winter. Also, trapping game is prohibited at present.

(4.) *Gaming Act.*

Regulations.—Acting on a suggestion of the Department, the majority of the racing and trotting clubs to which totalizer permits are issued have remade their regulations under section 33 (2) of the Gaming Act, 1908, to specify in greater detail classes of undesirables whose presence on race-courses is not to be countenanced.

Totalizer Inspection.—A new departure was the institution of a system of Government totalizer inspection. Mr. Kelleher, Chief Clerk, was appointed Inspector, with other officers of the Department as his deputies. A Government representative has visited every totalizer meeting held during the present racing season. The Inspector's report—a most interesting document, giving particulars of investments, Government revenue from investment and dividend tax and tax on stakes, and showing to what a large sum fractions amount in the course of a season—is printed in the appendix hereto.

From the first the racing and the trotting clubs generally welcomed the proposal. Now that the clubs and the public have seen the system in practice it is safe to assert that neither would care to see it abolished. It gives the public an assurance that the figures displayed on the face of the machine

when the signal to the starter is given are final and that correct dividends are declared, and it relieves clubs of the worry entailed in refuting accusations of accepting investments after the start of a race.

The inspection formally extends no further than the certifying to the figures arrived at on the final calculation made immediately after the close of the totalizator, and seeing that these are the figures shown on the face of the machine. The Inspector's work is completed at most a minute after the figures are available, and is in no way responsible for the delays that have occasionally occurred. Without exception these delays have been occasioned by indifferent totalizator staffs; and it may be mentioned that though the work done by many of them is a fine example of what ability and perfect organization can accomplish, there is still much to be desired in certain quarters both in the ability of the men engaged on the work and the organization thereof. The knowledge gained by the Inspector in the course of his rounds has been freely placed at the disposal of clubs needing it. Several have written their appreciation of his help.

After the race the Inspector checks the dividends. Here again no delay occurs, the work being completed before the "pay out" authority is received in the totalizator-house.

(5.) *Fire Brigades Act.*

Fire Districts.—Four new districts—Wanganui, Levin, Ohakune, and Waitara—were constituted.

Elections.—Besides the general election taking place this year, arrangements for elections to fill vacancies on the Christchurch, Balclutha, Dannevirke, Gisborne, Greymouth, Hastings, Port Chalmers, Palmerston North, Feilding, and Petone Fire Boards were made. Members were appointed to Balclutha, Petone, Milton, Port Chalmers, and Wanganui Boards.

Assistant Inspector.—The increasing burden of work thrown on Captain Hugo, particularly as Government Fire Inspector, has made it necessary to create the position of Assistant Inspector of Fire Brigades. Many calls upon the Inspector have again been made by the Defence Department.[†]

Wireless Fire-alarms.—Information is being obtained through the High Commissioner respecting wireless systems of fire-alarms, which it is anticipated will be extensively installed in England now that the war is over. It is stated that the cost is far below that of any of the present efficient systems, and if this is so many of the Dominion Fire Boards will be able to install them. At present street fire-alarms are lacking in many towns owing to the great expense of the wired systems.

Otago Harbour Board's Wharves.—There was a lengthy but fruitless correspondence between the Department, the Dunedin City Council, the Otago Harbour Board, and the Dunedin Fire Board arising out of a special report by Captain Hugo respecting the altogether inadequate provision for the protection from fire of the wharves, stores, and shipping under the jurisdiction of the Harbour Board. This lack of provision is notorious. It has been mentioned in the Inspector's reports for the last eight years, and in the Dunedin Fire Brigade Superintendent's report for 1915-16. All three bodies have in the past disclaimed responsibility, but there can be no doubt that, as part of the wharves are within the fire district, it is the legal duty of the Fire Board to provide for the protection of that part, and the simplest method of doing so would be to obtain a pumping plant to use the water from the harbour.

Paper by Inspector.—The paper entitled "The Use and Maintenance of some of the Smaller Fire Appliances," read by the Inspector at the Fire Brigades Conference in February, 1918, has been printed and circulated in pamphlet form.

(6.) *Motor Regulation Act.*

Registering Authorities.—Three local authorities—Amuri, Waimarino, and Wanganui County Councils—adopted Part II of the Act during the year.

Identification Marks.—Letters and numerals as identification marks were allotted to fourteen registering authorities.

Amendments of the Act.—Requests for amendments of the Act are frequently being forwarded by local bodies and the New Zealand Automobile Union. There is no doubt that at the first opportunity the present Act should be reconstructed. The proper taxation of motors to meet, in part at least, the increased cost of maintaining existing and forming new roads is a matter on the principle of which all—both local authorities and motor-owners—seem to be agreed, though there is considerable divergence of opinion as to the incidence thereof.

This big question cannot, of course, receive the consideration of Parliament in the next session, but there are others on which legislation is urgently required. The definition of "registering authority" in the present Act provides only for County Councils and those boroughs with a population of five thousand or more. The effect of this is that boroughs like Blenheim—which, moreover, lies in a county in which the Counties Act is suspended—cannot register motors. The use of the motor-car to-day is so widespread that not only every borough but every Town Board not forming part of a county should become a registering authority.

Registration itself has become rather a vexed question. Under the present law a motor need only be registered once, this registration holding good throughout the Dominion for so long as the motor remains the property of the same owner. On a change of ownership the registration must be cancelled or confirmed, but there is no provision for cancellation in the event of loss, destruction, or export of the motor. Apart from the very real difficulty this has caused to local bodies and the police, the present system has rendered it altogether impracticable for the Government Statistician to compile even approximately accurate returns of motors in use. The need for these returns has already been felt. Some system of annual registration, which will make it possible to keep in touch

with every motor from the time of its first being placed on the road until its permanent withdrawal therefrom, must be provided in the near future.

The question of drafting model motor by-laws has received consideration, but it was found that the existing law does not provide sufficient powers to make satisfactory by-laws, and the matter is being held over for the present.

One of the most troublesome motoring nuisances is the use of glaring headlights, and particularly the use of searchlights. It may be pointed out that the use of any dazzling light is a breach of section 2 (4) of the Lights on Vehicles Act, 1915.

Copies of all motor by-laws received under section 4 of the Motor Regulation Act are supplied to the Automobile Union in compliance with a request made by that body.

(7.) *Weights and Measures Act.*

Pending new legislation weights and measures work must remain in an unsatisfactory state. In the year under review, however, good work was done by the four centre Inspectors in their visits to country districts.

Weighbridge.—The fees payable for annual tests of public weighbridges have been the subject of frequent complaints. There is no doubt that the fees, even allowing for the cost of transporting testing-weights, are too high. After consideration of how far the Act would allow any reduction, the following was found to be the only practicable means of giving relief: Inspectors were instructed to charge only up to the amount of the standard weights used in each test together with their expenses.

Standard Weights.—Five tons of 56 lb. weights were made locally to the Department's order, and compare more than favourably with the best imported weights. They will be distributed among the country Inspectors.

Sale of Coal.—The question of controlling the sale of coal by War Regulations in the direction of ensuring that the full weight ordered is duly delivered was considered, and draft regulations prepared. Unforeseen difficulties prevented any definite action being taken. The matter is one that should be made the subject of special legislation. The complaints received from time to time, and the open breaking of the law which requires coal to be sold by weight and not by the bag, are sufficient justification for regulation as stringent as that imposed in England under the Imperial Weights and Measures Acts.

(8.) *Naturalization and Nationality.*

Revocation of Naturalization.—The powers conferred on the Governor-General in Council by the Revocation of Naturalization Act, 1917, were used to deprive thirty-four persons of alien enemy descent of their status as naturalized British subjects, the majority of them being internees. Very careful inquiry was made in every case before taking action.

Letters of Naturalization.—The decision of the Government at the beginning of the war that letters of naturalization should not be issued while hostilities lasted was modified in favour of members of the New Zealand Expeditionary Force of friendly alien descent. Two letters were issued. There are in the Department not less than a thousand memorials for naturalization waiting to be considered when the Government decides to remove the restriction.

Nationality of Married Women.—As in previous years, representations have been made as to the nationality of British women marrying aliens. The law that a married woman takes the nationality of her husband is contained in an Imperial measure—the British Nationality and Status of Aliens Act, 1914—and cannot be amended by any New Zealand legislation.

(9.) *Science and Art.*

Board of Science and Art.—The fourth annual meeting of the Board of Science and Art was held on the 11th March, 1919. A statement of its work during the year is contained in the report of the Director of the Dominion Museum.

New Zealand Institute and Scientific Research.—Since 1868 the Institute has been in receipt of an annual grant of £500 to be applied in or towards payment of its general current expenses. The whole of that sum has been required for some years to meet the expense of printing the annual volume of Transactions. With the increased cost of printing, the Institute represents that it is now unable to carry on without showing a deficit. The question of increasing the annual grant is receiving consideration.

The Government has not failed to recognize the importance of the Institute. Last session a sum of £2,250 was appropriated for research. £250 is to be expended in binding books in the Institute library, and the remainder by the Institute on research in connection with such subjects as are approved by the Minister of Internal Affairs, or by the Ministerial Head of any Department specially interested in a proposed subject for research.

The Department is bearing the cost of publication of papers read at the Science Congress at Christchurch.

Historical Monuments.—In the course of the past four years much valuable information respecting historical monuments (including under this term aboriginal rock-paintings, earthwork of Maori pas, Maori or pre-Maori stone fences, battle-sites of the Maori wars, redoubts, blockhouses, and certain buildings erected by the early colonists) has come to the Department, and much of it makes melancholy reading, little attempt at preservation having been made. One famous blockhouse, for instance, has been used as a timber-supply for cow-sheds and pig-sties. In the course of his travels to secure material for the history of the New Zealand wars Mr. Cowan has obtained photographs and information which he has written up, and it is hoped at an early date to publish this as a brochure. It is highly desirable that in the near future legislation on the lines of the Imperial Ancient Monuments

Consolidation and Amendment Act, 1913, giving the Government power to deal with historical monuments, should be passed in New Zealand. The provisions in the Scenery Preservation Act are altogether inadequate for the purpose. It should not be difficult to do, in connection with these monuments, at least as much as already has been done for the care of old soldiers' graves and some historical cemeteries.

Mosquitoes.—In 1917 the services of Mr. Miller, Entomologist of the Department of Agriculture, Industries, and Commerce, were obtained for an investigation of mosquitoes. In the short time at his disposal—one month, during which he was hampered by almost continuous bad weather—he was unable to make more than a preliminary investigation. In December last he resumed the work visiting North Auckland, where the climate conditions favour the establishment of not only the malaria species but the yellow-fever mosquito. The opening-up and increasing use of the Panama Canal route to and from England and the eastern States of America has made it incumbent on New Zealand to take all necessary precautions against the introduction of the yellow fever. Mr. Miller's full report, which is now being prepared, will furnish much information of value in any preventive measures it may be found necessary to take.

Scientific and Technological Library.—The manner in which research work is hampered by the lack of a reasonably complete and accessible scientific library has made it necessary that, at as early a date as possible, a scientific library be established by the Governor. The material for the beginning of a library is here in Wellington now, but scattered in a number of smaller libraries (notably those maintained by the New Zealand Institute, the Wellington Philosophical Society, and the Geological Survey Branch of the Mines Department), themselves greatly handicapped by lack of space. By bringing these together a fairly efficient scientific and technological library would be immediately available, and considerable economy in administration would be effected. Many suggestions have been considered, but no suitable accommodation has yet been found.

Records of New Zealand Company.—The cases containing records of the New Zealand Company, received from England through the High Commissioner, have been opened and the contents arranged on shelves and indexed. Several requests from students of New Zealand history for permission to inspect these records have been received. It is hoped at an early date to be able to allow access to them.

Phonographic Records and Cinematographic Films of Maori Life.—Arising out of a suggestion made by the Hon. A. T. Ngata, the Minister directed that Messrs. Eldson Best and James McDonald, of the Dominion Museum, and Johannes Andersen, Librarian of the Turnbull Library, should proceed to Gisborne and attend the great Maori gathering held there in March last, for the purpose of making phonographic records of songs and speeches and taking films of various phases of Maori life. The reports of these three officers, which are contained in the report of the Director of the Museum, show that very valuable records were made, the phonographic ones in particular passing all anticipation. Mr. Best attributes the success to the untiring efforts of Mr. H. R. H. Balneavis, Private Secretary to the Hon. the Native Minister, and I desire to place on record the Department's indebtedness to him.

(10.) *Turnbull Library.*

The most notable public bequest of recent years was the gift to the people of New Zealand by the late Mr. A. H. Turnbull of the library which he had spent so many years in gathering together.

To suitably house the gift Mr. Turnbull's residence in Bowen Street was purchased by the Government, and immediate steps were taken to make it thoroughly fire-proof. No time was lost in appointing a librarian and a staff to assist him. Mr. Johannes Andersen, of the General Assembly Library, was the successful applicant for the position, and for some months now has been engaged in the task (the magnitude of which may be gathered from the Advisory Director's report in the appendix) of indexing and arranging the books. The Department is greatly indebted to Mr. Charles Wilson, Chief Librarian of the General Assembly Library, for his valuable advice and help, and his consenting to act as Advisory Director of the library has removed many difficulties in the way of satisfactory administration at the critical stage of the library's existence as a public institution.

Mr. Wilson's estimate of £80,000 as the present selling-value of the library indicates clearly the magnificence of Mr. Turnbull's bequest, and his right to be considered one of the world's great collectors.

(11.) *History of New Zealand Wars.*

During the year the work of gathering and collecting material for a national history of the wars of the pioneering period in New Zealand has been continued by Mr. James Cowan. Most of the battlefields and other localities associated with the history of the campaigns from 1845 to 1871 have been visited, and careful field notes have been made with a view to describing in detail the topography and fortifications in conjunction with the narrative, and fixing the exact scenes of the numerous engagements, which year by year are becoming more difficult to identify with precision. With these objects in mind the historian has, wherever possible, enlisted the co-operation of veterans of the wars, and a great deal of most useful assistance has been given by European and Maori survivors of the battles. In many cases the scenes of engagements, sites of passes and redoubts have been pointed out by those who shared in the fights and occupied the positions, and the actions have been described in detail on the spot. Many disputed or obscure historical points have in this way been cleared up, and a very large amount of valuable data has been noted down for comparison with the documentary evidence already received.

The districts in which this work has been carried out include the Bay of Islands country, south Auckland, Waikato and Waipa, Rotorua and Bay of Plenty districts as far as Opotiki, and the west

coast from Wanganui to Waitara. The east coast from Mohaka to Waiapu remains to be visited for notes on the Hauhau campaigns.

Existing published histories of the wars in New Zealand are necessarily fragmentary owing to the fact that they consist mainly of personal narratives by participants in particular campaigns or episodes, and it is difficult for the ordinary student of New Zealand's pioneering period to gather from such books a comprehensive idea of the character and extent of the wars. From the many sources now available, however, it is possible to construct a complete and accurate survey of the great crucial era in our history, the thirty years of close contact and conflict between British and Maori; and the historian's task is to present this literary survey in convenient compass. Volume I of the history, with a large number of original drawings, portraits, sketches, and plans not hitherto published, is now almost ready for the press, and work on the other volumes is well advanced.

The historian has been fortunate in meeting and obtaining notes from veterans of every campaign in New Zealand from 1845 onwards. The last of the old "Black Cuffs," the 58th Regiment, who was a member of the storming party at Ohacawai in 1845, died at New Plymouth only recently; and a Maori survivor of the defence of that pa is still alive and was able to describe vividly to Mr. Cowan the repulse of the British redcoats. It is important, for the sake of future generations of New Zealanders, who will treasure every scrap of our early fighting history and pioneering adventure in settlement, surveying, gold-mining, and coast trading, that the work of gathering original material of this kind should be continued. A very few years will see the last of those who are able, from actual personal experience, to supplement or correct the existing documentary material which otherwise would be the only evidence available for the historian.

(12.) *Old Soldiers' and Historical Graves.*

Despite the interruption of her work by the epidemic, the Inspector visited twenty-six cemeteries in the North Island, and, in addition to this and reporting on graves of members of the Expeditionary Force, visited the South Island. Some idea of the extent to which the Department's operations have grown may be gathered from the fact that at present it has the care of graves in no fewer than seventy-eight cemeteries. A list of the soldiers known to be buried in these cemeteries has been prepared.

Now that the war is definitely over the question of proceeding with the erection of headstones and small monuments in a number of cemeteries can be considered.

An even more difficult task than the location of the graves of soldiers killed during the Maori War will be the tracing of veterans' graves. Generally they have been buried as civilians, and the Department is dependent for the most part on information supplied by old comrades of the veterans. By continued inquiry, however, it is hoped that in time a fairly complete list may be obtained, and all graves will be cared for that are not attended to by relatives or friends.

Among other contracts entered into during the year was one for the renovation of graves in Ivydale Cemetery. This cemetery, situated a few miles from Horeke, on the banks of the Hokianga River, is the only relic of what a hundred years ago was a thriving mission station founded by the Wesleyan Mission. One stone bears a date which is either 1813 or 1815. Several others date from 1830 to 1837. It is estimated that an expenditure of £30 will be sufficient to restore all the graves and clean up the cemetery generally.

I cannot conclude this part of the report without reference to the work done by the Women's National Reserve in the care of graves of members of the Expeditionary Force. At Wellington in particular they have spent much time and labour at the memorial plot in the Karori Cemetery, where there are more soldiers buried than in any other one plot in New Zealand.

(13.) *Censorship of Films.*

During the year 1,739 films, amounting to 3,479,860 ft., were examined by the Censor, and fees amounting to £1,159 13s. 7d. received, this being in excess of the expenditure. Approval was refused in 14 cases, while 138 films were approved only after excisions had been made to the satisfaction of the Censor. No appeals were made against the Censor's decisions.

Mr. James McDonald, Assistant Director of the Museum, was appointed Assistant Censor of Cinematograph Films to relieve the pressure on the Censor.

(14.) *Hector Observatory.*

The Government Astronomer's report shows that good work was done at the observatory.

Now that the war is over I recommend that the question of providing adequate accommodation and equipment for the Government Astronomer and his staff be seriously considered. As a State institution the Hector Observatory has an importance in the scientific world that it must soon lose unless it can undertake the work expected of it by astronomical institutions the world over. And it is plainly impossible not only to undertake fresh work, but to carry out satisfactorily the present work under existing conditions.

(15.) *Miscellaneous.*

Auctioneers Act.—Several requests for a reduction in the fees payable for auctioneers' licenses were received, and one from the Cambridge Borough Council for the constitution of a special district. The former were declined since legislation was necessary, and the latter because a borough can hardly be deemed a sparsely populated portion of the county. A request for the abolition of a special district—Rodney County—was granted.

British Life Annuity Certificates.—There are a number of Imperial Government annuitants residing in New Zealand. In the past the verification of signatures of Justices of the Peace on certificates of certification of life has been a function of the Governor-General. New arrangements by the Imperial Government were gazetted under which the verification is to be by the Minister of Internal Affairs.

Cemeteries Act.—No cemeteries were closed during the year. More requests than usual for authority to disinter bodies were received, this being the result of the epidemic. Though admittedly many of the burials were of a temporary nature, and relatives are naturally anxious to transfer the remains to family plots, it was felt that, in the interests of public health, strict adherence to the rule that no body should be disinterred until a period of at least twelve months had elapsed was necessary.

Further representations as to the desirability of extending the facilities for cremation were made. The establishment of crematoria is, however, a matter for cemetery trustees. The Department has made inquiries and gathered information on the subject for reference when required.

Chartered Clubs.—Inspectors' reports show that the chartered clubs are all well maintained, and the conditions on which their charters were granted have been observed. The last charter issued was that of the Civil Service Club, Wellington, in 1906. The following is a list of the present chartered clubs:—

Auckland District: Auckland Club, Auckland; Auckland Masonic Institute and Club, H.M. Arcade, Auckland; Auckland Working-men's Club, Auckland; Auckland Commercial Travellers' and Warehousemen's Club, Durham Street, Auckland; Northern Club, Auckland.

Hamilton District: Hamilton Club, Hamilton.

Napier District: Hawke's Bay Club, Napier; Napier Working-men's Club, Napier; Napier Club, Napier; Poverty Bay Club, Gisborne; Cosmopolitan Club, Gisborne; Ruahine Club, Dannevirke; Hastings Club, Hastings.

Wanganui District: Palmerston North Working-men's Club, Cuba Street, Palmerston North; Manawatu Club, Palmerston North; Wanganui Club, Wanganui; Wanganui Commercial Travellers' and Warehousemen's Association Club, Wanganui; Cosmopolitan Club, 18 Campbell Street, Wanganui; St. John's and Suburban Working-men's Club, Wanganui; Rangitikei Club, Feilding; Hawera Club, Hawera; Taranaki Club, New Plymouth.

Wellington District: Central Club (Limited) Hunter Street, Wellington; Wellington Club, Wellington; Wellesley Club, Wellington; Wellington Commercial Travellers' and Warehousemen's Club, Victoria Street, Wellington; Wellington Working-men's Club, Wellington; Wellington Civil Service Club, Wellington; Petone Working-men's Club and Literary Institute, Petone; South Wairarapa Working-men's Club, Greytown; Hutt Club, Lower Hutt; Blenheim Working-men's Club, Blenheim; Marlborough Club, Blenheim; Nelson Club, Nelson; City Club, Nelson.

Christchurch District: Canterbury Club, Christchurch; Christchurch Club, Christchurch; Christchurch Working-men's Club and Mutual School of Arts, 202 Oxford Terrace, Christchurch; Federal Club, Christchurch; Oxford Working-men's Club, Oxford, Christchurch; Richmond Working-men's Club, Stanmore Road, Richmond, Christchurch; Kaiapoi Working-men's Club, Kaiapoi; South Canterbury Club, Timaru.

Dunedin District: Dunedin Club, Fernhill, Dunedin; New Zealand Commercial Travellers' and Warehousemen's Association Club, Dunedin; Otago Club, Dunedin.

Invercargill District: Nil.

Conferences.—During the year the Department was represented at the Australian Town-planning Conference in Brisbane by Mr. S. Hurst Seager. The Director of the Dominion Museum, the Government Astronomer, and the Librarian, Turnbull Library, were present at the New Zealand Science Congress in Christchurch.

On the recommendation of the Imperial War Conference of 1918 and the Dominion Royal Commission, the Imperial Government has called a conference of Statisticians to consider the establishment of an Imperial Statistical Bureau under the supervision of an Inter-Imperial Committee. The Government Statistician will represent New Zealand at the Conference.

Consuls.—Consular appointments as under were recognized by the Governor-General: Chile (Auckland and Wellington); China (Wellington); France (Dunedin); Portugal (Auckland); Spain (Wellington); Sweden (Auckland and Wellington); Switzerland (Auckland); United States of America (Auckland).

Section 28 of the War Legislation and Statute Law Amendment Act, 1918, makes it an offence for any person without the lawful authorization of the Crown to act as or to profess to be the representative in New Zealand of a foreign State or political community.

Despatches.—160 despatches from the Secretary of State, as against 126 in 1917–18, were received. Despatches are all treated as urgent, and many dealing with important matters of Imperial interest involve a considerable amount of thought and collating of information.

Epidemic.—In common with others, this Department suffered severely by the influenza epidemic, the staff for at least a fortnight being barely sufficient to perform even the most urgent work. The Government's action in closing the Government Buildings gave an opportunity to fumigate and disinfect as thoroughly as was possible under the circumstances. From the reopening until the passing of the epidemic, sulphur-fumigation of the whole building was carried out every evening. This with other precautions taken—in particular the daily passing of all the office staffs through an inhalation-chamber—helped in some degree to check the spread of the disease. One of this Department's officers was sent at short notice with an inhalation outfit and as large a supply as could be obtained of disinfectants and medicines to Tokaanu.

Fencing Act.—Requests for a further Order in Council under section 20 of the War Legislation Amendment Act, 1916, fixing the minimum half-cost recoverable, were received. Inquiries were under way at the end of the year particularly as to the present cost of erecting fences in boroughs.

French Monuments. In June, 1918, a request for information as to commemorative monuments or tombs erected in New Zealand in honour of French citizens was received from the Vice-Consul of France at Auckland. A circular letter was sent to local bodies and cemetery trustees. The replies were surprising. In the whole of New Zealand, apart from headstones on graves, there is, so far as the Department was able to ascertain, but one that could properly be said to be a monument erected to the memory of a French citizen. That one is a mortuary chapel at Wakapuaka, erected by public subscription in 1889. The inscription on the memorial stone runs, "This Chapel is erected as a Memorial to the Venerable Archpriest Garin, S.M. He was the Pioneer Priest of this District, and the first to found Schools for the Education of its Youth. He died April 14th, 1889. R.I.P."

Land Agents Act.—A number of machinery amendments of this Act are necessary. In addition the various land agents' associations have made representations for alteration of provisions directly affecting them. These are being considered. During the year the revenue from licenses was £4,612, of which £4,151 was paid to Hospital Boards, £345 15s. being credited to Justice Department, and £115 5s. to this Department.

Maori Antiquities Act.—A large number of applications for permission to export articles of Maori workmanship were dealt with. Most of the articles were of modern manufacture and were clearly not subject to the restrictions imposed by the Act.

Messenger Service.—This service is expanding to meet the growing needs of Government Departments. In Wellington particularly, where the war has brought new Departments into existence, the interdepartmental carriage of letters and parcels has increased at least threefold. The Department at present maintains three motor-vans and one motor-cycle for this work.

National Efficiency Board.—During the time the National Efficiency Board was in existence its recommendations to the Government were formally placed on record in this Department.

Information and Inquiries.—One of the Department's functions is to supply information respecting the Dominion in reply to overseas inquiries, to trace missing friends last heard of in New Zealand, and to make inquiries through the High Commissioner on behalf of persons in the Dominion. During the year a request for specimens of certain New Zealand shells thought to be suitable for certain manufacturing purposes was received, and suitable specimens were despatched. The usual number of searches for missing persons were made, mostly with satisfactory results. Cable inquiries to and from the High Commissioner have grown very considerably since the war began, and during the last year a large number were despatched and received, the senders paying the cost thereof.

(16.) *Accountant's Section.*

The most noteworthy feature of the Accountant's Section is the large variety of matter dealt with. This is due principally to the fact that the whole of the expenditure of the various sub-departments is controlled by Head Office. The sub-departments referred to are—Ministers' Secretaries; Messengers, Office-keepers, and Charwomen; Registrar-General's Office; Census and Statistics; High Commissioner's Office; Dominion Museum; Dominion Laboratory; Electoral.

Every payment incidental to the administration of each and all of the above sub-departments has to be dealt with and recorded. This includes the salaries of the various staffs, which are all prepared at the Head Office, with the exception of those of the High Commissioner's Office. The average monthly number of salaries prepared is about 1,500. Another reason for the variety of matter dealt with is the fact that a great deal of expenditure which cannot properly be charged to any one Department is dealt with under this Department's vote for miscellaneous services. These items consist largely of assistance to deserving objects. In effect, the Government holds out a helping hand to many struggling societies whose efforts are deemed to be in the public interest. The following examples are taken from the Appropriations for 1918–19: Grant to the New Zealand Amateur Swimming Association, £100; grant to the Royal Life Saving Society, £75; grant to the New Zealand Institute for Research Work, £2,250; grants to Societies for Protection of Women and Children, £300; Y.W.C.A. subsidy on account of accommodation provided for girls employed in the Civil Service, £600.

Relief is also granted both in cases of general and individual distress. An instance of the former is the grant of £100 made for the relief of distress caused by the Opotiki floods. The latter are mostly grants to the dependants of Civil servants who died while in harness. It is only in rare instances that these dependants are adequately provided for. Other instances are those of the widows of members of Parliament, the general practice in these latter cases being to make a grant of £400.

Patriotic societies and members of the Expeditionary Forces also receive a considerable amount of assistance under this vote, as the following items show: Audit of patriotic accounts, £500; expenses in connection with the raising and distribution of various relief funds, &c., £7,500; difference between ordinary and special railway fares for members of the Expeditionary Forces, £13,000; expenses in connection with cinematograph films taken in France, &c., £1,000. Science and art is also assisted: Books on New Zealand birds, £187; investigation of mosquitoes in New Zealand, £100; preservation of aboriginal rock-paintings, £250; scientific and industrial research, £250.

The assistance given by the Government is not necessarily confined to New Zealand. During the year just ended £10,000 was contributed to the Halifax Relief Fund, and £10,000 was provided for the establishment and maintenance of the New Zealand Hospital at Etrambieres, France. This hospital was established for the relief of the French repatriates at the time when the exchange of civilian prisoners was first arranged between the Allies and the enemy nations.

Another interesting item on this vote is that of £10,000 for the purchase of the late Mr. A. H. Turnbull's residence. This substantial building, which is situated in Bowen Street, just opposite the Parliamentary Buildings, is now used to house the Turnbull Library.

3. THE WORK OF THE SUB-DEPARTMENTS DURING THE YEAR.

Census and Statistics Office.—Now that the war is over the Government Statistician will be able to extend his activities, and in the near future to make New Zealand statistics as complete as those of any part of the Empire. The staff has been strengthened, the main task now being to train understudies and assistants.

A start has been made with the annual instead of quinquennial collection of statistics of industrial manufacture. Good progress has been made with inquiries instituted after the beginning of the war respecting wholesale and retail prices, and a commencement made of similar inquiries with regard to wages and conditions of employment, and some work put in hand in connection with the regular collection of statistics of unemployment.

It is hoped that the war-time necessity for the omission of certain trade tables, the absence of which seriously affects the value of the annual statistics, will soon be past.

The Statistician's suggestion that the Municipal Handbook, now issued triennially, be expanded into a Local Authorities' Year-book is worthy of serious consideration.

Registrar-General's Office.—The revenue of the Office, which showed a severe drop in 1917-18, has recovered slightly, the figures for 1918-19 being £12,811, as against £12,450 in the previous year. Marriages and births again show a further decrease. The increase in deaths is, of course, due to the epidemic.

Considerable time was again taken up in searches for the Defence and Pensions Departments on matters arising out of the war.

The medical and dental registers show how differently the war affected the two professions, the former showing a steady increase in each year from 1915, and the latter a decrease.

Dominion Laboratory.—The total number of samples examined was 3,492, against 3,874 in the previous year. Explosives imported and examined totalled 1,615,400 lb., against 877,550 lb. last year; detonators 2,045,000, against 1,510,000; fog-signals and fireworks (packages), 1,559 against 1,384.

The Dominion Analyst is continuing his kauri-gum researches. It is satisfactory to note that his process for cleaning gum recovered from swamp peat has proved a commercial success.

The full Laboratory Report, published in booklet form, will contain graphs showing the average composition of milk received each month, and a comparison of this with the averages for the Aylesbury Dairy Company, London.

Dominion Museum.—The Director's report shows very clearly the handicap under which his staff are working, the loss of valuable private collections that would in the ordinary course have been lodged in the Museum, and the danger to collections already therein, all caused by the present non-fireproof, borer-infested building, which is too small by far. The accommodation difficulty is being aggravated by the establishment of a National War Museum Section.

Notwithstanding this handicap much good work has been accomplished by the staff, and additions to the collections (notably for the War Section) made by purchase, exchange, and donations.

II. STAFF.

Owing to the steady increase in the staff of the Department it was found necessary during the year to create a special section and appoint an officer to be engaged wholly on staff work. Now that the war is over a considerable portion of the temporary staff engaged on work of the various branches arising out of the war—notably the Military Service Registration Branch—have been reduced, and with the return of officers from the front the question of reorganization of the various sub-departments will have to be considered. The Department employs a large number of discharged soldiers in the General Division, and the question of appointing these men to the permanent staff has been gone into, with the result that quite a number will be placed on a permanent footing and will be subject to the conditions and privileges enjoyed by permanent officers.

Mr. G. P. Newton, Assistant Under-Secretary, took over the responsibilities of my office during my absence in Australia on extended leave, and I desire to acknowledge here the able manner in which he discharged those duties during a very trying period, which included the disastrous influenza epidemic. I also gratefully acknowledge the true-hearted co-operation of my executive officers and heads of sub-departments, and to express the indebtedness of the Department to the junior officers who so loyally rose to the occasion when the staff was depleted of so many of their seniors.

III. ASSISTANCE RENDERED BY OTHER DEPARTMENTS.

The generous assistance rendered by other Departments again demands special acknowledgment. The Customs and Police Departments continued to afford invaluable help in the administration of the War Regulations dealing with passports and permits and of the Registration of Aliens Act. The supervision of patriotic raffles conducted under the Gaming Amendment Act, 1915, and the making of numerous inquiries in connection with the special licensing poll, were cheerfully undertaken by the police, despite an acute shortage of staff, and most efficiently performed. The Public Works, Lands and Survey, Justice, and Valuation Departments again lent their expert officers for commissioners dealing with local-government matters. The Post and Telegraph Department rendered valuable assistance to the Government Statistician in the preparation of various special censuses.

I have, &c.,

J. HISLOP, Under-Secretary.

APPENDIX.

I. REPORT OF GOVERNMENT STATISTICIAN.

Census and Statistics Office, Wellington, 14th July, 1919.

AFTER a lapse of nearly three years the whole of the staff of the Office is again accommodated under one roof. Military-service work has almost entirely ceased, and close attention to all branches of statistical work is therefore now possible. As the organization of the Office is improved and strengthened it is hoped to make the statistics of the Dominion in the near future as comprehensive and complete as those of any part of the Empire.

The promotion of Mr. J. P. Black, A.I.A.N.Z., to the position of Compiler in Charge of Statistics of Production, and the appointment of Mr. E. P. Neale, M.A., LL.B., B.Com., as Compiler in Charge of Statistics of Finance, greatly strengthens the executive of the staff; and as soon as a sufficient number of officers can be trained as understudies and assistants the staff organization will be on a satisfactory footing.

RECOMMENDATIONS OF NATIONAL EFFICIENCY BOARD.

Some months ago the National Efficiency Board made certain recommendations to the Government for the extension and co-ordination of the statistics of the Dominion. Cabinet approved the recommendations, and instructed all Government Departments to assist and co-operate with this Office in giving effect thereto. The necessary work is being taken in hand as speedily as possible, and I have much pleasure in acknowledging that Heads of Departments have readily responded whenever their assistance and co-operation was required.

INDUSTRIAL MANUFACTURE.

Hitherto statistics of industrial manufacture have been collected quinquennially, in the same year as the population census is taken. One of the recommendations of the National Efficiency Board was that this important work should be done annually, as is the case in Australia; and, in accordance with Cabinet's direction, returns are now being collected for the year ended 31st March, 1919.

AGRICULTURAL AND PASTORAL STATISTICS.

The system inaugurated some four seasons ago in regard to the other principal branch of production—viz., agricultural and pastoral statistics—has now become well established and more or less of a routine character. The results obtained well justify the increased expenditure as compared with the unsatisfactory method in vogue for some years prior to the season 1915-16.

Under the present system the principal collection is made by personal canvass immediately after the harvest, while pre-harvest estimates in regard to wheat and oats are based on the acreage ascertained by means of cards obtained from all growers *through the post* in the spring. There is a considerable demand from the mercantile community and others for pre-harvest information in regard to other crops also, but I do not think the postal collection sufficiently reliable for much extension. In New South Wales a personal canvass by police sub-enumerators is also made in the spring, and satisfactory information in regard to spring sowings of all crops could only be obtained in New Zealand by the adoption of a similarly modified personal canvass. The organization and carrying-out of such a canvass would probably be more costly than would be justified by the advantages to be gained.

INDUSTRIAL AND ECONOMIC INQUIRIES.

In this branch a good deal of progress has been made during the past twelve months, particularly in regard to the collection and tabulation of statistics of wholesale prices for past years and the preparation of index numbers therefrom to supplement the information already published for some years past in regard to retail prices. When the work is completed the results could probably be embodied in a special report containing also the results of the retail-prices investigation brought up to date.

A commencement has also been made in regard to wages and conditions of employment, advantage being taken of the collection of returns of industrial manufacture to collect data in regard to earnings, overtime, short time, &c. Some preliminary work in connection with the regular collection of statistics of unemployment has also been put in hand.

STATISTICS OF FINANCE.

The returns annually collected from local governing bodies have been revised, and in the case of Harbour Boards considerably extended. With the revisions, &c., made the statistical tables for local governing bodies will be as complete and comprehensive as any in existence elsewhere. Attention is also being given to fire-insurance statistics in regard to which no particulars have hitherto been obtained or published, and it is hoped to be able to publish statistical information on the lines of that given in the United Kingdom and Canada.

MILITARY SERVICE ACT.

This branch of the Office has practically ceased to exist. Since the signing of the Armistice and the consequent cessation of the despatch of troops overseas no initiative work has been undertaken, and only routine work for new registration or changes of address received is being carried on pending the issue of a Proclamation cancelling the Reserve. Two clerks are sufficient to cope with all the work.

REGISTRATION OF ALIENS ACT.

The work of registration of aliens has proceeded smoothly during the past twelve months, there being surprisingly little friction between aliens and registration officers, and I have to record my appreciation of the tactful manner with which the latter have carried out their duties under the Act.

Experience has brought to light a slight defect in the Act as passed, legal advice having been obtained to the effect that there is at present no necessity for registration in the case of aliens whose letters of naturalization have been revoked under the Revocation of Naturalization Act, 1917. A short amendment to the Act is therefore necessary to ensure registration in all such cases.

During the year regulations were made providing for exemption from registration being granted by the Minister of Defence in the case of an alien who has served overseas in any portion of His Majesty's Forces during the war and has received an honourable discharge. Advantage of this provision has so far been sought in some three or four cases only.

A table is appended showing the birthplaces and ages of all aliens on the register at the 1st July, 1919.

POPULATION CENSUS.

The compilation of the census results is nearing completion, and the last part (containing an entirely new set of tables relating to the constitution of households) is practically ready for the Printer. Another part (Fertility) is still in the Printer's hands, but the remaining ten parts, as well as five appendices (A to E), have been published. The publication of all the parts will be closely followed by the Government Statistician's General Report, now in course of preparation, covering the whole of the census.

PUBLICATIONS.

It is with regret that I have again to record delays in the publication of the principal statistical works of the Office, due mainly on this occasion to the late session of Parliament, and the consequent impossibility of obtaining at the usual time much of the necessary material from parliamentary papers or from Departments. Now that the war work of the Office is over, and matters are returning to normal, every effort will be made to expedite publication, as it is recognized that much of the value of the statistics is lost by undue delays.

There were no new departures worthy of special mention in the 1918 issue of the Year-book, and the various volumes of statistics were in much the same form as in previous years. A noteworthy alteration was the omission of the usual summarized comparative trade tables from Volume II, a step rendered necessary by the request of the Home Government, after the tables had been actually printed, that all trade statistics be published exclusive of gold specie and gold bullion. The continued prohibition of the publication of figures of imports and exports of gold will adversely affect the value of the annual trade statistics for 1918.

Interest in the monthly Abstract continues to be well maintained, the cost of living and price statistics being probably the principal attraction. The Abstract once again contains the detailed trade statistics, which were omitted for a period of eighteen months at the request of the Home Government, and reinstated shortly after the granting of the Armistice. The embargo placed on the despatch of the Abstract outside of New Zealand has just been removed, and attention is being given to improving and extending the usefulness of the publication.

Another edition of the Municipal Handbook of New Zealand containing information (mainly statistical) concerning the activities of the various City and Borough Councils and Town and Harbour Boards is in course of preparation, and will be issued this year. This is a very valuable record of New Zealand's municipal activity and progress, but could be made even more valuable and comprehensive by being extended to cover the activities of all local governing bodies, including Hospital and Charitable Aid Boards, &c., and issued annually as a Local Authorities' Year-book.

GENERAL AND SPECIAL STATISTICAL WORK.

The general work of the Office has been kept up to the standard of previous years, with alterations and additions to meet new circumstances. A good deal of extra work has been placed on the Vital Statistics Branch through inquiries for statistical information concerning the influenza epidemic, and a comprehensive special census of stocks, requirements, &c., of certain specified medical requisites was recently taken on behalf of the Public Health Department. Quarterly censuses of stocks of coal are still taken regularly on behalf of the Hon. the Minister of Munitions and Supplies.

I cannot conclude this report without again acknowledging the very efficient and willing services rendered this Office by both the Police and Post and Telegraph Departments. The former, in connection with the collection of agricultural and pastoral statistics, the military-service work, and the registration of aliens, has rendered great service; and without the help of the postal officers, who all took great personal interest in the work, the Office could not have carried out the various special censuses required of it at such short notice, and at such a small cost. My sincere thanks are accorded the officers of these Departments.

MALCOLM FRASER,
Government Statistician.

The Under-Secretary, Department of Internal Affairs, Wellington.

Table showing Birthplaces by Ages and Sexes of Aliens registered under the Registration of Aliens Act, 1917, as at 1st July, 1919.

Country.	15 and under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and under 45.		45 and under 50.		50 and under 55.		55 and under 60.		60 and over.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
France	1	1	3	8	3	7	5	9	5	10	7	13	9	10	4	22	5	87	44	131		
Spain	1	1	2	5	..	..	..	..	..	..	..	..	..	..	..	3	1	19	4	23
Portugal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	14	1	15
Italy	..	..	15	40	3	23	3	25	6	24	..	10	3	4	1	14	3	190	25	215
Sicily	..	..	2	..	..	2	..	1	..	1	..	..	..	..	1	..	8	..	8	
Sardinia	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Switzerland	2	1	9	52	17	44	8	27	11	15	5	5	4	6	5	11	3	208	72	280		
Luxemburg	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	3	..	3	
Belgium	..	..	1	7	..	12	..	5	6	8	..	3	3	1	1	7	4	48	18	66
Holland	..	..	4	14	2	6	1	9	..	4	..	3	..	4	..	8	..	63	3	66
Germany	3	3	21	104	11	97	20	85	7	83	17	73	14	61	22	131	67	722	174	896		
Alsace	1	1	..	1	
Helgoland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Denmark	9	3	30	92	11	77	6	48	11	46	13	39	9	20	11	49	27	487	102	589		
Iceland	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Norway	3	2	30	62	1	52	2	41	3	29	4	31	4	25	1	58	5	383	26	409		
Sweden	2	1	5	61	5	75	2	75	2	51	..	34	5	41	3	64	8	453	28	481		
Finland	..	1	14	34	2	22	..	16	1	11	1	5	..	7	..	17	..	172	8	180		
Russia	2	..	13	48	11	45	10	37	10	34	6	23	3	15	3	12	7	264	64	328		
Siberia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Poland	..	..	3	5	1	7	1	9	3	12	5	11	2	11	5	11	7	72	25	97
Bohemia	..	..	..	2	1	3	..	1	..	3	..	..	..	1	..	2	1	12	2	14
G Galicia	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	5	1	6
Austria	3	..	48	44	1	35	..	19	1	10	2	12	..	6	..	12	3	236	9	245		
Hungary	..	..	1	..	..	2	..	2	1	4	1	3	..	3	..	1	..	17	2	19
Croatia	..	..	18	6	..	7	..	6	..	3	..	1	..	7	..	4	..	63	..	63
Slavonia	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	2	..	2
Dalmatia	13	..	235	129	8	65	4	46	1	27	..	23	1	9	..	6	1	782	18	800		
Istria	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Bosnia	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	6
Herzegovina	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
Serbia	..	..	4	..	..	3	..	1	..	1	..	..	..	..	..	..	..	15	..	15
Roumania	..	..	..	2	..	1	..	3	..	1	..	..	..	..	..	1	..	12	..	13

Bulgaria	1																		1	4	3	11	4
Montenegro																				3			3
Greece		16	17	3	15	1				2					1					78	5		83
Macedonia																				2			2
Turkey					3	1														9	1		10
Asia Minor					1															3			3
Palestine					2															4			4
Syria		18	18	6	7	12	3			5										89	49		138
Mesopotamia																				1			1
China		85	180	3	7	218	1	176	212	2	598	2	188							1,913	17		1,930
Japan		3	3				1	1	1											9			9
Philippine Islands																				1			1
Egypt																				4			5
Tunis																				1			1
United States		50	39	15	6	42	10	47	30	3	43	3	31							381	81		462
Mexico		1			2															3			3
Panama																				1			1
Cuba																				1			1
West Indies																				4			5
Colombia					1															4			1
Peru																				2			2
Chile																				1			1
Brazil																				4			4
Uruguay																				3			3
Argentina																				5			5
South America (undefined)																				2			2
Hawaii																				2			2
Tonga		5	5	1			1													21	8		29
Samoa		4	1	1	1			2												15	5		20
Tahiti		2	2		1															6	2		8
New Caledonia		1		1																3	1		4
Born at sea						3	1		1											8			11
British born, but aliens by natu- ralization, marriage, &c.				75	5	897	157	721	552	122	1,105	107	467	49	4	58	134	632	91	1	44	572	597
Totals	93	27	590	104	901	1,000	185	897	157	721	186	632	134	552	122	467	107	1,105	202	6,958	1,377	8,385	

II. REPORT OF THE REGISTRAR-GENERAL.

Registrar-General's Office, Wellington, 25th July, 1919.

I give hereunder a statement of the business transacted by this Department during the last five years :—

Year.	Births.	Deaths.	Marriage Notices received and Certificates issued.	Marriages solemnized.	Marriages by Registrars (included in previous column).
1914	28,338	10,148	9,589	9,326	1,765
1915	27,850	9,965	10,620	10,064	1,861
1916	28,509	10,596	8,450	8,231	1,729
1917	28,239	10,528	6,687	6,464	1,589
1918	25,860	16,364	6,464	6,227	1,437

I also give a statement showing the number of marriages of Natives solemnized during the same period under the Native Land Act, and the number of Maori registrations effected under the regulations relating to the registration of births and deaths of Maoris :—

Year.	Maori Births.	Maori Deaths.	Maori Marriages.
1914	857	723	221
1915	968	786	178
1916	1,020	761	197
1917	1,235	729	205
1918	1,171	1,937	197
			(approximate)

On account of the heavy mortality during the epidemic period, great difficulty was experienced in obtaining full particulars of deceased persons for registration purposes. Consequently many deaths during that period were not registered until early in the present year.

The following details of deaths that actually occurred during the December quarter in which "influenza" was certified to as the primary or contributory cause of death will be interesting: Europeans—October, 65 (35 m., 30 f.); November, 4,741 (3,098 m., 1,643 f.); December, 869 (502 m., 367 f.): total, 5,675 (3,635 m., 2,040 f.). Maoris—October, 17 (16 m., 1 f.); November, 1,108 (572 m., 536 f.); December, 418 (213 m., 205 f.): total, 1,543 (801 m., 742 f.).

In addition to the business referred to above, the registration of medical practitioners, dentists, and officiating ministers is undertaken by this Department.

The following tables show the additions to and removals from the Medical and Dentists' Registers during the last five years :—

Medical Register.

	1914.	1915.	1916.	1917.	1918.
Number on register on 1st January	1,240	1,268	948	962	969
Number added during year by registration	41	28	37	27	30
Number added during year by restoration .. ..	..	..	5	1	3
Number removed during year on evidence of death	13	8	10	21	17
Number removed during year by Direction of Medical Board—					
Letter not delivered and returned to Registrar-General .. ..	..	309	18	..	..
Ceased to practise .. ..	..	20	..	..	..
Reported dead .. ..	..	11	..	..	..
Number on register on 31st December	1,268	948	962	969	985

Dentists' Register.

	1914.	1915.	1916.	1917.	1918.
Number on register on 1st January	771	769	767	764	759
Number added during year by registration	1	2	3	1	..
Number removed during year on evidence of death	3	4	6	6	6
Number on register on 31st December	769	767	764	759	753

On the 31st December last there were 1,668 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, 450; Presbyterian Church of New Zealand, 352; Roman Catholic Church, 262; Methodist Church of New Zealand, 260; Congregational Independents, 29; Baptists, 52; Church of Christ, 31; Salvation Army, 134; other denominations, 98.

The number of searches made and certificates issued last year by the Head Office was as follows: For Pensions Department, 7,779; for National Provident Fund, 4,879; for Labour Department, 1,369; for Education Department, 740; for Defence Department, 6,358; other searches (for public, &c.), 1,807: certificates issued—Ordinary, 6,403; soldiers' deaths, 9,000: total searches, &c., 38,335.

The war has added a great amount of work to this office in the way of searches for births and marriages for war-pension purposes, and also for claiming separation and children's allowances from the Defence Department. The number of searches made for the last-named Department from April, 1916, to date amounts to over sixteen thousand, and the number of searches for war pension purposes has assumed very large proportions, comprising more than half of the searches now undertaken for the Pensions Department.

In addition to this work the Department has compiled a register of deaths of members of the New Zealand Expeditionary Forces and others which occurred while out of New Zealand on service in some capacity in connection with the present war.

The revenue of the Department, though steady for several years, shows a decided advance for 1915-16, a severe drop for 1916-17, a further drop for 1917-18, but a slight recovery for 1918-19.

The revenue for the last five financial years was as follows:—

1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
£14,163	£16,865	£13,684	£12,450	£12,811

It was not until 1916 that the expenditure of the Registrar-General's Office was kept separately. The expenditure for the last three years was—1916-17, £9,175; 1917-18, £9,176; and 1918-19, £11,020.

W. W. Cook, Registrar-General

The Under-Secretary, Department of Internal Affairs, Wellington.

III. REPORT OF DOMINION ANALYST AND CHIEF INSPECTOR OF EXPLOSIVES.

Dominion Laboratory, Wellington, 11th July, 1919.

LABORATORY REPORT.

The analytical and chemical work summarized in this report is chiefly of a routine nature, resembling that of previous years. The total number of samples examined was 3,492, received from various public bodies as follows:—

Customs	142
Defence Forces	25
Explosives Branch of Laboratory	88
Justice (Police)	50
Military Purchase Board, medical service and camp supplies	152
Mines—	
Geological Survey	79
Head Office	23
Inspectors	142
Prospectors	140
Post Office	37
Public Health—	
Auckland District	8
Christchurch District	24
Dunedin District	2
Wellington District	2,417
Public Works	51
Railways	27
Other Departments	12
Public bodies and Crown Commissioners	7
Research (Laboratory)	20
Miscellaneous samples	46
Total number of samples	3,492

STAFF.

During the year the total enlistments for the Expeditionary Forces was brought up to eight, leaving only four of the original pre-war staff in the Laboratory. Lieutenant L. J. Shaw was killed in action on the 21st September. He was an excellent officer in every respect, and his death is a severe loss to the Department. Messrs. N. L. Wright and R. P. Wilson, who both gave promise of considerably ability, resigned from the Laboratory and accepted discharge in England in order to pursue studies there. As the vacancies were filled by younger or less experienced men, the staff is

not as strong as previously. All the new members, however, have proved willing workers, and a good spirit has been constantly maintained.

THE WAR.

The continuance of the war increased the work of the Laboratory in various directions. Food-stuffs from the military camps were examined regularly, and the water-supplies occasionally, at the discretion of the Director of Medical Services. Eighty consignments of scheelite, representing 170 tons, were assayed for the Imperial Government Supplies Department, and some shipments of condensed milk analysed. All crude glycerine exported for the manufacture of explosives was analysed at the Laboratory. Several minor investigations were undertaken as required.

CUSTOMS.

Samples are submitted by this Department, chiefly to assist classification for tariff purposes, and the results call for no special comment.

JUSTICE.

An alleged fire-extinguisher, forwarded by the police, consisted of bicarbonate of soda 80 per cent. and clay 20 per cent. Canisters containing 4 lb. of this mixture were being retailed at £1 each. The vendors were prosecuted.

Several analyses of Anconia sheep-dip proved that three different preparations were sold under that name. The first contained ground limestone, sulphur, tobacco-dust, carbonate of soda, and salt. The second was composed of sulphur and sodium carbonate, while the addition of common salt to these two constituents produced the third variety. The retail price of a 3 lb. packet was 5s., and the directions were to mix it with 100 gallons of water. The fluid so prepared was worthless for dipping sheep. Prosecutions resulted in this case also.

Nothing deleterious was disclosed in the few liquors submitted during the year.

In one post-mortem examination radish-seeds were found in the intestines, and were indicated as the probable cause of death. Confirmatory evidence was obtained by feeding seeds both of the turnip-rooted and long scarlet varieties to three white mice, which ate ten, fifteen, and thirty-five seeds respectively. Two showed marked symptoms of distress in from four to five hours, and all died within twenty-four hours. It does not appear to be generally known that radish-seeds are so poisonous.

MINES.

The Geological Survey forwarded thirty-three coals, twelve ores for metallic contents, ten clays, nine rocks for complete analysis, and several other samples for various estimations.

Numerous parcels of stone were also tested for prospectors. The Maharahara copper lode was re-examined during the year, but outcrops near the old shaft yielded only from 0·3 to 0·5 per cent. of copper, and the dump from the oldest drive 1·5 per cent. More encouraging results were obtained from Maunganiemi, Kaeo, Whangaroa, where the ore averaged 3·9 and 4·0 per cent. of copper, and a better sample still from Takaka, contained 15 per cent. In no case, however, was either gold or silver associated in appreciable quantities with the copper.

An iron carbonate from Ohai Stream, one mile west of Linton Coal-mine, gave equivalent to 38·8 per cent. metallic iron in the natural state, and 56·3 when calcined. An ironstone from Birkdale appeared to be suitable for the manufacture of hæmatite paint.

Analyses were made of pig iron and slag from the smelting-works, New Plymouth. Some manganese-ore from Otau, Auckland, assayed up to 52·8 per cent. of metallic manganese. A diatomaceous earth of good quality was received from Otorohanga. Highly siliceous polishing-earth, composed of exceedingly fine rounded particles, was obtained from Wairakei and Puhipuhi.

Some distillation tests were made of Waikaia shale. Fuller descriptions of these samples will be found in the detailed report of the Laboratory work.

POST OFFICE.

Samples analysed for the Post Office comprised beeswax, copper sulphate, distilled water, lead sheathing, mercury, phosphor-bronze, salammoniac, sulphuric acid, zinc for batteries, and the filling of some dry cells.

A number of letters were successfully treated to restore addresses that had been rendered illegible through accidental saturation with heavy oil.

PUBLIC HEALTH.

The Public Health Department supplied approximately 70 per cent. of the samples examined in the laboratory. They comprised baking-powder, beer, bread, butter, cake, chocolates, cocoa, coffee, cordials, cream, custard-powder, disinfectants, egg-powder, flour, gas, gelatine, hair-dye, honey, ice-cream, jam, lard, "Lemeese" (lemon cheese), malt extract, margarine, medicine, milk, minced meat, oatmeal, oil, patent food, pepper, phospho-citric acid, "Sargol," sugar of milk, tallow, tincture of quinine, vinegar, wheat, tincture of iodine.

One butter contained as much as 20 per cent. of water, and five others exceeded the standard of 16 per cent.

Non-permitted dyes had been used to colour several of the cordials. One sample of olive-oil was heavily adulterated with cotton-seed oil.

Methylated spirit was found in some tincture of iodine, and also in ammoniated quinine retailed at Castlecliff during the influenza epidemic. Prosecution in the latter case resulted in a fine of £50 being imposed.

Following on a complaint from a local hospital that some noxious gas resulted from the use of a caliphont in the bathroom, an examination was made of the flue-gas. It contained 1 per cent. of carbon monoxide, and after fifteen minutes run the air in the centre of the room contained 0·15 per cent. This is three times greater than the highest allowable limit (0·05 per cent.) given by J. S. Haldane, who adds, further, "probably 0·03 per cent. would in time produce symptoms distinctly felt on any exertion." It is therefore imperative that all caliphonts should be provided with efficient flues, and that none of the waste gases be allowed to mingle with the air in the room. The flue in this case lacked sufficient draught.

MILK.

The number of milk-samples under the Sale of Food and Drugs Act totalled 2,099. This includes 120 obtained from suppliers, at farms or railway-stations, to check samples found to be poor in quality or abnormal in some respect.

Wellington City.—The regular activity of the City Council Milk Inspector was chiefly responsible for the collection of 1,607 samples affecting the city milk-supply. (This does not include the "check" samples already referred to.) Of this number, thirty-three were extensively watered, thirteen were skimmed, eight contained excessive amounts of dirt, six were stale, and thirty-four were slightly deficient in various ways. Most of the watering was done in the months of July and August, and varying amounts up to 25 per cent. were added, the average for the adulterated samples being 12 per cent.

Other Districts.—The following table summarizes the results from other districts. The worst case of watering (42 per cent. of added water) was from Putiki (Wanganui), though one from Dannevirke (32 per cent.) and another from Gisborne (28 per cent.) were almost as bad from the standpoint of the consumer:—

Locality.	Samples received.	Seriously skimmed.	Watered.	Slightly below Standard.
Blenheim	15	..	..	..
Carterton	8	..	..	..
Castlecliff	1	..	..	..
Clive	5	..	3	..
Dannevirke	27	..	2	1
Eltham	5	..	1	2
Featherston	28	1	..	..
Featherston Camp	86	..	1	4
Foxton	1	..	..	..
Gisborne	46	..	1	1
Greytown	5	..	..	..
Hastings	22	2	2	1
Havelock North	1	..	..	..
Hawera	6	..	..	..
Hutt (Lower)	37	..	..	3
Mangapapa (Gisborne)	6	..	1	1
Martinborough	2	..	..	..
Marton	1	..	..	..
Napier	25	1	2	..
Nelson	20	..	..	..
Patea	2	..	..	..
Petone	23	1	..	1
Putiki (Wanganui)	1	..	1	..
Stratford	2	..	..	..
Taihape	3	..	1	..
Taranaki Hospital District	32	1	1	..
Waipawa	7	..	..	1
Waihiki (Hawke's Bay)	3	..	..	..
Westport	10	..	..	3
Woodville	2	..	..	..
Totals	432	6	16	18
Totals, 1917	451	12	26	23

Mr. R. L. Andrew, who is in charge of the foods section of the laboratory, has computed the average composition of the milk received each month. The results for 1917 and 1918, arranged in graphic form, will be published as an appendix to the detailed Laboratory Report. They are especially interesting when compared with the averages for the Aylesbury Dairy Company, London, as given in "Dairy Chemistry" (2nd edition), by H. D. Richmond.

Plunket Nurses.—Fifty-eight analyses of human and humanized milks have been made for Plunket nurses, and have afforded some guidance in the treatment of children who were not thriving as they should.

OTHER DEPARTMENTS.

Several boiler-waters were examined for the Railway Department, and a few samples of miscellaneous character for the Public Works and Marine Departments, and for the Lands and Survey.

RESEARCH.

The process for the cleaning of kauri-gum recovered from swamp peat has been tried on a commercial scale in Auckland, with excellent results. The gum, which is admixed with large amounts of peaty material, is agitated in a closed cylinder with a strong solution of common salt, and a vacuum applied. The impurities sink and are drawn off, the salt solution being recovered by means of a vacuum filter, while the cleaned gum is washed with water and dried.

Some preliminary work was done on the distillation of oil from kauri-swamp peat.

REPORT ON THE ADMINISTRATION OF THE EXPLOSIVES AND DANGEROUS GOODS ACT, 1908,
FROM 1st JULY, 1918, TO 30th JUNE, 1919.

Authorization of New Explosive.—The following new explosive was authorized for importation into, and for manufacture, storage, and sale in New Zealand during the year: Ligdynite.

Manufacture.—The undermentioned factories were licensed for the manufacture of explosives:—

- (1.) Sabulite (N.Z.) (Limited), at Waikumete, for the manufacture of sabulite.
- (2.) H. F. Bickerton, at Wainoni Park, Christchurch, for the manufacture of fireworks.
- (3.) Colonial Ammunition Company, at Mount Eden, Auckland, for the manufacture of small-arms and ammunition.

<i>Importation.</i> —The following explosives were imported during the year:—		lb.
Gelignite	.. .. .	820,000
Gelatine dynamite	.. .. .	56,600
Monobel powder	.. .. .	31,650
Viking powder	.. .. .	340,000
Stomonal powder	.. .. .	10,000
Super-cliffite	.. .. .	500
Ligdynite	.. .. .	48,500
Blasting-powder (grain)	.. .. .	152,500
„ (pellets)	.. .. .	152,500
„ (sporting)	.. .. .	3,150
Total		1,615,400
Detonators	.. .. .	2,045,000
Fog-signals and fireworks (packages)	.. .. .	1,559

Storage.—The total number of magazine licenses issued for the year was 153. Of these, forty were for quantities up to 300 lb., fifty-two for quantities between 300 lb. and 2,000 lb., and sixty-one for quantities between 2,000 lb. and 20 tons.

Government magazines available for public use remain the same as last year—viz., three, at Wellington, Greymouth, and Dunedin. At Greymouth the new magazines are completed, and will be occupied within the next month or two.

Packing and Conveyance.—The number of licenses issued during the year to carry explosives was 302, being a slight decrease on the number issued during the previous period.

Condemned Explosives.—On the 9th October, at Auckland, the following explosives were condemned for use on account of damage caused by sea-water: Gelignite, 600 lb.; gelatine dynamite, 50 lb.; blasting-powder, 1,425 lb.; blasting-pellets, 1,825 lb.; total, 3,900 lb. They were subsequently destroyed by burning the gelatinous compounds and dumping the powder in deep water outside harbour-limit.

Licensed Premises.—560 licenses were issued during the year in respect of premises licensed to sell explosives and to keep explosives under modes 1-3 of the regulations. This is a decrease of 112 on the number issued during the previous period, and is explained by the curtailment of many works during the latter period of the war.

Accidents.—No accident by fire or explosion occurred during the year in the manufacture, storage, or transport of explosives.

Legal Proceedings.—Probably owing to the War Regulations making it necessary for all dealers in explosives to obtain a permit from the Police Department, no irregularities came under the notice of the Department during the year.

Inspection and Testing.—Inspections have been made during the year of public magazines, licensed factories, licensed magazines, and premises. Explosives liable to become dangerous by deterioration have been examined as to their condition, and condemned explosives have been destroyed under the supervision of Inspectors.

About 120 samples of commercial explosives and 130 samples of cordite and exploders for the Defence authorities have been tested for stability by the heat and other tests.

Owing to shortage of staff, inspection and other branches of the work have had to be considerably curtailed.

General.—During the period under review a number of complaints have been received in regard to the quality of explosives and detonators in the mines. In consequence of these we have examined the explosives and detonators complained of, and have to report that there has been a considerable falling-off in the quality during the last year or two. Some classes of explosives are now very sluggish, and many of the detonators are defective. The investigation is being continued, and more complete details should be available for the next report. There is every probability of a better class of explosives being imported in the near future.

J. S. MACLAURIN,

Dominion Analyst and Chief Inspector of Explosives.

The Under-Secretary, Department of Internal Affairs, Wellington.

IV. REPORT OF THE DIRECTOR, DOMINION MUSEUM.

Dominion Museum, Wellington, 10th July, 1919.

THE MUSEUM AND THE WAR.

The close of the war ends, it may be hoped, a period of great difficulty for the Museum, and ushers in a new era in which the Museum may expand to fulfil its many natural functions and take a worthy part in the national reconstruction demanded by the times.

Prior to the war the Museum had long outgrown its accommodation, and the provision of a new building to replace the old overcrowded, leaking, decaying wooden building was admitted on all sides as one of the first duties of the Government. The war with its all-important claims on the time, labour, and resources of the nation inevitably postponed the new building, and there is now a danger that the necessity for immediate action may be lost sight of amongst the numerous other activities brought into existence by the close of the war.

A new Museum building is urgently necessary for the following reasons: Firstly, the existing building is not fireproof, and cannot be made fireproof. Collections of priceless value are stored in this building and the store-shed, which is also not fireproof. Mention need only be made of the Lord St. Oswald collection of Polynesian curios brought back by Captain Cook on his voyage of discovery. New Zealand owes a duty not only to herself, but to the whole world, in regard to this and other collections. No commercial corporation would hold such valuables without the best possible insurance, and for the Government the best insurance is a fireproof building.

Secondly, the existing building is badly riddled by boring-beetles, which it is impossible to eradicate. This constitutes a continual danger to the many fine pieces of Maori wood-carvings housed in the building.

Thirdly, the existing building is too small by many times for the collections, which are consequently badly overcrowded. As a result the display of specimens has little educational value, and is inevitably creating amongst youthful visitors and school-teachers the idea that a museum is a heterogeneous collection of curios, whereas under proper conditions it is capable of creating ideas of natural law, order, and beauty, and of supplementing the historical and geographical teachings of school and university. Further, the overcrowding in both Museum and the store-shed hampers the study of the accumulated material and is retarding many branches of scientific research in New Zealand.

"To him that hath shall be given" is a maxim that holds especially true in museum experience. The failure of the Museum to house beyond danger of fire and to display suitably the collections it already possesses inevitably tends to discourage donors of valuable collections. Thus, for instance, the failure of the Government to display suitably the Maori collection donated by the trustees of Sir Walter Buller has prevented the donation of his invaluable bird collection, and it now appears probable that his collection has been lost to New Zealand.

Fourthly, the Museum houses the most valuable scientific library in New Zealand—that of the New Zealand Institute—but the accommodation is utterly inadequate. This library has been offered to the Government to form the nucleus of the Dominion Scientific, Art, and Historical Library contemplated by the Science and Art Act, 1913, but with the proviso that the transfer does not take place until a fireproof building is provided. A reasonably complete scientific and technological library is a preliminary necessity before any notable advance in the application of science to industry can take place. The only obstacle in the way of constituting such a library is the lack of a suitable and fireproof building.

Fifthly, an expansion of the Museum's activities is precluded by the lack of space for working-rooms, storage, and display of specimens. A museum is not a dead or fossil institution, but should move with the times and be in advance of the times. The Dominion Museum could do much for national reconstruction by the display of suitable specimens illustrating scientific agriculture, industrial technology, hygiene and public health, domestic architecture and town-planning, and similar subjects. Not only could much be done in these ways, but it ought to be expected of a museum. Such an expansion of the Museum's functions is utterly impossible without a new building.

Sixthly, the Dominion Museum as a national institution is visited by the majority of travellers to New Zealand. The lack of architectural beauty, the small dimensions, the gloomy lighting of the interior, and the poor quality of the show-cases cannot but make a very unfavourable impression on the visitor. The standard of civilization of any nation is largely judged by the size and style of its public buildings. The foreigner must judge from the buildings provided for science, art, and history that these are elements of civilization for which the people of New Zealand have no care or pride. As a national institution the Dominion Museum building must surely undo much of the reputation for enlightenment and efficiency which successive Governments of the Dominion have striven so well to create. As an advertising proposition alone the erection of a new building is overdue.

Finally, if what has been said above is not convincing as to the immediate necessity of a new building, the position in regard to New Zealand's part in the war should overcome all doubts. The Imperial Government have founded an Imperial War Museum to record for all time the valour of the Empire's fighting services, the sacrifices of the Empire's peoples, and the ability of the inventors, scientists, and manufacturers. In its small way the Dominion Museum has pursued the same objects in the foundation of a War Section, which nevertheless has grown to such dimensions as to exhaust all the available exhibition and store space. Meanwhile the War Records Section of the Defence Department in London has made large collections of all kinds, including many pictures and sketches, and had influenced the Allied Governments to send to New Zealand collections illustrating their equipment. The existing accommodation is utterly inadequate even to store this material, now coming to hand, and further buildings are imperative. The planning and commencement of a new building should not be delayed a single month.

BOARD OF SCIENCE AND ART.

The fourth annual meeting of the Board was held in the Dominion Museum on the 11th March, 1919, under the chairmanship of the Hon. G. W. Russell, Minister of Internal Affairs.

Turnbull Library.—The Chairman detailed briefly the steps that had been taken in regard to the Turnbull Library, and stated that it could not be opened for public use for at least a year.

It was resolved that the Chief Librarian, General Assembly Library, and the Turnbull Librarian be requested to bring down for submission to the next meeting of the Board of Science and Art a set of rules under which the Library may be opened.

Scientific and Technological Library.—A letter from the Minister of Internal Affairs was read informing the Board that he had communicated with the Minister of Justice on the matter, and had been informed by him that there would be no available accommodation for a Dominion Scientific and Technological Library in the old police building, but that it was proposed to arrange for a reference library of scientific and technical works in conjunction with the Patent Library, and under the control of the Patent Office, for the use of professional Government officers.

It was resolved that the Office Accommodation Board be requested to consider the need of providing rooms for the Scientific and Technological Library, and to associate Mr. P. G. Morgan and Dr. J. A. Thomson with the Board in the matter.

Scientific and Industrial Research.—Professor Thomas asked what steps had been taken in regard to the report of the National Efficiency Board. The Hon. Mr. Russell replied that it was still under the consideration of Cabinet. As regards a census of industrial matters, an industrial census was being carried out by the Government Statistician, and he considered that a compulsory census of industrial problems was out of the question. He hoped, however, that the Board would consider the whole matter fully, and bring down definite plans for the consideration of the Government.

After a general discussion of the steps that had been taken, and the present position in regard to scientific and industrial research, it was resolved—

- (1.) That this meeting urges upon the Government that the time has come when the establishment of a Board to superintend and organize scientific research and the advancement of industrial efficiency should no longer be delayed.
- (2.) That the scheme adopted by the National Efficiency Board, being the well-considered opinion of the scientific bodies of New Zealand, has the foremost claim to the attention of the Government.
- (3.) That pending the establishment of such a Board, a joint Committee of the New Zealand Institute and the Science and Art Board be authorized to undertake a preliminary investigation into the following matters:—
 - (a.) Industrial problems requiring scientific research.
 - (b.) Facilities for research in New Zealand laboratories.
 - (c.) Number and status of scientific men available for research.
 - (d.) Register of research work in progress.
 - (e.) Existing facilities for the training of research students.
 - (f.) Existing facilities for technical education and the training of artisans.
 - (g.) Existing facilities for the training of agricultural students.
- (4.) That the sum of £250 be granted to the above committee for secretarial assistance in making the above investigations.

Museum and Art Gallery.—It was resolved—

- (1.) That in consideration of the large accumulations of invaluable material at present stored in unsuitable buildings, and not accessible for public display and use, and also of the rapid increase of war collections, the Government be again urged to proceed with the building of a new Museum and Library with as little delay as possible. Until such a building is provided it is impossible for the Museum to fulfil adequately its functions.
- (2.) That the Board considers that the present Museum-site is the most suitable for the Dominion Museum and Library, more especially as the Parliamentary and Turnbull Libraries are situated close to it.
- (3.) That the Board agrees with the New Zealand Academy of Fine Arts that it is desirable that the National Art Gallery should be placed under separate control from the Museum and Library.
- (4.) That the Science and Art Act, 1913, be amended in accordance with these suggestions.

Historical Collections and War Museum.—The report on historical collections was considered clause by clause and adopted. Dr. Thomson stated that the papers for the Register of Early Colonists had not been circulated to relatives of early settlers owing to his absence on sick-leave, and that he proposed to issue with the blank forms one that was filled in as a model. With regard to *Brunner's Journal*, the opinion was expressed by members of the Board that the original had probably been destroyed in the newspaper office in Nelson which first printed it.

In regard to Government archives, it was resolved that the Board recommends that the New Zealand archives now in the possession of the Government, and which are at present stored in one of the public buildings, be deposited in a room in the Turnbull Library, where they would be accessible for reference.

In regard to the soldiers' diaries, it was suggested that Press reminders should be published to the effect that the Government wishes to acquire war diaries.

It was resolved that this Board advises the Government that a War Museum would be most economically established and administered in connection with the Dominion Museum. They recommend to the Government, further, that the care of war trophies and exhibits will be most efficiently carried out by the Museum staffs, and recommend that, where possible, duplicates of interesting exhibits should be obtained from England and placed under the care of the museums of the chief centres.

Publications of the Board of Science and Art.—During the year the publication of the *New Zealand Journal of Science and Technology* was continued. The revised report by A. B. Jamieson on "The Technical Analysis of Auckland Clays," which had previously been under consideration by the Board, was published in number of the *Journal* for May, 1919 (Vol. 2, No. 3).

The Publication Committee recommended that a series of books in demy octavo, to be called "Board of Science and Art Manuals," should be instituted, and this was agreed to. The first manual, which is now in the press, is a revised edition of "New Zealand Plants and their Story," by Dr. L. Cockayne, F.R.S.

The following papers have been accepted for publication, but printing has been deferred for the present: Dr. C. A. Cotton—The Geomorphology (Physiography) of New Zealand (in the manual series); Hon. G. M. Thomson, M.L.C.—History of the Portobello Fish-hatchery (in the bulletin series); Hon. G. M. Thomson, M.L.C.—Wild Life in New Zealand; Part I, Mammalia (in the manual series).

STAFF.

The only changes in the personnel of the staff since the last annual report consist in the appointment of Mrs. K. F. Phillips as typist in place of Miss M. Thomson, transferred to Internal Affairs Department; and of Miss M. Mestayer as part-time museum assistant to work on the Mollusca collections.

Mr. H. Hamilton, who for the last two years and a half held a commission in the Royal Naval Volunteer Reserve, serving latterly under the Board of Invention and Research, returned to the Dominion at the end of June, and resumed his duties at the Museum on the 7th July, 1919.

As in previous years, Mr. Best has devoted his whole time to ethnological research on the Maori, and Miss Castle has been wholly occupied with the care of the insect collections. Mr. Phillipps has been engaged in classifying the fish collections, and has also twice visited the thermal districts for a report on the fresh-water fisheries, asked for by the Department of Internal Affairs. Reports by these officers are appended. Mrs. W. Turton has been engaged principally on the formation of a series of photographs of officers and men who have won distinction in the Great War.

Owing to the absence of the Director for three months on sick-leave, and for a further two months on survey work for the Geological Survey Department, Mr. J. Macdonald has officiated for these periods as Acting-Director. In August, 1918, he received the additional appointment of Assistant Censor of Cinematograph Films, and was later reclassified in the Professional Division as Assistant Director. A report by this officer appears below.

Since the last annual report the following papers written by me have been published: "The Inclusions of the Volcanic Rocks of the Ross Archipelago," in the Scientific Reports of the British Antarctic Expedition, 1907-9; "Brachiopoda," in the Scientific Reports of the Australasian Antarctic Expedition, 1911-14; "Maori Rock-quarries on D'Urville Island," in the *New Zealand Journal of Science and Technology*.

NATURAL HISTORY COLLECTIONS.

The chief departments in which most progress has been made are those in which Museum officers are working—viz., insects, fish, mollusca, and geology. The insect collection are noted below in Miss Castle's report, and the fish in Mr. Phillipps's report.

Miss Mestayer's appointment as part-time assistant will permit the formation of a reference collection of Recent and Tertiary Mollusca to be proceeded with more vigorously, but some collecting expeditions will be necessary to enable many gaps in the series to be filled. Material has been collected by myself around Wellington, and at Titahi Bay, in Queen Charlotte Sound, and on the east coast of Marlborough, and in particular large series of limpets and chitons have been secured for revision of the variable or doubtful species. Of chitons some new species have been found in the immediate vicinity of Wellington. Little fossil material has been obtained since the last annual report. The collection of foreign shells was considerably augmented by the purchase of a large private collection.

Various small donations of rocks and minerals have been received, but, unfortunately, cannot be made accessible to the public owing to the lack of accommodation.

REPORT OF MR. J. McDONALD.

General.—The work of the year has been of a very varied nature—more so, probably, than in previous periods. A diminished staff, due to the war, has imposed a greater distribution of service in daily duties, and frequently work not of urgent requirement has had to be put aside for a more convenient season. The Museum has had a larger number of visitors than in former years. Notwithstanding the restricted shipping facilities, intercolonial visitors have been fairly numerous. This in a measure has been due to vessels remaining longer in port than is usual. The return of troops from England, France, and Egypt has brought many visitors to the city to welcome soldier relatives and friends, and delays in arrival of transports and disembarkation have been responsible, too, for the increased attendance. Apart from these factors the constant increase and change of exhibits are a source of interest and attraction to city residents. During the school-days teachers with large classes have paid frequent visits and spent several hours examining exhibits, and during vacation-time many children from outlying districts have paid the Museum a visit.

The publication of the *Journal* and publications of the Board of Science and Art have added to the work of the year. During the influenza epidemic in the latter part of 1918 the Museum was closed for three weeks, and opportunity was then taken to have floors scrubbed and disinfected, and a general overhaul carried out.

Museum Collections: War Section.—Considerable alterations have been made in the arrangement of exhibits in the main gallery. The space required for war trophies necessitated the removal of the large Maori war-canoe and the fishing-canoes to the store in Sydney Street, and a general rearrange-

ment of the exhibition cases has been made. The war material now on exhibition includes the pontoon captured by the New Zealand Expeditionary Force from the Turkish forces in their attempt to cross the Suez Canal; a collection of British shells and fragments found amongst German stores captured by our soldiers in France; nine machine-guns, gun-mountings, and spare parts; six trench mortars and accessories (one only of these is mounted on wheels); six field guns and howitzers and equipments of various sorts. A collection of uniforms and service equipment with badges, chevrons, and medals has been received from the Army Office, New York, U.S.A.; uniforms also from India; and uniforms of the Italian soldier are expected to be shortly to hand. From Messrs. Burn and Son, Engineers, Petone, a fine collection of materials in the shape of bombs and hand-grenades of various kinds, gas-masks, French helmet, &c., and a number of articles of Egyptian manufacture, including clay figures and steatite scarabs, have been generously placed at our disposal for exhibition to the public. These collections, which were made by Lieutenant Burn, are now on view in the main gallery, and attract considerable attention.

Maori Section.—A few additions only have been made during the year. A Maori flag, reminiscent of New Zealand's Native troubles in the "sixties," was received and handed in by Mr. R. Cashman, of the Department of Internal Affairs. This flag was given to Mr. F. J. Hayman, of Tokaanu, by Maoris of the Tuwharetoa Tribe. A Maori skull with a few cervical vertebræ still adhering was received from Mr. Hayman. The digging-sticks and prow of a fishing-canoe partly completed and worked by stone tools were presented by Mr. P. Beckett. Mr. Will Lawson, the poet and author, contributed a stone adze of unique shape, found by him at Muritai while excavating for house-building. A gourd of the old Maori variety was received from Mr. G. L. MacLachlan, Wanganni. From Mr. Alfred Lindsay, Wellington, we received, as the gift of Captain Popham, now resident in England, a small but excellent collection of flint-lock pistols, Japanese and Persian swords; several Boli clubs and spears were included. A collection of Pacific Island material made by the South Sea missionary, the late Rev. Hutchins, was purchased from Mrs. Hutchins. This included a number of specimens from Orokelo, New Guinea, which have helped to fill gaps in the collection purchased in New Guinea a few years ago. Thirteen large wooden spears from the Cook Islands were presented by Mrs. Hutchins.

During the year we have received over five hundred photographs of officers and men of all ranks who have gained distinctions for valour in the war. So far about four hundred have been framed and placed on view on the walls of the stairway leading to the library and upper galleries. The pictures of early Wellington and Maori photographs removed to make room for the military collection have been temporarily stored.

Bulletin Illustrations.—Despite the efforts made to complete the illustrations for Bulletin No. 5, work on the drawings has suffered many interruptions. Thirty are now in the hands of the Government Printer, and process blocks are under way. The drawings required for insertion with the text, as well as the plans of the pa and fortification sites, will be undertaken very soon.

Photographic Sections.—The main addition to the photographic negatives consists of about two hundred plates of Maori types, string games (*whai*) and cooking in the old-time way secured at the recent Maori gathering at Gisborne. At this welcome to the Maori Pioneer Battalion a number of cinematograph films were secured of hakas of welcome and poi dances. A series was also secured of the ancient Maori method of cooking by steam, as well as of many of the string games. A number of dictaphone records were also made of Maori song and speech. These and the string games are dealt with in the reports of Mr. Elsdon Best and Mr. Johannes C. Andersen.

National Art Collection.—The collections of paintings, drawings, etchings, and engravings which form the nucleus of the Dominion National Art Collection are, with the exception of the King George and Bishop Monrad set of etchings and engravings, still in the care of the New Zealand Academy of Fine Arts and remain on exhibition at the Art Gallery. A further number of works by the late Nicholas Chevalier has recently been received from the trustees in London. The collection includes a small bust of the artist by the well-known Australian sculptor, Mr. Charles Summers, of whose skill and craftsmanship we have a number of examples at Rotorua, forty pencil drawings and sixteen water colours which may be said to be Chevalier's best work. A number of the pencil drawings are now in the hands of the picture-framer.

The only other addition during the year is a fine work in oils, presented by W. H. Hodson, Esq., of Wellington, of "The Temple of Diana, Rome," by the Italian artist Giovanni Paolo Pannini (1691–1764). This is an excellent example of the artist's work. Pannini excelled in the restoration of Roman architecture, and many of his works are in Continental galleries and in private collections in England.

Library.—The registration, indexing, and binding of books received for the Museum library have been dealt with as in former years. Owing to an increase in exchanges arising out of the publication of the *Journal of Science and Technology*, considerable additions to shelving-space became necessary and was provided, but the continued growth of the library will shortly necessitate further additions. This year no exchanges for distribution in the Dominion have been received from the International Exchange Service, Washington, U.S.A.

Censorship of Films.—Since my appointment in August last as Assistant Censor of Cinematograph Films the duties of the position have not called for much time. Several films only, a total length of 7,500 ft., have been examined and passed for exhibition.

REPORT OF MR. ELDON BEST.

Mr. Elsdon Best reports on the ethnological work as follows:—

During the past three years nothing has been done in the way of printing Museum bulletins, owing to war economy, and the manuscripts of three further bulletins have meanwhile been prepared.

During the past year the principal work done consisted of the compilation of a considerable amount of data pertaining to Maori cosmogony, anthropogeny, and religion. The material available includes

much new matter, and the explanations of native myths and religion are of real value and interest, illustrating as they do the mentality and ideality of the Maori folk. It is this class of matter that is of the deepest interest to European anthropologists, and is claiming so much attention from ethnographers at the present time.

A considerable amount of new matter pertaining to Maori agriculture has been collected and incorporated with manuscript matter of Bulletin No. 9. These notes were obtained from Native sources. In this connection it is with much regret that I received news of the death of two esteemed correspondents, the Rev. Metara Te Ao-marere, of Otaki, and Hari Wahanui, of Otorohanga.

Short papers prepared during the past year were as follows:—

For Wellington Philosophical Society, Historical Section—

Bush Settlers of the Wellington District.

Old Blockhouses, Stockades, &c., of Wellington District.

Native Tradition of the Marion Massacre.

Maori Myth and Religion.

For Poverty Bay Institute—

The Maori as an Explorer and Colonizer.

Maori Customs pertaining to Death, Burial, &c.

In May I accompanied Messrs. J. McDonald and J. C. Andersen to Gisborne for the purpose of attending the big Native meeting held there in order to welcome the returning Maori troops. Our object was to obtain illustrations and dictaphone records of songs, games, &c., to serve as illustrations for Museum bulletins, and also for preservation. The records of Maori songs, games, &c., obtained at the meeting greatly exceeded my expectations. Long experience has taught me that social meetings of Natives do not, as a rule, afford a collector good opportunities for collecting ethnographical data. The attractions and distractions are so numerous that it is usually difficult to obtain matter the procuring of which demands the close attention of Natives. Moreover, Europeans going among Natives to whom they are quite unknown are heavily handicapped in any attempts to collect such data. It is therefore with much pleasure that I acknowledge our indebtedness to Mr. Balneavis, private secretary to the Minister of Native Affairs, who, at the request of Hon. Mr. Ngata, placed himself at our disposal, and was indefatigable in his efforts to induce Natives to fall in with our wishes. Being a Native of the district, he is acquainted with all the local Maoris, and was most successful in his endeavours. His own interest in the work resulted in that enthusiasm that ensured success. The interesting collection of Native songs, games, &c., may truly be said to be almost entirely due to his efforts. This unexpected assistance removed all disabilities under which we were labouring, and far surpasses anything I could have accomplished. I found that my best course was to stand aside, and hence my share of the work is best represented by profound silence.

The photographs and moving pictures of various old Native games that were procured are not only of much interest as permanent records, but will also provide illustrations for Museum Bulletin No. 8, on Maori games. Those of certain domestic occupations and scenes are also much wanted, and inquiries on this subject have lately been received from English sources. The moving pictures of various posture dances, and the ceremonial reception of the Native troops on their return from France, are also interesting, and will form an excellent record.

A long-cherished desire for phonographic records of Maori songs has at last been fulfilled. The collection of dictaphone records is exceedingly good, and comprises Native songs of many kinds, from old-time laments, watch songs, and ritual chants of past centuries to the simple songs composed as a welcome to the returning Native troops.

From my own point of view the most interesting feature of the collection of these dictaphone records is the fact that it provides material for a proper study of Native songs and singing by an expert. This is a highly interesting subject, but unfortunately I am not capable of dealing with it. I have long hoped that some one would take up this line of study, and am exceedingly pleased to hear that Mr. J. C. Andersen has resolved to do so. The field is a new one and will provide material for very interesting papers. It should be our aim to add to the material at every opportunity.

Mr. Johannes C. Andersen, Librarian, Turnbull Library, who accompanied the Museum party to Gisborne, presented the following report on the musical records:—

Among the songs, &c., are many good, and several excellent, examples of music. I am able to speak only from the standpoint of European music, but Mr. Elsdon Best recognizes many of the songs and chants as true Maori, and typical of the old Maori style. Most may be written down in the ordinary notation, and this I will do from the records as soon as possible. In some a modification of the ordinary notation will have to be used so that the quarter-tones may be shown—this especially refers to tangis, some of which are difficult and intricate within a small range of tones. There is much fine recitative, and even a style approaching operatic music of the florid Italian school. It is especially noteworthy that in addition to the rhythms that follow the ordinary modern accentual rhythms there are others that show to perfection the old Greek and Latin quantitative rhythm, preserved chiefly in the chants and incantations—the most conservative and ancient of songs.

There is a good deal of work now to be done in copying out the songs and analysing the various styles, but the result will be a revelation; there is music of a kind I have never heard before; there are two distinct rhythms, ancient and modern, living side by side, and there is besides fine music, whose art would shame no composer of the present day.

REPORT OF MISS A. CASTLE.

Miss A. Castle reports on the entomological collection as follows:—

Lepidoptera. The New Zealand reference collection has been added to by collections made by the Director when in Marlborough. Mr. H. W. Simmonds also sent many specimens from Auckland Province. Owing to the wetness and coldness of the summer, however, the material received in all orders was much less than usual. The usual routine work has been necessary to keep this collection in good preservation.

A fine series of Lepidoptera from Samoa has been acquired by exchange. Now that Samoan affairs are to be controlled by the New Zealand Government it is highly essential that a reference collection of the fauna and flora of that island should be formed and located in the Dominion.

The exotic collections have been added to by specimens from Fiji sent by Mr. H. W. Simmonds.

A large number of visitors have requested to see the collections of butterflies, and such time is absorbed in showing the collections.

Coleoptera. Little collecting-work has been done, but several valuable donations have been made by Mr. A. C. O'Connor.

Diptera.—Few specimens have been acquired. This branch of entomology is being undertaken by Mr. T. Miller, of the Agricultural Department, and for the present nearly all specimens are forwarded to him.

Hymenoptera, Neuroptera, and Orthoptera.—Last summer was undoubtedly a poor one for entomologists, and we received very few Hymenoptera or Neuroptera. A fair number of Orthoptera was collected by the Director at Stephen Island.

General Routine Work.—During the year the African collections of Lepidoptera have been rearranged and classified. The usual care had also to be exercised in keeping the collections free from the insect pests and mould.

The small class of boys interested in entomology still meets, and the enthusiasm shown merits its continuance.

The Department desires to gratefully record assistance from Mr. G. V. Hudson, Mr. A. C. O'Connor, Mr. H. W. Simmonds, and other collectors.

REPORT OF MR. W. J. PHILLIPS.

Mr. W. J. Phillips reports on the fish collections as follows:—

During the past year much of my time has been occupied in reclassifying and preserving a large proportion of the collection of fishes. Owing to a lack of recent literature on the subject, I have found my labours greatly hampered in many directions. Over twenty recent additions have been made to our collection of fish, at least fourteen of which were not previously in this Museum. Of new species two specimens of a species of mackerel (*Decapterus*) have been received, which are new to New Zealand, differing in various respects from *Decapterus kokeru* (Hector). A decapitated specimen of a deep-sea species from the Chatham Islands evidently belongs to the genus *Pteraclis*.

A notable accession is a specimen of sunfish (*Mola mola*) from Picton, which was captured by fishermen and presented to the Museum by Mr. Francis. A special trip was made across in order to secure the skin for the Museum. Owing to the difficulty of handling the species, which was estimated to weigh over 2 tons, and to the inadequate supply of labour, only one side of the fish was skinned. Measurements are as follows: Snout to tail, 9 ft. 9 in.; tip of ventral to tip of dorsal 11 ft. 4 in.; eye to snout, 13 in.; diameter of eye, 4 in.; pectoral to snout, 25 in.; height of ventral, 35.5 in.; height of dorsal, 37 in.

Missing Types.—The majority of the types of Hector and Hutton have been brought to light. In particular I may mention *Ericentrus rubrus* (Hutton) and *Auchenopterus aysoni* (Hector) previously stated to be non-existent (see Waite, 1913, Rec. Cant. Mus., Vol. 2, No. 1, p. 2).

J. ALLAN THOMSON, Director.

The Under-Secretary, Department of Internal Affairs, Wellington.

V. REPORT OF THE ADVISORY DIRECTOR, TURNBULL LIBRARY.

General Assembly Library, Wellington, 12th July, 1919.

The Turnbull Library, the gift to the State of the late Alexander H. Turnbull, was taken over by the Department of Internal Affairs in 1918. The library consists of some 30,000 bound volumes, together with a large collection of pamphlets, charts, maps, engravings, and manuscripts. The library is specially rich in works dealing with the early history, geography, languages, and folk-lore of New Zealand, Australia, and the Pacific Islands. In addition it includes many rare and valuable works in English and French literature, being particularly rich in copies of first editions, autographed and "association" books, many being exceedingly valuable.

I have not deemed it either necessary or desirable to attempt any detailed estimate of the value of the library. Its bibliophilic treasures (quite outside the New Zealand and Australian section) are, I may, however, be permitted to state, far greater than those of any other public or private library in the Dominion, with the exception of the Grey Collection in Auckland, which however, was formed on lines quite different from those followed by the late Mr. Turnbull. It is more than doubtful if in any part of the British Oversea Dominions there exists such an extensive and valuable collection of English literary rarities and bibliophilic treasures as are to be found in the Turnbull Library.

A special feature of the library is the almost immaculate "condition" of the books, and the astonishing proportion of artistic and very costly bindings, by such famous binders as Zahnsdorff, Cobden Sanderson, Sangarowski and Sutcliffe, Riviere, Cazin, and other firms which might be mentioned. In due course it is hoped that the price given by Mr. Turnbull for each volume or set of works will be ascertained, and that the present-day values of the books, as established by the prices realized at sales at Sotheby's, of London, and the Anderson Galleries, New York, may also be placed on record. This, however, is a task which may well be left untouched until the whole collection is classified and catalogued. Meanwhile, judging by information as to book-values gained from Slater's "Book Prices Current" and Karlake's "Book Auction Records"—wherein each great sale is reported in detail—I should say that a very conservative estimate of the actual present-day

commercial value of the collection as it now stands could be not less than £80,000. By reason of its special and peculiar wealth of rare and valuable books, charts, and manuscripts on Australasian history, geography, and ethnology, it must rightly be considered as of almost priceless value to the people of this country.

THE STAFF.

On the 1st January, 1919, Mr. Johannes C. Andersen, one of the senior assistants in the General Assembly Library, who had been appointed Librarian by the Public Service Commissioners, took charge of the library, and at once commenced a preliminary and general classification of the books, pamphlets, &c. On the 1st May, 1919, three lady assistants, Misses Q. B. Cowles, G. F. C. Davidson, and M. D. Gray, commenced their duties under Mr. Andersen, and are now, under his superintendence, engaged in classifying, arranging, and writing catalogue cards for the bound volumes in the collection, some 30,000 in number. The late Mr. Turnbull had partially prepared a card catalogue, but it was merely a record of possession and was very incomplete, there being no record of classification according to subject, nor any indication as to the exact locality of the volumes on the shelves in the various rooms.

WORK ALREADY DONE.

It became manifest that before the library could be utilized for reference purposes the whole of the books must be accessioned in a register and properly catalogued. This work is now in progress. Already, up to the date of this report, some two thousand volumes, the whole consisting of voyages and travels, and relating more particularly to Australasia and the Pacific, have been classified and arranged in the cases and several thousands of cards for these books have been written, with main and cross references to facilitate ready consultation by students and others who may use the library. For a large proportion of these books there were no cards in the catalogue cabinets used by the late Mr. Turnbull, and even where the cards existed the details given thereon have had to be supplemented by classification and locality marks. A large collection of New Zealand newspapers have been carefully collated and prepared for binding.

WORK REMAINING TO BE DONE.

It is desirable that some details should be given on the work remaining to be done before the library can be opened for the use of students and the public generally. In addition to completing a detailed card catalogue of the bound volumes, the immense collection of maps, charts, prints, engravings, and photographs—the exact number of which has not yet been ascertained—must be properly classified and arranged by subject, chronology, &c.

Many thousands of unbound books, pamphlets, and leaflets of varying character, at present roughly assembled in no special order of subject or date, have yet to be examined, classified, catalogued, and accessioned, previous to being bound into volumes as may be found desirable.

The library also contains a large collection of interesting and most valuable manuscripts and autographed letters by Australasian and British authors. These will require to be arranged very carefully upon a well-ordered plan of classification. All this will take a considerable time to carry out.

THE LIBRARY AND THE PUBLIC.

Much interest and curiosity must naturally attach as to the probable date upon which it may be found possible to open the library to the public. Recognizing that for the purposes of historical research the section including New Zealand and Australian history, topography, &c., will be more specially useful to students, the Librarian is at present confining his attention to pushing on with the classification, cataloguing, and arrangement on the shelves of that particular portion of the collection. He hopes that the New Zealand and Australian section (including works on the Pacific generally) will be available for reference purposes by students and the public by the end of the year, but at present it is impossible to specify the probable date of the opening. This section may be roughly estimated at 10,000 volumes, of which, when the library opens, a scientifically detailed and very useful catalogue should be ready for use.

With regard to the remainder of the collection, it would be unwise to fix any date upon which it is likely to be made fully available for reference purposes, but, speaking generally, the library as a whole cannot well be classified completely and arranged under two years. Once, however, the first section is ready for use by the public there need be no objection to visitors being admitted to the library and reading any works the library is known to contain, although it may be found necessary to place a temporary "taboo" or reserve, on the particular class which is undergoing examination or being catalogued.

Once one section is open to the public the work of cataloguing the remainder of the collection will probably be slower than at present, as the attention required to be given to students and visitors will trench upon the time of the assistants to some appreciable extent.

SAFEGUARDS AGAINST FIRE.

Structural alterations have been found necessary to the building in order to ensure proper safeguards against fire, and are now being proceeded with.

FUTURE PURCHASES.

With regard to the future acquisition of books, &c., much will depend upon the amount the State is prepared to expend upon such purposes. It is undesirable, in my opinion, that there should be any duplication either with the General Assembly Library or with the Dominion Museum Library. The general principle to be observed should, I think, be that the Turnbull Library should specialize in the collection of books and other publications dealing with the history, geography, ethnology, and folk-

lore of New Zealand, Australia, and the islands of the Pacific. In other branches of literature the requirements of students and the reading public are adequately met by the Parliamentary, the Museum, and the University libraries.

I have carefully gone through a list of certain sets of publications of learned societies, historical and geographical works, &c., subscribed to by Mr. Turnbull, and I have checked the list with the catalogue of the General Assembly Library. Recommendations as to the continuance of certain subscriptions and the discontinuance of others have already been made.

CHARLES WILSON,
Advisory Director, Turnbull Library

The Under-Secretary, Department of Internal Affairs, Wellington.

VI. REPORT OF OFFICER IN CHARGE, WAR FUNDS OFFICE.

War Funds Office, Wellington, 23rd July, 1919.

At the beginning of the year there were in existence 983 separate committees dealing with the collection of war funds, of which 415 were acting as feeders for the Red Cross Society. Quarterly statements were forwarded by 466 societies and half-yearly or yearly statements by the smaller committees.

During the first half of the year there was a considerable increase in the number of auxiliary collecting bodies in connection with special appeals, but as the result of the Armistice a number of these have concluded their efforts.

In the appendix to this report (printed separately), the transactions of 559 societies operating in connection with general relief and comfort funds in New Zealand are shown, and a summary sets out the total effort of the Patriotic Societies operating since the outbreak of the war.

The amounts forwarded through the Government by the people of the Dominion for the various overseas relief funds are as follows:—

	For the Year ending 31st March, 1919.			For the Period since the Outbreak of the War.		
	£	s.	d.	£	s.	d.
Belgian Relief Fund	37,599	8	2	348,720	6	2
Other Belgian Funds	310	2	6	6,746	5	4
For other Allies	15,873	19	2	38,230	17	3
Civil relief in Great Britain	2,942	8	3	14,728	17	5
British Red Cross Fund	142,379	4	0	329,800	18	0
British Naval relief	13,182	17	8	111,420	16	6
New Zealand Hospital Ship Fund	1,276	8	6	65,023	5	9
New Zealand Comforts Fund	50,392	19	9	178,669	19	2
New Zealand War Relief Fund	474	11	8	16,455	2	2
For equipment (aeroplanes, ambulances, &c.)	1,417	13	9	10,820	18	3
For regimental funds	1,016	1	0	3,751	16	6
For local war funds	183	18	5	7,824	4	6
For sundry overseas funds	12,249	2	9	13,725	19	1
Total voluntary subscriptions	279,298	15	7	1,145,919	6	1
Government contribution to Belgian Relief Funds .. ..	..	..	..	228,144	16	10
Totals	£279,298	15	7	£1,374,064	2	11

The cessation of hostilities having rendered the raising of further funds for Red Cross purposes and for trench comforts and gifts for the Oversea Forces unnecessary, notification was made in the *New Zealand Gazette* of the 6th March revoking and cancelling all existing permits for collecting or raising moneys by the societies dealing with those funds. The only societies now permitted to appeal to the public for funds are those which are actually engaged in the work of direct relief to soldiers and their dependants, and a limited number of organizations catering for the accommodation of comforts to returned soldiers. At the time the Armistice was signed several appeals were before the public, including the "Our Day" Red Cross appeal, and although the generous response made to these appeals will tend to maintain the measure of previous years' efforts, the falling-off in contributions to the funds of other Patriotic Societies will result in diminished total contributions for the year.

Since the coming into force of the Repatriation Act the operations of the Repatriation Boards have relieved the voluntarily contributed patriotic funds of a great many calls, and consequently there is not now apparent that willingness on the part of the public to continue their contributions to those funds that has been so noticeable in the past.

As was to be expected, the conclusion of the war and the demobilization of the Expeditionary Forces resulted in the inability of many Patriotic Societies to administer their accumulated funds which had been raised for supplying gift goods and comforts to the men abroad, and as the men returned in increasing numbers the disposition of these special funds became a matter of considerable importance. At the end of 1918 the funds so accumulated amounted to £457,125.

The action taken by the War Funds Office in connection with these funds was to recommend the small auxiliary branches of provincial societies to forward all money in hand to their respective

centres. Those societies, which were established independently of the provincial bodies, were advised to transfer their funds either to the latter, arranging for local representation on the provincial committees, or to the National War Funds Council, to be administered in the interest of soldiers throughout the Dominion.

In a very large majority of cases this advice has been gratefully received and acted upon, the committees concerned realizing that such a course will relieve them of their long and arduous work, and that as units of the larger organizations they may still have a voice in the local administration of relief.

It is regretted that in some cases the committees cannot agree to the course suggested, claiming that as they were instrumental in raising the money they alone should decide how it is to be expended, and overlooking the fact that patriotic funds may only be expended on the specific objects for which they were raised unless the sanction of the Minister is obtained to use them for some cognate purpose or for some object which is for the practical benefit of returned soldiers or dependants of soldiers.

The War Funds Amendment Act, 1918, provides for the disposition of such patriotic funds as can no longer be used for the exact purpose for which they were raised, and, in my opinion, the time has arrived when the provision of that Act should be taken advantage of, and the allocation of the funds placed in the hands of trustees approved by the Court.

While the administration of funds raised for relief and assistance of soldiers by the principal War Relief Societies is carried out in a manner deserving of all commendation, and the controlling committees are actuated by a desire to use the funds in the best possible way, there are, unfortunately, indications that the trustees of many societies do not fully realize their obligations to the contributors of their funds or the necessity of strict compliance with the War Funds legislation, and unless action is taken as suggested above these funds will be gradually dissipated in directions that will be of very little, if any, permanent benefit to those most in need of help. It must also be borne in mind that in many cases the administrative expenses of these funds is abnormally high, and it is very necessary that some finality should be arrived at in connection therewith.

NATIONAL WAR FUNDS COUNCIL.

The total income to the 31st March, 1919, amounted to £40,214, and the expenditure to £5,486, including £2,339 contributed towards the cost of hospitals for returned soldiers. £1,990 was distributed for relief and assistance to soldiers and dependants, and temporary loans amounting to £1,121 were granted. Of the latter amount, £462 has been repaid. The amount in hand at the end of the year was £34,728, of which £33,500 is invested, the interest income to date amounting to £2,035. The total charges for administration since the establishment of the fund in November, 1915, amount to £36, or about 7d. per cent. per annum.

The Council continues to control the administration and expenditure of the funds handed over by the Westland Patriotic Committee, Buller Sick and Wounded Fund, and the Public Service Sick and Wounded Fund. The Advisory Committees of these funds receive from the Council from time to time such advances as may enable them to deal with all cases of relief and assistance to soldiers and their dependants on whose behalf their respective funds are held, and the relations between the Committees and the Council are in every way satisfactory.

J. W. KINNIBURGH,
Officer in Charge.

The Under-Secretary, Department of Internal Affairs, Wellington.

VII. REPORT OF THE GOVERNMENT ASTRONOMER.

Hector Observatory, Wellington, New Zealand, 1st July, 1919.

THE TIME SERVICE.

The time service has been maintained in fair working-order, as in former years, and all the routine duties have been attended to. It has been necessary to suspend the time service fairly frequently whenever the errors of the clocks became too great to allow an accurate time-signal to be provided. With improved equipment, however, and additional staff, with facilities for observing at night, it is hoped that the number of such occasions will be considerably reduced in the future.

EXTENSION OF THE TIME SERVICE.

At very small expense a number of improvements might be made in the time service so that it would be of greater value to the people of the Dominion. For example, the public clocks in the City of Wellington could be checked daily and kept accurately to time; the various clocks in the Parliamentary and Government Buildings and the Tramway clocks could be controlled by the Observatory standard clock, and kept to accurate time; and clocks synchronized by the Observatory standard clock might be exhibited at the Observatory and in the city. In this way it would be possible to keep all the chief clocks in the City of Wellington to one uniform time, in place of the diversity which obtains at present.

Accurate time-signals could also be supplied to the public at every telegraph-office throughout the Dominion whenever such signals are transmitted from the Observatory (usually twice a week), while residents in Wellington could receive them by telephone, for which a fee might be charged. At present the supply of time-signals by galvanometer is limited to the City of Wellington. It is possible to extend this service and supply time-signals by radio-telegraphy to all parts of New Zealand, so that the public can take full advantage of the facilities offered.

RADIO TIME-SIGNALS.

Reception.—An order has been placed for the purchase and the installation of a modern receiving outfit for radio time-signals at the Observatory.

Transmission.—Demands for a radio time service are continually increasing, and almost every steamer approaching New Zealand makes a request for radio time-signals. No regular service has yet been established, although a large amount of experimental work has been done, and many signals have been sent from the Observatory standard clock, by the Telegraph Department—some from the Awanui Radio on a wave-length of 2,000 metres, and some from the Wellington Radio on a wave-length of 600 metres. Proposals for the establishment of a radio time service are under consideration by the Government.

LONGITUDE.

With the rapid advances that have been made in radio-telegraphy, astronomers the world over have been of necessity closely associated, particularly as some of the advances made lead to the most accurate method known of determining longitude. Suggestions for the determination of a fundamental longitude for Australia have been made by the Australian astronomers, and New Zealand has been invited to co-operate and determine a fundamental longitude for the Dominion. The matter has also received the attention of the Bureau des Longitudes, Paris, which has already, with the co-operation of the American Naval Observatory, determined the longitude between Paris and Washington, some 3,840 miles; this being the longest direct determination ever made.

The Bureau des Longitudes has proposed to select five fundamental reference points—namely, at the Royal Observatory, Greenwich; at the Paris Observatory; near San Francisco; near Shanghai; and in New Zealand; and, with the assistance of the countries interested, to determine their longitudes and latitudes with the highest precision. The subject is one of the greatest scientific and commercial importance, and is well worthy of the serious attention of New Zealand, especially as the co-operation of the Dominion is necessary for the carrying-out of the proposal.

SEISMOLOGY.

The Government Seismologist, Mr. George Hogben, C.M.G., M.A., F.G.S., is in charge of the Milne seismograph No. 20 installed at the Observatory. As Mr. Hogben has found it necessary to ask to be relieved of some of the scientific duties in seismology, it has been decided to appoint Mr. C. E. Adams, D.Sc., F.R.A.S., as Assistant Government Seismologist, in addition to his other duties as Government Astronomer.

At the Science Congress of the New Zealand Institute, held at Christchurch in February, 1919, a discussion took place on Seismology, and a resolution was passed urging upon the Government the importance of providing a more modern type of seismograph for the Dominion.

LIBRARY AND PUBLICATIONS.

Many valuable publications have been presented to the library by other observatories, and for these gifts sincere thanks are tendered. Among these may be mentioned a set of the back numbers of the *Monthly Notices* and of the *Memoirs of the Royal Astronomical Society*, presented by the society, and a set of the *Bulletin de la Carte du Ciel*, presented by the French Minister of Education and Fine Arts.

The following bulletins of the Observatory have been published and distributed :—

- Bulletin 17.—Astronomical Notes. Phenomena for November and December, 1919—Nova Aquilæ No. 3. *N.Z. Journal of Science and Technology*, September, 1918.
- Bulletin 18.—Astronomical Notes. Nova Aquilæ No. 3—Notes by A. C. Gifford, M.A., F.R.A.S.; J. T. Ward; C. M. Hector, M.D., B.Sc., F.R.A.S.; and E. L. Morley. *N.Z. Journal of Science and Technology*, November, 1918.
- Bulletin 19.—Report of the Government Astronomer, 20th June, 1917, to 31st August, 1918.
- Bulletin 20.—Astronomical Tables for the year 1919.
- Bulletin 21.—Astronomical Notes. The Combined Magnitudes of Double or Multiple Stars; the Origin of New Stars; On the Character of Spectral Lines due to a Sphere or Spherical Shell of Transparent Luminous Gas expanding uniformly: A. C. Gifford. *N.Z. Journal of Science and Technology*, January, 1919.
- Bulletin 22.—Astronomical Notes. The Origin of New Stars (No. 2): A. C. Gifford. The Date of Easter. *N.Z. Journal of Science and Technology*, March, 1919.
- Bulletin 23.—Astronomical Notes. Description of a Planisphere: D. M. Y. Somerville. Notes on the Calculation of an Ephemeris of a Comet. *N.Z. Journal of Science and Technology*, May, 1919.

GIFTS.

Dr. W. W. Campbell, Director of the Lick Observatory, California, has presented three photographs on glass of the solar corona obtained during the total eclipse of the sun on the 8th June, 1918. The photographs are the best ever obtained at a solar eclipse and are the first ever received in New Zealand. Among other gifts were photographs on glass of the new 72 in. reflecting telescope near Victoria, B.C., from Dr. J. S. Plaskett, Director of the Dominion Astrophysical Observatory, Canada; and of the Kodaikanal Observatory, and of the sun, sun spots and prominences, from Mr. J. Evershed, Director of the Kodaikanal Solar Observatory, India. For these and other gifts hearty thanks are tendered to the donors.

SCIENCE CONGRESS.

The Science Congress of the New Zealand Institute was attended by a number of the scientific officers of the Government, and by permission of the Hon. the Minister of Internal Affairs the Government Astronomer was present at the meeting and exhibited the following: (1) Photographs of the solar corona; (2) photographs of the moon and surrounding stars; (3) a nomogram for transit instrument star factors. He also gave addresses on—(1) Tables of mathematical functions; (2) the harmonic analysis of tidal observations and the prediction of tides; (3) the almucantar method of observations for the determination of time and latitude.

STAFF.

Honorary Scientific Adviser: The Observatory suffered a severe loss in the death on the 29th October, 1918, of Charles William Adams, who acted as Honorary Scientific Adviser to the Observatory for a number of years.

The Observatory has suffered serious loss by the deaths in action of three brilliant young men—Lieutenant Valentine Blake, formerly Professional Assistant; Bombardier Norman Shrimpton, Professional Cadet; Sergeant Hubert Earle Girdlestone, formerly Professional Assistant.

EFFECT OF THE WAR ON THE OBSERVATORY.

The matters which require urgent attention, and which the war has delayed are—(1) The provision of suitable office accommodation and storage-rooms, as at present all office-work has to be carried on in a small unsuitable storeroom above the clock-room, and the clock-room and the transit-room are crowded with books and apparatus; (2) the provision of a room for radio-telegraphy; (3) the erection of a library where the Observatory publications may be arranged and made available for departmental use, together with a room in which astronomers may meet and consult the astronomical publications.

BOARD OF ADVICE.

In the older Observatories much advantage is derived from the advice of Scientific Boards. Thus, at the Royal Observatory, Greenwich, the Astronomer Royal has the assistance of such a Board, which is composed of seven Fellows of the Royal Society, seven Fellows of the Royal Astronomical Society, the Cambridge and the Oxford University Professors of Astronomy, and the Hydrographer to the Admiralty. Similar Boards are in operation at many other British Observatories. At the Melbourne Observatory such a Board has been in existence for many years, and during the war one was established at each of the Adelaide and the Sydney Observatories.

In order to cope with the large increase of scientific work it is recommended that there should be a Board of this kind in connection with the Observatory of New Zealand. The Board could be part of the larger scheme suggested by the International Research Council, London, for the co-ordination of scientific work.

PROGRAMME FOR SCIENTIFIC WORK.

If it is intended that New Zealand is to take her place among the countries that carry on scientific astronomical work, then the highly important programme approved by the Astronomer-Royal, Sir Frank W. Dyson, F.R.S., and by the Royal Astronomical Society, London, should be immediately put in hand. The unique position of New Zealand in the Southern Hemisphere, providing as it does excellent sites for observatories farther south than any existing British Observatories, makes the responsibility of the Dominion in this matter a serious one. The important observations that have already been taken should be reduced and published, and the current work should be kept up to date.

Unless these matters are attended to New Zealand will lag far behind in scientific progress.

The Under-Secretary,
Department of Internal Affairs, Wellington.

C. E. ADAMS,
Government Astronomer.

VIII. REPORT OF THE CONSERVATOR OF FISH AND GAME.

Rotorua, 11th June, 1919.

I have the honour to submit my report of the work which has been done in connection with the fresh-water fisheries at Rotorua and Taupo districts during the past season, November, 1918, to May, 1919.

During the year just ended the following works in connection with the trout-fisheries in the thermal district have been successfully carried out: (1) Marketing of saleable trout; (2) addition to food-supply for the trout; (3) destruction of shags; (4) trout-hatchery operations; (5) scientific experiments.

No work in connection with the thinning-out of poor and diseased fish during the close season was carried out at Lake Taupo on account of the scarcity of suitable labour, and none at Rotorua on account of the wonderful improvement made in the condition of the fish. It was thought that it would not be advisable to reduce the numbers by this means any longer.

The following return of the business done in connection with the sale of marketable fish at the Rotorua depot shows an increase in the revenue returns as compared with last year, and also demonstrates the general improvement made in the condition of the fish. Thus last year the number of fish sold was 20,270, and the weight of them was 51,017 lb., whereas this year the record shows that 19,163 fish, weighing 55,760 lb., were sold, thus showing that this year 1,107 fish were sold less than last year, yet the weight has increased by 4,743 lb. No netting was done in Lake Rotorua

this year, and operations were carried out in Lake Rotoiti only. During the year 6,034 separate consignments of fish were delivered from the depot, and consignments were made to all parts of the Dominion.

At the Tokaanu depot the returns hardly come up to last year's standard. This is accounted for partly by the operations not being started till January, the increase of poor fish taken, the bad condition of the Waimarino Road causing delay in motor services, and delay in train services. Now, however, that Mr. Parsons has returned from the war it is to be hoped that next season the business will be brought up to its usual standard.

The following is a record of the business done :—

Sales at the Rotorua depot: 19,163 fish, weighing 55,760 lb.; value, £931 10s. 2½d. Sales at the Tokaanu depot: 10,060 fish, weighing 27,810½ lb.; value, £522 7s. 8½d. Total, 29,223 fish, weighing 83,570½ lb.; value, £1,453 17s. 11d.

Total weight of fish sold: Rotorua—19,163 fish, weighing 24 tons 17 cwt. 3 qr. 12 lb.; Tokaanu—10,060 fish, weighing 12 tons 8 cwt. 1 qr. 7 lb.: total, 29,223 fish, weighing 37 tons 6 cwt. 0 qr. 19 lb.

Total number of fish destroyed as unfit for marketing: Rotorua—1,954 fish, weighing 2 tons 12 cwt. 0 qr. 18 lb.; Tokaanu—2,385 fish, weighing 3 tons 3 cwt. 3 qr. 15 lb.: total, 4,339 fish, weighing 5 tons 16 cwt. 0 qr. 5 lb.

During the past year 424 shags' heads were purchased at a cost of £53.

For the purpose of again augmenting the food-supply a further number of live shrimps from the Waikato River have been liberated in Lake Rotorua. During the season a sample of the shrimps taken in the Waikato River were submitted to the Hon. G. M. Thomson, M.L.C., for scientific purposes, and to ascertain if they were suitable for liberation in fresh waters of the Dominion. The following is an extract from a letter received from him: "The species proves to be *Xiphocaris curvirostris* Heller, a shrimp which was formerly very common in our fresh-water streams throughout New Zealand, but which in most of our trout-stocked rivers has been exterminated by the introduced fish. It was probably at one time very common in all streams in the Rotorua district. It is therefore very interesting to find that it is still abundant in some parts."

THE TROUT-HATCHERY.

The work in connection with the trout-hatchery was carried out under certain difficulties, mostly in connection with the labour question, as there are very few men in the Dominion who are used to this class of work. However, the following quantity of trout ova and fry were forwarded from the hatchery during the close season: Trout-ova sold and distributed, 1,020,000; trout-fry sold and distributed, 625,000: total, 1,645,000.

Trout were liberated in the streams of the Tongariro National Park, and in various streams in the Rotorua Acclimatization District. Gifts of ova have also been made to some of the smaller acclimatization societies within the Dominion.

SCIENTIFIC EXPERIMENTS.

An officer of the Department from the Dominion Museum has visited Rotorua for the purpose of making scientific experiments with the trout, with a view to ascertaining, among other things, what effect inbreeding may have on the trout, and also matters relating to the trout generally.

The Under-Secretary,
Department of Internal Affairs, Wellington.

F. MOORHOUSE,
Conservator of Fish and Game.

IX. REPORT OF INSPECTOR OF TOTALIZATORS.

Wellington, 20th August, 1919.

I have the honour to submit my first report on the inspection of totalizators for the racing year which ended on the 31st ultimo.

Early in August, 1918, the Government decided on the appointment of an Inspector of Totalizators, and a representative of this Department has been present at every totalizator meeting that has been held since that date. The appointment of Deputy Inspectors is confined to officers of this Department, and I desire to take this opportunity of expressing my thanks to them for the intelligent and tactful manner in which they have carried out their duties. There has been no friction whatever with racing and trotting clubs, and although clubs were rather inclined at first to view the appointment with disfavour, I think that, generally speaking, that feeling has completely changed, and several clubs have expressed their approval of the appointment of Totalizator Inspectors. There is no doubt whatever that the appointment has completely restored the confidence of the public in the fair and impartial working of the totalizator.

The principal duties of the Inspectors are to see that the totalizator-house is large enough to meet the public requirements; that no commissions received in the totalizator-house are held back until the last moment; that the total investments received on each race are correctly balanced; that the correct figures are shown on the dial of the totalizator before the release-signal is given to the starter; to see that the dividends are computed on such figures, and that the public are paid the correct dividends; to see that ample provision is made for the paying-out of dividends; and to generally inquire into any complaints made by the public against the management of the totalizator-house.

The totalizator accommodation provided by many of the clubs both for the receiving of investments and the paying of dividends is totally inadequate, with the consequent result that thousands of pounds have been shut out of the totalizator. As, however, the majority of those clubs had donated their profits during the war to patriotic funds, no action was taken, but it is to be hoped that now that the full number of days racing has been restored the clubs referred to will provide the increased totalizator accommodation necessary both for the public and the totalizator staff.

While on this subject I desire to express my surprise at the large number of clubs which do not work the totalizator themselves, but allow contractors to do so for them. While I must candidly admit that some of the contractors run their machines much better and smarter than clubs generally speaking do, yet I contend the principle is bad. More particularly is this so when contractors receive *half the fractions* in addition to the $1\frac{1}{4}$ per cent. or $1\frac{1}{2}$ per cent. of the totalizator investments. Clubs would find it to their advantage to run the totalizator themselves. The services of the contractors who now run their machines so successfully could no doubt be secured by clubs provided they paid them an adequate fee, and in my opinion it would pay the clubs to do so.

Only on three occasions during the year were races started prior to the final figures being exposed on the dial of the totalizator. In each case the mistake was due to a misunderstanding regarding the signal to be given. Steps were immediately taken in each case to prevent a recurrence. Clubs would be well advised to adopt the uniform practice of *hoisting* a signal to show that all is clear. My reason for suggesting this course is this: One club was in the habit of *lowering* the balloon as the signal. One day it was very windy and the balloon was blown away after the totalizator had closed but before the figures had been balanced. Immediately the race started I declined to allow the totalizator figures to be altered, and the dividends were calculated and paid out on such figures in accordance with the law on the subject. Fortunately the club did not lose on the race, but it may have happened to have lost a considerable sum.

On one occasion only during the year was a dividend short-paid. In this case it was the dividend on the second horse, and my deputy, who was rather new to the work, did not discover that the dividend was being short-paid 6d. until after some tickets had been paid out. The totalizator officials did not correct the error, and the matter was reported to the Minister, who directed that the club was to reap no advantage from the error and that the total amount short-paid—viz., £15 14s.—was to be paid over by the club to the local Hospital and Charitable Aid Board before a further totalizator license would be issued to that club. The club expressed its regret for the error and cheerfully paid the amount to the local Hospital and Charitable Aid Board.

The Gaming Act throws the onus on clubs of keeping their racecourses clear of bookmakers and undesirables, but I regret to say some clubs do not take the matter very seriously, and consider that having once passed regulations providing for the exclusion of bookmakers and undesirables their responsibility ends. This is, however, not the case, and clubs must understand that they are required to appoint efficient racecourse detectives to keep their racecourses clear. It will not do for such clubs to nominally appoint some local person who does not know the bookmakers and undesirables and then place him, as has happened in some cases, on the gate leading to the bird-cage. I notice that, although the question of appointing racecourse detectives by the Racing Conference has been before that body on several occasions, no action has yet been taken in that direction. This, I think, is much to be regretted, as I am of opinion that if racing is to maintain its high standard some effective means must be taken to keep the racecourses clear of bookmakers and undesirables. If the question of the cost is stopping this much-needed reform, then I desire to express the opinion that the increased totalizator turnover which would result from the effective exclusion of bookmakers and their agents from racecourses would more than recoup clubs for the increased expense.

I wish it to be known that any complaints which the public may have to make regarding the administration of the totalizator, either in regard to wrong tickets, wrong change, wrong dividends, &c., should be made to the Totalizator Inspector, who will be found in the totalizator-house, and it will be his duty to inquire into all such complaints.

I append hereto a return in connection with the licenses to use the Totalizator issued during the year ended 31st ultimo, from which it will be seen that the totalizator was used on 236 days—viz., 186 days racing and 50 days trotting. The full number allowed by statute is 281 days, but up to the 1st February last that number was reduced by one-third in consequence of the war. The amount paid in stakes by racing clubs was £308,885, and by trotting clubs £74,185, making a total paid in stakes of £383,070.

The sum of £5,732,479 10s. was passed through the totalizator, and investors received back in dividends £5,002,772 12s. The difference—viz., £729,706 18s. was disposed of as follows: The Government received £272,313 4s. 3d., of which £143,311 19s. 9d. represented $2\frac{1}{2}$ per cent. tax on the total investments, and £129,001 4s. 6d. was the dividend-tax of 6d. in the pound. The clubs received the balance of the £729,706 18s.—viz., £457,393 13s. 9d.—which is made up of £429,935 19s. 3d., being $7\frac{1}{2}$ per cent. of the totalizator turnover and £27,457 14s. 6d. unpaid fractions.

I desire to call your attention to the large sum the fractions amount to—viz., £27,457 14s. 6d.—equal to over £116 for each day's racing. In my opinion clubs have no just claim for such fractions, and they should be paid into the Consolidated Fund and the money earmarked for some good purpose.

In conclusion I desire to thank clubs for the many courtesies extended to myself and my deputies when attending their meetings.

I have, &c.,

P. J. KELLEHER,
Inspector of Totalizators.

The Under-Secretary, Department of Internal Affairs.

RETURN IN CONNECTION WITH LICENSES TO USE THE TOTALIZATOR ISSUED DURING THE RACING YEAR 1918-19.
Racing Clubs.

Name of Club.	Date of Meeting.	Number of Races.	Amount of Stakes.		1 per Cent. Government Tax on Stakes.		Totalizator Investments.		Percentage (7 1/2 per Cent.) retained by Club.		Government Totalizator-tax (2 1/2 per Cent.).		Government tax on Dividends (2 1/2 per Cent.).		Amount paid in Dividends.		Unpaid Fractions.	
			£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Canterbury J.C.	1918. 15 Aug.	8	4,500	45 0 0	60,401	0 0	4,530	1 6	1,510	0 6	1,359	1 6	52,876	13 6	125	3 0		
"	"	8	2,450	24 10 0	67,214	0 0	5,041	1 0	1,680	7 0	1,512	8 0	58,635	2 0	345	2 0		
Marton J.C.	"	8	1,280	12 16 0	30,777	0 0	2,308	5 6	769	8 6	692	11 0	26,894	5 6	112	9 6		
Dannevirke R.C.	4 Sept.	8	1,180	11 16 0	25,611	0 0	1,920	16 6	640	5 6	576	6 6	22,380	14 0	92	17 6		
Amberville R.C.	"	8	950	9 10 0	11,609	0 0	870	14 3	290	4 9	261	6 0	10,137	15 0	49	9 6		
Egmont R.C.	"	8	1,350	13 10 0	23,752	0 0	1,781	8 0	593	16 0	534	10 0	20,718	0 0	124	6 0		
Ashburton County R.C.	"	8	920	9 4 0	11,767	0 0	882	11 3	294	3 9	264	17 6	10,263	16 6	62	1 0		
"	"	8	845	8 9 0	10,358	0 0	776	17 9	258	19 3	233	3 6	9,037	17 6	51	12 0		
Otaki Maori R.C.	"	8	1,520	15 4 0	26,366	0 0	1,977	9 0	659	3 0	593	7 0	23,055	14 6	80	6 6		
Geraldine R.C.	"	8	770	7 14 0	8,433	0 0	632	10 3	210	16 9	189	16 0	7,365	17 0	34	10 0		
Kurow J.C.	3 Oct.	8	940	9 8 0	9,313	0 0	698	9 6	232	16 6	209	13 0	8,146	11 6	25	9 6		
Dunedin J.C.	"	8	1,560	15 12 0	16,414	0 0	1,231	1 9	410	7 3	369	9 0	14,304	4 0	99	8 0		
"	"	8	1,040	10 8 0	19,647	0 0	1,473	10 6	491	3 6	442	2 6	17,171	6 0	68	17 6		
Masterton R.C.	"	8	1,255	12 11 0	21,504	0 0	1,612	16 9	537	12 3	483	19 0	18,799	14 6	70	7 6		
"	"	8	1,300	13 0 0	17,488	0 0	1,311	12 0	437	4 0	393	10 6	15,271	6 6	74	7 0		
Poverty Bay Turf C.	"	8	1,150	11 10 0	14,073	0 0	1,055	9 6	351	16 6	316	14 6	12,315	4 0	33	15 6		
"	"	8	1,175	11 15 0	17,405	0 0	1,305	5 6	435	2 6	391	14 0	15,215	0 0	57	16 0		
Gore R.C.	"	8	860	8 12 0	10,001	0 0	750	2 3	250	0 9	225	2 6	8,749	7 0	26	17 6		
"	"	8	940	9 8 0	13,696	0 0	1,027	4 9	342	8 3	308	5 0	11,945	8 0	73	4 0		
Wellington R.C.	"	8	2,800	28 0 0	35,160	0 0	2,637	0 9	879	0 3	791	4 6	30,712	18 6	140	6 0		
"	"	8	2,750	27 10 0	46,896	0 0	3,517	4 9	1,172	8 3	1,055	5 6	40,970	13 0	105	10 6		
Waverley-Waitotara R.C.	"	8	1,205	12 1 0	25,740	0 0	1,830	10 0	643	10 0	579	5 0	22,481	4 6	180	18 6		
North Canterbury and Oxford R.C.	"	8	860	8 12 0	11,848	0 0	888	12 9	296	4 3	266	14 0	10,339	5 0	57	14 0		
Avondale J.C.	"	8	2,400	24 0 0	28,477	0 0	2,135	16 3	711	18 9	640	15 6	24,891	7 6	97	12 0		
"	2 Nov.	8	2,010	20 2 0	21,345	0 0	1,600	17 6	533	12 6	480	7 0	18,637	14 0	92	9 0		
Canterbury J.C.	"	8	7,300	73 0 0	48,026	0 0	3,601	19 9	1,098	12 3	1,080	14 0	41,840	19 0	302	4 0		
"	"	8	4,450	44 10 0	43,944	0 0	3,295	16 9	1,098	12 3	988	17 0	38,843	10 6	217	13 6		
"	"	8	4,000	40 0 0	41,731	0 0	3,129	16 6	1,043	5 6	939	1 0	36,459	14 6	159	2 6		
Winton J.C.	"	8	1,210	12 2 0	10,963	0 0	822	4 6	274	1 6	246	15 6	9,587	2 6	32	16 0		
"	"	8	990	9 18 0	10,237	0 0	767	16 3	255	18 9	230	8 6	8,944	18 0	38	8 6		
Taranaki J.C.	"	8	1,330	13 6 0	22,097	0 0	1,882	5 6	627	8 6	564	15 6	21,918	2 0	104	8 6		
Dunedin J.C.	26 Dec.	8	1,480	14 16 0	22,783	0 0	1,708	14 0	569	11 6	512	14 0	19,919	0 6	72	19 6		
Manawatu R.C.	"	8	2,700	27 0 0	40,240	0 0	3,018	0 0	1,006	0 0	905	9 6	35,224	13 6	85	17 0		
"	"	8	2,500	25 0 0	36,139	0 0	2,710	8 6	813	4 6	710	6 0	31,545	17 0	166	0 6		
Auckland R.C.	"	8	6,400	64 0 0	76,039	0 0	5,707	9 3	1,902	9 6	1,712	6 0	66,358	14 0	418	11 0		
"	"	8	4,300	43 0 0	57,676	0 0	4,825	14 0	1,441	18 0	1,297	15 6	50,276	15 6	333	17 0		
"	1919. 1 Jan.	8	5,050	50 10 0	68,936	0 0	5,170	4 9	1,723	8 3	1,551	3 0	60,169	1 0	322	13 0		
Ashurst-Pohangina R.C.	1918. 30 Dec.	8	970	9 14 0	18,859	0 0	1,414	8 6	471	9 6	424	8 6	16,458	11 0	90	2 6		
Greyhound J.C.	"	7	625	6 5 0	6,549	0 0	491	3 6	163	14 6	147	8 6	5,698	0 0	48	13 6		

1919.	725	7 5 0	7 668 10 0	575 2 9	191 14 3	172 12 6	6 690 8 0	38 12 6
1 Jan.	725	7 5 0	7 668 10 0	575 2 9	191 14 3	172 12 6	6 690 8 0	38 12 6
3 "	650	6 10 0	7 386 0 0	553 19 0	184 13 0	166 5 6	6,447 11 6	33 11 0
7 "	930	9 6 0	12 694 0 0	952 1 0	317 7 0	285 13 6	11,073 9 0	65 9 6
1 "	400	4 0 0	2 881 0 0	216 1 6	72 0 6	64 18 0	2,507 13 6	20 6 0
1 "	950	9 10 0	20 997 0 0	1,574 15 6	524 18 6	472 10 0	18,328 8 0	96 8 0
2 "	875	8 15 0	22 575 0 0	1,693 2 6	564 7 6	508 0 6	19,728 12 0	80 17 6
1 "	1,800	18 0 0	28 903 10 0	2,167 15 3	722 11 9	650 8 6	25,241 4 6	121 10 0
1 "	1,995	19 19 0	33 061 0 0	2,479 11 6	826 10 6	743 19 6	28,789 10 6	221 8 0
2 "	2,365	23 13 0	22 992 10 0	1,724 8 9	574 16 3	517 8 6	20,093 13 0	82 3 6
3 "	1,635	16 7 0	21 883 10 0	1,641 5 3	547 1 9	492 9 6	19,099 14 6	102 19 0
4 "	4,450	44 10 0	60 408 0 0	4,530 12 0	1,510 4 0	1,359 5 6	52,554 7 6	453 11 0
7 "	600	6 0 0	7 536 0 0	565 4 0	188 8 0	169 13 0	6,585 4 6	27 10 6
7 "	700	7 0 0	8 847 0 0	663 10 6	221 3 6	199 2 6	7,739 1 0	24 2 6
8 "	250	2 10 0	3 316 10 0	248 14 9	82 18 3	74 15 0	2,879 12 0	30 10 0
11 "	2,200	22 0 0	31 880 0 0	2,391 0 0	797 0 0	717 8 0	27,788 17 0	185 15 0
15 "	550	5 10 0	5 985 10 0	448 18 3	149 12 9	134 15 0	5,180 8 6	71 15 6
14 "	610	6 2 0	5 534 0 0	415 1 0	138 7 0	124 11 6	4,833 6 0	22 14 6
15 "	590	5 18 0	5 513 0 0	413 9 6	137 16 6	124 2 6	4,809 15 6	27 16 0
15 "	785	7 17 0	9 318 0 0	698 17 0	232 19 0	209 14 6	8,143 9 0	33 0 6
16 "	1,080	10 16 0	13 918 10 0	1,043 17 9	347 19 3	313 5 6	12,131 9 6	81 18 0
16 "	410	4 2 0	4 440 10 0	333 0 9	111 0 3	100 0 6	3,843 9 6	52 19 0
22 "	1,625	16 5 0	25 412 0 0	1,905 18 0	635 6 0	571 17 0	22,226 5 0	72 14 0
22 "	4,200	42 0 0	55 149 10 0	4,136 4 3	1,378 14 9	1,240 19 6	48,084 1 0	309 10 6
25 "	2,950	29 10 0	63 950 10 0	4,796 5 9	1,598 15 3	1,438 19 6	55,731 1 0	385 8 6
24 "	420	4 4 0	3 504 10 0	262 16 9	87 12 3	78 18 6	3,054 8 6	20 14 0
8 "	1,100	11 0 0	17 328 0 0	1,299 12 0	433 4 0	390 0 0	15,133 17 6	71 6 6
8 "	2,850	28 10 0	48 754 0 0	3,656 11 0	1,218 17 0	1,097 1 0	42,563 18 0	217 13 0
8 "	2,200	22 0 0	34 933 0 0	2,619 19 6	873 6 6	786 2 0	30,433 0 6	220 11 6
8 "	2,500	25 0 0	50 133 0 0	3,759 19 6	1,253 6 6	1,128 2 6	43,796 3 6	195 8 0
8 "	2,280	22 16 0	19 085 10 0	1,431 8 3	477 2 9	429 11 0	16,633 18 6	113 9 6
8 "	1,275	12 15 0	19 370 0 0	1,452 15 0	484 5 0	435 18 0	16,903 0 0	94 2 0
5 "	1,770	17 14 0	26 541 10 0	1,990 12 3	663 10 9	597 5 6	23,100 3 6	189 18 0
6 "	1,655	16 11 0	32 929 0 0	2,469 13 6	823 4 6	740 19 6	28,670 15 0	224 7 6
6 "	745	7 9 0	9 622 10 0	721 13 9	240 11 3	216 12 0	8,390 13 0	53 0 0
8 "	1,400	14 0 0	22 724 0 0	1,704 6 0	568 2 0	511 7 6	19,800 19 6	139 5 0
8 "	635	6 7 0	7 918 10 0	593 17 9	197 19 3	178 5 6	6,885 17 0	62 10 6
8 "	2,205	22 1 0	32 978 10 0	2,473 7 9	824 9 3	742 2 0	28,737 18 0	200 13 0
14 "	1,990	19 18 0	32 526 0 0	2,439 9 0	813 3 0	731 19 0	28,446 1 6	195 7 6
8 "	3,145	31 9 0	27 372 0 0	2,052 18 0	684 6 0	615 19 6	23,917 1 6	101 15 0
8 "	2,260	22 12 0	31 503 0 0	2,362 14 6	787 11 6	708 18 0	27,550 16 6	92 19 6
8 "	1,175	11 15 0	19 329 0 0	1,449 13 6	483 4 6	434 19 6	16,881 4 0	79 18 6
8 "	755	7 11 0	11 393 0 0	854 9 6	284 16 6	256 8 0	9,908 3 6	89 2 6
8 "	720	7 4 0	12 368 0 0	927 12 0	309 4 0	278 7 0	10,776 15 6	76 1 6
8 "	1,480	14 16 0	14 042 0 0	1,053 3 0	351 1 0	316 0 6	12,274 2 6	47 13 6
8 "	1,070	10 14 0	13 827 0 0	1,037 0 6	345 13 6	311 4 6	12,070 12 0	62 9 6
8 "	3,200	32 0 0	42 369 0 0	3,177 13 6	1,059 4 6	953 7 6	36,979 6 0	199 8 6
8 "	2,715	27 3 0	46 536 0 0	3,490 4 0	1,163 8 0	1,047 3 0	40,547 16 0	287 9 0
8 "	780	7 16 0	16 915 10 0	1,268 13 3	422 17 9	380 14 6	14,750 7 6	92 17 0
8 "	850	8 10 0	10 493 10 0	787 0 3	262 6 9	236 3 6	9,123 2 0	84 17 6
8 "	1,310	13 2 0	22 050 0 0	1,653 15 0	551 5 0	496 4 6	19,238 15 0	110 0 6
8 "	1,055	10 11 0	21 852 0 0	1,638 18 0	546 6 0	491 15 6	19,101 2 6	73 18 0

RETURN IN CONNECTION WITH LICENSES TO USE THE TOTALIZATOR ISSUED DURING THE RACING YEAR 1918-19—continued.
Racing Clubs—continued.

Name of Club.	Date of Meeting.	Number of Races.	Amount of Stakes.		1 per Cent. Government Tax on Stakes.		Totalizator Investments.		Percentage (7 1/2 per Cent.) retained by Club.		Government Totalizator-tax (2 1/2 per Cent.).		Government Tax on Dividends (2 1/2 per Cent.).		Amount paid in Dividends.		Unpaid Fractions.
			£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
Hamilton R.C.	1919.	8	2,100	21 0 0	42,215 10 0	3,166 3 3	1,055 7 9	949 19 6	36,842 3 0	201 16 6							
"	1 Mar.	8	1,900	19 0 0	41,093 0 0	3,081 19 6	1,027 6 6	924 14 0	35,807 0 6	251 19 6							
Akaroa County R.C.	"	8	700	7 0 0	11,772 0 0	882 18 0	294 6 0	264 19 0	10,264 4 0	65 13 0							
Nelson J.C.	"	8	1,080	10 16 0	14,585 0 0	1,093 17 6	364 12 6	327 1 6	12,723 16 6	74 8 0							
"	"	8	920	9 4 0	14,534 0 0	1,090 1 0	363 7 0	327 1 6	12,669 0 0	84 10 6							
Napier Park R.C.	"	8	1,570	15 14 0	23,060 0 0	1,729 10 0	576 10 0	518 19 0	20,145 19 6	89 1 6							
"	"	8	1,220	12 4 0	24,883 0 0	1,866 4 6	622 1 6	559 19 0	21,736 16 6	97 18 6							
Te Aroha J.C.	"	8	1,665	16 13 0	29,032 0 0	2,177 8 0	725 16 0	653 7 0	25,342 11 6	132 17 6							
"	"	8	1,665	16 13 0	26,369 10 0	1,977 14 3	659 4 9	593 8 6	22,998 18 6	140 4 6							
Waimate R.C.	"	8	1,130	11 6 0	15,812 10 0	1,185 18 9	395 6 3	355 16 6	13,816 4 6	59 4 0							
Wairarapa R.C.	"	8	1,725	17 5 0	18,593 0 0	1,394 9 6	464 16 6	418 8 6	16,217 8 0	97 17 6							
"	"	8	1,425	14 5 0	15,748 0 0	1,181 2 0	393 14 0	354 8 6	13,717 7 0	101 8 6							
Westport J.C.	"	7	410	4 2 0	4,245 0 0	318 7 6	106 2 6	95 12 0	3,702 16 0	22 2 0							
Ohinemuri J.C.	"	8	1,700	17 0 0	24,314 10 0	1,823 11 9	607 17 3	547 3 6	21,243 13 0	92 4 6							
"	"	8	1,500	15 0 0	26,754 0 0	2,006 11 0	668 17 0	602 1 0	23,334 3 0	142 8 0							
Opunake R.C.	"	8	1,095	10 19 0	27,309 0 0	2,048 3 6	682 14 6	614 10 6	23,814 13 0	148 18 6							
Woodville District J.C.	"	8	1,510	15 2 0	23,610 0 0	1,770 15 0	590 5 0	531 6 0	20,626 15 6	90 18 6							
"	"	8	1,360	13 12 0	22,592 0 0	1,694 8 0	564 16 0	508 8 6	19,696 16 6	127 11 0							
Ashburton County R.C.	"	8	1,340	13 8 0	11,576 10 0	868 4 9	289 8 3	260 11 6	10,093 5 0	65 0 6							
"	"	8	1,260	12 12 0	11,187 10 0	839 1 3	279 13 9	251 17 0	9,734 15 6	82 2 6							
Masterton R.C.	"	8	1,160	11 12 0	18,358 0 0	1,376 17 0	458 19 0	413 3 6	16,020 19 0	88 1 6							
Thames J.C.	"	8	1,000	10 0 0	23,906 10 0	1,792 19 9	597 13 3	537 19 6	20,852 15 0	125 2 6							
"	"	8	850	8 10 0	22,787 0 0	1,709 0 6	569 13 6	512 15 6	19,896 5 0	99 5 6							
Southland R.C.	"	8	1,990	19 18 0	17,646 10 0	1,323 9 9	441 3 3	397 3 0	15,382 3 0	102 11 0							
"	"	8	1,635	16 7 0	14,761 10 0	1,107 2 3	369 0 9	332 5 0	12,903 9 0	49 13 0							
Rangitikei R.C.	"	8	1,435	14 7 0	25,868 0 0	1,940 2 0	646 14 0	582 2 6	22,532 12 0	166 9 6							
"	"	8	1,270	12 14 0	24,621 0 0	1,846 11 6	615 10 6	554 1 6	21,534 16 6	70 0 0							
Gisborne R.C.	"	8	1,155	11 11 0	17,048 0 0	1,278 12 0	426 4 0	383 12 6	14,866 1 6	93 10 0							
Hororaka R.C.	"	8	535	5 7 0	7,139 10 0	535 9 3	178 9 9	160 14 6	6,220 7 0	44 9 6							
Poverty Bay T.C.	"	8	1,175	11 15 0	20,734 0 0	1,555 1 0	518 7 0	466 12 6	18,105 15 0	88 4 6							
Gore R.C.	2 April	7	1,490	14 18 0	11,328 10 0	849 12 9	283 4 3	254 19 0	11,046 19 0	45 13 0							
"	"	7	1,100	11 0 0	12,696 10 0	952 4 9	317 8 3	285 15 0	9,895 1 0	45 13 0							
Hawke's Bay J.C.	"	8	2,100	21 0 0	32,805 0 0	2,460 7 6	820 2 6	738 4 0	28,629 3 6	157 2 6							
"	"	8	1,950	19 10 0	32,224 0 0	2,416 16 0	805 12 0	725 2 6	28,143 17 0	132 12 6							
Woodville District J.C.	"	8	1,100	11 0 0	17,538 0 0	1,315 7 0	438 9 0	394 13 6	15,336 16 0	52 14 6							
"	"	8	1,050	10 10 0	15,591 0 0	1,169 6 6	389 15 6	350 17 6	13,612 19 6	68 1 0							
Tuapeka County J.C.	"	8	570	5 14 0	5,513 0 0	413 9 6	137 16 6	124 3 6	4,816 12 6	20 18 0							
Riverton R.C.	"	8	1,590	15 18 0	13,700 0 0	1,027 10 0	342 10 0	308 7 0	11,953 3 0	68 10 0							
"	"	8	1,410	14 2 0	11,861 10 0	889 12 3	296 10 9	266 19 6	10,348 7 6	60 0 0							
Auckland R.C.	"	8	4,400	44 0 0	67,697 0 0	5,077 5 6	1,692 8 6	1,523 5 6	59,113 9 0	290 11 0							
"	"	8	4,350	43 10 0	78,823 10 0	5,911 15 3	1,970 11 6	1,773 12 6	68,752 5 6	415 5 0							
Kumara R.C.	"	7	420	4 4 0	2,411 0 0	180 16 6	60 5 6	54 6 6	2,103 11 0	12 0 6							
Canterbury J.C.	"	8	4,150	41 10 0	47,535 0 0	3,565 2 6	1,188 7 6	1,069 13 0	41,492 5 6	219 11 6							

