ANNUAL REPORT OF THE POST AND TELEGRAPH DEPARTMENT FOR THE YEAR 1927-28.

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1928. NEW ZEALAND.

POST AND TELEGRAPH DEPARTMENT

(REPORT OF THE) FOR THE YEAR 1927-28.

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

To His Excellency the Right Honourable Sir Charles Fergusson, Baronet; General on the Retired List and in the Reserve of Officers of His Majesty's Army; Doctor of Laws; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George; Knight Commander of the Most Honourable Order of the Bath; Companion of the Distinguished Service Order; Member of the Royal Victorian Order.

MAY IT PLEASE YOUR EXCELLENCY,-

I have the honour to submit to Your Excellency the report of the Post and Telegraph Department for the year ended 31st March, 1928.

RECEIPTS AND PAYMENTS.

In the conduct of some big undertakings it is not an uncommon experience to find that the securing of an increase of £1 in revenue involves an increase of 19s. 6d. in expenditure. Fortunately, this has not been the experience of my Department. Owing to careful and economical management, I find myself in the happy position of being able to report that, while during the last three years the revenue has increased by a substantial sum, the expenditure has decreased also by a substantial sum. Last year I had the pleasure of placing on record an increase in revenue of £120,270 and a decrease in expenditure of £63,282. This year it is extremely gratifying to me to report a further increase in revenue of £108,845, and a further decrease in expenditure of £46,703. Thus in two years the total revenue has increased by £229,115 and the total expenditure has decreased by £109,985. Growing capital charges—interest on money borrowed from the Public Works Fund and depreciation on assets—will absorb a large portion of this excess, but I anticipate that the year's operations will yield a net profit of approximately £20,000. The balance-sheet for the year is now being audited, and will be available shortly.

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Although the Post and Telegraph Department has a monopoly, it is the endeavour of my officers so to conduct the management that even if the Department had competitors it would not lose business through clients finding that they could obtain better and cheaper service elsewhere. My Department aims at conducting its affairs as a business man conducts his, and, judging by results, it is not falling far short of its goal. The results achieved are even the more remarkable when it is borne in mind that the year just past was not a particularly good

one for certain sections of the business community. It is a reasonable assumption that the sound financial position is due in no small measure to the efforts of the administration to attract business. The steps it has already taken to increase business on the postal and telephone sides are but forerunners of bigger efforts that will be made in the future. It is the wish of my Department not to attract new business merely to increase its revenue, but to make known to the public services which may be utilized with advantage to the business and social life of the Dominion. A telephone call which saves a long journey must add to the well-being of the community, and on this assumption every means of informing the public of the facilities for communication is being explored.

The variety of services rendered by the Post and Telegraph Department is greater than in the case of any other Department of State, and it is the belief of my officers that these services are not being availed of to anything like the extent that they will be when the general public more fully realizes their value.

STAFF.

In a table published at page 14 it will be seen that the staff of the Department (excluding non-permanent Postmasters and Telephonists and Railway Postmasters) has been reduced during the year by 499 officers. Notwithstanding this reduction, the Department has undertaken a larger volume of work than in any preceding year, and has done so in such a way that expressions of appreciation are general throughout New Zealand. It is a peculiar trait in human nature that criticism of the actions of servants of the State and public bodies is expressed more readily than praise, and that actions which time proves to be wise and carefully calculated are quickly assailed by some one with perhaps little knowledge of the facts. It is, therefore, pleasing that, while criticism is not absent, approval of the Department's activities is common from end to end of the Dominion. That the approval is merited is shown in the additional work done, and done well, with a reduced staff and by the improved financial position. Every means has been explored to increase the efficiency of the staff, and wherever possible improved methods of working have been introduced. The health of the staff has been fully safeguarded, and every practical means has been taken to improve the conditions of employment. it is necessary to provide service to the public over the whole twenty-four hours of the day on every day of the year it must be obvious that the good health of the staff is an important factor. Last year the average absence was for men 5.04 days, and for women 9.62. This year the figures are 4.33 and 10.02 respectively, so that the average has been well maintained.

The Department's huge army of nearly ten thousand officers could not render good service without due consideration of its feelings and proper understanding of its difficulties. Appreciation of its efforts is essential to continuous and effective endeavour, and this appreciation, which has been forthcoming throughout the year has added further to the pride of service so noticeable in the Department. The interest taken by the staff in their chosen vocation is being shown by improved methods of working, by suggestions for new apparatus of a labour- and time-saving nature, and by close attention to the needs of the public.

"TIME OFF" IN LIEU OF OVERTIME PAYMENT.

The system of granting "time off" in lieu of making payment for overtime worked by officers was reintroduced from the 18th September, 1927. Briefly, the arrangement is that for each hour of overtime performed one hour's "time off" is given, except in the case of overtime worked on a Sunday or holiday, in which case "time off" at the rate of time and a half is given. The change, of course, necessitated certain internal reorganization. In view of the excess of staff, the abandoning of monetary payment for overtime in favour of granting "time off" was the only alternative to retrenchment. It is expected that with the gradual increase in business the return to payment in cash for overtime worked will not be long deferred.

OVERSEAS MAILS.

For the conveyance of mails between New Zealand and Great Britain the Vancouver and San Francisco mail routes offer the best service at present and are the most regularly used. The mail-contract steamers have carried on the services with great regularity, and the presence of Mail Agents on the boats admits of the rapid distribution of inward correspondence. It is frequently the case that a large portion of a mail has reached addressees before the mail-boat is tied up at the wharf.

PUBLICITY AGENTS ON TRANS-PACIFIC MAIL-STEAMERS.

The Mail Agents on the trans-Pacific mail-steamers, in addition to their ordinary duties, act as publicity agents for the New Zealand Railway Department. While en voyage they take the opportunity of advising passengers of the beauties and grandeurs of New Zealand scenery, of the tourist resorts, and of the almost unique opportunities for sportsmen. Lectures on these features are delivered at gatherings of passengers, and every help given in arranging tours in New Zealand. The Agents are meeting with considerable success in their work, and but for their efforts many people who have toured the Dominion would have passed New Zealand by.

INLAND MAIL-SERVICES.

Contracts for the performance of the mail-services in the North Island were relet in the latter part of 1927. Competition generally was keen. The result was a reduction of £5,564 per annum in the cost of the services as from the 1st January, 1928.

EXCHANGE OF MAILS ON FAST-MOVING TRAINS.

An automatic mail-bag-exchanging device for use in dropping and picking up mails from fast-moving trains was successfully operated at Levin on the 8th March, 1928, when the south-bound Main Trunk express, travelling at a speed of thirty miles an hour, dropped a mail for Levin and picked up one for Wellington. The use of the exchanger enables certain correspondence from the Auckland, Taranaki, and Napier districts, and from Palmerston North, to reach Levin nearly four hours earlier, and certain correspondence from Levin to be delivered in Wellington some eighteen hours earlier.

The exchanger is still undergoing trial. Should it continue to function efficiently, exchangers will be provided at certain other places where their installation would result in material benefit.

NEW POSTAL CAR.

A new railway travelling post-office van was built during the year for use on the Christchurch-Dunedin section. The van, which measures 50 ft. by 7 ft., is unlike other postal cars in use in the South Island, in that it has on either side two doors instead of one. The providing of the extra doors facilitates the loading and unloading of mails. The van is lighted by means of twelve roof-lights and fourteen windows. Night illumination is provided by electricity. The van is heated by steam-radiators. As the work on these vans is heavy and continuous, and of considerable importance to the public, every means is taken of improving the suitability of the vans. Photographs of the new van appear at the end of the report.

RURAL DELIVERIES.

While the Department is being managed as economically as possible, and practically along commercial lines, some services are obviously being carried out in the interest of the development of the country. The rural-mail services afford an example.

In the North Island, on the daily deliveries the Department is losing 8s. 11d. a year per box, and on deliveries with a frequency of thrice weekly or less the loss is £1 19s. 1d. a year per box. From this it will be seen that the Department is likely, as circumstances permit, to be anxious to convert to daily frequency those deliveries with a frequency of thrice weekly or less.

In the Invercargill Postal District, in particular, many small post-offices have been permanently closed, the settlers preferring the rural delivery as a more modern method of receiving and despatching their mail-matter. On several occasions, settlers in different parts of the country have offered to subscribe an amount additional to the stipulated box fees in order that they might enjoy the benefits of rural-delivery service.

Approximately seventeen thousand farmers have joined up with the rural-delivery system, and many more are considering its advantages. The annual fee is trifling—£1 for a daily delivery, and 10s. for a delivery thrice-weekly or less.

Since the reorganization of the rural-delivery system and the fixing of the small annual charge the growth has been phenomenal and the service effective. Many do not realize that by instituting a small annual charge—a registration feethe Department has converted a haphazard delivery into one thoroughly reliable and much appreciated by the farmers concerned.

MONEY-ORDERS.

The money-orders issued exceeded those of the previous year, but there was a slight decrease in value. The total number of orders issued was 803,481, and the value £4,995,090.

SAVINGS-BANK.

Despite the fact that withdrawals exceeded deposits by £2,973,931, the amount standing at credit of depositors was only £1,226,775 less than in the previous year. In view of the general trade recovery, it is anticipated that not only will there be an increase in the amount of deposits, but the balance at credit at the end of the coming year will be greater than on any previous occasion. The number of depositors has increased by 20,898. At the 31st March there were 804,725 depositors, with a total of £47,758,726 at their credit.

POST OFFICE INVESTMENT CERTIFICATES.

On the 1st September, 1927, there was offered for sale a new issue of Post Office investment certificates with a currency of one, two, and five years, bearing interest at the rate of $4\frac{1}{2}$, 5, and $5\frac{1}{4}$ per cent. respectively. The certificates are in three values—£1, £10, and £100—and form a regular avenue for investment. Up to the 31st March, 1928, the amount invested in this series reached the sum of £541,789. These certificates provide a substitute for the reduction in the maximum interest-earning deposits of the Savings-bank, and have the added advantage that they are virtually "fixed deposits."

INSPECTION OF POST-OFFICES.

During 1927, 1,256 visits of inspection to post-offices were made. The accounts were audited at each inspection, and on no occasion was any serious discrepancy in the official cash disclosed. At a conference of Inspectors advantage was taken of the opportunity of discussing altered methods of inspection, which will raise still higher the Department's standard of efficiency.

TELEGRAPH, TOLL, AND WIRELESS SERVICES.

The year has been one of outstanding progress in the development of telegraph and telephone services throughout the world. The success of the trans-atlantic wireless telephone service between London and New York, and its subsequent extension to various points in the United States of America, Canada, Great Britain, and the Continent of Europe, the development of automatic telephony, and the remarkable results achieved in long-distance wireless communication have combined to make the year a notable one. Perhaps the most significant event has been the remarkable fulfilment of anticipations regarding the beam wireless telegraph services. Beam services have been established between Great Britain and Canada,

5 F.—1.

Great Britain and Australia, Great Britain and South Africa, and Great Britain and India. A further extension is projected between Canada and Australia. Each of these services is offered to the public at rates lower than the cable rates. Although the beam services have proved so successful, the experience gained in respect of any one of the services has proved to be no safe guide in making plans for another. The South African service is largely immune from "fading," but each of the other services has its fading periods, which vary sometimes according to the time of the year, and at other times which cannot be predicted. The efficiency of the beam service between any two countries, therefore, is not an infallible indicator of its value in other countries.

In the Dominion, there has been substantial progress in the extension and improvement of electrical communications. These are referred to in detail elsewhere.

In common with other countries, New Zealand is finding that the great advance in telephonic communication is having a prejudicial effect upon the revenue of the Telegraph Branch. From a purely superficial point of view, this world-wide trend would appear to indicate that the future of telegraphy as a popular means of communication is not bright. But it is necessary to view the subject in a proper perspective. While for short-distance communications the telephone is steadily superseding the telegraph, there can be no doubt that for longer distances the telegraph will maintain a predominant position as a reliable means of communication.

RELATIVE VALUES OF WIRELESS AND CABLE COMMUNICATIONS.

Since the development of the beam wireless system the position of cable services has become a somewhat acute problem, which is likely to become more serious should the beam wireless system advance in future to the extent that it has As a partner in the Pacific cable system, New Zealand is during the past year. concerned in any possible superseding of the cable as an essential means of communication. From the point of view of defence alone the maintenance of the cable system is of great importance. Healthy rivalry between the two means of communication may, of course, prove to be of ultimate public benefit. to the view of the best authorities, however, the cable and wireless systems are complementary, and neither should be made the means of wrecking the other. The limitations of each should be recognized; also that these limitations practically disappear when the systems are made to supplement one another. The ideal appears to be a sensible and useful co-operation between the two systems. competition of the beam system with established cable services has been regarded so seriously that His Majesty's Government in Great Britain deemed it expedient to invite a committee of representatives of all Governments concerned to meet in Great Britain to examine the whole question. Although details of the results of the Conference are not yet known, it is hoped that the discussion will have provided a useful basis of co-operation in place of purely wasteful competition.

It is understood that an agreement has been reached between the Eastern and Associated Cable Companies and the Marconi Wireless Telegraph Co. for a fusion of interests through the medium of a proposed "holding" company, subject to a satisfactory agreement being made with His Majesty's Governments in Great Britain and the dominions, and to the proposal meeting with the approval of the stockholders and shareholders of the companies concerned. It is not yet known how the proposed merger will affect the competition between the two systems, or what the effect will be on the Pacific cable.

NEW COMBINED TELEGRAM FORM AND ENVELOPE.

With a view to reducing costs in the Telegraph Branch the use of a combined telegram form and envelope has been reverted to. The new form is an adaptation of one in use some years ago, which was discarded in favour of the telegram form and envelope. The new form requires less manipulation in folding than the old

combined form. It was introduced at the telegraph-offices at the four centres on the 1st April, 1928, and at all other offices in charge of a departmental officer on the 1st June, 1928. With the abolition of the work of addressing envelopes it is anticipated that there will be an appreciable reduction in the working-expenses of the Telegraph Branch. There will also be a reduction of the liability of error through the removal of the need for transcribing addresses.

SHIPPING MOVEMENTS: TELEGRAPHIC COMMUNICATION.

For many years it has been the practice of my Department to telegraph free of charge from office to office the times of arrival and departure of steamers in order that the information might be made available to the travelling public and those interested in the working of ships. In earlier days the work added but little to the telegraph traffic, but nowadays, with the big increase in shipping, it constitutes somewhat of a burden. For a short time, commencing on the 6th October, 1927, the system was abolished, but in view of representations made regarding the great inconvenience occasioned it was reintroduced from the 17th November, 1927.

SUMMER TIME ACT, 1927.

By the Summer Time Act, 1927, the time for general purposes in New Zealand was advanced at 2 a.m. on the 6th November, 1927, to one hour in advance of New Zealand standard time, which is 11 hours 30 minutes in advance of Greenwich mean time. Ordinary time was resumed at 2 a.m. on the 4th March, 1928. The change to summer time and reversion to standard time was carried out in my Department without a hitch. The clocks were altered at the stipulated times, and work proceeded without any interruption. The operation of summer time had the effect of placing New Zealand time $12\frac{1}{2}$ hours ahead of Greenwich time and $2\frac{1}{2}$ hours ahead of eastern Australian time. Users of the cable service were thus obliged to make provision for a difference of one hour as distinct from ordinary New Zealand time. In the case of broadcasting reception, the transmissions from Australian stations were received in New Zealand one hour later than under standard time.

TELEPHONE-EXCHANGE SERVICE.

CANVASS FOR ADDITIONAL SUBSCRIBERS.

As a means of increasing the revenue and of utilizing all telephone equipment and plant to the full, it was decided that wherever switchboard and cable accommodation was available, efforts should be made by personal canvass by departmental officers to secure additional telephone-exchange subscribers. The campaign has been pursued by means of circulars and personal representations, and most encouraging results have already been achieved. The campaign is still in progress, and it is believed that it will result in the number of telephone subscribers in the Dominion being substantially increased.

TELEPHONE-EXCHANGE REVENUE.

It is with gratification that I am able to announce that the telephone-exchange revenue for the year exceeded £1,000,000. The telephone-exchange system now ranks as one of the Department's greatest revenue-producers, as well as one of the foremost of New Zealand's public utilities. Inaugurated in 1881 with fifty-three subscribers, the telephone-exchange system developed steadily until 1922, when the number of subscribers totalled 88,000 and the revenue £533,000. Since then there has been a phenomenal increase both in subscribers and in revenue. The number of connections is now nearly 140,000.

Notwithstanding the more or less unfavourable financial conditions which existed last year, the results of the year's operations were very satisfactory, the new subscribers totalling over 12,000, a figure which has been surpassed in but two previous years. There are now ten telephones for every hundred of population, and this proportion is bettered only by the United States of America, and Canada.

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Notwithstanding the large number of connections which have been made during the last few years, there is still a keen demand for telephone facilities. This, together with the assumption that possibly every telephone installed induces some non-subscriber to join up, indicates that a steady development can be expected for many years. The moderate rates charged in the centres and the extremely low rates charged rural subscribers are an inducement to every one to connect with the telephone service.

The present scale of charges in the Dominion compares more than favourably with that of any other country, with the exception, perhaps, of Canada, where the

rates are somewhat similar to those in New Zealand.

It is particularly gratifying that the disappointment that has been experienced in the past through the existence of waiting-lists of prospective telephone subscribers has disappeared. The waiting-list is now a thing of the past, and it is hoped that it will not be necessary to reintroduce it.

NUMBER OF TELEPHONES PER HUNDRED OF POPULATION.

New Zealand stands high in the world's list of telephones per hundred of population. On the 31st March, 1926, there were in New Zealand 9·2 telephones per hundred of population, against 14·8 in the United States of America and 12·2 in Canada. New Zealand, with Denmark, then held third position among the countries of the world.

An interesting graph showing the number of telephones per hundred of population in the cities and principal towns of New Zealand on the 31st March, 1927, appears at page 43. Gisborne, with nearly seventeen telephones per hundred of population, then led the Dominion, with Hastings, Hamilton, and Wellington next in order, with between fifteen and sixteen telephones per hundred of population.

Coin-in-the-slot Telephones.

There is still a demand for additional slot telephones, despite the fact that 113 more of such telephones have been provided. The two new types of cabinet referred to in last year's report have been installed in various centres. From an æsthetic point of view, the steel cabinets which were imported from Great Britain are an improvement on both the wooden type and the new concrete type. The steel cabinets are being installed in the larger centres at points at which the footpaths allow sufficient room.

Coin-in-the-slot Telephones in Shops.

It is a matter for regret that hitherto it has not always been possible to give public-telephone service where it is most needed—i.e., in the busier streets of the central shopping-areas of the larger cities. In some areas, owing to the congestion of pedestrian traffic, and the undesirability of encroaching on footpath space, it is not possible to erect public-telephone cabinets. In Wellington an attempt is being made to overcome the difficulty by installing slot telephones in shops, the presence of the telephones being indicated by prominent notices suspended from the shopverandas. Such stations are known as "pay stations." As the first were installed only in February, 1928, it is too early to determine whether they will prove a success. If results in Wellington justify the step the system will be extended both in Wellington and to other cities.

ERECTION OF TELEGRAPH AND TELEPHONE LINES BY CONTRACT.

The suggestion has been made that telegraph and telephone lines could be constructed more cheaply under contract than by the Department's officers and day labour. The truth of this is about to be tested, for it has been arranged to call for tenders for the erection of new lines in suitable cases.

TOLL SERVICES: DOMINION-WIDE RANGE.

It is the aim of my Department to provide such a toll service that a person at North Cape will be able to speak by telephone with a person at Bluff at any hour of the day or night. In the march towards this goal much has already been achieved. The range of the inter-Island telephone service now extends well into both Islands, and it is possible for a person in Auckland to converse with a person in Dunedin at certain evening hours. Fuller information regarding the extension of the inter-Island service appears at page 25.

EXPEDITING TOLL CALLS.

The toll service between certain places has been speeded up by the utilization of apparatus which enables a toll operator at one exchange to call a subscriber at a distant automatic exchange without the assistance of a toll operator at the automatic exchange. For instance, a toll operator at Lower Hutt is now able to call a Wellington subscriber direct, instead of having to invoke the aid of a toll operator at Wellington. The system is in operation also in the Napier District and will be extended as opportunity offers. Fuller information is given at page 25.

INTERNATIONAL RADIO-TELEGRAPH CONFERENCE.

The Dominion was represented at the International Radio - telegraph Conference at Washington, D.C., by the Chief Telegraph Engineer, Mr. A. Gibbs, M.I.E.E. During the Conference matters affecting every phase of radio signalling were discussed, and regulations drawn up governing their international use. A matter of signal importance to the Dominion was the granting of a special concession to New Zealand, permitting the operation of wireless installations on the smaller coastal vessels by specially trained officers of the ships' crews. Any one with a knowledge of the dangers of the New Zealand coast and of past mishaps will recognize in the providing of the smaller vessels with wireless a great forward movement in the maritime world of the Dominion. A full report of the Convention is published separately.

WIRELESS BROADCASTING.

2YA, the now well-known broadcasting station at Wellington, was opened in July, 1927. It was considered that the opening of the new stations at Auckland and Christchurch represented a great advance in Dominion broadcasting, but the new Wellington station greatly exceeds in power and range any other New Zealand station, and is said to be equal in power to any broadcasting station in the Southern Hemisphere.

The three other Dominion stations continued to function during the year.

Wireless broadcasting has now grown to be of considerable importance in the home life of the community. By its means people in the backblocks are given market reports, weather reports, press news, and other information. Broadcasting offers the dweller in the lonely farmhouse as well as the city resident a bright, cheap, and withal an excellent means of entertainment. It has proved an unexampled means of removing much of the isolation of rural life. Moreover, it enables the dweller in distant Pacific isles, and even in countries farther afield, to learn something of the affairs of the Dominion.

TRANSFER OF MONEY BY WIRELESS.

Money-order telegrams and telegrams authorizing withdrawals from the Post Office Savings-bank may now be sent between New Zealand and Chatham Islands by radio-telegraph. The system was inaugurated on the 1st October, 1927. The charge for either class of telegram is a fixed one of 3s. The charge for a private message included in a money-order telegram is 6d. a word. The maximum

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amount of an individual money-order has been limited to £20 in any one day. Such messages are subject to the ordinary inland rate of money-order commission. The system is of great benefit to residents of Chatham Islands, who, in the absence of ordinary commercial banking-facilities, are glad of the means of transacting business with the mainland with such facility and absence of delay.

REORGANIZATION OF ENGINEERING DISTRICTS.

The organization of the Wellington Engineering District was changed from the 1st September, 1927, to provide for the assumption by the Telegraph Engineers in the subdistricts of a greater share of responsibility for local management, thus relieving the District Telegraph Engineer at Wellington of some of his duties and enabling him to devote more time to the practical side of the Department's engineering activities. The keynote of the change was centralization of principles and decentralization of details. The result has been greater economy and more efficient working.

A similar arrangement was adopted at Auckland in regard to the Hamilton Subdistrict.

WORK PERFORMED FOR OTHER DEPARTMENTS.

As in previous years, work performed in the behalf of other Departments formed an appreciable portion of the duties of my officers. The money handled in this respect amounted to approximately £26,000,000. This amount, high as it is, represents but a fraction of the cash value of the whole of the transactions of the Post and Telegraph Department, which for the year just past amounted to £194,405,000.

My Department pays and receives moneys for practically all other Departments. The largest sums handled are in respect of the Pensions, Public Trust, Land and Income Tax, and State Advances Departments.

Since the introduction of the rural-intermediate-credit system my Department has undertaken the collection and payment of moneys on behalf of the Rural Intermediate Credit Board.

REGISTRATION OF MOTOR-VEHICLES.

The system of registration of motor-vehicles continues to work smoothly, and, judging by the almost complete absence of adverse criticism, it would appear that the system gives general satisfaction. The advantages of having a central register are fully appreciated not only by the police and Traffic Inspectors, but also by motor-traders, who frequently need assistance in tracing vehicles.

The experiment of showing a prefix letter on registration-plates for commercial vehicles revealed that incorrect fees were paid in but few cases, and, as the benefit derivable from prefix letters was not commensurate with the additional expenditure involved in providing distinctive plates, it was decided to abandon the use of prefix letters in future years.

Registration-plates for the year 1928–29 (white numerals on a brown background) were manufactured by the Precision Engineering Co., Wellington, which supplied the plates for the previous year. The 1928–29 plates are considered to be superior to those previously supplied by the firm.

The relicensing of motor-vehicles for the year 1928–29 was commenced on the 1st February, 1928—two months before the beginning of the new registration year. Owners generally, however, failed to take advantage of the opportunity afforded of relicensing early, only six thousand vehicles being relicensed in February. During the early part of March the response at many offices was not encouraging, and during the last week in March considerable congestion was caused owing to approximately 60 per cent. of owners delaying

relicensing until the last moment.

REFUNDS OF DUTY ON MOTOR-SPIRIT.

Under the Motor-spirits Taxation Act, 1927, the work of arranging refunds of duty on motor-spirit used other than as fuel for motor-vehicles in respect of which an annual license fee is payable was deputed to the Registrar of Motor-Preliminary work in connection with the carrying-out of the provisions of the Act has been undertaken, and it is hoped that after the experience gained during the first quarter there will be few difficulties which will give cause for concern.

MOTOR TRANSPORT.

The policy of Government in the matter of purchasing vehicles of English When vehicles of a capacity of 1 ton or manufacture has been continued. over have been required English chassis have been purchased. Further English 10 cwt. chassis have been obtained. Motor-cars purchased now are, without exception, of English manufacture. My Department still undertakes the purchasing of

motor-vehicles in the behalf of other Departments.

A number of motor-vehicles in the four principal centres belonging to other Departments have been transferred to my Department in accordance with the Public Service garage system, under which Government motor transport, with certain exemptions, is controlled by the Post and Telegraph Department. this connection it is gratifying to report that it was found possible to reduce Despite a slight increase in the charges the rates for the hire of motor-cars. for lorry transport, the departmental lorry-transport charges still compare very favourably with those of private owners.

Departmental motor-vehicles throughout the Dominion are now inspected at suitable intervals by an officer specially detailed for the work.

anticipated that such inspection will result in reduced running-costs.

For telegraph-line work it is now the policy to provide 10 cwt. utility trucks instead of motor-cycles with side-cars. It is found that utility trucks are more suitable than combination motor-cycles.

STORES BRANCH.

The reorganization of the Stores Branch, to which reference was made in the report of last year, has now been almost completed. Considerable economy in the purchase and distribution of supplies has resulted, and greater efficiency has been obtained. Methods and staffing have been closely overhauled, and the saving effected amounts to approximately £10,200 per annum.

The annual examination of the stocks by Auditors shows that, compared with the figures for the previous year, excesses have been reduced by 62 per cent. and

deficiencies by 44 per cent.

In a commercial concern of the size of my Department stores work constitutes no small part of the organization, and the sum expended annually in replacement of stocks is no mean figure. Inefficient administration and uneconomical methods are reflected in expenditure returns nowhere more readily than in stores work. That the administration is fully alive to the need for strict economy and efficient methods in stores work is evidenced by the results achieved during the year.

BUILDINGS.

The progress of the Dominion is indicated by the necessity for providing at many places additional accommodation for the conduct of post and telegraph During the year practically all of the Department's buildings were inspected, and arrangements were made for additions and alterations to be carried out to many of the structures. There is, however, a considerable number of places at which the need for additional accommodation is pressing; but, owing to the expenditure involved, these requirements can be dealt with only in their order of urgency.

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Preliminary work has been commenced in connection with the erection of new chief post-office buildings at Dunedin and Napier; also, it is intended to proceed as soon as possible with the erection of new buildings at Courtenay Place (Wellington), High Street (Christchurch), and Taumarunui, and with extensive additions to the existing buildings at Greymouth, Masterton, Nelson, and Waipukurau.

In order to make suitable provision for the expansion of the Department's business at Palmerston North, the old post-office building (which had previously been occupied by other Departments) and the site were taken over by the Department, and arrangements were made for accommodating the tenants in the chief

post-office building.

The growth of the Department's motor transport continually demands the provision of suitable facilities for the storage of petrol. The modern method of providing storage in a tank placed underground and delivering by means of a pump has been adopted at a number of places.

AWARDS FOR SUGGESTIONS.

For many years there has been a standing invitation to all officers of my Department to offer suggestions tending towards the improvement of the Service. An annual prize, which takes the form of a medal and is known as the Gray Memorial Prize, is awarded for the best original suggestion adopted in each year. This system has now been improved upon by the setting-up of a Suggestions Board, consisting of the First Assistant Secretary, the Deputy Chief Telegraph Engineer, and the Assistant Controller of Accounts. The Board has authority (a) to make a suitable monetary grant, not exceeding £10, for any meritorious suggestion, whether adopted or otherwise; and (b) to make awards from the Gray Memorial Fund.

DEPARTMENTAL TUITION FOR MESSAGE-BOYS AND OTHER JUNIOR OFFICERS.

Efforts have been made during the year to improve the standard of education and efficiency of message-boys and other junior officers in the General Division. Greater inducements for advancement have been offered, and provision has been made for better training and educational facilities.

The standard of the Postal and Telegraph Entrance Examinations has been raised to the level of the Public Service Entrance Examination. A special departmental correspondence course, covering the various educational subjects, has been made available to junior officers, and excellent tuition on a secondary-school basis is given at small cost. Officers, generally, have evinced a keen desire to fit themselves for advancement, and it is gratifying to place on record the fact that over eight hundred officers have enrolled as students.

Arrangements have been made with the Education Department to provide facilities at the various technical schools throughout the Dominion in order to assist those junior officers who are mechanically inclined, and so to provide for the increasing number of mechanicians and mechanics required on account of the use of more advanced mechanical and electrical devices.

It is hoped that by reason of a higher standard of education in the junior ranks the Service will benefit generally and so become even more efficient. The scheme practically affords for all juniors a secondary-school education for two years.

APPOINTMENT OF MESSAGE-BOYS.

By an improved method of selection of message-boys, by providing post-primary education after appointment, and by special training while in the junior ranks, it is hoped to attract the best class of lad to the Service. It is anticipated that in this way the old system, under which a large number of untrained adults were appointed to the permanent staff yearly, will disappear.

AMENDING LEGISLATION IN RELATION TO POST OFFICE ACCOUNT.

The Post and Telegraph Amendment Act, 1927, provides for the separation from the Treasury of the Post Office accounts as at the 1st April, 1928.

Under the new arrangement the system of advance by way of imprests to meet current expenditure is abolished, and my Department will meet its expenditure out of revenue.

A system of bank orders countersigned by the Controller and Auditor-General has been established, thus bringing my Department into line with other

Departments whose accounts are not within the Public Account.

Provision has been made for the determination of the capital liability at the commencement of the new arrangement, and of the rate of interest payable on the loans represented by the capital liability. The creation of depreciation and other reserves and the investment of surplus funds have been authorized. It has been provided that surplus funds paid to the Treasury during the period that the system of commercial accounts has been in operation may either be treated as an investment of Post Office moneys or be applied in reduction of the capital liability of the Post Office in so far as such capital liability consists of borrowed moneys. In future, depreciation and other reserves will be represented by investments or by departmental assets that will be interest-bearing.

DETAILS OF REVENUE, ETC.

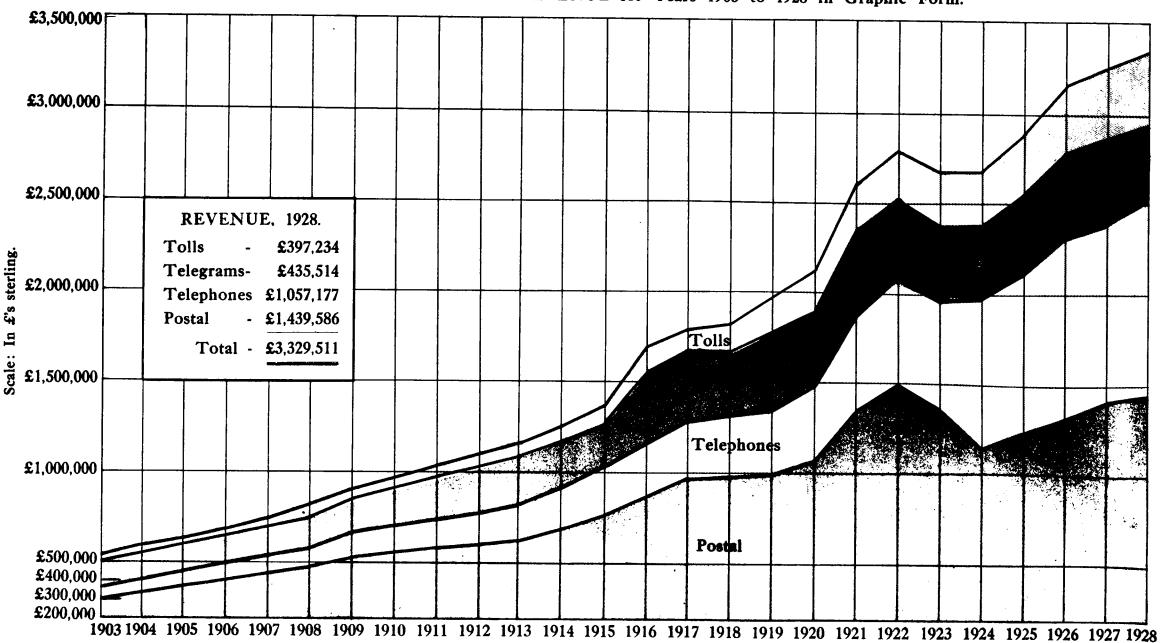
Matters of detail with reference to the financial operations and business of the Department will be found at length in the statement and tables which follow.

I have the honour to be, Your Excellency's most obedient servant,

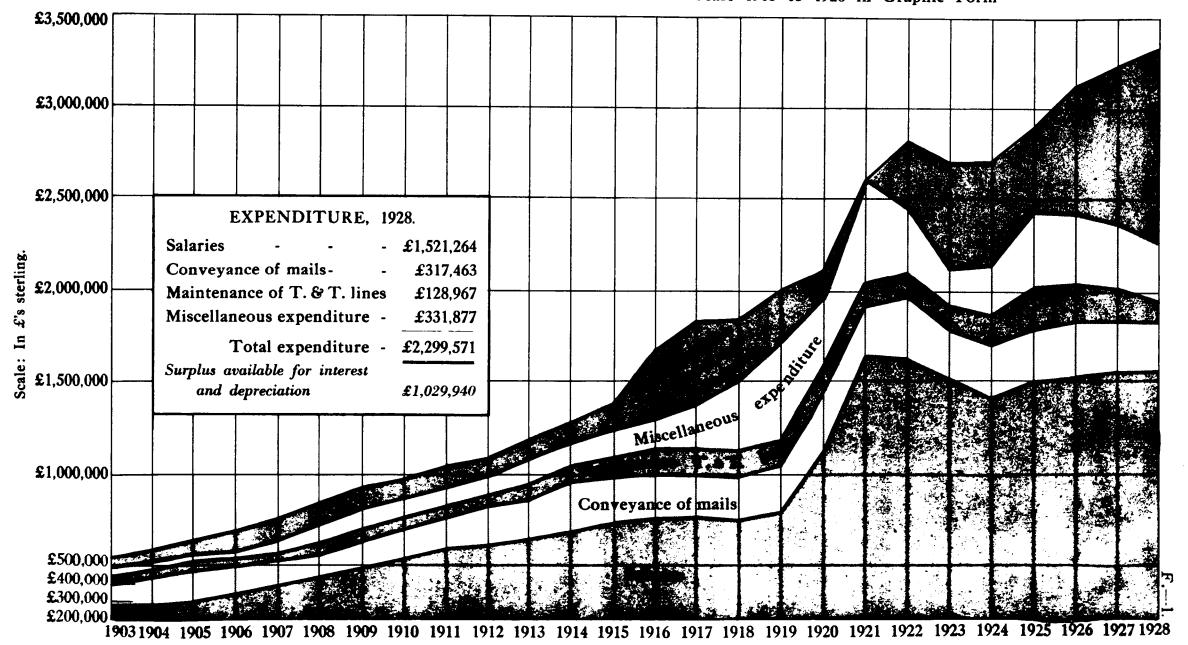
W. NOSWORTHY,
Postmaster-General.

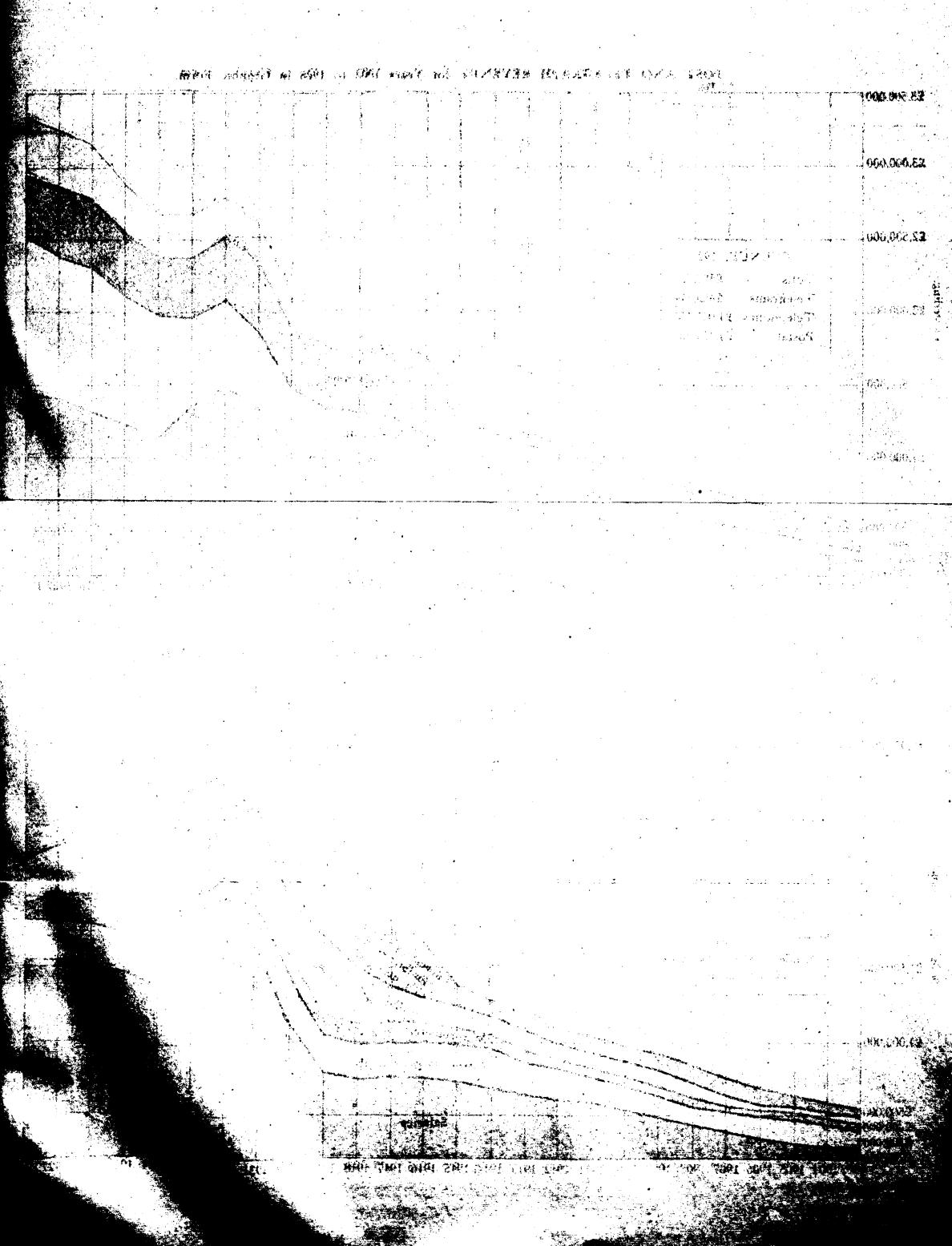
General Post Office, Wellington.

POST AND TELEGRAPH REVENUE for Years 1903 to 1928 in Graphic Form.



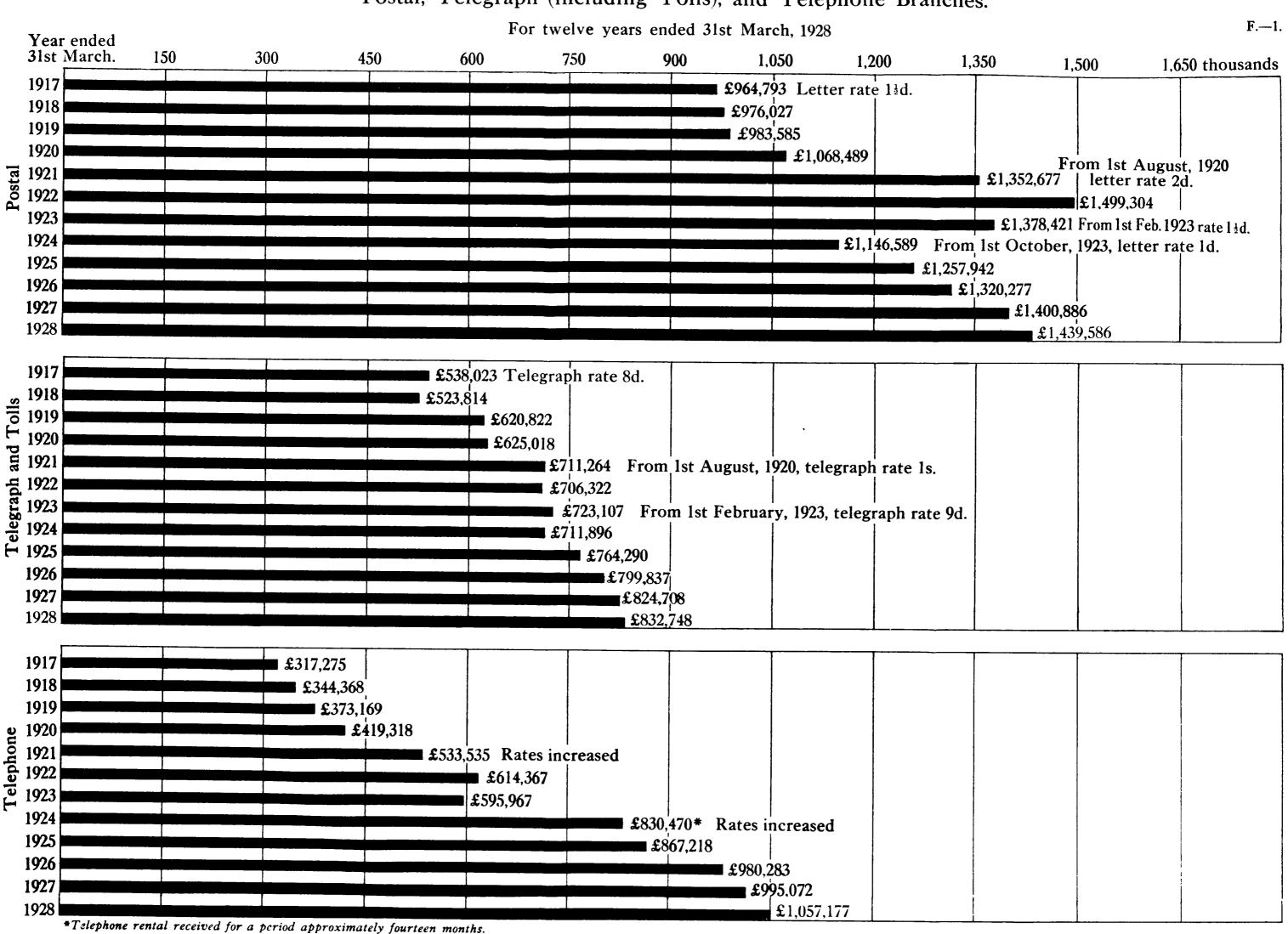






ANNUAL REVENUE.

Postal, Telegraph (including Tolls), and Telephone Branches.



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STATEMENT OF FINANCIAL OPERATIONS AND BUSINESS OF THE DEPARTMENT FOR THE YEAR ENDED 31st MARCH, 1928.

RECEIPTS AND PAYMENTS.

The receipts and payments of the Department for the financial year 1927-28 are shown in the following table:—

				m-1								
Item.				Postal,			Telegraph.			Total.		
Receipts.				£	s.	d	£	s.	d.	£	s.	d.
Postages				1,132,077	1	71				1,132,077	1	
Money-order and postal-note commiss	sion			51,113	13	1				51,113		
Money-order commission received from	n forei	gn offices		1,043	11	41				1,043		
Private box and bag rents and rural				46,988		11				46,988	4	
Miscellaneous receipts		•••		208,364	5	7	30,801	16	24	239,166	ĩ	
Paid telegrams						i		10	91	404,711	10	
Paid tolls						i	397,234	0	111	397.234	Ö	
Telephone exchange rentals							1,057,177	1	$10\frac{1}{2}$	1,057,177	1	10
Totals				1,439,586	16	7	1,889,924	9	10	3,329,511	6	5
Payments.							<u>,</u>				V	
Salaries				632,761	19	4	888,501	11	0	1,521,263	10	4
Conveyance of ocean mails				65,028	8	0				65,028	8	0
Conveyance of inland mails				135,957	6	9				135,957	6	9
Conveyance of mails by rail				116,477	19	9				116,477		9
Money-order commission credited to t	oreign	offices		2,513	13	4				2,513	13	4
Maintenance of telegraph and telepho	ne line	s					128,966	15	11	128,966	15	11
Motor services and workshops				23,926	1	3	15,808	8	5	39,734	9	- 8
Miscellaneous	• •	• •	• •	142,732	1	9	146,896	17	10	289,628	19	7
				1,119,397	10	2	1,180,173	13	2	2.299,571	3	4
Balance of receipts over payments		• •		320,189		5	709,750		8	1,029,940		
Totals				1,439,586	16	7	1,889,924	9	10	3,329,511	6	

The total cash value of the transactions of the Department, inclusive of the above, amounted to approximately £194,405,000 for the year.

RECEIPTS AND PAYMENTS FOR THE YEARS 1881-82, 1891-92, 1901-02, 1911-12, 1921-22, AND FOLLOWING YEARS.

			Receipts.	Payments.	over Payments.	Excess of Payment over Receipts.
		 	$^{\pounds}_{234,529}$	£ 233,291	£ 1,238	£
••	•. •	 	320,058	268,343	51,715	
		 	488,573	465,756	22,817	••
		 	1,087,710	988,911	98,799	••
		 	2,811,535 2,687,768 2,688,954 2,889,450 3,100,396 3,220,666	2,451,571 2,114,994 2,120,584 2,416,257 2,409,556 2,346,274	359,964 572,774 568,370 473,193 690,840 874,392	
	•••				$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

STAFF.

Comparative Return of Persons employed in the Post and Telegraph Department on the 1st April, 1927 and 1928.

The total number of persons employed on the 1st April, 1927 and 1928 was as under:-

Permanent staff—					$^{\mathrm{1st}\;\mathrm{Ap}}_{1927}$	
Administrative	Division					1 4
Clerical and En	ngineering	Divisions			3,543	3,519
General Division	on		• •		4,99	5,041
Temporary staff Casual staff	••	••	•••		8,540 199 1,55	165
Non-permanent sta		••	••	••	10,289	•
Country Postm				• •	1,910	· · · · · · · · · · · · · · · · · · ·
Postmasters wl	10 are Kai	Iway office	rs	• •	101	96
					$\frac{12,300}{12}$	$\frac{-}{11,753}$

HEALTH OF PERMANENT STAFF.

The following table gives the average absence of officers on sick-leave:-

		Number on Staff.	Average Absence per Sick Officer.	Average Absence for each Officer employed.
\mathbf{Men}	 	7,824	9.20	4.33
Women	 	740	15.64	10.02

Eleven officers died during the year.

PERSONAL.

Mr. A. Gibbs, M.I.E.E., Chief Telegraph Engineer, was absent from the Dominion for several months attending the International Radio-Telegraph Conference held at Washington, D.C., and investigating in Europe and America the latest engineering developments of telegraph and telephone communications. The report furnished by Mr. Gibbs on his return to the Dominion is a most valuable one, and not only should it lead to greater efficiency by the adoption of more advanced methods of working, but it should also assist the Department in all engineering matters.

While Mr. Gibbs was absent from the Dominion Mr. C. S. Plank, A.M.I.E.E., Deputy Chief Telegraph Engineer, acted as Chief Telegraph Engineer, Mr. Plank, in turn, being replaced by Mr. H. L. Cummings, Inspecting Engineer.

PROMOTION BOARD ELECTION.

A Promotion Board election held on the 15th February, 1928, resulted in the return of Mr. H. M. Patrick as the elective member of the Board. Two officers contested the election. Mr. L. L. Hills, who had been the elective member since November, 1921, did not seek re-election.

APPEAL BOARD.

The Post and Telegraph Appeal Board, under the chairmanship of Mr. E. C. Cutten, S.M., sat on three occasions during the year. Sixty appeals were dealt with, of which two were allowed.

DEPARTMENTAL CORRESPONDENCE SCHOOL.

There were 1,300 enrolments during the year in the Departmental Correspondence School, which provides tuition for officers who require to sit for departmental examinations. The new classes for junior officers resulted in a large influx of students, and necessitated increasing the instructional staff to twelve. Officers generally have profited greatly by the facilities provided for study, and the value of the tuition given is reflected in all branches of the service by increased efficiency.

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EXAMINATIONS.

The number of officers who entered for departmental efficiency examinations held during the year was 1,551. The candidates that were either wholly or partially successful numbered 785.

BUILDINGS.

During the year buildings were erected as follows:—

Post-office buildings-

Castlecliff. Leigh. Waimiha. Portobello. Waiuta.

Te Mata. Miramar (automatic telephone exchange).

Residences for Postmasters—

Waiuku. Porangahau.

Te Karaka.

Workshop-store-garage Buildings-

Frankton Junction. Timaru.

Garages-

Člvde. Putaruru (purchased). Foxton. Ruawai.

Newmarket. Tolaga Bay. Warkworth. Pukekohe.

Increased accommodation has been provided at the following places:-

Courtenay Place (automatic telephone

Lower Hutt. exchange). Palmerston North.

Frankton Junction Railway. Putaruru. Hastings. Richmond.

Levin. Wellesley Street.

The erection of a new post-office building at Waverley is proceeding.

The following additions and alterations have been authorized:—

Cromwell (addition and alterations). Papakura (alterations).

Gore (addition). Pembroke (addition and alterations). Hawera (addition). Radio-Wellington (addition).

Te Teko (addition). Matamata (alterations).

Milton (alterations.) Waipukurau (addition and alterations). Walton (addition and alterations). Mokauiti (addition).

Sites for storage purposes were purchased at Blenheim and Napier. The area of the post-office site at Carterton has been increased by the acquisition of additional land. At Palmerston North an area of land adjoining the post-office site was taken over from the Department of Agriculture.

OVERSEAS MAILS.

The service between Auckland and Vancouver continued to be performed by the R.M.M.S. "Aorangi" and the R.M.S. "Niagara," and that between Wellington and San Francisco by the R.M.S. "Tahiti" and the R.M.S. "Makura."

Owing to the breakdown of the "Makura" in June, 1927, it was deemed expedient to send by the s.s. "Rotorua" via Panama the mails which ordinarily would have been despatched by the "Makura" via San Francisco.

The average times of transmission of mails were as follow: Auckland to London (via Vancouver), thirty-one days; London to Auckland (via Vancouver), thirty-one days; Wellington to London (via San Francisco), twenty-nine days; London to Wellington (via San Francisco), thirty-one days.

The contracts for the Pacific services expire on the 31st March, 1929, and consideration is being given to the question of arranging new contracts as from the 1st April, 1929.

INLAND MAIL-SERVICES.

The North Island Mail-service contracts were relet in the latter part of 1927. Several entirely new services were established, notably one between Putaruru and Taupo. The routes of a number of services were rearranged to the advantage of both the Department and the settlers.

As regards mail communications, the following are the only incidents worthy of recounting:—On the 19th May, 1927, while the contractors for the Christchurch-Springston rural-mail delivery were engaged in delivering mail-matter their motor-car was totally destroyed by fire. The mailmatter, however, escaped damage.

In June, 1927, communication by road between Napier and Taupo, and between Napier and Wairoa, was disorganized for two days owing to floods rendering the roads impassable.

At the end of July, 1927, a slip on the Main Trunk Railway line outside the first tunnel near Kaiwarawara (Wellington) disorganized the railway service. Suitable arrangements were made to transport mails between Wellington and the scene of the slip.

Several wagons of a mixed passenger and goods train were detailed near Mangapehi on the 13th March, 1928. One of the detailed wagons which contained bags of post parcels, came to rest some 200 ft. down an embankment. Although the wagon was damaged, the mails were recovered in good order.

The engine, mail-van, and a second-class carriage of the south-bound Main Trunk express of the 25th July, 1927, were detailed at Otaki. The mail-van was badly damaged, but happily the two mail agents escaped injury.

RURAL MAILS.

At the 31st March, 1928, there were in use 16,931 rural boxes, an increase of 1,459 on the number for last year. The number of rural deliveries, including part rural deliveries, in operation at the 31st March, 1928, was 376, compared with 377 on the 31st March, 1927. But for the amalgamation of a number of services at the reletting of North Island contracts, the number of rural deliveries would have shown an increase.

The figures regarding the reletting of North Island contracts disclose that the average cost of serving a rural box exceeds the revenue derived therefrom. In respect of daily services, the cost per boxholder is £3 3s. 4d., and the revenue £2 14s. 5d. For services with frequencies of thrice weekly or less the respective figures are £4 10s. 7d. and £2 11s. 6d. The revenue figures given include the annual fees paid for the boxes. The net loss on rural-mail services in the North Island is £2,490.

"HOUSEHOLDER" CIRCULARS.

The revenue from "Householder" circulars posted during the year was £7,384.

MISSING POSTAL PACKETS.

During 1927 the Department investigated 5,613 inquiries regarding the reported non-delivery of postal packets. In 3,516 cases, or nearly two-thirds of the total number, the articles were traced or accounted for satisfactorily. These cases may be summarized as follows: Sender responsible for delay, 1,012; addressee responsible for delay, 1,241; Post Office responsible for delay, 364; no delay, or responsibility not fixed, 899. In 2,097 cases the manner in which the packets were disposed of could not be determined. A comparison of this figure with the total number of articles posted shows that the percentage of losses was 0.00085.

In view of the fact that the Department provides adequate facilities for the safe transit through the post of money and other readily negotiable value, the number of unregistered postal packets which, on being opened in the Dead Letter Office, are found to contain bank-notes and other values is surprising. In some cases very large sums in bank-notes have been enclosed in unregistered packets. The failure of members of the public to make adequate use of the registration system is a world-wide one; and the meeting of it constitutes a problem with which every postal administration is faced. The importance of using the registration system when forwarding values by post cannot be too frequently stressed.

REGISTRATION OF MOTOR-VEHICLES.

It has been arranged for the Superintendent of Police at Wellington to ascertain from the central register in the General Post Office at any time after the ordinary hours of business information regarding the names and addresses of owners of motor-vehicles in any part of the Dominion.

Police officers in Auckland are now able, in urgent cases, to obtain at any time after the ordinary hours of business the names and addresses of owners of motor-vehicles in Auckland City.

All the Deputy Registrars' offices within a radius of two miles from the chief post-office, Auckland (with the exception of Newmarket, at which office applications for new registrations are still being accepted), have been closed, and the records centralized at the chief post-office. The change inflicts no hardship on motor-owners, and it is welcomed by the police and traffic officers, who have to deal with the ever-increasing number of accidents and breaches of by-laws. The new arrangement will prove particularly advantageous during relicensing periods, as under the old arrangement considerable time was expended at the chief post-office in obtaining records from suburban offices.

The Motor-vehicles Amendment Act. 1927, made provision for several changes, the more important of which are as follow:

(1) The annual fees for dealers' plates are increased, and dealers are permitted to use such plates for any purpose connected with their business.

17 F.—1.

(2) Motor-vehicles (other than those used exclusively in connection with the maintenance or construction of roads or streets) owned by Government and local authorities are now required to pay registration and license fees. Local authorities, however, are still required to pay registration fees in respect of all vehicles owned by them.

(3) In the schedule of fees payable for annual licenses the rate for a motor-coach, motor-omnibus, or truck fitted with solid tires is reduced from £5 per annum to £3. The fee for a truck fitted with

pneumatic tires is now £2 per annum.

(4) The motor-registration year now commences on the 1st June, and ends on the succeeding 31st day of May. As a consequence fourteen months' fees were collected in connection with the 1928–29 relicensing of vehicles.

(5) Authority is given the Registrar of Motor-vehicles to cancel the registration of a vehicle in the event of its remaining unlicensed for a period of one year. As the clause is not mandatory, regulations were gazetted to the effect that the registration of a vehicle shall automatically be cancelled in the event of its not being licensed for a period of two clear motor-registration years.

(6) Provision is made for the refunding of a proportionate amount of license fee in the event of a wabiele being (a) destroyed by reason of against or (b) parmanently removed from New Zeeland

vehicle being (a) destroyed by reason of accident or (b) permanently removed from New Zealand.

The Government Statistician, at the instigation of the Transport Investigation Committee, had action taken to appoint Deputy Registrars of Motor-vehicles as sub-enumerators in connection with the collection of statistics from proprietors of organized motor-transport services operating on defined routes.

The following figures show the number of live motor-vehicle registrations (including 1925–26 dormant registrations) at the 31st March, 1928:—

		North	ISLAND.			
Cars					 71,185	
Commercial vehicle	s, &c			• •	 17,638	
Cycles			• •	• •	 20,392	
•						109,215
		South	ISLAND.			
Cars			• •		 43,265	
Commercial vehicle					 7,987	
Cycles					 15,148	
v					·	66,400
Total	••	••			 	175,615

The above figures do not include those vehicles for which 3,000 demonstration-plates were issued to dealers.

The following table shows the 1925–26 dormant registrations—i.e., registrations applying to vehicles which have not been licensed for the years 1926–27 or 1927–28. These registrations will be cancelled on the 1st April, 1928, in accordance with the regulations made under section 10 of the Motor-vehicles Amendment Act, 1927:—

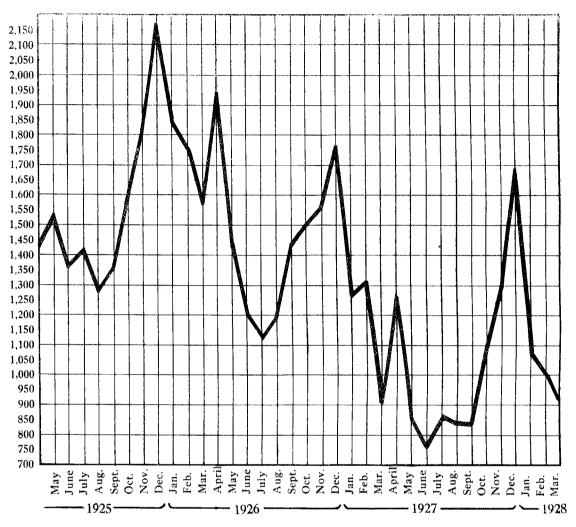
		North	ISLAND.			
		 			 1,251	
Commercial	vehicles	 			 477	
Cycles		 		• •	1,489	
						3,217
		South	ISLAND.			
Cars		 			 912	
Commercial	vehicles	 			 325	
Cycles		 			 1,436	
•						2,673
	Total	 			 • •	5,890

Registrations which were cancelled between the coming into operation of the Motor-vehicles Act, 1924, and the 31st March, 1928, are as follow:—

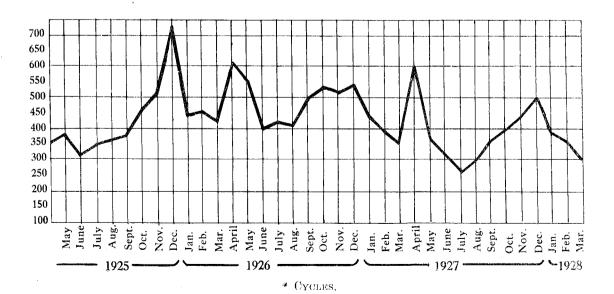
			Nor	TH ISLAN	ID.			
Cars	••					 	1,911	
Commercial	vehicles					 	887	
Cycles						 	1,530	
- 🗸								4,328
			Sou	TH ISLA	ND.			•
Cars		• •		• •		 	1,029	
Commercial	vehicles					 	337	
Cycles		• •				 	1,057	
•								2,423
	Total				٠	 		6,751

The total number of vehicles registered during the period 1st January, 1925, to 31st March, 1928, was 182,366.

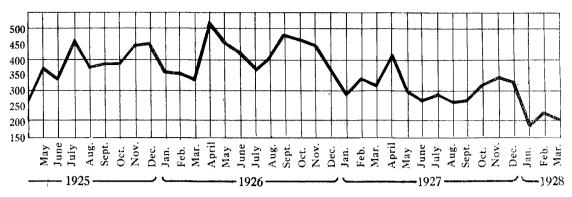
The following graphs show the number of ears, cycles, and commercial vehicles registered each month from April, 1925, to March, 1928.



CARS.



19 F.—1.



COMMERCIAL VEHICLES.

DEPARTMENTAL MOTOR-VEHICLES.

At the 31st March, 1928, there were in use in the Department 108 motor-cars; 387 motor lorries, trucks, and vans; and 60 motor-cycles—a total of 555 vehicles.

During the year 130 new vehicles were purchased, and 115 vehicles were withdrawn from service for disposal at auction.

The costs per mile of running the various types of vehicles are shown hereunder. (Note.—The number of vehicles of each type is shown in parentheses).

				d.
Light cars (90)		 	 	4.6
Heavy cars (18)		 	 	8.42
Clearance vans (25)		 	 	4.66
Parcel-vans (25)		 	 	5.68
Utility trucks (156)		 	 	4.44
1-ton trucks (102)		 	 	6.12
$1\frac{1}{2}$ -ton trucks (30)		 	 	9.74
2-ton trucks (26)		 	 	11.87
3- and 4-ton trucks	(23)	 	 	13.57
Motor-cycles (60)		 	 	3.01

WORKSHOPS.

The repair and upkeep of the Department's equipment, which has become more extensive and varied, was successfully dealt with in the departmental workshops at Auckland, Christchurch, Dunedin, Napier, Palmerston North, Wanganui, and Wellington. The total value of the work done in the shops was £111,247, of which £8,444 represented the value of work performed for other Departments.

The principal work was in connection with the repairing of the Department's motor fleet, telegraph, telephone, and wireless apparatus, postal equipment, and office appliances. Included under the heading "Office appliances" is such work as is required to be done in maintaining cash-registers, Burroughs adding-machines, comptometers, and typewriters. The extension of the automatic telephone system released a large quantity of manual-telephone apparatus, which was renovated and taken into stock. The principal manufactures consisted of rural-delivery boxes, parcel-post boxes and hampers, automatic slot-telephone instruments, public-telephone cabinets, telegraph-pole arms, arm-combiners, and pole-seats. In addition, all motor-vehicle bodies required by the Post and Telegraph and other Departments were built. A large quantity of office furniture and fittings was manufactured; and rubber stamps were produced to meet the requirements of the whole Public Service. Generally, the workshops are engaged on maintenance-work of a type not done elsewhere in the Dominion. Much of the Department's apparatus is made outside the Dominion, but it has to be kept in repair by workmen specially trained by the Department.

STORES BRANCH.

The following figures indicate the value of stores received and issued in the Auckland, Christchurch, Dunedin, and Wellington Storekeeping Districts during the year ended the 31st March, 1928, and the value of stocks held at that date. For the purposes of comparison the values of receipts and issues for the previous year are shown also:—

					1928.		199	27.
	***************************************			Receipts.	Issues.	Stock in hand, 31st March, 1928.	Receipts.	Issues.
				Ē	£	£	£	£
Auckland				201,514	209,992	126,716	176,047	201,175
Christchurch				163,338	166,310	75,760	89,186	117,960
Dunedin	. ,			108,977	111,294	59,997	71,975	96,715
Wellington	• •	• •	٠.	507,394	542,047	336,583	599,047*	593,994*

^{*} Excluding sub-stores of district.

Purchases.

Five hundred and sixty-eight orders for material of a value of £290,039 0s. 9d. were placed overseas. In addition, orders were placed within the Dominion. The total value of stores purchased during the year was £464,164 9s. 3d.

Particulars of the purchases made for other Departments under the Stores Control Board Regulations are set out hereunder. The figures for the previous year are shown also:—

Year ended		Requisitions.	Items.	Value of Item	is purchased.	Total.
Town onded		requisitions.	Tooms.	On Indent.	Locally.	
31st March, 1928 31st March, 1927	• •	3,301 3,263	13,529 13,854	£ 22,632 18,095	£ 91,587 92,981	£ 114,219 111,076

GENERAL CONTRACTS.

Full advantage is taken of the contracts let by the Stores Control Board.

Tenders were invited by the Department and contracts were arranged through the Stores Control Board for the supply at very favourable prices of motor-spirit, kerosene, lubricating-oils, and motor-tires to meet the needs of Government Departments. Additional facilities have been provided for the storage of motor-spirit and lubricating-oils, and economy has resulted from the purchase of these items in bulk.

The purchase was arranged of ninety-five motor-vehicles for other Departments and of 130 motor-vehicles for the Post and Telegraph Department.

ORDERS FOR DOMINION PRODUCTS.

In considering tenders generally, full preference, as provided in the Customs tariff, has been given to goods manufactured in the Dominion, and as a result a number of orders have been placed within the Dominion, notwithstanding that such action involved a greater expenditure than would have been the case had the orders been placed overseas.

Wherever practicable the Department uses New Zealand timbers, and during the year £12,737 18s. 6d. was expended on silver-pine poles and £2,049 11s. 3d. on rata timber for telegraph arms. The majority of the poles were obtained from the west coast of the South Island.

An amount of £4,514 3s. 4d. was expended in the purchase of telegraph insulators of New Zealand manufacture.

SALE OF OBSOLETE AND UNSERVICEABLE MATERIAL.

Auctions of obsolete and unserviceable material, including worn-out motor-vehicles from various Departments, were held at Auckland, Wellington, Christchurch, and Dunedin.

The total value of property sold on account of the Post and Telegraph Department was £20,606 11s. 6d. This sum includes the value of scrap lead, copper wire, and other metals sold by tender.

MARINE INSURANCE FUND.

The value of the stores from countries within the Empire and from the United States of America imported under cover of the Marine Insurance Fund was £169,373. It was necessary to make only minor claims on the fund in respect of stores ordered by the Post and Telegraph Department.

POST OFFICE.

ARTICLES DELIVERED.

The number of articles delivered in the Dominion, including those received from places overseas, during the year 1927, compared with the number in 1926, was as under:—

				1927.	1926.	Increase Per Cent.
Letters				150,112,575	149,881,324	0.15
Post-cards				4,815,581	4,557,568	5.66
$\mathbf{Parcels}$				3,581,632	3,698,400	3.15*
All other art	icles	• •	• •	92,504,917	86,224,573	7.28
				251,014,705	244,361,865	* Decrease.

AVERAGE NUMBER OF LETTERS POSTED PER UNIT OF POPULATION. 1927, 107.21 1926, 109.95.

NUMBER OF POST-OFFICES IN DOMINION.

Offices opened during year, 7; offices closed during year, 51; offices remaining open on 31st December, 1927, 1,955.

UNDELIVERABLE POSTAL PACKETS.

The following is a comparison of letters and other articles dealt with as undeliverable during the year 1927, compared with those so dealt with during 1926:—

Year.	Returned direct to Senders from Chief Offices ("Special Request").	Returned direct to Senders from Dead Letter Office.	Returned to other Administrations from Chief Offices ("Special Request").	Returned to other Administrations from Dead Letter Office.	Destroyed (Senders unknown and Contents of no Value).	Total.
			Letters.			4
1927	306,421	292,897	63,173	44,146	35,542	742,179
1926	316,578	302,307	52,856	38,011	31,496	741,248
			Other Articles	s.		
1927	211,056	8,846	121,599	26,571		368,072
1926	201,193	$] \qquad 10,142$	87,987	25,156	• •	324,478

The proportion of undeliverable letters to the total number of letters delivered was 0.49 per cent. In 1926 the proportion was the same.

MISCELLANEOUS.

			1927.	1926.
Letters and letter-cards posted without addresses		 	 17,289	20,659
Letters imperfectly or insufficiently addressed		 	 25,348	23,508
Letters intercepted on account of libellous address	es	 	 204	304
Registered letters unclaimed		 	 10,621	9,973
Newspapers received without addresses		 	 7,613	6,454
Other articles received without addresses		 	 4,485	4,893
Newspapers returned to publishers as undeliverable	.e	 	 41,447	39,085
Articles bearing previously used stamps		 	 65	93

During 1927 there were dealt with in the Dead Letter Office 5,398 packets (other than parcels) the contents of which gave little or no indication of the senders' names or addresses. In the majority of these cases special effort on the part of the Dead Letter Office was successful in tracing either the senders or the addresses. Five hundred and seventy-four letters from overseas bearing insufficient or wrong addresses were specially dealt with, and a large proportion was delivered.

An auction of unclaimed packets and parcels was held during the year, at which 189 bundles of miscellaneous articles were sold.

PROHIBITED POSTAL PACKETS.

During the year 980 letters addressed to persons or firms the transmission of correspondence for whom is prohibited under section 28 of the Post and Telegraph Act, 1908, were intercepted and forwarded to the Dead Letter Office. (In 1926 the number was 1,338.) The letters for the most part were addressed to agents of art unions or lotteries in other countries. Some were addressed to recognized "quack" doctors, while others were addressed to persons who deal in obscene books or pictures, or are engaged in fraudulent business.

REGISTER OF NEWSPAPERS AND MAGAZINES.

Twenty-six newspapers were registered for transmission by post, and twenty-four were removed from the register. Six magazines were registered, and twenty-eight were removed from the register.

The number of registered newspapers on the 31st March, 1928, was 300, and the number of registered magazines 304.

POSTAGE-STAMPS.

New postage-stamps of the denominations of $2\frac{1}{2}d$. for the Islands of Aitutaki and Penrhyn, and $2\frac{1}{2}d$. and 4d. for the Islands of Niue and Rarotonga, were issued in October, 1927. The new stamps are in keeping with the style of the current series of Island pictoral stamps, of which series they form a part.

The design of the 2½d. stamp, which is identical for each island, has as a central figure a Rarotongan chief in ancient costume. The chief is wearing a head-dress made of feathers from the wood-dove (or kukupa) and the boatswain-bird (or tavake). A spear held in his left hand denotes hostility; but a fan held in his right hand denotes peace, also that he is a man of rank. The background of the stamp consists of a Native hut and a clump of palm-trees, while trunks of palm-trees form the sides of the frame

The design of the 4d. stamp, which also is the same for each island, depicts Rarotonga Harbour, and, in the background, Mount Rarotonga.

In consequence of the new issues, the New Zealand 2½d. stamp overprinted for use in each of the four islands and the 4d. stamp overprinted for use in Rarotonga were withdrawn from sale on the 31st March, 1928.

The 2s. "King George" stamp was overprinted "Official" in February, 1928, and the 3s. "King George" was overprinted "Rarotonga" in January, 1928.

STAMP-VENDING MACHINES.

The popularity of the stamp-vending machines remains undiminished. The machines are a boon to the Department and the public alike. Additional machines continue to be installed from time to time as circumstances warrant, and during the year seven more were brought into use. To ensure continuity of supply, the machines are manufactured in the Department's own workshop in Wellington.

A letter-card-vending machine of departmental manufacture was brought into use at Wellington in replacement of a machine which had become worn out after many years of service.

INSURED-BOX SERVICE.

The operation of the insured-box service has now been extended to the service between New Zealand and Egypt. An insured box may contain articles of gold, silver, precious stones, jewellery, and other articles of like nature, which are prohibited transmission by the insured-letter service.

CUSTOMS PARCELS.

The following table shows the declared value of goods received by parcel-post from places abroad and the Customs duty thereon; also the declared value of goods despatched by parcel-post to places abroad. The figures for the years 1927 and 1926 are shown in each case:—

	1927.			1926.		
	£	s.	d.	£	s.	$^{\mathrm{d}}.$
Declared value of received parcels	 1,491,441	0	0	1,633,765	0	0
Customs duty	 331,277	8	5	351,299	10	0
Declared value of forwarded parcels	 88,650	0	O	97,324	0	0

POSTAL NOTES.

The popularity of the method of remitting small sums to places within the Dominion by means of postal notes is ever increasing. Postal-note business again shows a decided increase, the sales for the year ended 31st March, 1928, being 3,614,217, of a total value of £1,015,213, an increase over the previous year of 284,579 in number and of £27,526 in value.

The commission totalled £23,844 11s., an increase of £1,427 7s. 2d. on that earned in the year 1926–27.

BRITISH POSTAL ORDERS.

The sale of British postal orders also shows a marked increase: 153,286 orders, of a value of £86,955 10s. 3d., were sold, as against 142,669 orders, of a value of £82,053, sold during the previous year. The number of orders paid was 33,360, of a value of £19,927, as against 33,610, of a value of £19,873, paid during the previous year.

SAVINGS-BANK LEDGER OFFICE AT GORE.

Arrangements were made from the 1st November, 1927, for deposits in the Post Office Savingsbank at Gore to be repaid without the depositor's being required under ordinary circumstances to furnish a written notice of withdrawal. Savings-bank withdrawals can now be made at Gore over the counter. Formerly, depositors had to wait until the warrants for payment had been returned from Invercargill before they could make a withdrawal.

POSTAL AGENCY AT PITCAIRN ISLAND.

A postal agency of New Zealand established at Pitcairn Island was opened for business on the 7th June, 1927. Prior to the establishment of the agency the islanders had but primitive postal facilities. Having no post-office or postage-stamps, they were in the habit of handing their mail matter, without postage, to the captains of passing steamers. In the case of steamers sailing for New Zealand the captains handed the mail-matter over to the post-office at the first New Zealand port, whence it was sent forward to destination without charge. Some countries, however, declined to admit such letters free, and the addressees were accordingly called upon to pay double postage. A post-office at Pitcairn Island was urgently needed, but it was a little difficult to decide by whom it should be set up. The island is under the jurisdiction of the High Commissioner for the Western Pacific, and it was by arrangement with the High Commissioner that New Zealand established the postal agency. The Postmaster is Mr. R. E. Christian, Chief Magistrate of the island.

TELEGRAPH AND TOLL SERVICES.

PROGRESS.

Notable progress has been made in the development of telegraph, telephone, and wireless services throughout the world. The trans-Atlantic telephone service is operating successfully. The beam wireless-telegraph service between Great Britain and Canada commenced in 1926. A service was established in April, 1927, between Great Britain and Australia; in July, 1927, between Great Britain and South Africa; and in September, 1927, between Great Britain and India. A service between Canada and Australia will be provided in the near future and no doubt this service will be quite as successful as those already in operation.

So far as the Dominion is concerned the Department aims to keep abreast of advances in the science of communication. It is realized that the progress so far achieved has been attained by the patient efforts of enthusiastic scientists and experimenters throughout the world. The officers of the Department are encouraged to pursue assiduous research and study in all possible directions.

The accompanying graph shows the enormous growth that has taken place in telephone and toll business in the Dominion since the beginning of the century. It shows also how, despite the effect of the toll service, telegraph business has more than held its own with the growth in population. It will be realized that the slow rate of growth of the telegraph traffic compared with other classes of traffic is due not to a general falling-off in business or to a want of business methods in the service, but to the diversion to the toll lines of a large amount of traffic which, in the absence of a toll service, would be transmitted by telegraph.

Toll communications 3,500 GRAPH SHOWING THE PERCENTAGE INCREASE IN THE VARIOUS SERVICES AND IN POPULATION SINCE THE BEGINNING OF THE CENTURY. 2,500 2,000 Telephones 1,500 1,000 100 200 300 400 500 Telegrams STOO GREY ST. TELEGRAM.

TOURS OF NEW ZEALAND CRICKET AND RUGBY TEAMS.

During the English tour of the New Zealand cricket team progress reports and the final results of matches were telegraphed to all offices for the information of the public. These reports and results were also distributed to telephone exchanges, and the information was furnished to subscribers upon request. When necessary, the attendance usually observed after midnight for the receipt of cable press news was extended to 2 a.m. to permit of the reception of messages relating to the matches. To facilitate the handling of press messages relating to the tour, the Auckland and Wellington Telegraph-offices were opened on Sundays at 3.30 p.m.

Similar arrangements are in train for the dissemination of news in connection with the tour in

South Africa of the New Zealand Rugby football team.

TRANS-TASMAN FLIGHT: SEARCH FOR MISSING AIRMEN.

The versatile nature of the services rendered by the Department was peculiarly exemplified in connection with the tragic attempt in January last to fly the Tasman Sea. Throughout the day of the flight departmental experts maintained a patient and assiduous watch for signals from the airplane, and the General Post Office was made the central point for a close examination of all reports from departmental and outside sources.

Throughout the areas in which it was thought the airmen might have landed, officers of the Department kept closely in touch with search-parties and left no report unexamined, however improbable it seemed. This service was maintained until the search was finally abandoned, many officers voluntarily remaining at their posts until the early hours of the morning.

The Department also issued instructions that, wherever possible, officers were to assist in the

search, and were to supply any equipment within the practicable scope of the Department.

It is perhaps needless to add that all officers concerned cheerfully and eagerly rendered whatever assistance they could.

INTERNATIONAL BUREAU OF THE TELEGRAPH UNION: PERSONNEL.

It is learned with regret that Mr. Henry Etienne, Director of the International Bureau of the Telegraph Union, died on the 16th December, 1927. The late Mr. Etienne was an international figure in telegraph and telephone affairs. Mr. Joseph Raber was appointed Director of the Bureau from the 1st February, 1928, and Mr. L. Poulaine was appointed Vice-Director from the 1st January, 1928.

MOVEMENTS OF SHIPPING: NOTIFICATION BY TELEGRAPH.

The system of notifying arrivals and departures of vessels by free telegrams was abolished for a short time from the 6th October, 1927. The Department was led to take this step by the need for economy and the necessity for eliminating, wherever possible, services for which it receives no return and which are foreign to its real purpose. Although the question had been considered on previous occasions, there had naturally been a good deal of hesitancy in discontinuing a service that the public had grown to regard as a normal function of the Department. In some instances it is necessary for the Department to pay for regular information regarding the movements of shipping. In view, however, of complaints that the abolition was causing great inconvenience to those concerned with the working of ships, as well as to the travelling public, the service was reinstated from the 17th November, 1927.

TELEGRAPH AND TELEPHONE OFFICES OPEN FOR BUSINESS.

During the past year, sixteen offices were opened and fifty-four closed. The number of offices remaining open on the 31st March, 1928, was 2,169, classified as follows:—

Telephone-office and toll-station combined				1,793
Morse telegraph-office and toll-station combined				346
Telephone-office (no toll-station)				7
Morse telegraph-office (no toll-station)				5
Toll-station (no telephone-office)				9
Radio-telegraph office (including coast stations,	Auckl	and,	Awanui,	
Awarua, Chatham Islands, and Wellington)				9
Total				2 169

In addition, there are five radio stations in the Cook Islands, and five in the islands of Western Samoa under New Zealand mandate. There is also a station in the Union Islands (Fakaofo).

TELEGRAPH AND TOLL TRAFFIC.

The figures which follow show the position in regard to telegraph and telephone traffic. Fuller information is contained in Table 11.

TOTAL OF ALL CLASSES OF MESSAGE AND VALUE THEREOF.

			i i	1927–28.	1926–27.	Increase.	Increase per Cent.
Number Value	• •	••		16,567,514 £805,560*	16,372,226 £793,096	195,288 £12,464	1·192 1·572

^{*} Includes £3,614 representing the value of franked Government telegrams.

SCHEDULE OF PAID TELEGRAMS, CABLE MESSAGES, AND TOLL COMMUNICATION	SCHEDULE	OF PAID	TELEGRAMS.	CARLE	MESSACES	AND	Torr.	COMMUNICATIONS
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								Number.	Value. £
Ordinary	• •							5,541,205	467,344
${f Urgent}$	• •							240,540	24,682
Press	• •			• •				589,896	81,398
$ {\bf Letter} \dots$								418,213	18,661
Toll communica	tions	• •	• •	*	• •		• •	9,733,150	397,234
Less net amount paid to other Administrations on cable and radio messages								16,523,004	989,319 187,373
Net total for pa Net total for pa								$\frac{16,523,004}{16,316,436}$	£801,946 £788,489

TYPEWRITTEN TOLL ACCOUNTS.

Typewriters have been brought into use at the Auckland, Christchurch, Dunedin, and Wellington telephone exchanges for the preparation of toll accounts. The accounts are prepared more accurately, and present a neater appearance than when prepared by hand. Moreover, a considerable reduction has been effected in the cost of preparation. An extension of the system is contemplated.

TOLL CALLS: DIRECT DIALLING OF AUTOMATIC SUBSCRIBERS.

An interesting example of the progress that is being made in speeding up the toll service, and incidentally of the facility with which the automatic system can be used in that direction, is the installation at certain exchanges of apparatus which enables toll operators at distant exchanges to call subscribers at automatic exchanges without the assistance of a toll operator at the automatic exchange.

The system was first introduced between Lower Hutt and Wellington, automatic dials being placed on the toll switchboard at Lower Hutt. Shortly afterwards provision was made for the installation of the necessary apparatus in the Napier automatic exchange, thus enabling toll operators at Gisborne and all exchanges in Hawke's Bay having direct access to Napier to call Napier subscribers direct. At the same time provision was made for the Napier toll operators to call Dannevirke subscribers direct.

The principle of operating long-distance toll lines automatically has been known for some years, and has been extensively used in the United States of America, where the conditions differ materially from those of the Dominion. Until recently it was believed that the system could not readily be applied in New Zealand. Modifications were devised, however, and the system as adopted in this country presents some novel features.

At exchanges at which the system has been employed the toll service has been considerably expedited and improved, and appreciable economies have been effected.

The question of extending the system to other automatic exchange areas is receiving close consideration. Apparatus for operation both ways between Palmerston North and Dannevirke is now being installed.

INTER-ISLAND TELEPHONE SERVICE.

The inter-Island telephone service inaugurated in March, 1926, between Wellington, on the one hand, and Nelson, Blenheim, Picton, and Seddon on the other, was extended on the 6th July last as far north as Hawera, Ohakune, and Napier, and as far south as Rakaia and Murchison. In addition, owing to there being a specially heavy copper metallic circuit between Wellington and Auckland, communication was made available between certain exchanges in the Auckland City area and the principal exchanges in the Nelson and Marlborough Districts; also between Auckland and Christchurch.

On the 29th August, 1927, the facility for communicating with the South Island was extended between the hours of 10 p.m. and 7 a.m. on week-days and at all hours on Sundays to certain exchanges in the Hamilton, Thames, and Bay of Plenty districts, and to exchanges as far north as Waitara on the western side of the North Island and Gisborne on the eastern side. The facility for communicating with the North Island during the same hours was extended as far south as Greymouth and Dunedin. In addition, Auckland's range was extended to exchanges as far south as Dunedin.

The extension of the range of communication in July was made possible by the installation of special trench cables between the extremities of the submarine cable and the Wellington and Seddon exchanges respectively, the construction of a new aerial trunk circuit between Seddon and Christchurch, and the installation of telephone repeater equipment (valve amplifiers) at Wellington and Seddon. Besides being used for improving telephone facilities between the two Islands, the repeating-apparatus at Wellington is used for amplifying speech between Wellington and Auckland.

In view of the heavy expenditure incurred in providing the special telephone-cable and the repeating-apparatus at the terminal point in each Island, it has been necessary to impose a surcharge of 3d. on all inter-Island telephone calls. With this exception, the inter-Island rates are the same as for ordinary toll communications, the charge varying according to the length of circuit.

EFFECT OF HIGH-TENSION POWER LINES.

The issuance by the Public Works Department of the Electrical Supply Regulations, 1927, has resulted in the introduction of greater standardization in the construction of power lines, and in certain respects in the erection of more substantial lines, particularly at crossings of communication circuits. This will effect a reduction in expenditure in the protection of toll circuits. The Department's main consideration in future will be to ensure that parallelism between extra-high-tension power lines and toll circuits, which results in serious inductive interference, is confined to the lowest possible limits.

With the advent of extra-high-tension lines in the Gisborne district, a condition has been introduced which seriously interferes with the operation of toll lines and subscribers' circuits. The interference is similar to that experienced in Taranaki some little time ago, and is apparently due to a like cause. The work of removing the trouble is in the hands of the power authorities concerned, and it is expected that a satisfactory solution of the difficulty will shortly be applied.

CABLES UNDER FOOTPATHS.

Legislation amending section 145 of the Public Works Act, 1908, was enacted last session, preserving existing rights and conserving future requirements of the Crown in regard to the placing of telephone and power cables under footpaths.

REMOVAL OF POLES ON ACCOUNT OF ALTERATIONS TO ROADS.

The sum of £2,014 was expended by the Department during the year ended the 31st December, 1927, in removing departmental poles consequent upon the deviation, widening, and reconstruction of roads by local authorities and Highway Boards. This is a heavy and ever-increasing but inevitable tax on the Department.

ERECTION OF TELEGRAPH AND TELEPHONE LINES BY CONTRACT.

It has been suggested that the construction of telegraph and telephone lines would cost less if carried out under contract. As an experiment, arrangements have been made for the calling of tenders for the erection of new lines where conditions are deemed to be suitable. When a number of works have been carried out under contract a comparison will be made between contract works and works carried out by the Department with a view to determining whether the contract system should be continued.

For works performed under contract the material will be supplied by the Department, the contractor providing labour and appliances. Works for which tenders will be invited will be confined to new telephone pole-lines and reconstruction works involving the erection of an entirely new line clear of the working-lines. It is considered that the erection of wires on existing poles and the reconstructing and rearranging of working-lines by other than departmental officers is impracticable.

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Certain complaints were received that the Department was not getting an adequate return in labour from some of its line construction and maintenance workmen. In a number of cases investigation disclosed that persons engaged in poling work for other than the Post and Telegraph Department had been mistaken for employees of the Department, and in consequence the Department's men had been blamed for the shortcomings of others. In other cases apparent slackness was found to have been due to traffic interference with the carrying-on of work, to the breakdown of transport, to the delayed arrival of material, and to other unavoidable hitches common to Government and private undertakings alike.

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It is not unusual to receive by letter and through the medium of newspapers commendation of the businesslike manner and expedition with which the Department's construction works are prosecuted.

EXTENSIONS TO TOLL AND TELEGRAPH SYSTEMS.

Auckland Engineering District.—The southern Hokianga County was brought into constant telephone communication with the North Auckland trunk system on the 21st January by the completion of three additional toll circuits between Kaikohe and Rawene. Not only have these additional circuits substantially augmented the number of toll outlets in the North Auckland district, but they have considerably improved the efficiency of telephone transmission.

Good progress has been made with the reconstruction of the Cambridge-Taupo section of the Hamilton-Napier circuit. This reconstruction forms part of the scheme for providing improved telephone facilities between Hamilton and Taupo. Ultimately improvements will be effected between Taupo and Napier which will greatly improve the telephone facilities between the Hamilton, Rotorua, Taupo, and Napier districts.

The toll circuit between Pukeatua and Arapuni was converted to metallic, and by a slight rearrangement of wires a new toll circuit was provided between Ngaruawahia and Huntly.

Wellington Engineering District.—Owing to inductive interference from power lines in the Taranaki district and to the congestion at some points in the network of toll lines, the toll service between the Wellington, Wanganui, and Taranaki districts was, until recently, not entirely satisfactory. The inductive interference has been eliminated by the installation by the power authorities of special apparatus, while the congestion has been relieved by the erection of new circuits between New Plymouth and Hawera, Hawera and Wanganui, and Wanganui and Wellington. The congestion between Wellington and Wanganui had been particularly noticeable. As a result of the alterations and improvements the toll-line system linking the Wellington, Wanganui, and Taranaki districts is now equal to the best in the Dominion.

An additional toll circuit between Marton and Taihape was completed on the 19th August, and the existing circuits between those places were so reconstructed and rearranged as to provide additional phantom telephone circuits between Marton and Hunterville, and between Marton and Taihape. There are now four toll circuits between Taihape and Marton, including one with Mangaweka, Ohingaiti, Mangaonoho, and Hunterville intermediate, and three between Hunterville and Marton. The toll and telegraph circuits between Marton and Taihape are now more than adequate for present traffic requirements, and should provide for development for several years.

An important extension to the toll-line system in the Wanganui district was the erection of two additional metallic circuits between Wanganui and Hawera and the provision of improved telephone facilities for the interconnection of the Waverley, Patea, and Waitotara Exchanges and also for the connection of those exchanges with Wanganui and Hawera. The congestion of traffic which previously existed between Wanganui and Hawera has now been removed and provision made for a fairly large increase in traffic, which will, no doubt, be forthcoming when telephone-users find that toll service is available without delay.

Improved telephone facilities have also been provided between Hawera and New Plymouth by means of a complete rearrangement of circuits. New Plymouth now has three circuits to Hawera, while Inglewood's outlets have been increased both north and south.

In 1915 Waipawa was constituted a switching-station for all toll lines in central Hawke's Bay. The reason for creating a "zone" centre for switching purposes was that the toll traffic then offering was not sufficient to fill a circuit between any two of the telephone exchanges concerned. Toll business has now grown to such an extent that there is sufficient business to occupy, almost exclusively, separate toll circuits between most of the individual exchanges in the Hawke's Bay area. New circuits were, therefore, erected and a rearrangement of existing lines was effected which made it possible to eliminate Waipawa as a switching-station and at the same time to provide a much improved toll service for the district.

The diversion of No. 5 morse wire from Nuhaka to Wharerata was completed on the 6th February, 1928. The old telegraph-line Opoutama to Wharerata was sold to settlers for use as a private telephone-line.

A considerable saving in primary batteries for telegraph purposes has been effected at Napier by the utilization of the 48-volt exchange battery for telegraph local circuits and certain line circuits, as well as for exchange purposes. The Te Karaka – Otoko metallic circuit was extended to Matawai on the 29th February, 1928, and the Te Karaka – Matawai – Motu earth-working line was converted to metallic. Matawai and Motu thus obtained additional outlets to Gisborne, while Gisborne obtained an additional outlet to Opotiki.

An important addition to the toll-line system in the Nelson district was the completion in July, 1928, of a copper metallic circuit between Murchison and Inangahua. This constituted the last step in the linking-up of the Nelson district with the West Coast. Direct telephonic communication is now available between most places in the Nelson and Marlborough Provinces and the West Coast centres. The new circuit also provides an alternative telegraph route between Blenheim and Christchurch when circuits on the east coast are interrupted. Additional toll facilities have also been provided between Nelson and Blenheim to meet the increase in traffic that has taken place over this section since continuous telephone service between Nelson and Wellington became available.

Canterbury Engineering District.—Although the actual length of wire in use for toll and telegraph purposes in the Canterbury District was not materially increased during the year, a considerable amount of work was carried out in the direction both of increasing the toll facilities by rearranging the wires and of improving the efficiency of the circuits. Increased efficiency was obtained by replacing iron wires with copper and by twisting the circuits, so as to afford, as far as possible, immunity from power-line inductive interference. Owing to the erection of power circuits, it was necessary to convert from earth-working to metallic the circuits between Barrytown-Rapahoe, Lower Kokatahi – Koiterangi, Arahura-Humphrey's-Hoho, Ngahere-Blackball-Roa, and on the Hazelburn circuit.

Of the works undertaken in the Canterbury District the following were the more important:—

Christchurch-Seddon: This circuit was provided as a link in the chain furnishing a means of telephone transmission between the North Island and the central and southern districts of the South Island. In addition, it gave the Nelson and Marlborough districts improved facilities with Canterbury and Otago.

Leeston-Dunsandel: The erection of this circuit gave Leeston direct communication with Dunsandel, its outlet on the Main Trunk Railway line.

Christchurch-Kaiapoi: This line was reconstructed, and the rusty iron replaced with copper, which greatly improved the efficiency of telephone transmission.

Cheviot-Parnassus: The iron wires in this section were replaced with copper. At the same time provision was made for the connection of a number of rural subscribers in the Leader Valley.

Kumara-Hokitika: The iron wires in this section were replaced with copper and the circuits twisted in order to improve their efficiency as well as to render them, as far as possible, immune from power-line inductive interference.

Christchurch-Sockburn: Copper aerial wires were erected in this section in order to increase the speaking efficiency of the main toll circuits between Christchurch and Dunedin, as well as to provide emergency outlets in case of a breakdown in the Christchurch-Sockburn underground cable.

Otago Engineering District.—The extension of range of the inter-Island toll service has enabled Dunedin people to communicate by telephone with the North Island, and good speech is obtainable as far north as Auckland. Although the service is not at present available until after 10 p.m., it is much appreciated by Dunedin subscribers and by visitors from the North Island.

The following additions have been made to the toll system in the Otago Engineering District: New metallic circuit between Lumsden and Kingston; new metallic circuit, Riverton-Orepuki-Tuatapere; new metallic circuit, Balclutha-Glenomaru-Owaka.

In addition, the Waimahaka-Waikawa and the Omakau-Poolburn circuits were converted to metallic-circuit working. With these additions and conversions, the congestion on toll lines in the Otago District has been practically eliminated.

MACHINE-PRINTING TELEGRAPHS.

The machine-printing telegraph apparatus installed at Napier in March, 1927, has given excellent service. The advantages of such an installation are very apparent during line-interruptions, when there is a general shortage of circuits.

MAINTENANCE OF LINES.

Auckland Engineering District.—The protracted drought caused abnormal and general interruptions to lines through poles in parched ground becoming displaced and straining and breaking wires. Fire damage was extensive, but not so serious as it would have been had scrub and vegetable growth not been kept cut well back from poles.

Wellington Engineering District.—Except for the dislocation of traffic in June and July, caused by severe snowstorms in the Raetihi and Ohakune sections, there were no serious interruptions to lines in the Palmerston North District.

Exceptional gales and floods in July caused considerable interruption to telegraph and telephone services in the Napier district. Otherwise communication was satisfactorily maintained.

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As a trial method of overcoming temporary interruptions to telegraph circuits caused through salt spray lowering the line insulation between Napier and Clive the insulators on the Napier-Awatoto section are being washed periodically. The results so far are very promising. Meantime the two telegraph circuits over which the machine-printing system is worked have been diverted to the inland route via Taradale.

As a result of bush-fires during the latter part of the year, seventy poles in the Nelson district (near Murchison) were destroyed. Fortunately, the principal damage was confined to lines of minor importance.

Canterbury Engineering District.—As the result of a heavy snowstorm on the 20th August, all circuits between Kaikoura and Waiau were interrupted. Subsequently it was found that twelve poles, about thirteen miles from Waiau, had been either broken or bent by the weight of snow. Repairs were effected by a gang from Christchurch.

Considerable damage was done to toll lines on the West Coast in January and February by extensive bush-fires. In many cases all the wires in a section had to be re-regulated, while in other cases new wires had to be erected.

With the exception of sections of line which are being or are about to be reconstructed, all the lines in the Canterbury Engineering District are now in good condition, and it is anticipated that there will be a reduction in the maintenance charges.

Otago Engineering District.—Two old pole-lines between Invercargill and Bluff, carrying a good deal of corroded iron wire, have been replaced by a new pole-line and circuits of 70 lb. bronze wire.

POLES AND WIRE.

During the year 128 miles of pole-line and 2,513 miles of wire were erected for telegraph and telephone (toll) purposes, while 199 miles of pole-line and 1,151 miles of wire were dismantled, or, in localities where no longer required by the Department, sold to settlers for use as private telephone-lines.

The lengths of pole-line and wire in use for telegraph and telephone toll purposes on the 31st March, 1927 and 1928, respectively, were as follow:—

	 Pole-line a	nd Wire.				Year ended 31st March, 1927.	Year ended 31st March, 1928.
Miles of pole-line Miles of wire	 ••		••	••	••	12,798* 61,286*	12,727 62,648

^{*} Revised figures.

The telegraph and telephone wire in use on the 31st March, 1928—viz., 62,648 miles—is classified as under:—

									Miles.
Used exclusive	ly for te	lephone	toll traffic						3,183
Used exclusive	ly for te	legraph	traffic						9,813
Used simultan	eously a	and (or)	conjointly	for	telegraph	and	telephone	toll	
${ m traffic}$									49,652

The total length of wire that may be used for telephone toll traffic is 52,835 miles; the total length that may be used for the transmission of telegrams, 59,465 miles; and the length of telephone toll-lines over which telegrams may be transmitted by telephone, 23,767 miles. The total length of Morse circuit derived from the superimposing of telephone circuits is 13,547 miles, and the total length of additional telephone toll circuit improvised from the existing wire circuits by the use of subsidiary apparatus associated therewith (so-called phantom working) is 5,478 miles.

The following table shows the class and number of telegraph instruments and batteries in use at telegraph-offices for the year ended 31st March, 1928:—

RETURN OF TELEGRAPH INSTRUMENT SETS AND BATTERIES AS AT THE 31ST MARCH, 1928.

	,	.etsn	Bichror	:	166	:	:	166
			Isinsd	:	86	:	:	86
teries.	Cells.	ur. U	Gordor Burnh	:	348	127	:	475
Primary Batteries.	Number of Cells.	ď	No. 2.	160 5,159	5,637	1,447	1,105	1,263 13,348
Prin	Na	Leclanche.	No. 0.		312	434	357	1,263
			No. 1.	3,835	10,058	3,268	3,956	21,117
Storage Batteries	those used for Univer- sal Battery System	Working.	Number of Cells.	137	155	9	47	345
	Univer- t sal s Battery	Systems.		7	П	7	:	က
	rators.		apacity	10	10	10	10	:
	Concentrators.		Number. Capacity	62	c 3		—	9
	Murray Multi-	plex Sets	(Quad- ruple Duplex)	4	10	ಣ	Н	81
		Forked Quad-	ruplex.	∞	6	•	:	17
		"A" Side Forked relayed Quad-	xerdunc	:	:	П	:	П
Instrument Sets.		'A" Side	Duplex.	4	4	:	H	G
oh Instru	:	Quad-Quad-Quad-	Repeater	-	8	4	Π	14
Telegraph		Quad-	1	18	13	9	2	42
	Duplex.		Current	_	24	8	က	42
	Duj	5	Current	6	12	9		28
		Central	Battery	33	:	:	:	39
	Simplex.	Inter-	stant mittent Battery Surge Loude Current Current Omnibus	98	161	81	73	401
		Con-	stant Current	35	70	33	33	177
,	District.			:	•	:	:	:
	Engineering District.			Auckland	Wellington	Canterbury	Otago	Totals

NEW ZEALAND SUBMARINE CABLES.

A fault developed in one of the Cook Strait cables (No. 4 L.B.) on the 30th April last. A few weeks later the cable parted, the break being located at a point two and a quarter nautical miles from the Lyall Bay cable hut. No action to effect repairs has yet been taken, as the remaining cables suffice to carry the traffic and a considerable saving in expenditure is effected by delaying the charter of the cable-repair steamer until two or more cables require attention.

In December, 1927, it was reported that a fault had developed in the Bluff-Stewart Island cable; but the fault, which took the form of an intermittent disconnection, did not cause any serious inconvenience until early in January, when it was located at a point 2.75 nautical miles from the cable-hut in Boat Harbour. Repairs involving the replacement of three-quarters of a mile of cable, were completed on the 26th January, 1928. The work was carried out with the aid of the s.s. "Despatch." While the "Despatch" was under charter the opportunity was taken of overhauling the Lee Bay (Stewart Island) shore-end section of the cable. The armouring was reinforced at two places off Bobs Point where it had become badly chafed and corroded; and a new length of trench cable was laid between the Lee Bay cable-hut and high-water mark to replace a piece in which the insulating covering of the conductor had become perished.

Minor repairs.—A fault reported in the Motulhi-Waiheke cable on the 30th May was repaired a

fortnight later.

A break in the Homewood - Te Rawa cable was reported and repaired in January, 1928.

A survey of White Bay was undertaken by Captain Whiteford, of the Marine Department, during January and February, 1928. There are five cables leading into the Bay; and the new chart will enable the routes of the cables to be plotted more accurately and permit the repair-steamer to work closer anshore than has hitherto been permissible.

CABLE SERVICES.

THE PACIFIC CABLE ACT, 1927. AMENDMENT OF CONSTITUTION AND CONSOLIDATION OF PREVIOUS ACTS.

The Pacific Cable Act, 1927, amending the constitution and powers of the Pacific Cable Board, as agreed upon at the Imperial Conference of 1926, received Royal assent on the 29th June, 1927. The new Act has the effect of reducing from three to two the number of representatives of His Majesty's Government in Great Britain on the Board, thus giving Great Britain the same representation as Canada and Australia. The appointment of the Chairman of the Board is no longer a prerogative of the British Government, but is subject to agreement between the partner Governments. The Act outlines new arrangements concerning the amounts to be applied to the Reserve Fund for the purpose of meeting the cost of maintenance and extension of the system. Provision is made also for the equitable division of profits among the partner Governments, and for the meeting of any deficiency in the operation of the system. The new Act consolidates the Pacific Cable Act, 1901, and its amendments.

ACCEPTANCE OF CABLE MESSAGES WITHOUT PREPAYMENT: RECOVERY OF CHARGES FROM CABLE ADMINISTRATIONS.

It has been agreed, in consideration of a payment of £75 per annum each from the Pacific Cable Board and from the Eastern Extension Telegraph Co. to accept, from the 1st October, 1927, at Auckland, Christchurch, Dunedin, and Wellington, cable messages from authorized persons and firms without prepayment, and to recover the charges from the Board or the Company, as the case may be.

EASTERN EXTENSION TELEGRAPH CO.: PREPARATION OF CABLE ABSTRACTS

The Department has undertaken, from the 1st February, 1928, for the Eastern Extension Telegraph Co., the preparation of cable abstracts in respect of outward New Zealand messages transmitted over the company's system between Wellington and Sydney. For this service the company pays the Department at the rate of £75 per annum.

DAMAGE TO CABLE OF EASTERN EXTENSION TELEGRAPH CO.

A workman of the Wellington City Council damaged the cable of the Eastern Extension Telegraph Co. between Wellington and Titahi Bay in 1925. The City Council at first repudiated responsibility, maintaining that the relative Act of Parliament did not enable responsibility for the damage definitely to be fixed. The amount claimed was eventually paid. But in view of the happening it was deemed expedient to introduce amended legislation with a view to affording the company adequate and reasonable protection against any possible future injury. To this end, section 54 of the Reserves and other Lands Disposal and Public Bodies Empowering Act, 1916, was suitably amended by section 36 of the Finance Act (No. 2), 1927.

CABLE RATES.

NEW ZEALAND - SOUTH AFRICA.

Negotiations have been entered into with the Eastern Extension Telegraph Co. for a reduction in the cable rate between New Zealand and the Union of South Africa. There is reason to believe that the Department's representations will be favourably considered, and that the rates will be reduced on ordinary traffic from 2s. 7d. to 2s. a word, on deferred-rate messages from 1s. 3½d. to 1s. a word, and on letter-telegrams from 8d. to 6d. a word. The rate on messages exchanged with South Africa has not been reduced for over twenty years. Having regard to the steadily increasing community interest between New Zealand and the sister Dominion, together with the visit to South Africa of a New Zealand representative rugby football team, there are strong arguments in favour of a lower cable rate between the two countries. Negotiations are also taking place in regard to the cable rates between New Zealand and certain Eastern countries.

NEW ZEALAND-FIJI.

From the 1st September, 1927, the telegraph rates from New Zealand to all places in the Fijian Group, via Pacific, were reduced by 2d. a word for ordinary traffic, and by 1d. a word for Govern-

ment messages.

From the 1st January, 1928, the rates from New Zealand to all places in the Fijian Group beyond Suva have been fixed at 8d. a word. This represents an increase of 1d. a word to Levuka, and a reduction of 1d. a word to Labassa, Taviuni, and Savusavu in respect of the rates in force from the 1st September, 1927. There has also been a reduction in the rate via Suva Radio to Ocean Island, Apia, Vila, Vavau, and Nukualofa. To places beyond Suva normally served by the Suva Radio-station the reduction is 3d. a word. To other places, the normal route to which was hitherto by way of Australia at 1s. 4½d. a word, the rate has been reduced via Suva Radio-station to 1s. 3d. a word.

NEW ZEALAND-EUROPEAN COUNTRIES.

From the 15th November, 1927, the rates via Pacific to European countries, excepting Cyprus, Greenland, Azores, and the Balearic Islands (which are not included in the category of European countries), were reduced to the level of the rates via Eastern. The reductions apply also to deferred messages for all places in Europe to which a deferred service is available by both routes.

NEW ZEALAND-FRANCE.

The rate for press cable messages from New Zealand to France via Pacific and Imperial was reduced, from the 5th August, 1927, from 10d. to 8d. a word. This reduces the rate for this class of message via Pacific to the level of that via Eastern.

NEW ZEALAND-GERMANY.

The rate for cable messages between New Zealand and Germany by the Pacific and Azores route was reduced from the 15th July, 1927, to the level of that by the Pacific and Imperial and Eastern routes—i.e., 2s. 6d. a word for ordinary and 1s. 6d. a word for deferred traffic.

WORDS FORMED BY THE UNION OF A BONA FIDE PLAIN WORD AND A CODE-WORD.

From the 6th May, 1927, a concession is granted the senders of cable messages, whereby words not exceeding in length ten letters, formed by the union of a bona fide code-word and a plain word—as, for instance, "Awhagsugar"—are counted as ordinary code-words, with the proviso, however, that the code portion of the word must be pronounceable and that the plain-language portion must be correctly spelled.

USE OF CODE CHECK-WORD.

From the 20th May, 1927, the use of a code check-word, not exceeding in length ten letters, has been permitted in deferred, daily-letter, and week-end messages from banking and commercial institutions, without affecting the plain-language classification of the message. From the 14th July, 1927, the privilege has been extended to night letter-cable messages.

USE OF FIGURES, NUMBERS, AND COMMERCIAL MARKS IN CHEAP-RATE MESSAGES.

The restriction arising out of the provisions of Article 70 of the Paris International Telegraph Convention, 1925, on the use of figures, numbers, and commercial marks in cable messages of the cheaper categories has been the subject of much protest from business concerns that make extensive

use of the cheaper classes of cable message. With the object of placing as liberal an interpretation as possible upon the regulation, the Department communicated with other Administrations, suggesting a number of terms that might reasonably be regarded as exempt from the restriction. As a result, a list of terms exempt from the restriction has been issued. The action taken to clarify the position has been much appreciated by the business community.

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WEEK-END LETTER-TELEGRAM SERVICE: EXTENSION TO HOLLAND, ITALY, AND LIBYA.

The week-end letter-telegram service was extended to Holland from the 1st April, 1927. Messages may be written in plain English, Dutch, or French. The rate is 14s. 2d. for twenty words or less, with a charge of $8\frac{1}{2}$ d. for each word over twenty words.

From the 5th August, 1927, the week-end letter-telegram service was extended to messages between

New Zealand and Italy at a charge of 8½d. a word, with a minimum charge of 14s. 2d.

The week-end letter-telegram service was extended to Libya from the 26th November, 1927. The rate is 16s. 8d. for a message of twenty words or less, and 10d. for each word over twenty words.

DAILY LETTER-TELEGRAM SERVICE: EXTENSION TO BELGIUM.

The daily letter-telegram service was extended to Belgium from the 1st July, 1927. The rate is 15s. for a message of twenty words or less, and 9d. for each word in excess of twenty words.

CABLE TRAFFIC.

The number of cable messages, excluding Press, sent from New Zealand to international offices shows an increase of 2.87 per cent. on the number sent during 1926-27, and the number sent to Australian offices shows a decrease of 2.21 per cent. Messages received from international offices increased by 3.53 per cent., and messages from Australia increased by 0.32 per cent.

The proportion of cable messages sent "via Pacific" was greater than that sent by the same

route during the previous year, the percentages being 66.07 and 64.29 respectively.

The following table shows the total number of cable messages, excluding Press, forwarded by each route during each of the past five years; also the percentage of such traffic falling to each.

	PACIFIC.			Eastern.	
Year.	Messages.	Percentage of Total.	Year.	Messages.	Percentage of Total
1923–24	167,922	65.9	1923–24	86,797	34.1
1924-25	185,680	65.3	1924-25	98,571	34.7
1925-26	204,586	65	1925 – 26	110,146	35
1926-27	204,051	64.29	1926-27	113, 3 55	35.71
1927-28	210,662	66.07	1927 - 28	108,167	33.93

Press messages numbering 4,925 were sent via Pacific and 2,929 via Eastern, compared with 3,090 and 4,183 respectively during 1926–27. The number received via Pacific was 7,731 and via Eastern 3,266, compared with 6,671 and 3,916 respectively.

The following table shows the total number of each class of message, excluding Press, forwarded during 1927-28, as compared with the number forwarded during 1926-27:—

		1927	-28.	1926	-27.
		Forwarded.	Received.	Forwarded.	Received.
Full-rate international cable messages	 	85,911	81,215	82,128	78,498
Deferred international cable messages	 	23,378	24,761	23,529	23,895
Daily letter-telegrams	 	33,921	24,622	33,116	24,554
Week-end telegrams	 	27,608	16,727	27,274	15,352
Australian cable messages	 	84,504	81,908	89,954	88,527
Australian night-letter telegrams	 ••	63,507	58,991	61,405	51,913
Totals	 	318,829	288,224	317,406	282,739

(For further statement of cable business see page 49.)

WIRELESS SERVICES.

INTERNATIONAL RADIO-TELEGRAPH CONVENTION, 1927.

At the International Radio-telegraph Convention held at Washington, D.C., U.S.A., during October and November, 1927, the Dominion was represented by the Chief Telegraph Engineer (Mr. A. Gibbs, M.I.E.E.). Owing to the Great War and its aftermath, no such Convention had been held since 1912. During the Convention, which occupied about eight weeks, matters affecting every phase of radio signalling were discussed, and regulations drawn up to govern its international use.

A special concession was granted to the New Zealand Government permitting the operation of wireless installations on the smaller coastal ships by specially trained officers of the ships' crews. In view of the fact that ships of this class are engaged almost exclusively on coastal work, and do not engage in general commercial signalling, the Conference finally agreed to permit such stations to be operated by ships' officers possessing operating and technical knowledge inferior to that normally prescribed for ship stations. The only messages permitted to be handled are communications of urgent maritime importance. As the concession is contrary to the general spirit of the Convention, which aims at increased operating efficiency, its effect upon maritime radio operations will be closely watched by other countries. Steps will be taken to ensure that radio signalling in Dominion waters is not unduly prejudiced by any abuse of the concession.

The general scope of the Convention, and its incidence upon New Zealand radio-signalling con-

ditions, have been referred to in a special report, which is published separately.

The Convention and the regulations made thereunder will come into force on the 1st January, 1929.

IMPERIAL WIRELESS SERVICES: STANDING COMMITTEE.

The High Commissioner for New Zealand was notified in May, 1927, that, in view of the fact that the Standing Committee appointed to advise on matters arising out of the question of Imperial wireless services was unlikely to function for a considerable time, the appointment of Mr. J. Milward, late of the Pacific Cable Board, as a New Zealand representative on the Committee was to be terminated. Mr. Milward was in receipt of a retaining-allowance of £100 per annum. The High Commissioner continues to represent the Dominion on the Committee.

NEW ZEALAND COAST STATIONS: EQUIPMENT, OPERATION, ETC.

RADIO-AUCKLAND.

Traffic.—The principal service performed by Radio-Auckland is the handling of traffic to and from shipping in the waters to the north of New Zealand. The amount of traffic handled has suffered slightly by reason of the diversion of a large percentage of the trans-Pacific mail-steamer traffic to the short-wave service now being carried out by the Wellington and Awarua Stations.

Alteration of Transmitter-coupling.—Owing to the interference caused to broadcast reception by an harmonic from the interrupted-continuous-wave transmitter, the coupling of the set has been

redesigned to remove this objectionable feature.

Establishment of Remote-controlled Receiving-station .-- Some experiments have been carried out at Radio-Auckland on the lines of a remote-controlled receiving-station consisting of an unattended receiver located at a suburban post-office, the received signals being transmitted to Radio-Auckland through telephone-cable. Due to its being beyond the city's commercial area, this location is more favourable than Queen Street to reception from ship stations. The new arrangement has considerably improved the operating efficiency of the station.

RADIO-AWANUI.

Attendance.-Prior to the inauguration of the short-wave service between Apia (Samoa) and New Zealand, Radio-Awanui handled all Pacific Island traffic on high power, using a wave-length of 2,000 metres. Since the advent of the new system the traffic has been handled by Radio-Wellington.

In consequence of the diversion, the hours of operation of Radio-Awanui have been curtailed from continuous to 8 a.m. - 11 p.m., and the question of closing the station will receive consideration.

In the meantime a listening service for inward traffic only is being observed.

Long-wave Reception.—As a result of investigations made regarding the reception of the long-wave signals from Rugby, England—a service which is carried out at Radio-Awarua—a trial was recently made to determine the relative suitability of Radio-Awanui for such reception. The result was such as to render a change unwarranted.

Transmitting-apparatus.—To minimize the use of the higher-powered transmitting-apparatus at this station, a low-power engine, comprising part of a 3-kilowatt transmitter, has been adapted for use with either the 600-metre or the long-wave transmitter.

Mast and Aerials.—The repainting of the mast and the overhaul of the mast and aerial system were undertaken in May. Severe gales in August caused damage, necessitating the replacement of a number of aerial insulators.

RADIO-AWARUA.

35

Traffic.—Traffic handled by Radio-Awarua shows a marked increase over that of the previous This is due chiefly to the adoption at this station of short-wave signalling.

Short-wave Working.—Two-way communication for testing purposes was effected nightly in February and March with Burnham-Radio (England).

In June last, nightly communication on short waves was commenced with the two vessels engaged in the Wellington-San Francisco mail-service. This has been well maintained and has provided reliable communication between the Dominion and the steamers during the whole of the trans-Pacific

As in the previous year a large volume of traffic was exchanged with whaling-ships in the

Antarctic. This was transmitted on wave-lengths of from 30 to 35 metres.

New Receiver for Reception of British Official Press News.—In June, 1927, a receiver specially designed for the reception of signals from Rugby, England, was installed. The receiver has special unidirectional properties, enabling greater use to be made of directivity in limiting the incidence of atmospheric interference. Notwithstanding a certain degree of interference from atmospheric disturbances, the number of words of press news received direct from England during the year reached 279,188.

Mast and Aerials.—The 400 ft. steel tower was repainted in March, 1928.

A new aerial permitting transmission on a wider band of short wave-lengths was erected in September, 1927.

Tests to determine the suitability of wave types of antennæ for long-wave reception were carried out during the early part of the year. For this purpose use was made at intervals of the Invercargill-

Bluff telephone-lines.

Location of Station.—Although there is comparatively little shipping in the vicinity, the semiisolated location of this station is justified by the command that the station has of the southern seas, portions of which are screened from the other New Zealand coast stations. The mishap to the whaling-ship "C. A. Larsen" in Paterson's Inlet (Stewart Island) during the latter part of February again demonstrated the suitability of the location for dealing with urgent maritime traffic or distresssignals from ships in southern waters.

Land-line Communication.—To meet the need for a more efficient land-line connection with the Wellington Telegraph-office for the disposal of the British official press news a duplex set has been

installed.

RADIO-WELLINGTON.

Short-wave Working .-- A short-wave transmitting and receiving set has been installed at Radio-After exhaustive tests and experiments to determine the wave-lengths most suited to the different hours of the day and night, permanent adjustments were made on the 30th August, from which date a direct short-wave service has been observed with Apia, Samoa. With the exception of a few occasions on which daylight signals were subject to interference from extraneous induction or atmospheric disturbances, the service has been regularly maintained. The night signals have been reliable on all occasions. Consideration is now being given to the installation of a higher-powered transmitter to replace the experimental one. With a higher-powered transmitter it is anticipated

that a much greater degree of reliability will be obtained.

Transmission of Press News.—Radio-Wellington has taken over the nightly transmission of the free press news which was previously transmitted by Radio-Awanui on a wave-length of 2,000 metres. The press news is sent simultaneously on wave-lengths of 800 and 53 metres, and is a useful example The service, which has been satisfactorily performed since its inauguration, of dual transmission.

permits reception both by ship stations and by the coast stations of the Pacific islands.

Communication with Trans-Pacific Ships.—A nightly short-wave service has also been instituted to and from the mail-steamers plying between Auckland and Vancouver, enabling communication to be maintained throughout the voyages.

Installation of New Receiver.—Reception has been improved by the installation of a specially-

designed receiver giving greater flexibility and readier change of wave-lengths.

Erection of Separate Receiving-station.—As the operation of transmitting interferes somewhat with the simultaneous reception of signals, the erection of a separate building to accommodate the receiving-apparatus associated with both the long- and short-wave sets is about to be proceeded with. The building will be situated approximately 200 yards from the existing building at which distance experiments have proved the interference to be negligible. The existing building will thenceforth be utilized as a transmitting-station only.

KAWAU ISLAND.

The plant at Kawau Island Radio was completely overhauled in August. The station now has

reliable radio communication with Auckland by either telegraph or telephone.

A motor-generator was installed on the 30th August for the purpose of generating the anodevoltage for the valve-transmitter.

RADIO-APIA.

Short-wave Working.—The outstanding development during the year was the adoption of short waves for long-distance working. In addition to the direct service with Wellington, short waves are now employed for all oversea services.

Equipment.—The steel tower and stays have been repainted and the oil-engine overhauled during

The storage battery at present in use is nearing the end of its useful life, and arrangements are being made for its replacement.

RADIO-RAROTONGA.

Mast.—To increase further its stability, steps are being taken to erect stays to support the mast at Rarotonga. In addition, the mast will be chipped and repainted. The work will be put in hand at an early date.

Replating of Battery.—Measures are being taken for the replating of the entire battery at this station. The battery is at present in a very poor condition, and has been responsible for a deterioration in signal-strength, which has frequently hindered the clearance of traffic. It is hoped to have the renewal effected before the coming busy season.

Short-wave Working.—Short-wave communication was established with Apia and Papeete in September. Although the transmitter is of low power, it is found to be superior to the 600-metre spark

set for disposing of this traffic.

Having proved the practicability and economy of short-wave working, this station is about to be provided with short-wave apparatus capable of communicating direct with New Zealand, thus dispensing with the need for the intervention of Radio-Apia for relaying purposes.

Overhaul of Engine.—The engine was overhauled and repainted during September, since when

satisfactory service has been given.

NIUE

Apart from an intermittent fault which rendered the apparatus inoperative for brief periods during November, the station has observed regular and satisfactory service.

Minor repairs have been necessary to the oil-engine and motor-generator.

WHITE ISLAND: RADIO-TELEGRAPH OFFICE.

A radio-telegraph office was opened at White Island on the 1st August, 1927. Telegrams are exchanged by means of privately-owned radio-telegraph stations at the island and at Tauranga. Suitable arrangements for the control of the service have been made with the owners of the radio-

telegraph stations. Ordinary inland-telegram rates are charged.

This is the first instance of a privately-owned service being utilized as an extension of the Department's telegraph system. Having regard to the small volume of business, the expense of laying a special submarine cable between White Island and the mainland would not be justified. The use of privately-owned radio-telegraph stations, however, provides a public service that could not otherwise be given.

CAPE MARIA VAN DIEMEN RADIO BEACON STATION.

Requests from masters of vessels for the transmission of fog-signals from the radio beacon station at Cape Maria Van Diemen during the hours that Radio-Awanui is closed (11 p.m. – 8 a.m.) are now attended to by Radio-Auckland.

SHORT-WAVE SERVICE BETWEEN NEW ZEALAND AND SAMOA.

An important development during the year in connection with radio operations was the inception, on the 30th August, of commercial short-wave signalling between New Zealand and Samoa. This service, for which Wellington and Apia are the terminal stations, is a marked improvement on the previous one, a notable feature being a diminution in power-consumption.

Consideration is now being given to the inclusion of other Pacific islands in the scheme, which, when complete, should ensure a quick and reliable service between the Dominion and the islands in

which New Zealand has trade and other interests.

COMMUNICATION BETWEEN COAST AND SHIP STATIONS.

An alteration has been made in regard to the transmission of radio-telegrams between New Zealand coast stations and ships at sea. Outgoing ships now communicate with New Zealand coast stations up to the latest possible moment, and incoming ships from the earliest possible moment, the work being handled by any coast station capable of establishing communication. Previously the coast station with which communication was permitted was determined by the position of the ship, the traffic being normally required to circulate to the nearest coast station. The new arrangement permits direct working between ship stations and coast stations, irrespective of the proximity of any island station or coast station of another administration.

BROADCAST OF WEATHER REPORTS AND NEWS MESSAGES.

The length of the daily news press message broadcast from Radio-Awanui to ships at sea was increased in June, 1927, from two hundred to five hundred words.

The duty of performing the nightly broadcast was transferred from Radio-Awanui on the 1st November, 1927, to Radio-Auckland and Radio-Wellington. Radio-Auckland transmits the weather report at 10.10 p.m. on a wave-length of 600 metres, and Radio-Wellington transmits the press message at 10.15 p.m. on wave-lengths of 800 and 53 metres simultaneously.

AUTOMATIC ALARM INSTRUMENTS ON BRITISH SHIPS.

In the interests of protection of life at sea, His Majesty's Government in Great Britain has authorized the installation on vessels registered in Great Britain of approved automatic apparatus which will respond to a special signal known as the "alarm signal." This signal, which is used in conjunction with the ordinary S.O.S. distress signal, causes the automatic apparatus to sound a "call-bell" summoning the operator. Ships fitted with the device will be able to maintain a constant watch at sea, even though they may carry but one operator. The Department has undertaken to inspect on behalf of the British Government any such installations on British vessels at Dominion ports.

UNION STEAM SHIP CO. OF NEW ZEALAND LTD.: CONTROL OF WIRELESS APPARATUS.

The twenty-nine vessels, of the Union Steam Ship Co.'s fleet, which for radio-telegraph purposes were previously under the control of the Amalgamated Wireless (Australasia), Ltd., were brought under the direct control of the company as from the 1st April, 1927. It has been agreed in respect of those of the company's vessels registered in Great Britain to adjust the radio accounts directly with the company, thus obviating the necessity of settling through the General Post Office, London.

BROADCASTING.

In conformity with the agreement between the Department and the Radio Broadcasting Co. of New Zealand, Ltd., a third modern broadcasting-station has been established. This station, which is at Wellington, was opened on the 16th July, 1927.

Tests show that the Wellington station has a daylight range over the whole of the Dominion to a greater degree than any other New Zealand station.

The Wellington station is conservatively rated at 5 kilowatts aerial power with an input to the tubes varying from 10,000 to 15,000 watts. The station is situated away from the business centre of the city, in a commanding position at the top of Mount Victoria, a hill of about 650 ft. The aerial-poles add to this height 154 ft. Private lines, with amplifiers, are used to conduct items from the well-appointed and modern studio in the heart of the business quarter of the city. There are also relay lines to a number of theatres, churches, and amusement-halls. A special feature of the transmitter is that faithful modulation up to 80 per cent. efficiency can be obtained. The new condenser type of microphones, with a natural frequency of 7,000 cycles per second, also are noted for their faithful reproduction. As voltages up to 10,000 volts are used, the usual protective devices are necessary. In this respect the equipment conforms to modern requirements.

In the agreement with the Radio Broadcasting Co. it was provided that, after the setting in operation of stations at Auckland and Christchurch, the company should establish similar stations in Wellington and Otago. The question of the erection of a station at Wellington with a capacity equal to 5,000 watts output, which would be ten times the output of the new stations at Auckland and Christchurch, was discussed between the company and the Government. In support of the proposal it was contended that, with the growth of broadcasting, people of the Dominion would, to an increasing extent, look to these services for daily news, instruction, and entertainment. It was contended also that a station such as that proposed for Wellington would be of great value for defence and national purposes, and would also be useful for broadcasting to the island dependencies. It would enable island residents to look for reception to a Dominion station, instead of to the Australian stations.

DUNEDIN BROADCASTING-STATION.

From the 10th October, 1927, the service given from the Dunedin station was extended to include Saturday evening, making a total of five nights weekly.

ARMISTICE DAY REMEMBRANCE CELEBRATION: RELAYING FROM NEW ZEALAND BROADCASTING-STATION.

The proceedings at the Albert Hall, London, and at Canterbury Cathedral, on Armistice anniversary day, the 11th November, 1927, were broadcast on a wave-length of 24 metres. The Radio Broadcasting Co. of New Zealand, Ltd., made special efforts to receive and to rebroadcast the programmes for the benefit of New Zealand listeners. The company reported that its Christchurch station successfully rebroadcast the Cathedral service and organ recital. The volume was excellent, and the clarity at the outset was fair, but improved later. This was a noteworthy achievement in the direction of long-distance short-wave reception and relaying on the part of the Broadcasting Company. The conditions were not favourable for the reception of the proceedings at the Albert Hall.

NUMBER OF AMATEUR RECEIVING-STATIONS.

It has been the experience that the opening of large broadcasting stations gives a remarkable fillip to the applications for radio receiving licenses. For example, when the Wellington station was opened, on the 16th July, 1927, holders of receiving licenses in the Wellington Radio District numbered 3,835. At the end of September, 1927, the number had increased to 9,579, and at the 31st December last there were no less than 14,454 holders of radio receiving licenses in the Wellington district. At the 31st March, 1928, the number had increased to 15,077.

On the 16th July, 1927, the total number of radio receiving licenses issued in the Dominion was 21,059. At the 30th September, 1927, this number had increased to 30,219. At the 31st December, 1927, it had reached 38,125, and at the 31st March last the total approached the 40,000 mark. There were also material increases in the numbers of radio-dealers.

LEGISLATION REGARDING WIRELESS LICENSES.

As mentioned in last year's report, it was necessary, owing to Magisterial decisions that failure to renew a wireless license after the 31st March of any year was not an offence under the Post and Telegraph Act, to promote legislation making it quite clear that licenses must be renewed each year. To this end two clauses included in the Post and Telegraph Amendment Act, 1927, provided (a) that any person is liable on conviction to a fine of £500 who erects, constructs, establishes, maintains, or uses any station, plant, or apparatus capable of transmitting wireless-telegraphic communications without having obtained a license; and (b) that any person is liable on conviction to a fine of £50 who is in possession of any apparatus capable of receiving wireless-telegraphic communications without having obtained a license.

While the provision for a fine not exceeding £500 for establishing apparatus capable of transmitting signals has been retained, it was considered advisable to provide a lower penalty in the case of receiving-stations. On the other hand, owing to the difficulties attendant on the detection of unlicensed radio-stations, it has been considered necessary to widen generally the conditions or circumstances in which the possession of radio receiving-apparatus is deemed to be an offence.

It has also been provided that the occupier of any premises on which is situated any station, plant, or apparatus capable of transmitting wireless-telegraphic communications shall be deemed to have erected, constructed, established, maintained, and used such apparatus unless and until the contrary is proved. Moreover, the occupier of any premises on which is situated any apparatus capable of receiving wireless-telegraphic communications shall be deemed to be in possession thereof unless and until the contrary is proved. It is further provided that any station, plant, or apparatus shall be deemed to be and to remain capable of transmitting or receiving wireless-telegraphic communications notwithstanding that, without having been completely dismantled, it may be temporarily incapable of doing so.

UNLICENSED WIRELESS STATIONS: CONVICTIONS.

It has been necessary to undertake a vigorous campaign against persons who erected wireless apparatus without obtaining licenses. Although all offenders were not prosecuted cases in which convictions were obtained numbered 200. There were 98 convictions in the Auckland Radio District, 54 in the Wellington Radio District, 37 in the Canterbury Radio District, and 11 in the Otago Radio District. The fines inflicted ranged from 5s. to £4, and the total fines amounted to £339. In order to impress upon the public the serious nature of using unlicensed wireless apparatus, it will be necessary in future to press for much heavier penalties.

FORM OF APPLICATION FOR RADIO LICENSE.

Information regarding the date and place of birth of applicants for amateur radio receiving licenses is no longer required to be given. The information is, however, still required in respect of applications for licenses for transmitting or experimental stations.

AMATEUR RECEIVING-STATIONS OPERATED BY THE BLIND.

Licenses for the installation and operation of amateur radio receiving-stations in institutions for the blind have been issued free of charge since May, 1927. A similar concession is granted to any blind person who is the recognized head of a household.

REVOCATION OF LICENSE.

An amateur transmitting license was revoked under Regulation 82 of the Amateur Radio Regulations, on account of the use by the licensee of unauthorized wave-lengths.

For refusing to allow a departmental Radio Inspector to inspect his radio receiving-apparatus, a licensee had his license revoked under Regulation 82 of the Amateur Radio Regulations.

RADIO-DEALERS' LICENSES: AMENDED REGULATIONS.

Amended regulations in respect of the issue of radio-dealers' licenses were made by Order in Council dated the 23rd May, 1927. The amended regulations provide for the classification of and fees for such licenses.

The amended regulations also empower radio-dealers to establish and to operate, for demonstration purposes only, at the place of business mentioned in the license or at the place of residence of a licensee holding a portable license, or for a period not exceeding seven days at the premises of a prospective purchaser, or elsewhere if specially authorized by the Minister, a set of radio receiving-apparatus as if the said radio receiving-apparatus were a radio receiving-station licensed in pursuance of the Amateur Radio Regulations, 1925.

RADIO-DEALERS' LICENSES: ABOLITION OF ISSUE FOR SHORT PERIODS.

The issue of radio-dealers' licenses for short terms is abolished from the 1st April, 1928, from which date such licenses are to be issued on an annual basis covering a period ending the 31st March following the date of issue of the license. Any period of less than a month is regarded as a full month.

RADIO APPARATUS FOR RECEIVING TIME-SIGNALS.

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It has been decided to waive the ordinary radio license fee in the case of radio apparatus installed at observatories for the purpose of receiving time-signals. The concession is contingent upon the assurance of the Government Astronomer that such installations will be used exclusively for the reception of time-signals.

RADIO BROADCASTING CO. OF NEW ZEALAND, LTD.: TELEGRAMS AT PRESS RATES.

With a view to assisting the development of broadcasting, the Radio Broadcasting Co. is now permitted to receive at press rates telegrams containing news of general public interest for broadcasting from the company's recognized stations.

PRIVATE BROADCASTING-STATIONS.

Two low-power private wireless broadcasting-stations were opened during the year. One, at Christchurch (3ZC), opened on the 6th December, operates on a wave-length of 250 metres, and the other, at Dunedin (4ZM), opened on the 16th October, operates on a wave-length of 300 metres. These stations, in conjunction with the several other private broadcasting-stations, usually operate when the Broadcasting Co.'s stations are silent.

SALE OF RADIO APPARATUS.

In connection with the record required to be kept by radio-dealers of the sale of radio apparatus, it was decided that from the 17th November, 1927, it would be sufficient if sales of the following items were recorded: (1) Assembled sets; (2) telephone-receivers; (3) loud-speakers (all types).

ELIMINATION OF INTERFERENCE WITH BROADCAST RECEPTION.

The matter of the detection and elimination of interference with radio reception is one which, with the growth of interest in broadcast listening, is receiving a good deal of attention in many

With the ever-increasing use of electric power for commercial and domestic purposes there is a corresponding increase in the number of potential sources of radio interference. Occasional powerleakages and irregularities due to faults on electric lines and apparatus are unavoidable; but, fortunately, in most cases remedial measures are available which can minimize or entirely eliminate such troubles. Compared with certain other countries having a greater electrical development, New Zealand is comparatively free from serious disturbances of this nature.

Although the Department is receiving the hearty co-operation of power-distributing authorities and large commercial concerns employing electrical machinery, the localization and removal of interference over such widespread territory is not always a simple problem. Radio listeners may however, rest assured that every reported case of serious interference is investigated by departmental officers.

Although interference from radiating receivers has considerably diminished as a result of the

improved broadcasting service and the increased interest taken by listeners in the careful manipulation of their sets, much remains to be accomplished before it can be said that this universal trouble has been entirely eliminated. The duty of an administration in this connection lies primarily in keeping the channels clear for good reception from the local or district station. A vast improvement on these lines has been effected, particularly in and around the principal centres, since the four stations of the Radio Broadcasting Co. have been operating at full power.

A study has been made of the most effective methods employed by other countries in their campaigns against radio interference, and suitable apparatus is being assembled for use in this country.

Conversion of Ship Stations to Valve Operation.—The transmitting-sets on the Wellington-Lyttelton ferry-steamers "Maori," and "Wahine" were converted in October, 1927, from spark to valve operation. The installation of the valve sets, which was effected by the owners in the interest of broadcast reception, has eliminated the interference previously caused to radio reception from this

It is anticipated that the action taken in respect of the "Maori" and "Wahine" will be the forerunner of similar conversions in the near future. The regulations drawn up by the International Radio Telegraph Convention of Washington prescribe definite measures for the elimination of interference from commercial stations, both ship and coast. These regulations are briefly as follow:—

- (a) No new spark installations are to be made on land stations, and existing land stations are to be modernized as soon as possible.
- (b) From the 1st January, 1930, no new spark installations may be made on ships or aircraft unless of low power (less than 300 watts primary input).
 (c) From the 1st January, 1930, no spark transmitters shall operate above 800 metres except
- as provided for existing land stations referred to in (d).
- (d) From the 1st January, 1935, all land-station spark operation shall cease.
 (e) From the 1st January, 1940, all spark operation of whatever character, except at the low-power stations referred to in (b), must cease.

TELEPHONE-EXCHANGE SERVICES.

AMENDMENTS TO TELEPHONE REGULATIONS.

A number of amendments were made to the Telephone Regulations by Order in Council dated the 3rd October, 1927. The principal alterations have reference to party-line business connections at Class I exchanges; to the charges for bunching subscribers' lines at night for connection with another exchange; and to the charges for the installation of extra equipment at the premises of a subscriber situated beyond the base-rate area of an exchange.

In addition, a regulation was made providing that a subscriber shall not have any right to or interest in any particular telephone-number, and that the Department may, at its discretion, alter

or change any number.

PROHIBITION OF USE OF TELEPHONE FOR TRANSMISSION OF MUSICAL ITEMS.

With the development of radio broadcasting there has grown a practice of transmitting musical items over the telephone. Such a practice causes inconvenience to subscribers wishing to obtain the attention of those so using their telephones, and brings about unnecessary wastage in battery-power. The practice is liable also to cause a somewhat serious restriction upon the use of calling-facilities at automatic exchanges. It was deemed necessary to prohibit the use of telephones for this purpose, and with this object in view a regulation made by Order in Council was gazetted on the 20th October, 1927.

MISUSE OF TELEPHONE FOR FALSE OR BOGUS CALL.

A bogus telephone call to a carrier for the purpose of inducing him to leave the carriers' stand on a false mission resulted in a prosecution at Christchurch in February, 1928. Proceedings were instituted under section 10 of the Post and Telegraph Amendment Act, 1922. The offenders were convicted and mulcted in nominal penalties. This was the first prosecution of the kind under the Act, and will probably serve as a warning that the telephone must not be used for such an improper purpose.

TELEPHONE DIRECTORIES.

PRINTING.

An improvement in the indexing of telephone directories has been effected by inserting the name of the exchange at the top of each page. Extra prominence is also given to the special notices to subscribers, particularly in regard to telephone connections of fire brigades and ambulances. These are now printed in red in prominent block type.

USE OF BLOCK TYPE FOR ENTRIES.

It has been arranged that on payment of a small additional fee a telephone-exchange subscriber may have the entry concerning himself in a telephone directory printed in block type. The innovation, which is really a form of advertising, has proved to be popular with a number of business subscribers.

ADVERTISING.

In order to protect the rights of the Department in the matter of advertising in or on telephone-exchange directories, it was found necessary to include in the Post and Telegraph Amendment Act, 1927, a provision authorizing the making of regulations in protection of the rights of the Department in any official publication, and of the interests of any person in any advertisement appearing in or on any such publication, and to prohibit, save with the authority of the Minister, the publication of any list of subscribers to the telephone, or the supply or use of any cover or other device that would obscure any advertisement appearing in or on any such publication. The maximum penalty that may be imposed for infringement is fixed at £50.

EXTENSION OF AUTOMATIC SERVICE TO RURAL LINES.

To enable automatic service to be given to subscribers whose premises are some distance from the exchange and beyond the normal range of automatic operation, an ingenious adaptation of established principles has recently been devised by officers of the Department. It has already been introduced into the Wellington exchange-area, and its extension to other suitable automatic exchanges is being considered. The scheme can be applied to most long-distance subscribers' lines, including party and rural lines having as many as ten subscribers per line. Such subscribers are usually connected with a special rural switchboard operated manually, the subscribers being required to call the operator when desiring connection with another subscriber. By the use of the adaptation referred to, however, connection with a rural switchboard at the automatic exchange and the necessity for calling an operator to obtain another subscriber are obviated.

DEVELOPMENT AND MAINTENANCE OF TELEPHONE-EXCHANGE SYSTEM.

Notwithstanding that the unfavourable financial conditions were reflected in some districts by a less keen demand for telephone connections, the results of the year's operations over the Dominion as a whole were very satisfactory, the new subscribers numbering 12,159, a total which has been surpassed on but two previous occasions. Taking into consideration telephones relinquished as well as instruments installed, 7,651 additional telephones were put into service, making the total number at the end of the year 139,740. If to this number are added the telephones connected with toll stations and non-departmental exchanges, the number of telephones in service on 31st March, 1928, was 144,552, which represents 9.94 telephones for every 100 of the population, a figure exceeded only by the United States of America and Canada.

Auckland Engineering District.—Owing to the non-receipt of some of the essential parts of the switching equipment under order for the extension of the automatic exchanges in Auckland, the

development of the telephone-exchange system in the metropolitan area was not as great as was anticipated at the beginning of the year. Nevertheless, much was done in overtaking arrears of work. The waiting-list was reduced from 660 to 60. This was accomplished by pooling the equipment which came to hand and bringing it into commission at Mount Eden, Remuera, Ponsonby, and Devonport, where congestion was most acute. As soon as the remainder of the equipment comes to hand and a few minor extensions are made to the cabling system the Department will be in a position to give telephone service in all portions of the Auckland metropolitan area upon demand. It is expected that this happy condition will stimulate telephone development in the northern city, and result in the proportion of telephones to the population showing a considerable advance on the present figure. At other exchanges in the Auckland District the demand for telephone connections has been normal, and it has been possible to overtake the arrears of work and, except at a few exchanges where switchboard or cable accommodation is not available, to give telephone service at very short notice.

Although most of the exchange areas other than Auckland are already well telephoned, it is expected that as a result of canvassing for business additional subscribers will be obtained. It is anticipated also that in areas in which power-line extensions are being made, and privately-owned earth-working telephone-lines exist, applications will be received for the conversion of the telephone-lines from earth-working to departmentally-owned metallic circuits, which are free from extraneous inductive interference. The comparatively low rate at which the Department provides lines in rural districts, and the fact that the erection and maintenance of lines by the Department is a much more satisfactory

arrangement to the subscriber, will prove contributing factors in this development.

In the Hamilton district new connections exceeded relinquishments by 223, the chief increases being Hamilton, 71; Te Mata (new exchange), 64; Cambridge, 23; Te Awamutu, 22; Otorohanga, 20; Kawhia, 18; Ngaruawahia, 11; Ohaupo, 11. At Taumarunui and Te Kuiti there were reductions in the number of subscribers, the totals being reduced by 16 and 12 respectively. Partly as a result of a lessening demand for telephones, and partly on account of the provision of additional cable and switching accommodation at a number of exchanges, the list of waiting applicants has been practically eliminated. At nearly all exchanges in the Hamilton district new connections can be now given at very short notice.

A telephone exchange with sixty-four subscribers was opened at Te Mata on 20th July, 1927. The connection of these subscribers involved the erection of seventeen miles of pole line and sixty-

eight miles of wire.

During the year switchboard accommodation was increased at the Hamilton, Huntly, and Te Kauwhata Exchanges; and the cable facilities were extended at the Hamilton, Te Awamutu,

Te Kuiti, Taumarunui, Owhango, Orino, Taupo, Ohura, and Ongarue Exchanges.

Wellington Engineering District.—Extensive cabling-works were carried out in Wellington City and suburbs to meet the growing demands for telephone service, particularly in the outlying areas. The most extensive growth, which was in the Miramar, Seatoun, and Lyall Bay areas, necessitated the installation in the new automatic-exchange building at Miramar of two hundred lines of improvised apparatus pending the arrival of new equipment which is on order. The improvised equipment enabled practically all applicants in the areas mentioned to be connected.

The extension of the telephone service in the Hutt Valley also was phenomenal, and necessitated the providing at the Lower Hutt Exchange of additional switchboard accommodation. The applicants for telephone service on the waiting-list at Wellington at the end of the year were very few, and were confined to localities in which there is a temporary lack of cable facilities. Relief will be afforded in

these areas as soon as cable now under order comes to hand.

The Alfredton Exchange was closed on the 4th August, the subscribers being connected with Eketahuna by means of rural and party lines. Other features of the year's operations in the Masterton district included the transfer of all subscribers but one from Makuri to Pahiatua, the completion of cable extensions at Masterton to provide for future development, the reconstruction of the aerial exchange plant, the conversion to metallic of a number of earth-working lines at Pirinoa, and a complete overhaul of the aerial lines at Pongaroa.

Owing to the general financial depression, the development of the telephone-exchange system in

the Palmerston North district was considerably below normal.

The ringing-facilities at the Otaki Exchange were improved by the installation of a motor-

generator.

In order to provide more efficient local service at New Plymouth, the switching equipment, which is of the branching multiple type similar to that in use at Gisborne, Nelson, and Christchurch, was completely overhauled. No effort was spared to make the overhaul a complete success. The latest report indicates that the number of complaints from telephone subscribers at New Plymouth is not greater than is incidental to any telephone-exchange system, manual or automatic, and that the average time taken by operators to answer calls is but three seconds. Concurrently with the overhaul, the capacity of the New Plymouth switchboard was increased to 1,800 lines.

Owing to a falling-off in the number of applications for telephone service, development in the Napier district has not been as extensive as in previous years. Partly as a result of this, and partly on account of additional switching and cable equipment having been made available at a number of exchanges, the waiting-list of applicants has been eliminated, and it is now possible to give telephone

service at short notice.

Both the underground and the aerial cabling-systems at Napier were considerably extended during the year. The open aerial-wire system was also reconstructed in conjunction with the installation of

the automatic telephones.

Although the increase in subscribers' stations in the Gisborne district does not compare favourably with previous years, a good deal of work was carried out in providing departmentally-owned metallic circuits in place of privately-owned earth-working circuits. Originally about five hundred miles of privately-owned earth-working circuits were connected to the Gisborne Exchange. On account of power interference, however, and as a result of the Department's activities in canvassing, applications were received for the conversion to metallic of practically all privately-owned earth-working circuits.

This phase of construction work was a feature of the year's operations at Gisborne, and on the 31st March, 1928, approximately 60 per cent. of the work in that connection was completed. features of the year's operations in connection with the telephone system in the Gisborne district included the installation of more modern switchboards at Ruatoria, Tikitiki, and Te Karaka; the providing of additional switchboard accommodation at Gisborne and Tolaga Bay; and the erection of two miles of new aerial cable in Gisborne. In addition, a commencement was made with the systematic overhaul, and the replacement of all worn parts of the switchboard equipment at Gisborne.

In the Nelson district, owing to the demand for telephone service having exceeded the capacity of the switchboard, which is of the branching multiple type, provision is being made for an extension having a capacity of 450 lines, thus increasing the capacity of the switchboard to 1,550 lines, and

providing ample accommodation for new subscribers for a number of years.

During the year the outside plant in connection with the Takaka Exchange system was modernized by the installation of an underground-cable system and by the conversion of a number of long-distance subscribers' lines from earth-working to metallic. Although the reconstruction of the outside plant involved a fairly heavy outlay of capital, it is confidently expected that the saving in

maintenance charges will more than justify the expenditure.

Canterbury Engineering District.—The list of applicants waiting for telephone connections in the Canterbury District has been reduced to normal dimensions. This was achieved by the installation at Christchurch of an extension of 780 lines to the branching multiple switchboard, which was rendered possible by the conversion of the Dunedin Exchange to automatic working and by the forward condition of the underground-cable plant. In all, 1,858 new subscribers were given telephone facilities, 1,093 being at Christchurch, 156 at Timaru, and 609 at other exchanges in the district. Although there is still a fairly keen demand for telephone connections, both in the urban and rural areas, it is not as great as formerly. It is expected, however, that when the Christchurch Exchange is converted to automatic working and suitable provision is made at Timaru for future growth by the installation of an underground-cable system, applications for connection will be received from many people who have delayed action owing to the inability of the Department to provide service within a reasonable

Good progress has been made with the installation of a new underground-cable system at Timaru. The ducts have been laid and the manholes completed. A considerable amount of cable has been pulled into the ducts, and jointing operations are now in progress. A similar underground-cable system, but on a much smaller scale, is being provided at Temuka, where cable and jointing operations are proceeding. The ducts used for the Timaru and Temuka works are of the earthenware type, and were manufactured in the Dominion.

A modernized multiple lamp-signalling switchboard with a capacity of 750 lines has been installed at Greymouth. This switchboard, which was improvised from switching equipment released from some of the exchanges converted to automatic operation, is giving excellent service. switchboard accommodation has also been provided at Timaru, Ashburton, Hokitika, Rangiora, and Leeston.

Otago Engineering District.—Consequent upon the conversion of the Dunedin Exchange to automatic working on the 28th May, 1927, the old manual switchboard and telephones were dismantled, and all serviceable plant was reconditioned for use elsewhere. A number of old aerial cables which were superseded by underground cables were also dismantled and suitably converted for sale as scrap

lead and scrap copper.

During the year a commencement was made with an entirely new underground-cabling system for Invercargill. Owing to delay in delivery of the earthenware ducts, which are being manufactured in the Dominion, the progress made was not as rapid as was anticipated. Supplies of ducts are now coming to hand more freely, and unless some unforeseen circumstances arise it is expected that all the cable will be laid before the end of 1928. Concurrently with the installation of the undergroundcable system, provision is being made for the installation of an extension to the Invercargill switchboard, the line-capacity of which is at present fully taxed.

In order to provide cable accommodation for waiting applicants at Invercargill pending the installation of the underground system it was necessary to erect additional aerial cables to serve the

more congested areas.

An increase in the number of subscribers at exchanges in the Otago District necessitated the provision of additional switchboard accommodation at Balfour, Clinton, Duntroon, Heriot, Outram, Port Chalmers, Portobello, Pukerau, Otautau, and Waikaka.

The control of the Heriot Exchange has been taken over from the Railway Department, and the non-permanent exchanges at Outram and Portobello have been converted to permanent status.

SUMMARY OF YEAR'S OPERATIONS.

A brief summary of the year's operations in regard to the development and maintenance of telephone-exchange systems in the Dominion is as follows:-

The conversion to automatic working of the magneto exchanges at Dunedin, Napier, Dannevirke, and Stratford.

The opening of a new automatic branch exchange at Miramar.

The installation of a multiple lamp-signalling switchboard at Greymouth.

The opening of new magneto exchanges at Katikati, Leigh, Paihia, and Te Mata.

The reduction of the waiting-list of applicants for telephone connection from 2,241 to 659. The extension of the switching equipment at five automatic exchanges and twenty-eight manual exchanges.

The erection of 1,086 miles of pole-line and 8,305 miles of open aerial wire for telephone-

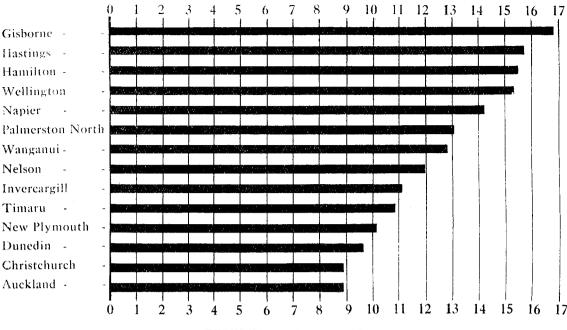
exchange subscribers' circuits.

The laying or erecting of 168 miles of lead-covered cable, containing 39,991 miles of wire, for subscribers' circuits.

The connection of 12,159 new subscribers' stations.

The maintenance of 139,740 telephone-stations,

TELEPHONES PER 100 POPULATION IN THE CITIES AND PRINCIPAL TOWNS OF NEW ZEALAND, 31st MARCH, 1927.



TELEPHONE STATISTICS.

The steady growth of the telephone system is exemplified in the following table, which shows annually since 1919 the number of exchanges, the total wire-mileage, the revenue, and the total number of telephone-stations, together with the number of telephones for each 1,000 of population of the Dominion:—

	37.			Number of			Number of Tel	ephone-stations.
	Ye	ar.		Exchanges.	Miles of Wire.	Revenue.	Total.	Per 1,000 Population.
1919 19 2 0	• •		· ·	287 291	165,962 177,509	$\begin{array}{c} 373,169 \\ 419,318 \end{array}$	$72,561 \\ 80,723$	$\begin{array}{c} 61.59 \\ 65.26 \end{array}$
1921 1922 1923	• •	• •	••!	296 301 320	$192,027 \ 207,529 \ 229,882$	$\begin{array}{r} 533,535 \\ 614,367 \\ 595,967 \end{array}$	88,439 $94,683$ $107,036$	$\begin{array}{c} + & 69.80 \\ - & 72.78 \\ - & 80.78 \end{array}$
1924 1925				$\frac{327}{340}$	$\begin{bmatrix} 269,421 \\ 331,453 \end{bmatrix}$	$\begin{array}{c} + 830,470 \\ + 867,218 \end{array}$	111,441 120,097*	82.67 87.09
$1926 \\ 1927 \\ 1928$	• •	• •		341 342 344	$\begin{array}{c c} 402,433 \\ 440,253 \\ 463,356 \end{array}$	$\begin{array}{r} 980,281 \\ 995,071 \\ 1,057,177 \end{array}$	$\begin{array}{c} 130,186* \\ 137,307* \\ 144,552* \end{array}$	94·40 95·48 99·40

^{*} Includes approximately 5,000 non-exchange stations.

The manner in which the exchanges are classified, the number of exchanges in each class, and the number of stations connected therewith on the 31st March, 1928, are shown in the following table:—

		· ·			C)
	Class I. Exchanges or Networks observing Continuous Attendance and having more than 3,500 Paying Subscribers' Main Stations con- nected therewith.	Class II. Exchanges or Networks observing Continuous Attendance and having 1,001 to 3,500 Paying Subscribers' Main Stations con- nected therewith.	Class III. Exchanges or Networks observing Continuous Attendance and having 201 to 1,000 Paying Subscribers' Main Stations con- nected therewith.	Class IV. Exchanges or Networks where the Attendance is restricted.	Dominion Totals.
Subscribers' main stations	$39{,}774$	23,180	25,855	25,270	114,079
Toll and service stations Public call offices Extension stations—	583 387	$\begin{array}{c} 495 \\ 102 \end{array}$	894 51	1,908 6	$\frac{3,880}{546}$
P.B.X Ordinary	$\frac{6,080}{7,301}$	$\frac{1,475}{3,110}$	$\frac{477}{1,836}$	72 884	$8,104 \\ 13,131$
Telephone-stations: Class totals.	54, 125	28,362	29,113	28,140	139,740
Number of exchanges in each class	4	12	5 7	271	344
Percentage of new connections made with each class of exchange during the year	40	17	20	23	

In addition to the stations shown in the preceding table there were 4,344 stations connected by private telephone-lines with departmental toll stations, and 468 stations connected with non-departmental rural exchanges, making a grand total of 144,552 telephone-stations on the 31st March, 1928.

Of the new connections made during the year, 4,916 were with Class I exchanges, 2,100 with Class II exchanges, 2,387 with Class III exchanges, and 2,756 with Class IV (country) exchanges. The waiting-list at these exchanges now stands at 180; 48; 73; and 358 respectively: total, 659, compared with 2,241 on the 31st March, 1927. The waiting-list for Class IV exchanges includes 77 applicants for connections at telephone exchanges authorized but not yet opened.

The following table shows the number of telephone-stations in each engineering district on the 31st March, 1927 and 1928, respectively, and the percentage of increase in each case:

		Number of Stations on 31st March,									
Engineering Dis	strict.		1927.		: 	1928.		Per-			
		Main Stations.	Extension Stations.	Total.	Main Stations.	Extension Stations.	Total.	centage of Increase			
Auckland		33,271	5,073	38,344	35,584	5,472	41,056	7.1			
Wellington		47,252	8,627	55,879	49,286	9,315	58,601	4.9			
Canterbury	[16,770	3,545	20,315	17,884	3,760	21,644	6.5			
Otago	• •	15,050	2,501	17,551	15,751	2,688	18,439	5.1			
Totals		112,343	19,746	132,089	118,505	21,235	139,740	5.8			

The number of subscribers' stations (main and extension) connected with each of the fourteen principal exchanges on the 31st March, 1928, was—Auckland, 17,460; Wellington, 17,167; Christchurch, 11,188; Dunedin, 7,774; Wanganui, 3,630; Palmerston North, 2,892; Hamilton, 2,771; Gisborne, 2,618; Napier, 2,611; Invercargill, 2,604; Hastings, 2,446; Timaru, 1,956; Masterton, 1,910; New Plymouth, 1,813.

The number of party and rural lines on the 31st March, 1928, was 9,508 to which were connected 37,379 main stations—an increase of 356 and 2,032 respectively on the figures for the previous year.

The following table shows, for each class of exchange, the respective percentages of business and residential stations, also the respective percentages of individual- and party-line stations, on the 31st March, 1928:—

Percentage of		Class I Exchanges.	Class II Exchanges.	Class III Exchanges.	Class IV Exchanges.	Dominion Percentages.
Business stations Residential stations		40 60	33 67	29 71	22 78	31 69
		100	100	100	100	100
Individual-line stations Party- and rural-line stations	••	90 10	75 25	56 44	38 62	68 32
		100	100	100	100	100

The length in miles of the various items of telephone-exchange plant in existence on the 31st March, 1927, and 1928, respectively, was as follows:—

,		Ca	ble.		W	ire.	
	Pole-line.	Under- ground.	Aerial.	In Under- ground Cable.	In Aerial Cable.	Open Aerial.	Under all Headings.
In existence on 31st March, 1927	11,912	814*	637*	285,331	71,719*	83,559*	440,609*
Erected during year	1,086	97	71	32,938	7,053	8,305	48,296
Dismantled during year	51	21	103	9,912	13,139	2,498	25,549
In existence on 31st March, 1928	12,947	890	605	308,357	65,633	89,366†	463,356

^{*} Revised figures.

[†] Includes 149 miles of earth-working circuit.

The percentages of the total wire-mileage in underground and aerial cables and open aerial wire respectively for the year ended 31st March, 1928, are as under:-

Telephone-exchange wire in underground cables 67 per cent. Telephone-exchange wire in aerial cables ... 14 ,, Telephone-exchange open aerial wire ... 19

In the telephone statistics of the world (compiled on the 31st March, 1926) the United States of America led as regards density, with 14.8 telephones per 100 of population; Canada was second, with 12.2 telephones; while New Zealand and Denmark took third place, with 9.2 telephones. Australia and Great Britain occupied seventh and tenth places respectively, with 6·1 and 3·0 telephones per 100 of population. The number of telephones per 100 of population of the world was 1.5.

AUTOMATIC TELEPHONE EXCHANGES.

The Department is proceeding steadily with its policy of introducing modern types of exchange switching equipment as it becomes necessary to replace obsolete or overloaded systems. Each case is considered on its merits, and the type of equipment selected is that best suited to meet the needs of the particular community.

The automatic exchanges at present working throughout the Dominion have given satisfactory

service during the year.

AUCKLAND METROPOLITAN AREA AND DISTRICT AUTOMATIC TELEPHONE EXCHANGES.

Auckland.—In order to meet present and future demands for telephone service, provision is being made for additional extension equipment to be installed at the following exchanges: Mount Eden (800 individual lines and 100 two-party lines), Remuera (800 individual lines and 100 two-party lines), Takapuna (200 individual lines), Onehunga (200 individual lines), Wellesley Street (3,000 individual lines and 100 two-party lines).

The additions to the Wellesley Street Telephone Exchange building were completed during the year, and will provide accommodation for a further 10,000-line equipment to meet the future require-

ments of the Auckland Central Exchange area.

Battery-operated stand-by power plants have been installed at the Mount Eden, Remuera, and Ponsonby Exchanges, thus enabling a continuous telephone service to be maintained in the event

of temporary failure of the city electrical-power supply.

Owing to a change from direct current to alternating current in the borough electrical-power supply, certain changes were necessary in the power equipment at the Devonport Automatic Telephone Exchange. The change-over was satisfactorily effected on the 30th November, 1927, without interfering with the continuity of the telephone service.

Hamilton.—Preliminary work in connection with the installation of an extension of 200 individual lines and 100 two-party lines has been completed, and a commencement will shortly be made with the installation of the equipment. Consequent upon the enlargement of the switch-room it was necessary to redesign and to extend the air-distribution section of the air-conditioning plant in order to meet the altered conditions.

CHRISTCHURCH METROPOLITAN AREA AUTOMATIC TELEPHONE EXCHANGES.

Christchurch.—The installation of full automatic switching equipment for the conversion of the Christchurch metropolitan area is well advanced. The conversion—a work of considerable magnitude could not for a variety of reasons be pushed forward as rapidly as the Department would have wished. In view of the delays, manual switching equipment has been improvised to furnish service in the interim, but it will not be long now before the whole of the area will be served by a modern and thoroughly efficient automatic system.

DUNEDIN METROPOLITAN AREA AND DISTRICT AUTOMATIC TELEPHONE EXCHANGES,

Dunedin.—The conversion from manual to automatic working of the exchanges in the Dunedin metropolitan area was successfully carried out on the 28th May, 1927, since when the service has been highly satisfactory.

The exchange equipment provides for the following services: Individual, two-party selective

ringing, and four-party selective ringing.

Individual service: Provision was made for 6,400 individual lines, 4,000 of which were installed at the Central Exchange, 1,400 at the South Dunedin Exchange and 1,000 at the Roslyn Exchange.

Two-party-line selective ringing: Two units capable of accommodating 100 lines or 200 subscribers each were installed, one at the Central Exchange and the other at the South Dunedin Exchange. This class of service has met the requirements of small business houses whose calling-rate does not justify the increased rental for individual lines.

Four-party-line selective ringing: A 100-line unit capable of accommodating 400 subscribers was installed at the Central Exchange. This system is giving a service much superior to that of the former manually-operated four-party lines, with which the rings were heard by all parties on the line.

former manually-operated four-party lines, with which the rings were heard by all parties on the line. Equipment is installed at the Central Exchange for dehumidifying and removing dust from the air before delivering it to the rooms in which the switching-apparatus is used. The plant is functioning successfully, and its use is reflected in reduced maintenance charges and more satisfactory operation of the equipment.

An extension of 500 individual lines to provide for growth at the South Dunedin Exchange will be installed during the year 1928-29.

Oamaru.—At the Oamaru Exchange equipment for an extension of 100 individual lines is now being proceeded with. When this work is completed the capacity of the exchange will be 800 individual lines and 100 four-party lines. Provision is being made for the installation during the year 1928–29 of a further extension of 200 individual lines.

WELLINGTON METROPOLITAN AREA AND DISTRICT AUTOMATIC TELEPHONE EXCHANGES.

Wellington.—To cope with the growing demand for telephone service in the western suburbs the capacity of the Kelburn Exchange is being increased by 400 individual lines.

Temporary equipment to provide for 200 individual lines at the Miramar Exchange was brought into service on the 13th January, 1928. Equipment for a further 200 lines is now being installed; and this will meet requirements until the arrival of the permanent equipment under order.

A number of long-distance telephone-exchange subscribers' lines connected to the Wellington Exchange and situated outside the normal dialling-range were, by the adoption of a special circuit, converted from manual to automatic working, thus enabling the subscribers to intercommunicate with subscribers in the Wellington Exchange area without the intervention of an operator at the central exchange.

Napier.—The Napier Telephone Exchange was converted from manual to automatic working on the 28th August, 1927. The equipment installed at this exchange was previously in use at Auckland, and before installation at Napier, it was thoroughly reconditioned and brought up to date. The present capacity of the exchange is 2,200 individual lines, 100 two-party lines, and 100 rural lines.

Dannevirke.—The installation of the Dannevirke Automatic Exchange was completed on the 15th May, 1927, and the exchange was converted on that date from manual to automatic working. The present capacity of the exchange is 700 individual lines and 50 rural lines.

Stratford.—The installation of the automatic exchange at Stratford was completed on the 2nd April, 1927, and on that date the exchange was converted from manual to automatic working. The equipment at present installed provides for 500 individual lines, 100 four-party lines, and 50 rural lines.

Palmerston North.—At the Palmerston North Exchange additional equipment to provide for 400 individual lines is being installed, and the work is expected to be completed shortly. An electric motor was installed to replace the petrol-engines previously in use for charging the storage batteries at the exchange. One of the petrol-engines, however, is being retained as a stand-by for emergency purposes, so that the continuity of the telephone service will be assured in the event of a temporary derangement of the borough electrical-supply system.

Masterton.—During the year the installation of additional equipment to provide for 100 two-party lines at the Masterton Exchange was completed. An extension of 200 individual lines is now in course of installation, and will be cut into service at an early date.

Wanganui.—Provision is being made at the Wanganui Exchange for an extension of 200 individual lines to provide for normal growth in this area.

Blenheim.—The switching accommodation for exclusive lines at the Blenheim Exchange has been fully absorbed, and equipment for an extension of 100 individual lines is now being installed.

"INTERPHONE" INSTALLATIONS.

There has been a substantial increase in the number of "Interphone" installations throughout the Dominion. This system which provides for inter-departmental communication and for outgoing calls to the central exchange to be made without the aid of a local switching attendant, is proving very popular. In Wellington City alone 45 additional installations (240 key-boxes) have been completed, making a total of 242 installations (1,612 key-boxes) in use at that centre.

AUTOMATIC PRIVATE BRANCH EXCHANGES.

There is a steady demand for the installation in business houses of automatic private branch exchanges where the "Interphone" key-box system does not fully meet requirements in regard to capacity, secrecy, or variety of services rendered.

So far six private branch exchanges have been installed in Wellington and three in Auckland. Thirty-five more automatic private branch exchanges are under order for installation in different automatic-exchange areas.

Hereunder is a return showing automatic-exchange equipment installed and in use in the Dominion on the 31st March, 1928:—

Exchange	Exchange.		Number of Party Lines installed.			Number of Individual		Total Number of	Exten- sion	Auto- matic Tele-
		Lines installed.	Two- party.	Four- party.	Rural.	Line Stations.	line Stations.	Main Stations.	sion Stations	
Auckland Exchange	e Area									
Wellesley Street		1.17,200	١	100		5,986	258	6,244	2,372	8,616
T)		7 000		100		1,871	341	2,212	176	2,388
Mount Eden		2 000		100		1,867	347	2,214	118	2,332
Ponsonby		1 000		100		1,255	291	1,546	110	1,656
Onehunga		100				400		400	42	442
Devonport		560				536		536	33	569
	• • •			١	١	315		315	21	336
Christchurch Excha	nge Area-	_	1		1		}			1
Hereford Street*	•	7 700				1,493		1,493	202	1,695
St. Albans*		500				499		499	61	560
Sydenham*		300				299		299	36	335
Dunedin Exchange	Area		ł							!
Dowling Street		4,000	100	100		3,384	179	3,563	1,484	5,047
Roslyn		1,000				861		861	59	920
South Dunedin		1 100	100	١		1,397	76	1,473	99	1,572
Wellington Exchan	ge Area—		i			,				
Courtenay Place	•	3,800	100	100		3,508	204	3,712	1,003	4,715
Wellington South			100	100		1,922	458	2,380	159	2,539
Kelburn		1,200		100		1,177	123	1,300	. 86	1,386
Khandallah		200	100	100		171	291	462	10	472
Stout Street		7,400	100	100		4,242	310	4,552	3,250	7,802
		200				186		186	6	192
Single-office Excha	nges—	ļ		1						
		. \ 700		100		725†		890	102	992
		700		100	50	579	331	910	110	1,020
Hamilton	• • • •	1,600		100		1,589	294	1,883	319	2,202
${ m Hawera}\dots$. + 800	j	100	50	726	274	1,000	149	1,149
			100	100		997	263	1,260	228	1,488
1			100	٠.	100	1,812	45	1,857	648	2,505
			٠.	100	١	765†		856	103	959
Palmerston Nort	h .			100		2,000	247	2,247	311	2,558
				100	50	411	191	602	64	666
Wanganui	• •	2,500	200	100	• •	2,322	411	2,733	593	3,326
		49,980	1,000	1,900	250	43,295	5,190	48,485	11,954	60,439

^{*} Auxiliary apparatus.

PUBLIC CALL OFFICES (COIN-IN-THE-SLOT TELEPHONES).

The publication in the Post and Telegraph Guide of the list of public call offices has been discontinued, as such publication served no useful purpose. \bullet

During the year 113 additional public call offices were established, and two were closed, making the total number in existence in the Dominion on the 31st March 546, of which 519 were one-penny call machines, 10 twopenny, and 17 threepenny.

Fifty-five concrete cabinets and 21 steel cabinets were erected.

Auckland Engineering District.—The automatically-operated public call offices at Auckland have been increased by the installation of 23 additional offices. New public call offices (one each) were provided also at Hamilton, Opotiki, Pukekohe, Rotorua, and Tauranga. Notwithstanding these installations, the demand for public-telephone facilities is still unsatisfied. More public call offices will be installed during the coming year.

Wellington Engineering District.—The number of public call offices (including pay stations—see page 48) connected with the Wellington Exchange was increased by 37 during the year. Additional public call offices were installed also at Wanganui (4), Palmerston North (4), Napier (2), and Dannevirke. Feilding, Gisborne, Marton, Otaki, Waipawa, Waipukurau (one each).

[†] Party lines used for individual stations.

Canterbury Engineering District.—Public-telephone facilities in the Canterbury District were increased by the installation of additional public call offices at Christchurch (15), Timaru (4), Ashburton (1), and Temuka (1).

Otago Engineering District.—With the exception of three public call offices situated beyond the base-rate area, all public call offices in Dunedin were converted from manual to automatic operation. The automatically-operated stations are giving highly satisfactory service. Two new public call offices were installed at Dunedin and seven at Invercergill.

PAY STATIONS (COIN-IN-THE-SLOT TELEPHONES IN SHOPS).

The value to the public of the coin-in-the-slot telephone has been amply demonstrated. The full development of the service is, however, somewhat hampered by the limits placed upon the encroachment on footpath-space in busy streets. It is hoped to overcome this difficulty by placing coin-in-the-slot telephones in suitable shops. This type of service is in vogue in other countries, particularly the United States of America; and the telephones so installed are termed "pay stations." The installation of such telephones in shops enables service to be provided in areas where difficulty arises in placing telephone-cabinets on public footpaths. By way of trial, three pay stations have been installed in shops in Wellington, which are open in the evenings as well as in the daytime. If results justify the step, the system will be extended to other centres as circumstances warrant.

DEVELOPMENT OF PRIVATE-LINE SYSTEM.

Although applications continue to be received for licensing the erection of private telephone-lines, the tendency generally is for settlers to seek connection with departmental exchanges, and for existing private telephone-lines which are in need of reconstruction or which require to be converted to metallic, owing to the proximity of power lines, to be replaced by lines owned and maintained by the Department. This is due to the fact that when settlers consider the interest on the capital outlay, the depreciation and maintenance costs, and the difficulties in connection with the erection and maintenance of metallic circuits, they realize that in the case of a line to be reconstructed on a public road, payment to the Department of an annual rental of approximately £5 a mile for a metallic circuit is a better proposition than that of erecting the circuit themselves.

PRIVATE-LINE SYSTEMS FOR TAXICAB COMPANIES.

A number of the larger taxicab companies operating in the four centres have been provided with systems of departmentally-owned circuits whereby direct communication can be had with their central depots from a number of private stands, thus obviating the return of the cabs to the central depots for instructions. These private-line systems form an important part of the organization of taxicab companies with large fleets of cars operating over wide areas, as they admit of prospective fares obtaining a prompt response to calls made at the central depot.

TECHNICAL DEVELOPMENT OF TELEPHONE AND TELEGRAPH ENGINEERING.

The scope of work performed in the Department's laboratory has been further widened, with the result that the total amount of work performed during the year shows an increase of approximately 50 per cent. on that of the previous year. To cope with the increase, another senior officer was added to the staff, and a quantity of apparatus was procured by the Chief Telegraph Engineer while abroad. The present laboratory accommodation is quite inadequate, and the work is being carried on under great difficulties. The provision of a proper amount of space has become an urgent necessity, and the matter of obtaining more suitable quarters is under consideration.

APPENDIX.

DESIGNATION OF OFFICES CHANGED.

Postal District.					Changed from	Changed to
Auckland Hamilton Wanganui Wanganui Auckland Wellington					Te Ngae	Paparoa Railway. Rotokawa. Rangikura. Maxwell. Raurangi. Waitangi.

CABLE BUSINESS.

The Dominion's outward International and Australian cable business, excluding press, for the years 1927-28 and 1926-27 was as follows:—

INTERNATIONAL.

			Number of Messages.				Value. £	
1927-28 $1926-27$			170,818 166,047	• •	••		178,091 182,904	
1020 21	• •	• •		• •	• •	• •	102,501	
	Incr	ease	4,771 =	2·87 pe	er cent.	Decre	ease $4,813 = 2.63$ per ce	nt.
			AUST	RALIAN	ī.		,	
			Number of Messages.				Value. £	
1927-28			148,011				29,464	
1926-27			151,359	• •	• •	• •	30,027	
	Decr	ease	3,348 =	: 2·21 pe	er cent.	Decre	ase $563 = 1.87$ per cen	nt.

There was a total increase of 1,423 messages, and a decrease in value of £5,376. Of the total revenue received on forwarded cable messages—viz., £207,555—£194,690 was paid to other Administrations, and £12,865 was retained by New Zealand.

RECEIVED CABLE MESSAGES.

The number of cable messages received in New Zealand during the years 1927-28 and 1926-27, exclusive of press, was as follows:—

		I	nternational.				Australian.	
1927-28		•,•	147,325			• •	140,899	,
1926-27	• •		142,299				140,440	
	Incre	ease	5,026 =	3.53 pc	er cent.	Increa	se $459 =$	0·32 per cent.

The total revenue earned by New Zealand on received cable messages during the year 1927-28 was £10,674, as compared with £10,306 for 1926-27.

RADIO-TELEGRAMS.

The radio business transacted by the New Zealand coast stations during the years 1927-28 and 1926-27 was as follows:—

			$\mathbf{F}_{\mathbf{c}}$	rwarded.			Received.	
	Year.	Num	ber of	Amount earned by	Total Value.	Numb	er of	Amount earned by
-		 Messages.	Words.	New Zealand.		Messages.	Words.	New Zealand
				£	£			£
1927 - 28		 14,440	169,987	2,906	5,688	25,361	290,933	4,846
1926–27	• •	 14,748	173,218	3,024	6,001	24,592	277,805	4,768
	Increase	 				769	13,128	78
	Decrease	 308	3,231	118	313			

Table No. 1.

Table showing the Number and Amount of Money-orders issued and of Money-orders payable in New Zealand since the Year 1863.

Issued in the Dominion.

					Where pa	yahle.					
Year,	Commission received.	In the 1	Dominion.	United I	Kingdom.*		and other ossessions.	Foreign C	Countries.	То	otal.
		No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount,
1863	£ 1,057	2,201	£ 9,614	4,740	£ 21,944	4,645	£ 24,145		£	11,586	£ 55,703
1873	3,562	34,288	142,642	11,913	48,548	6,150	28,068		••	52,351	219,258
1883	9,023	132,232	402,559	26,211	91,634	14,113	46,940			172,556	541,133
1893	10,249	146,133	576,359	29,616	86,545	35,208	88,025			210,957	750,929
1903	15,882	273,535	1,108,067	63,309	157,790	59,468	150,368	••		396,312	1,416,225
1913 1923 1924 1925 1926	16,872 28,357 28,542 28,843 24,746 24,775	516,536 545,605 580,569 610,972 635,078 639,889	2,821,624 3,849,423 4,113,813 4,406,461 4,453,878 4,416,182	100,634 54,461 57,175 64,777 67,570 69,764	336,992 223,143 232,436 259,439 273,758 276,747	73,575 68,044 75,743 72,519 70,774 73,021	199,158 284,778 312,624 278,050 270,065 265,752	16,869 18,024 18,421 19,688 20,807	32,815 34,056 33,280 35,426 36,409	690,745 684,979 73 1 ,511 766,689 793,110 803,481	3,357,774 4,390,159 4,692,929 4,977,230 5,033,127 4,995,090

Drawn on the Dominion.

				Where issu	ed.					
Year.	In the I	Dominion.	United K	ingdom,*	Australia and Posse	d other British	Foreign C	ountries.†	То	tal,
ľ	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount,
1863	2,067	£ 9,169	415	£ 1,824	558	£ 3,078		£	3,040	£
1873	34,288	142,642	1,482	6,626	1,668	7,689			37,438	156,957
1883	132,232	402,559	3,725	15,553	5,697	23,300			141,654	441,411
1893	146,133	576,359	8,746	32,617	10,679	40,929			165,558	649,905
1903	273,535	1,108,067	13,035	49,181	17,777	68,340	••		304,347	1,225,589
1913 1923	516,536 545,605	2,821,624 3,849,423	12,693	70,084 63,313	31,450 26,042	110,487	1,813	8,669	560,679 584,502	3,002,194 4,045,108
1924 1925 1926	580,569 610,972 635,078	4,113,813 4,406,461 4,453,878	8,310 9,857 10,047	60,862 69,098 70,948	28,543 27,318 28,935	127,350 119,073 124,952	2,348 2,140 2,334	8,391 10,326	619,770 650,287 676,394	4,312,334 4,603,023 4,660,104
1927	639,889	4,416,182	11,646	80,015	32,791	136,763	2,428	9,301	686,804	4,642,261

^{*} Includes foreign offices to year 1915. † In previous years included in United Kingdom and foreign offices.

Table No. 2.

TABLE SHOWING THE NUMBER AND VALUE OF POSTAL NOTES SOLD FROM 1ST JANUARY, 1886-THE DATE UPON WHICH THE NOTES WERE FIRST ISSUED-TO 31ST MARCH, 1928.

rear.		l														
		At 1s.	At 18. 6d.	At 28.	At 23. 6d.	At 3s.	At 58.	At 7s. 6d.	At 10s.	At 12s. ed.	At 15s.	At 17s. 6d.	At £1.	At £5.	Number.	Value.
Mor 21 1886	or 21 1886	2 010	9 046		. 013		9 030	090	9 370	605	600	195	998 6	:	16 110	310
886-87		16,605	12,283		6,647		11.566	5.729	13,103	4.090	5.187	9.375	14.961	:	99 546	27.65
87-88		22,467	17,167	:	9,162		15,553	7.671	17,487	5.278	6.940	2,952	17,578		122,255	47,79
68-88		27, 428	21,900	,	11,912		19,741	9,477	91 149	6,618	8,943	3,633	19,778	•	140 870	76.97
06-688		32,754	25,387		14,478		23,550	10.894	24,011	7.809	988	4,158	22, 596	:	175 093	65.48
800-01		35,015	98,559		16,099		95 904	19 990	95 906	7, 969	10 179	4 366	93 503	:	180 015	60,00
801-09	•	49,416	33,799	:	10,333	:	99,550	14,019	20,539	00.00	11,511	4 953	95,830	:	990,889	70,77
805-03		48,619	38,849		22,033		33,020	16,079	39, 747	0,00	19,330	7,369	98 960	:	947 909	20,00
. 602	:	56.761	44 706	:	95,461	:	27 771	10,01	27,627	11,016	12.500	6,009	29,008	:	306, 147	00,101
804-05		62, 701 62, 306	49.846	•	28,92	:	43,890	90,030	43 167	11,010	15,567	6,190	36,890	:	250,558	101,002
		68 454	76.185	•	20,62	:	40,020	99,609	72, 787	12 601	15,501	1,000	92,001		940,697	100,00
. 087-80 00 07		74 534	69,169	:	36,304		54 910	97,871	51 063	14 365	18,191	7.406	39,080	1,192	978,021	123,30
. 60 708		81 056	60,000	:	28,617	:	60.512	96 069	77.77	15,000	10,102	7,400	20,000	1,090	400 086	194 97
00-808		86,520	79,710	:	41,991		64.386	98 448	50,745	16,209	19,47	8 103	39, 696	673	431 440	130,05
809-1000	•	93,762	77 431	•	44 384	•	70.416	30,680	63, 787	16.957	91.393	8 530	33 401	60.7	461 447	147,68
900-1901		85.478	68,068	13,834	52,691	14.702	80,630	94.497	71.001	13.304	23,875	6.799	35.067	560	490.508	154 43
901-1902	. :	49,529	30,255	62,285	70,683	65,467	109,663	:	92,708	:	32,128		43.042	556	556,316	173.31
902-1903	•	54,268	33,409	70,122	76,613	75,700	119,593	:	102,641	:	34,508	:	48,852	558	616,264	191,90
903-1904		61,379	37,514	85,909	86,626	89,276	134,270	:	114,755	:	38,030		58,629	656	707,044	220,07
904-1905	:	65,484	40,263	86,711	96,228	99,739	154,281	:	130,430	:	42,317	:	69,206	889	785,347	250,12
. 905-1906	:	74,389	45,358	98,503	108,493	114,411	167,430	:	143,216	:	46,228	:	76,508	788	875,324	276,27
. 006-1907	:	82,417	54,375	106,311	120,321	128,384	187,083	:	159,045	:	51,559	:	91,193	954	981,642	314,05
907-1908	:	89,906	58,202	124,052	136,392	143,854	205,500	:	171,951	:	57,637	:	104,714	423	1,092,631	347,30
908-1909	:	119 995	59,484	103,925	102,088	140,148	227,471	:	188,677		62,916	:	123,786	:	1,222,280	389,14
.909-1910	:	113,320	07,400	911,191	190,100	100,450	261,045	:	040 054	:	70,907	:	143,611	:	1,414,732	447,01
. 1910-1911	:	141,040	02, 192	936 665	963 890	915,009	997 990	:	961 600	•	62,253	:	100 893	:	1,000,909	524,94
. 2161-116	:	151,004	00,100	964 844	979,923	990 100	967,000	:	983 906	•	00,000	:	913 153	:	1,621,500	696 47
013_1014		172,400	103,753	298,669	324.417	256, 231	418 719		312,870	•	106,560	: :	245,230	: ;	2,238,842	791 74
914-1915		182,733	107,483	307,934	346,011	263,522	444,427		325,071	: :	107,506	: :	229,640	: :	2.314.327	725,11
915-1916	: :	186,873	114,570	319,115	364,086	267,383	461,137	:	334,277	:	111,095	:	211,543	:	2,370,079	723,31
916-1917	:	184,873	112,639	322,946	343,031	260,956	440,215	:	301,825	:	108,978	:	211,000	:	2,286,463	695,81
. 917-1918	:	187,005	115,867	316,266	337,418	258,421	401,696	:	252,396	:	103,348	:	194,180	:	2,166,597	638,24
. 6161-816	:	181,824	114,553	299,791	326,398	253,728	381,202	:	238,337	:	102,467	:	192.751	:	2,091,051	619,60
.919-1920	:	196,327	121,037	310,105	339,341	268,032	396,994	;	246,688	:	110,819	:	208,177	:	2,197.520	655,91
.920-1921	:	217,553	120,888	309,646	342,040	266,119	410,584	:	254,868	:	123,917	:	234,601	:	2,280,219	705,02
.921-1922	:	239, 187	120,780	314,035	352,681	259,372	445,995	:	269,863	:	137, 192	:	238,517	:	2,377,622	739,78
.922-1923	:	262.172	130,275	331,376	348,779	236,877	475,947	:	276,650	:	138,621	:	233,809	:	2,434,506	747,02
923-1924	:	285,065	145,277	366,241	385,307	247,915	528,178	:	299,987	:	151,288	:	243,519	:	2,652,777	804,343
924-1925	:	297,019	154,406	397,666	428,707	253,311	577,873	:	316,947	:	162,281	:	258,123	:	2,846,333	860,02
925-1926	:	318,454	159,549	448,307	458,634	254,038	607,000	:	339,864	:	170,376	:	284,500	:	3,040,722	922,873
1926-1927	:	394,853	165,278	482,600	545,182	260,844	650,226	:	340,646	:	181,164	:	308,845	:	3,329,638	987,68
8281-1261	-	60	186.981	497,700	518.248	278 844	588	•	352.524	:	192.363		238.570		3 h 4 21/	2 4

Table No. 3.

TABLE SHOWING THE NUMBER AND AMOUNT OF TRANSACTIONS AT MONEY-ORDER OFFICES DURING THE YEAR 1927, AND SAVINGS-BANK OFFICES OF NEW ZEALAND DURING THE YEAR 1927-28.

			<u> </u>		Money-orders.				 - 	Saving	Savings-banks.	! ! !	:
Poeta	Postal District.			Issued.			- Paid.	Number of New		Deposits.	Number	Wit	Withdrawals.
į		İ	Number.	Commission.	Amount.	Number.	Amount.	Accounts opened.	Number.	Amount.	Accounts closed.	Number.	Amount.
Auckland	:	:	143,413	£ s. d. 4,678 0 0	£ s. d. 822,897 16 4	187,043	f s. d. l,154,744 15 11	16,449	274,907	£ s. d. 4,956,307 13 0	13,962	245,458	£ s. d. 5,412,133 14 1
Blenheim	:	:	9,482	286 13 9	56,759 19 7	5,084	36,712 0 3	1,004	15,706	276,560 6 8	742	13,820	331,628 12 4
Christchurch	:	:	71,540	2,323 2 0	442,776 13 4	73,539	604,734 16 8	11,337	243,119	4,342,985 7 8	7,840	211,134	4,811,263 8 3
Dunedin	:	:	66,407	2,045 1 0	378,637 11 8	63,138	409,726 10 11	5,870	115,339	2,114,471 13 4	5,705	97,991	2,530,598 15 4
Gisborne	:	:	19,669	629 11 9	123,177 12 7	9,783	79,365 9 6	2,377	35,576	598,472 1 6	1,723	28,432	636,003 6 8
Greymouth	:	:	21,647	660 1 9	121,808 10 9	10,283	66,214 4 7	1,261	17,430	308,081 7 8	1,071	12,342	376,858 2 9
Hamilton	:	•	78,644	2,242 3 3	479,203 6 0	40,735	253,486 1 1	7,276	87,804	1,343,922 9 6	4,906	59,334	1,410,693 3 7
Invercargill	:	:	34,157	994 7 0	186,120 1 11	23,077	142,330 4 3	3,968	38,231	835,019 17 10	3,499	32,934	1,013,896 11 6
Napier	:	:	37,104	1,143 9 9	238,369 11 2	25,116	193,729 17 0	4,710	70,177	1,287,775 10 1	3,733	58,165	1,393,878 5 3
Nelson	:	:	17,123	535 14 3	99,805 16 5	12,242	84,156 15 7	1,562	26,609	472,300 3 0	1,138	20,827	512,788 6 4
New Plymouth	:	:	33,556	964 11 0	197,324 15 0	22,024	157,021 4 4	3,969	56,657	1,072,354 5 9	3,084	43,707	1,243,577 6 1
Oamaru	; ;	:	10,239	278 2 6	90,665 10 9	4,861	35,046 16 6	1,125	16,001	356,546 10 1	815	13,865	414,500 18 0
Palmerston North	:	:	43,540	1,201 6 6	290,194 18 10	28,438	186,058 2 9	5,597	78,671	1,436,946 9 7	3,636	62,584	1,587,289 8 5
Thames	:	:	30,529	879 17 9	180,064 4 2	13,016	89,447 2 3	2,827	36,509	522,919 0 10	2,141	19,715	593,287 11 11
Timaru	:	:	20,790	565 2 10	221,499 7 10	11,116	73,594 9 5	2,497	39,740	860,302 2 1	1,769	33,679	955,461 0 3
Wanganui	;	:	41,108	1,095 11 9	251,469 15 7	22,904	152,513 10 6	3,857	65,431	1,071,712 15 0	3,333	53,657	1,213,955 1 7
Wellington	:	:	106,359	3,613 3 11	693,533 13 10	128,777	872,569 19 3	16,469	340,384	5,551,234 6 1	12,622	258,644	5,931,385 19 9
Westport	:	:	14,327	412 17 0	71,331 8 6	4,438	26,415 6 4	712	10,033	155,922 1 4	468	5,597	170,950 17 11
Western Samoa	:	:	2,250	120 16 0	25,146 6 8	217	1,687 9 11	265	1,973	34,914 13 3	207	1,462	31,091 5 2
Rarotonga	:	•	1,597	105 12 6	24,303 1 8	609	14,923 15 10	199	1,196	12,317 10 10	39	1,559	13,755 19 2
Grand to	Grand tatals, 1928	:	803,481 24,775	9	3 4,995,090 2 7	686,440	4,634,478 12 10	93,331	1,570,493	27,611,066 5 1	72, 433	1,274,906	30,584,997 14 4
-			!		i :			i	-		; ; ;		

Table No. 4.

POST OFFICE SAVINGS BANKS.—GENERAL STATEMENT.

1928.
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TABLE 8

	Number														Aronomo
Postal Districts.	of Post Office Savings- banks Open at the Close of the Period.	Number of Deposits received during the Period.	Total Amount of Deposits received during the Period.	Average Amount of each Deposit received during the Period.	Number of Withdrawals during the Period.	Total Amount of Withdrawals during the Period.	Average Amount of each Withdrawal during the Period.	Bxcess of Deposits over Withdrawals during the Period.	Excess of Withdrawals over Deposits during the Period.	Interest for the Period.	Number Nof Of Accounts A counts A counts A counts A counts A counts C count	Number of Accounts relosed in during the Period.	Number of Accounts remain-ing Open at Close of the Period.	Total Amount standing to the Credit of all Open Accounts, inclusive of Interest to the Close of the Period.	Average Amount standing to the Credit of each Open Ac- count at Close of the Period.
Auckland		274,907	£ s. d. 4,956,307 13 0	£ s. d.	245,458	£ s. d. 5,412,133 14 1	£ s. d.	£ s. d.	£ s. d. 455,826 1 1	£ s. d. 284,396 2 4	16,449	13,962 1	140,000	£ s. d. 7,850,455 14 9	£ s. d. 56 1 6
Blenheim	15	15,706	276,560 6 8	17 12 2	13,820	331,628 12 4	1 53 19 11	:	55,068 5 8	22,558 9 0	1,004	742	10,656	599,610 15 9	56 5 4
Christchurch	73	243,119	4,342,985 7 8	17 17 3	211,134	4,811,263 8 3	22 15 9	:	468,278 0 7	280,655 6 10	11,337	7,840 1	119,860	7,633,000 16 7	63 13 8
Dunedin	74	115,339	2,114,471 13 4	18 6 8	97,991	2,530,598 15 4	25 16 6	:	416,127 2 0	168,985 11 6	5,870	5,705	72,462	4,491,818 19 9	61 19 9
Gisborne	26	35,576	598,472 1 6	16 16 5	28,432	636,003 6 8	3 22 7 5	:	37,531 5 2	39,407 19 3	2,377	1,723	20,519	1,105,805 7 4	53 17 10
$\operatorname{Greymouth}$	24	17,430	308,081 7 8	17 13 6	12,342	376,858 2 9	30 10 8	:	68,776 15 1	29,615 13 2	1,261	1,071	13,239	772,392 14 3	68 6 10
Hamilton	87	87,804	1,343,922 9 6	15 6 1	59,334	1,410,693 3 7	23 15 6	:	66,770 14 1	83,144 8 0	7,276	4,906	38,836	2,325,389 14 11	59 17 6
Invercargill	88 :	38,231	835,019 17 10	21 16 10	32,934	1,013,896 11 6	30 15 9	:	178,876 13 8	65,326 17 1	3,968	3,499	29,549	1,722,785 5 3	58 6 1
Napier	- 39 - :	70,177	1,287,775 10 1	18 7 0	58,165	1,393,878 5 3	23 19 3	:	106,102 15 2	80,560 19 2	4,710	3,733	38,549	2,233,319 18 4	8 81 16
Nelson	32	26,609	472,300 3 0	17 15 0	20,827	512,788 6 4	24 12 5	:	40,488 3 4	34,733 4 0	1,562	1,138	16,859	942,988 14 11	55 18 8
New Plymouth	37	56,657	1,072,354 5 9	9 81 81	43,707	1,243,577 6 1	28 9 0	:	171,223 0 4	66,405 10 6	3,969	3,084	30,448	1,835,206 1 7	60 5 6
Oamaru	-	16,001	356,546 10 1	22 5 8	13,865	414,500 18 0	29 17 11	:	57,954 7 11	24,120 9 3	1,125	815	9,644	644,158 6 5	66 15 10
Palmerston North		78,671	1,436,946 9 7	18 5 4	62,584	1,587,289 8 5	25 7 3	:	150,342 18 10	83,549 7 6	5,597	3,636	31,585	2,307,875 9 3	73 1 3
Thames	39	35,509	522,919 0 10	14 14 6	19,715	593,287 11 11	30 1 10	:	70,368 11 1	39,050 15 2	2,827	2,141	22,927	1,064,972 0 3	46 9 0
Timaru	18	39,740	860,302 2 1	21 12 11	33,679	955,461 0 3	28 7 5	:	95,158 18 2	59,246 7 2	2,497	1,769	23,208	1,615,063 3 11	6 11 69
Wanganci	43	65,431	1,071,712 15 0	16 7 7	53,657	1,213,955 1 7	22 12 6	•	142,242 6 7	69,687 12 1	3,857	3,333	35,848	1,909,162 13 4	53 5 2
Wellington	58	340,384	5,551,234 6 1	16 6 2	258,644	5,931,385 19 9	22 18 8	:	380,151 13 8	299,646 14 4	16,469	12,622 1	141,902	8,273,148 4 5	58 6 0
Westport	61	10,033	155,922 1 4	15 10 10	5,597	170,950 17 11	30 10 10	:	15,028 16 7	13,519 3 3	712	468	6,384	361,303 16	56 11 11
Western Samoa	<u>ن</u> :	1,973	34,914 13 3	17 13 11	1,462	31,091 5 2	21 5 4	3,823 8 1		1,808 12 1	265	202	1,428	50,602 18 6	35 8 9
Rarotonga	:	1,196	12,317 10 10	0 9 01	1,559	13,755 19 2	8 16 5	•	1,438 8 4	736 12 1	199	39	822	19,665 7 4	23 18 5
Totals for year ended 31st March, 1928.	ed 870	1,570,493	1,570,493 27,611,066 5 1	17 11	7 1,274,906 30,584,99	0,584,997 14 4	23 19 10	•	2,973,931 9 3	1,747,155 13 9	93,331	72,433 8	04,7254	804,725 47,758,726 2 11	59 6 11

Table No. 5.

POST OFFICE SAVINGS-BANKS.—GENERAL STATEMENT.

Table showing the Business of the Post Office Savings-banks in New Zealand, by Ten-year Periods, from the Date they were established in February, 1867, to the 31st December, 1918, and Yearly Periods thereafter to the Year ended 31st March, 1928.

Average Amount standing to the Credit of each Open Account a t Close of the Year	s s. d.	•	62 9 11	3 3 11	63 17 3	64 18 3	64 4 4	64 11 6	65 4 2	60 17 4	56 12 5	35 10 11	29 3 5	24 4 10	25 9 9	38 9 1	33 0 5
Total Amount Astanding to the star Credit of all the Open Accounts, Interest to the Close of the Year.	3. d. £	- 1 - 1	18	321 10 5 63	1 0	11 4	1 6	7	19 0	18 4	4 9	18 1	5	10 9	8	163,518 15 7 3	71,197 14 1 3
	£ 2804 7954 77867 198	, 100, 100, 100, 100, 100, 100, 100, 10	783,827 48,985,501	758,155 47,911,321	735,148 46,948,628	57 46,098,420	690,790 44,360,393	678,93043,841,704	664,819 43,352,030	630,783 38,393,130	590,205 33,418,125	342,077 12,159,293	88 4,957,771	88 2,048,441	32 819,071		
Number of of Accounts remaining Open at Close of the Year.						3 710,157							3 169,968	84,488	£ 32,132	3 4,252	2,156
r Number of of closed during the Year.	7-5 43-3		3 72,041	7 81,440	70,604	5 73,098	66,630	9 75,748	152,930 118,894	9 77,531	53,015	3 57,829	5 26,628	7 16,543	9,634	2 1,186	0 364
Number of Accounts opened during the Year.	d. 0 03 331		8 97,713	2 104,447	10 95,595	8 92,465	10 78,490	0 89,859	2 152,930	6118,109	8 76,869	7 80,133	6 37,265	0 21,307	9 13,005	3 3,282	0 2,520
Interest for the Year.	£ s.	1,111,100 to	81,757,426 2	9 1,731,577 17	2 1,680,919 10 1	1,649,976 4	11 1,605,525 1 1	5 1,599,907 2	1,818,534 5	1,178,935 6	1,059,471 17	379,808 6	128,128 16	78,080 6	31,664 12	4,880 7	1,241 5
Excess of Withdrawals over Deposits during the Year.	£ s. d. 9. 073 021 0. 9	, ;	693, 245 14	768,884 7	830,712 1	:	1,086,836 4 1	1,110,233 16	:	:	:	:	:	:	:	:	:
Excess of Deposits over Withdrawals during the Year.	£ s. d.	:		:	;	88,051 5 2	;	:	3,140,365 15 6	3,796,070 7 1	73,162,263 8 1	256,254 13 9	84,717 10 10	157,276 6 1	20,030 17 9	87,440 14 3	69,956 9 1
Average Amount of each With- drawal during the Year.	£ s. d.		3 24 12 4	27 4 3	27 8 10	6 27 9 0	3 25 13 8	27 0 0	28 4 8	26 2 3	20 10	19 8 8	16 4 9	14 8 5	17 7 2	16 15 6	13 15 3
Total Amount of Withdrawals during the Year.	E 8. d. 771 974 906 14 4	1 1	21,224,76430,149,628 17	11,197,985 32,602,505 17 2	71,108,29130,413,609 3 11	$4[1,075,037]29,510,320$ 19 ϵ	2 1,081,300 27,769,262 16	61,119,66230,236,23165	51,458,00841,162,486 9 10	994,247 25,962,378 2 6	727,72914,938,84110	9,417,820 10 3	3,194,893 16 7	1,387,471 1 10	742,053 14 3	107,094 17 3	26,415 18 9
Number of With- drawals during the Year.	974 908	7000 4 1 2 6 7	1,224,764	1,197,985	1,108,291	1,075,037	1,081,300	1,119,662	1,458,008	994,247	727,729	484,672	196,764	96,204	42,746	6,365	1,919
Average Amount of each Deposit received during the Year.	£ s. C	1 :	19 10	22 0	21 11	23 9	22 14	23 14	26 12	23 1 8	14 18 4	13 14 0	11 12 10	10 12 6	0 81 01	14 18 11	7 10 13 16 3
Total Amount of Deposits received during the Year.	£ s. d.	5	1,509,909 29,456,383 2 7	11,833,621 9 5	,371,009 29,582,897 2 9	,261,14129,598,37248	,175,104 26,682,426 11 4	1,227,59129,125,997100	4,302,852 5 4	,289,161 29,758,448 9 7	1,213,353 18,101,104 18 1	9,674,075 4 0	3,279,611 7 5	1,544,747 7 11	762,084 12 0	194,535 11 6	96,372 7 10
Number of Deposits received during the Year.	3 30 TE TO 801 OF 1	, 010, ±00,	,509,9092	1,446,530 $31,833,621$,371,009	,261,141	,175,104	$,227,591 ^{2}$	1,664,20644,302,852	$,289,161 ^{2}$,213,353	706,101	281,749	145,355	806,69	13,014	6,977
Number of Post Office Savings- banks Open at the Close of	070		875	870 1	855	846	840 1	831	819	794	786	593	409	290	147	55	46
Year.	Woon and of the Man	28	Year ended 31st Mar.,	Year ended 31st Mar.,	Year ended 31st Mar.,	Year ended 31st Mar.,	Year ended 31st Mar.,	Year ended 31st Mar.,	*Fifteen mouths ended	Just March, 1921 Totals for 1919	1918	1908	1898	1888	1878	,, 1868	Totals from 1st Feb. to 31st Dec., 1867
	Voor	1928	Year el	Year	Year	1925 Year er	Year	1925 Year er	HH.	Tota	•	•	•	١.	•	•	Total

* Termination of Savings-bank year altered from 31st December to 31st March, with effect from 31st March, 1921.

£221,868 18 2

Table No. 6.

POST OFFICE SAVINGS-BANK.

Receipts and Payments for the Twelve Months ended 31st March, 1928.

Dr. Balance at credit of depositors on 1st April, 1927 Deposits, 1st April, 1927, to 31st March, 1928 Interest credited to depositors, 1st April, 1927, to 31st March, 1928	48,985,501 18 5	Cr. Withdrawals, 1st April, 1927, to 31st March, 1928	£ 30,584,997 47,758,726 £78,343,723	2	4
Dr. Balance at credit on 1st April, 1927	Reserve Fu £ s. d. 1,000,000 0 0	nd Account. Cr. Amount at credit of Reserve Fund Account on 31st March, 1928	1,000,000		0
	£1,000,000 0 0	and Assets	£1,000,000	-	<u> </u>
Dr. Balance at credit of Post Office Savings bank depositors on 31st March, 1928 Balance on transfer Balance at credit of Reserve Fund Account Balance of assets over liabilities	£ s. d.	Cr. Securities (Post Office Savings-bank) Balance uninvested	£ 48,232,841 572,090		9
	£48,804,932 12 6		£48,804,932	12	6
	Profit and 1	loss Account.			
Dr. Interest credited to depositors during the year ended 31st March, 1928 Paid Public Account for cost of Savings-bank management Balance to Profit and Loss Appropriation Account	£ s. d. 1,747,155 13 9 95,000 0 0 117,431 12 7	Cr. £ s. Interest received during the year 1,976,092 13 Accrued interest, 31st March, 1928 547,779 1 2,523,871 14 Less accrued interest on 31st March, 1927 567,896 10	$\frac{3}{9}$ $\frac{6}{-1,956,175}$		3
		Sundry receipts	. 3,412	2	1
	£1,959,587 6 4	•	£1,959,587	6	4
Dr. Savings-bank profits carried to Posrevenue Balance forward to next account	Profit and Loss Approfit £ s. d. tal 194,000 0 0 27,868 18 2	copriation Account. Cr. Balance forward Balance from Profit and Loss Account	£ . 104,437	s. 5	d. 7 7

£221,868 18 2

Table No. 7.

Table showing the Estimated Number of Letters and Letter-cards, Post-cards, Book-packets, Newspapers, and Parcels posted and delivered in the several Postal Districts of New Zealand during the Year ended the 31st December, 1927.

iii iiet	Lottore and														
::	Letter-cards. Post-cards.	Post-cards.	Books, &c.	Newspapers.	Parcels.	Letters and Letter-cards.	Post-cards.	Books, &c.	Newspapers.	Parcels.	Letters and Letter-cards.	Post-cards.	Books, &c.	News- papers.	Parcels.
:	34.758.727	866.931	18.425.470	5.660.812	926,536	32,023,173	830,466	14,474,720	4.774.783	589,290	66,781,900	1,697.	39732,900,190	10.435.5951	.515.826
	1,884,926		468,353	302,510	20,306	1,818,817	37		441,428	69,511	3,703,743	4	1,020,970		89,817
Christchurch It	16,616,517	1,012,596	9,808,853	1,732,164	432,848	20,070,102	ı,	8,407,490	2,888,418	341,523	36,686,619	2,228,	382 18, 216, 343	4,620,582	774,371
:	13, 107, 481	485,238	7,081,503	1,854,146	323,687	11,706,019	449,722	6,208,501	1,932,307	323,778	24,813,500	934,960	960 13, 290, 004	3,786,453	647,465
Gisborne :	3,151,047	38,688	867,638	539,567	46,514	3,441,880				123,110		105,976	2,419,786		169,624
:. ų:	1,761,374		496,039	294,086	37,973	•	47,840	629,928				90,714	1,125,967	801,879	120,146
:	9,659,826		2,874,019	978,378	103,623	631,	308,971					564,239	7,211,937	2,934,748	422,877
ırgill	6,363,567	177,593	2,935,759	674,428	84,084	6,736,756	197,184		1,131,546	161,109		374,777		1,805,974	245,193
:	6,491,413		2,451,711	689,116	85,384		153,530	က်				249,743	5,631,680	2,248,908	272,363
	2,378,455		748,778	211,612	46,267	2,600,884	71,058			112,255		119,821	1,727,626	795,546	158,522
New Plymouth	4,973,470	90,064	1,953,747	547,438	68,887	5,315,960	157,547	બં	1,029,132	164,281		247,611	4,417,689	1,576,570	233,168
:	1,412,690	29,432	454,380	146,328	17,563	1,583,647	84,890	758,	357,409	43,628		114,322		503,737	61,191
ton N.	6,377,940	145,951	2,640,406	686,432	94,172	7,644,910	251,693	4,082,572	1,314,443			397,644	6,722,978	2,000,875	282,217
:	2,953,111	53,742	980,415	301,296	40,131	3,401,749	127,634	1,769,053	629,642			181,376	2,749,468	930,938	173,056
Timaru :	3,510,322	83,044	1,303,673	413,033	45,487	691	148,902	1,496,365	629,577			231,946	2,800,038	1,042,610	139,542
:	5,994,827	130,988	2,729,621	896,373	91,572	5,436,522		2,875,262	1,115,699	194,675		294,125	5,604,883	2,012,072	286,247
: -	25,022,580		13,681,618	4,687,407	839,625	24,531,481	480,567	8,951,839	3,785,320	-		942,516	22,633,457	8,472,7271	,236,883
Westport	785,824	14,105	114,302	128,986	15,015	1,121,484	20,254	297,895	304,395	4.5	1,907,308	34,359	412,197	433,381	65,169
Rarotonga	52,944	1,512	2,382	585	1,416	56,022	822	4.506	18.030		108,966	2,334	6.888	18,612	3.846
Western Samoa	108,678	5,094	2,196	18,354	816	156,426	798	1,506	62,400	5,196	265,104	5,892	3,702	80,754	6,012
Totals 147	147,365,719	4,067,202	70,020,863	20,763,048	3,321,9031	3 150, 112, 575	4,815,581	66,178,313	26,326,604	3,581,632	297,478,294	8,882,783	8,882,783 136,199,176 47,089,652 6,903,535	7,089,6526	,903,535
Previous year 148	8,735,765	4,182,603	148,735,765 4,182,603 64,512,748 21,150,497	21,150,497	3,437,538	3,437,538 149,881,324	4,557,568	62,010,796	24,213,777	3,698,400	298,617,089	8,740,171	8,740,171 126,523,544 45,364,2747,135,938	5,364,2747	,135,938
	:		-	-		-	-							-	No.

Table No. 8.

REGISTERED ARTICLES.

The number of registered articles dealt with in 1927 compared with the number in 1890, 1910, and 1926, was as follows:—

From places beyond the Dominion Registered in the Dominion	• •	1890. 26,374 169,321	1910. 132,493 993,675	$ \begin{array}{c} 1926. \\ 211,120 \\ 2,246,976 \end{array} $	$1927. \\ 215,625 \\ 1,873,374$
Totals	• •	195,695	1,126,168	2,458,096	2,088,999

Table No. 9.

PARCEL-POST.

The following shows the number and weight of parcels posted during the years 1890, 1900, 1910, 1926, and 1927:—

		1890.	1900.	1910.	1926.	1927.
Number		121,292	199,413	1,190,711 3,953,284 lb. 15 oz.	3,437,538 17,300,389 lb.	3,321,903 16,719,107 lb.
Weight	• •	330,043 10. 12 02.	082,104 10. 7 02.	3,803,264 10. 10 02.	17,300,389 10.	10,719,10716.

The following table shows the number and weight of parcels exchanged with other countries during the years, 1926 and 1927:—

		Rec	eived.		Despatched.			
Places.	:	1926.		1927.	19	926.	1	927.
	Number.	Weight.	Number.	Weight.	Number.	Weight.	Number.	Weight.
		lb.		lb.		lb.		1Ь.
Great Britain and Ireland and	183.838	1,527,721	189,267	1,627,080	27,529	96,933	28,033	109,668
foreign countries via London		' '	, ,					,
United States of America and	69,838	459,279	64,819	419,248	4,704	20,050	5,343	21,435
Possessions		,	. [:	
Canada	10,324	67,623	10,348	71,949	1,797	5,958	1,723	5,714
New South Wales	28,427	107,702	29,089	108,952	10,674	34,057	11,816	40,315
Vietoria	16,744	73,822	17,710	77,625	5,365	16,740	5,776	20,276
Queensland	1,105	2,914	1,151	2,753	1,368	4,189	1,302	4,201
South Australia	911	2,567	961	2,645	811	2,433	868	2,962
Western Australia	531	1,342	583	1,466	668	2,064	840	2,774
Tasmania	400	1,009	445	1,331	755	1,937		2,505
Cape of Good Hope	1,277	4,641	[-1,196]	3,215	118	329	117	312
Natal			! !		482	1,550	505	1,527
Egypt	943	6,175	268	1,754	66	459	80	358
Aden	245	1,858	577	4,492		• •	••	• •
India	2,731	17,848	2,972	20,135	1,109	5,997	982	5,178
Ceylon	481	2,536	539	2,786	133	441	130	550
Straits Settlements	346	1,018		1,031	320	1,342	363	1,890
Hong Kong	1,772	12,936	[-1,274]	8,842	554	2,655	374	1,790
Fiji	803	1,871	1,084	2,373	2,128	7,629	2,128	7,374
Tonga	65	221	69	219	1,521	8,145	1,358	6,974
Tahiti	48	226	97	797	270	1,527	240	1,321
Pitcairn Island*	366	787			148	711		
Norfolk Island	33	128	42	102	140	418	266	821
Fanning Island*					43	189		
Uruguay					85	301	68	374
Others	2	ō	_ 1	9	7	26	5	12
Totals	321,230	2,294,229	322,834	2,358,804	60,795	216,080	63,105	238,331

^{*} New Zealand Postal Agencies. Totals now included with New Zealand.

Table No. 10.

COMPARATIVE TABLE SHOWING THE DEVELOPMENT IN THE TELEGRAPH, TOLL, AND TELEPHONE-EXCHANGE SERVICES DURING THE TEN-YEAR PERIODS ENDED 30TH JUNE, 1866 AND 1876, THE 31ST DECEMBER, 1886, THE 31ST MARCH, 1896, 1906, 1916; AND THE PAST FIVE YEARS.

Number N			Telegr	Telegraph and Toll.	Toll.	Number	Number of Telegrams and Toll Messs	ms and To	ll Message	s forwarded	sges forwarded during the Year.	Year.		Be	venue in r	espect of ?	elegraph,	Toll, and	Revenue in respect of Telegraph, Toll, and Telephone-exchange Services.	sxchange S	ervices.	
Miles of Offices Miles of Of	Year.	ž	umber	Viewbo	Van			Telegra	ins.			E .			Ţ	legraph.						Total
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		X -	of iles of Pole- line.	of Miles of Wire.	of Offices opened.	Ordinary.			Letter- tele- grams.	•	Total Number of Telegrams.	Number of Toll Messages.	Ordinary.	Urgent.	Press.			Miscel- laneous Felegraph Revenue.	Total Telegraph Revenue.		Telephone Exchange Revenue.	Tell, and Telephone- exchange Revenue.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		-				i			i		:		વ	બ	ધ્ય	વ્ય	약	c+3	વા	બ		ᡤ
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	30th June, 18	99	669	1,390	13	*24.761	:	:	:	2,476	27,237	;	*5.562	:	:	:	483	:	6,045	:	:	6,045
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$., 18			7,247	142	*890.382	:	:	:	160,704	1,051,086	:	*62,716	:	:	:	6,154	:	78,870	:	:	78,87
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	_		,546	1,178	412	*+1,583,717		:	:	252,549	1,836,266		*188,385	:	:	<u></u>	7,281	:	15,666	:	118,254	133,920
8.355 25.116 1.312 3,995,998 211,571 379,185 289,135 4,875,889 764,330 133,204 12,807 18,095 24,168 3,895 192,169 16,368 13,884 11,969 18,385 22,413 6,062,131 299,823 383,155 127,841 6,872,950 3,963,801 223,843 22,770 27,557 9,085 163,488 446,743 111,969 12,964 52,910 2,295 5,881,745 292,885 461,872,120 106,219 69,597 6,454,893 8,021,973 30,426 30,4145 63,601 10,535 4,420 15,190 424,397 344,392 13,052 59,791 2,221 6,542,563 3117,021 488,487317,484 58,400 7,225,017 8,073 23,385 67,481 14,738 4,992 17,158 146,793 376,869 9,329,017 291,316 22,199 57,256 638,428,816 55,790 7,042,831,793,13,150 298,492 17,876 18,661 3,614 30,802 439,128 397,234 24,682 77,876 18,661 3,614 30,802 439,128 397,234		96 6,	,2451	5,7644	743	+1,553,232	59,038	198,108	:	224,579	2,034,957	89.254	+73,160	7,510	9,508	:	5,844		20,911	2,110	25,934	148,958
13,684 48,052 2,413 6,062,131 299,823 383,155 127,841 6,872,950 3,963,801 223,843 22,770 27,557 9,085 163,488 446,743 111,969 12,984 5,581,185 265,772 432,120 106,219 69,597 6,454,893 8,021,973 288,183 27,768 61,661 5,287 4,930 11,566 399,313 317,512 12,988 56,415 2,264 5,287 4,654,893 8,011,45 300,426 30,145 63,601 10,583 317,512 317,512 346,317 344,317 344,317 344,317 344,517 34,317 344,317 344,317 344,618 8,708 353,468 14,617 36,418 36,408 36,418 36,408 36,418 36,408 36,418 36,408 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 36,418 <td< td=""><td></td><td>8 90</td><td>,355 2</td><td>5.116</td><td>1.312</td><td>3,995,998</td><td>211,571</td><td>379,185</td><td>: :</td><td>289,135</td><td>4.875.889</td><td>764,330</td><td>133,204</td><td></td><td>8,095</td><td>. 61</td><td>4,168</td><td></td><td>92,169</td><td>16,368</td><td>89,542</td><td>298,078</td></td<>		8 90	,355 2	5.116	1.312	3,995,998	211,571	379,185	: :	289,135	4.875.889	764,330	133,204		8,095	. 61	4,168		92,169	16,368	89,542	298,078
12,954 52,910 2,295 5,581,185 265,772 432,120,106,219 69,597 6,454,893 8,021,973 288,183 27,686 61,661 5,287 4,930 11,566 399,313 317,512 12,938 56,415 2,264 5,827,745 292,885 461,875,215,473 61,560 6,859,538 8,612,412 300,426 30,145 63,601 10,535 4,420 15,190 424,317 344,393 13,052 59,791 2,221 6,043,562 317,021 488,487317,484 58,460 7,225,015 89,768 59,791 14,738 4,692 17,158 446,793 35,393 44,510 6,834,364 9,733,150 283,493 24,682 77,876 18,661 3,614 30,802 439,128 397,234	, 19	16 13	,684 4	8.052	2,413	6.062,131	299,823	383, 155	: :	_		3.963,801	223,843		7.557	:	=	88		111,969	287,547	846,259
12,938 56,415 2,264 5,827,745 292,885 461,875 215,473 61,560 6,859,538 8,612,412 300,426 30,145 63,601 10,535 4,420 15,190 424,317 344,393 13,052 59,791 2,221 6,042,563 317,021 488,487 317,484 58,460 7,225,015 8,976,859 310,039 32,385 67,481 14,738 4,992 17,158 446,793 358,037 13,158 61,732 2,199 5,725,008 279,957 555,638 426,816 55,790 7,043,209 9,329,017 291,316 28,468 76,770 19,133 4,607 36,220 456,704 372,612 3,614 30,802 439,128 397,234	,, I9	24 12,	,954 5	2.910	2,295	5,581,185	265,772	432,120	106.219			8,021,973	288, 183	-	199.1	5,287			99,313	317,512	830,470	1,547,295
13,052 59,791 2,221 6,043,563 317,021 488,487317,484 58,460 7,225,015 8,976.859 310,039 32,385 67,481 14,738 4,992 17,158 446,793 358,037 13,158 61,732 2,199 5,725,008 279,967 555,638 426,816 55,790 7,043,209 9,329,017 291,316 28,658 76,770 19,133 4,607 36,220 4,56,704 372,612 37,234 372,615 5,541,205 240,540 589,896 418,213 44,510 6,834,364 9,733,150 283,493 24,682 77,876 18,661 3,614 30,802 439,128 397,234	61 "	25 12,	938 5	6.415	2,264	5.827,745	292.885	461,875	215,473	31,560		8,612,412	300,426	-	601	0,535			317	•	867,218	1,635,928
13,158 61,732 2,199 5,725,008 279,957 555,638 426,816 55,790 7,043,209 9,329,017 291,316 28,658 76,770 19,133 4,607 36,220 456,704 372,612 37,846 18,612 18,661 3,614 30,802 439,128 397,234	. 19	26 13,	,052 5	9,791	2,221	6,043,563	317,021	488,487	317,484	58,460		8.976.859	_	385		4,738			793		980,283	1,785,113
2,165 5,541,205 240,540 589,896 418,213 44,510 6,834,364 9,733,150 283,493 24,682 77,876 18,661 3,614 30,802 439,128 397,	,, 19		,158 6	1,732	199	5,725,008	279,957	555,638	126.816	55,790		9.329,017		658		9,133			704		995,071	1,824,387
	" 19	88	:	:	,165	5,541,205	240,540	589,896	13	14,510		9,733,150			,	8,661			128	397,234	1,057,177	1,893,539

*Includes private, Press, and Provincial Government messages.

† Includes " delayed " telegrams. † Includes miscellaneous telegraph revenue.

Nore.—Inland Telegram Tariff: Prior to the 1st September, 1869, inland telegrams were charged for on a mileage basis. From that date a uniform rate was fixed of 2s. 6d. for ten words and 6d. for each additional five words. From the 1st April, 1870, the minimum charge was reduced to 1s. From the 1st November, 1873, the rate was further reduced to 1s. for ten words, and address and signature, nitherto charged for, being free up to ten words. From the 1st July, 1877, there was introduced the "urgent" code, at double the ordinary rate. From the 1st July, 1878, a "delayed" system was introduced, the rate being fixed at 6d. for ten words, and signature up to ten words, and address and signature up to ten words, and address and signature up to six words. From the 1st June, 1899, the ordinary rate was fixed at 1s. for eighteen words, including address and signature. From the 1st June, 1896, the rate was fixed at 6d. for twelve words, including address and signature, and 1d. for each additional word; and "delayed" telegrams were abolished. From the 1st November, 1996, the charge for additional words and eighteen words, including address and signature, and 1d. for each additional word; and "delayed" telegrams were abolished. From the 1st November, 1990, it was further increased to 1s. for twelve words, including said with additional word; and 2d. for twelve words, "urgent" is 23d, and 2d. for sach additional word); Sudays and bolidays, double rates. From the 1st November, 1990, there was introduced a system of letter-elegrams, be delivered by post on the morning following the day of presentation. The rate (since altered) was 1s. 6d. for twelve words, and 4d. for each additional word remaining at 1d. ("urgent" 1s. 6d., and 2d. for each additional word). From the same date the letter-telegram rate was reduced to 9d. for twenty-seven words and 1d. for each additional three words.

Table No. 11.

Table showing the Number forwarded and the Revenue derived from Toll Calls and Paid Telegrams of all Codes and the Value of Franked Government Telegrams in the undermentioned Postal Districts during the Twelve Months ended 31st March, 1928.

Postal District	Revenue derived from Paid Telegrams of all Codes and Toli Calls.	Value of franked Government Telegrams.	Total Value of Telegrams of all Codes and Toll Calls.	Number of Paid Telegrams and Toll Calls.	Number of franked Government Telegrams.	Total Number of Telegrams of all Codes and Toll Calls.
-	£	£	£			
Auckland	130,178	431	130,609	2,732,945	5,057	2,738,002
Blenheim	 13,096	138	13,234	277,144	1,848	278,992
Christchurch	 87.525	479	88,004	1,693,448	6,395	1,699,843
Dunedin	 61,676	231	61,907	1,226,840	2,908	1,229,748
Gisborne	 25,726	60	25,786	470,455	798	471,253
Greymouth	 16,679	147	16,826	287,814	2,296	290,110
Hamilton	 60,593	18	60,611	1,435,368	140	1,435,508
Invereargill	 36,411	55	36,466	827,707	734	828,441
Napier	 44.588	109	44,697	986,880	1,533	988,413
Nelson	 16,120	247	16,367	349,566	3,303	352,869
New Plymouth	 36,230	74	36,304	816,785	987	817,772
Oamaru	 11,040	32	11,072	182,527	427	182,954
Palmerston North	 46,638	14	46,652	1,038,035	186	1,038,221
Thames	 21,965	17	21,982	533,517	273	533,790
Timaru	 26,061	86	26,147	515,908	1,176	517,084
Wanganui	 37,362	75	37,437	737,816	979	738,795
Wellington	 123,806	1,309	125,115	2,281,170	14,252	2,295,422
Westport	 6,252	92	6,344	129,079	1,218	130,297
Totals, 1927-28	 801,946	3,614	805,560	16,523,004	44,510	16,567,514
Totals, 1926-27	 788,489	4,607	793,096	16,316,436	55,790	16,372,226

Approximate Cost of Paper.—Preparation, not given; printing (1,170 copies, including graphs and illustrations), £137 10s.

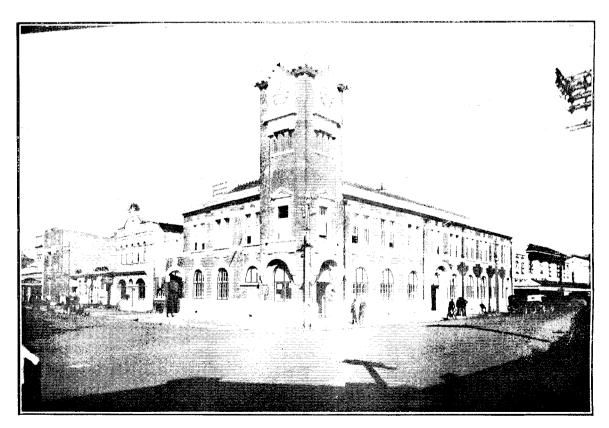
By Authority: W. A. G. SKINNER, Government Printer, Wellington.—1928.

Price 2s.]

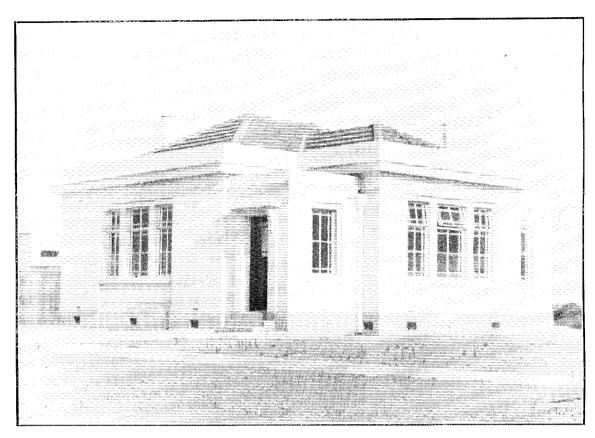




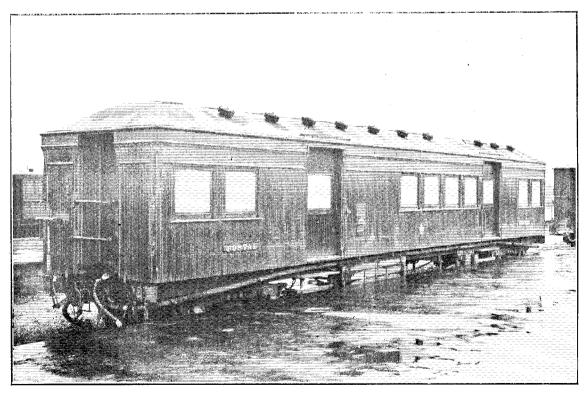
CHEF POST-OFFICE BUILDING, PALMERSTON NORTH, TO WHICH AN EXTENSIVE ADDITION WAS MADE RECENTLY.



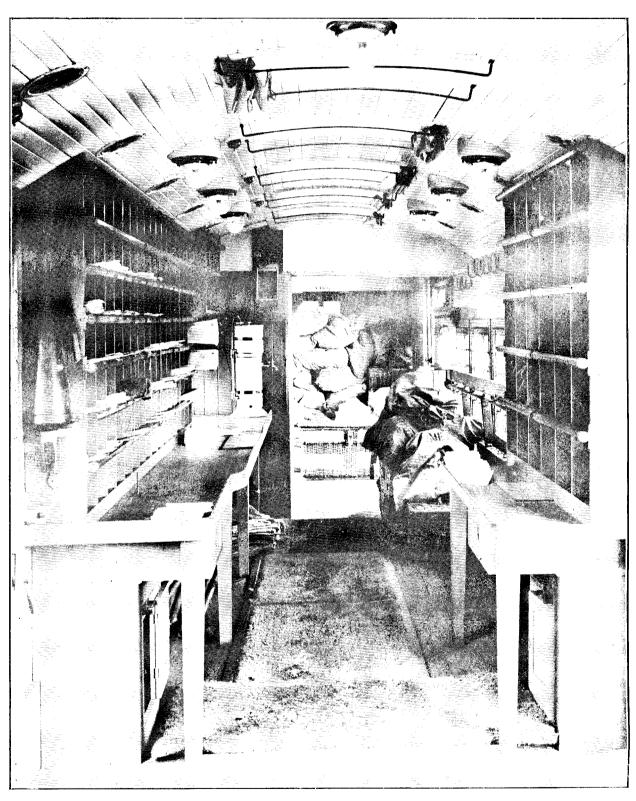
The Post office Building, Hastings, which has recently been extended



CASTLECLEFF: A Typical Suburbay Post-office Building.



A Bailway Travelling Post-office Van recently built for Use on the Christchurch Dunedin Section.



Portion of Interior of New Railway Travelling Post-office for South Island.