

SESSION I (23RD PARLIAMENT).

1928.

NEW ZEALAND.

PUBLIC WORKS STATEMENT

(BY THE RIGHT HON. J. G. COATES).

Laid on the Table by Leave of the House.

PUBLIC WORKS ACTIVITIES.

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RAILWAYS.

Since 1920 the policy has been to complete the lengths of railway then in hand, which included a few short lengths, mostly extensions of existing railways, and thereafter to concentrate on lines which may be considered as main lines.

A total of 313 miles 78 chains were completed and opened for traffic. 25 miles on the Wairoa-Waikokopu line, although completed and opened for traffic, have not been handed over to the Railway Department owing to their isolated position, but are being operated by the Public Works Department.

The policy of making the railways available to the settlers along their line of route at as early a date as possible has been followed. Wherever possible, as soon as the rails were laid, a goods service, intermittent at first, but gradually extending until it could be made regular, has been commenced, and this has been later followed by a passenger service as soon as the lines were sufficiently safe.

Attached hereto is a sheet showing, in geographical order, the railways and the lengths of the same which have been opened for traffic since the 31st March, 1920, and also a short description showing the position that obtained with each of the railways on that date, together with a short description of a few salient points and the present position.

SECTIONS OF RAILWAY HANDED OVER TO RAILWAY DEPARTMENT SINCE
31ST MARCH, 1920.

Name of Railway.	Length.	Date.
	Miles. ch.	
Kaikohe-Hokianga, Kaikohe-Okaihau	8 20	29/11/23
Kaihu Valley Extension	4 54	5/2/23
North Auckland Main Trunk Railway : Huarau-Ranganui	6 30	1/4/20
" " Waiotira-Huarau	15 36	29/11/25
" " Waiotira-Kirikopuni	13 56	15/5/28
Whangarei Branch Railway : Kioreroa-Portland	5 23	3/4/20
" " Portland-Waiotira	14 56	29/11/25
Waiuku Branch Railway : Patumahoe-Waiuku	7 65	10/5/22
Huntly-Awaroa	1 55	16/6/24
East Coast Main Trunk Railway : Waihi-Tahawai	14 0	1/5/27
" " Tahawai-Tauranga	24 33	18/6/28
" " Tauranga-Taneatua	59 2	3/9/28
Gisborne-Wairoa-Makaraka-Ngatapa	11 51	15/12/24
Napier Wairoa : Napier-Eskdale	11 73	23/7/23
Wairoa-Waikokopu (completed, but operated by Public Works Department)	25 0	..
Lower Hutt - Silverstream : Lower Hutt - Waterloo Road	2 64	25/5/27
Stratford Main Trunk Railway (West End) : Kohuratahi-Tahora	5 14	21/11/24
Te Roti - Opunake	22 63	12/7/26
Midland Railway : Kawatiri-Glenhope	3 73	21/6/26
" " Otira - Arthur's Pass	8 14	26/5/24
Runanga to Seven-mile	2 44	3/9/23
Lawrence-Roxburgh : Beaumont-Miller's Flat	14 70	16/12/25
" " Miller's Flat - Roxburgh	9 10	19/4/28
Orepuki-Waiau : Tuatapere-Orawia	8 18	20/10/25
Otago Central : Cromwell Section	12 34	9/7/21

NORTH AUCKLAND MAIN TRUNK RAILWAY.

Ngapuhi Northwards. (Length, 22 miles 59 chains.)

On the northern section from Okaihau northwards the formation was practically complete for 8 miles, and in hand for another 3 miles, on 31st March, 1920. Since then the whole section has been completed to Okaihau, a length of 8 miles 70 chains, and was handed over to the Railway Department in November, 1923.

Since then, a further section of 13 miles 69 chains has been put in hand, and of this distance formation has been completed for approximately 7 miles 60 chains. A start has been made with platelaying and ballasting.

The expenditure to date is £343,664, and the estimated cost of completion to Rangiahua from date is £238,000.

Huarau-Waiotira-Kirikopuni.

On the main section from Auckland northwards the work had been completed to Huarau (90 miles 15 chains), and was handed over to the Railway Department on 1st April, 1920. From there to Waiotira, a distance of 15 miles 68 chains, rails had been laid to 91 miles 21 chains, and formation was in hand throughout; but owing to the very unstable nature of the country, and the subsidences due to slips, a very large amount of heavy work still had to be carried out. The section was completed to Waiotira and handed over to the Railway Department on 29th November, 1925, this point being the junction with the Whangarei Branch Railway, which was also completed and handed over on that date, thus giving a completed through line between Auckland and Whangarei. For some considerable time prior to the final completion, the traffic over the unopened section was handled by the Public Works Department, who ran the necessary trains to connect up with the Auckland through traffic, both in passengers and goods.

From Waiotira to Kirikopuni, a distance of 12 miles 14 chains, very little work had been carried out at the commencement of the period under review.

The section was vigorously prosecuted, however, and completed and handed over to the Railway Department in May, 1928. Generally speaking, construction on the sections between Huarau—Waiotira—Kirikopuni was carried out under considerable difficulty owing to the unstable condition of the country generally.

Tunnels, of which there was 8,000 ft., had to be very heavily timbered when being driven, and the heaviest section of concrete lining developed by the Department had to be used to resist the earth-pressures. In many cuttings the total amount of earthwork shifted exceeded by two or three times the original estimated quantities, due to the slipping of batters and the heaving of the bottom. Extensive stone walls had to be built throughout a number of cuttings to stabilize the batters. The total length of bridging was 3,000 ft.

The cost of construction between Huarau and Kirikopuni was £2,358,501.

KAIHU VALLEY RAILWAY EXTENSION.

(From Tarawhati, at 19 miles 17 chains, to Donnelly's Crossing, at 23 miles 71 chains, a distance of 4 miles 54 chains.)

In 1920 the formation was practically complete, and the rails were laid to 21 miles 8 chains. A goods service was started to Aranga at 21 miles 10 chains in September, 1920, and this was extended to Donnelly's Crossing in October, 1921; the work then remaining to be completed consisted of permanent bridging and erection of station-buildings. The line was handed over to the Railway Department on 5th February, 1923.

The total length of bridging on this section was 186 ft., of which 60 ft. required a double track.

Expenditure to 31st October, £91,484.

WAIPU BRANCH RAILWAY.

(Length, 16½ miles.)

This line extends from Oakleigh, on the Whangarei Branch Railway, to Waipu, a distance of about 16½ miles.

In 1920 the formation was in hand for a length of 7 miles, and work was continued until 1924, the formation being then mainly completed for 10½ miles. It was then decided that owing to changing transport conditions an up-to-date highway would be more suitable for the traffic offering. This policy was given effect to, and the road was completed in 1926.

WHANGAREI BRANCH RAILWAY.

(Length, 19 miles 75 chains.)

This line extends from Kioreroa to the junction of the North Auckland Main Trunk at Waiotira. In April, 1920, 5 miles 28 chains of this section were handed over to the Railway Department, and, except for a gap of approximately a mile, rails had been laid and formation completed to Waiotira. Owing, however, to the large amount of slips and subsidences which took place throughout the section, continual maintenance was necessary to an extent almost commensurate with the construction of a new line. Large quantities of earthwork had to be taken out of many of the large cuttings, and heavy dry stone retaining-walls built in many sections. In consequence of these works the line was not actually completed and handed over to the Railway Department until 29th November, 1925.

The cost of construction from Kioreroa to Waiotira was £420,464, and the expenditure from 31st March, 1920, to 31st March, 1928, was £138,627.

WAIUKU BRANCH RAILWAY.

(Length, 12 miles.)

This line branches from the North Auckland Main Trunk Railway at a point 50 chains south of Paerata Station to Waiuku, a distance of 12 miles.

In 1920 this line had been handed over to the Railway Department to Patumahoe, 4 miles 20 chains, and the platelaying was complete to Glenbrook Station, at 7 miles 2 chains, the formation being in hand to 11 miles.

The following year, formation and platelaying were completed to Waiuku. Station-buildings at Pukeoware and Fernleigh were completed, and station-buildings at Waiuku in hand.

The completed line was handed over to the Railway Department on 10th June, 1922.

The total expenditure on this line was £208,886, and from 31st March, 1920, to completion was £65,016.

HUNTLY-AWAROA RAILWAY.

(Length, 8 miles 75 chains.)

This line runs from Huntly to Glenafton, and in 1920 the line was open to Pukemiro at 7 miles 20 chains, and a start had been made with the formation to continue the line to Glenafton.

The earthwork on this section was heavy, and the formation was practically complete in 1923, but handing over to the Railway Department was delayed by slips. Coal traffic was handled by the Public Works Department from June, 1922, and twelve months later a goods service was commenced. The line was handed over to the Railway Department on 16th June, 1924.

The expenditure since 31st March, 1920, has been £70,030.

EAST COAST MAIN TRUNK RAILWAY.

(Length, 97½ miles.)

On the Waihi end of this railway, in March, 1920, formation was in hand over a length of 10 miles, and on the Tauranga end for 5 miles, towards Waihi.

On the Tauranga-Taneatua Section 4 miles 7 chains of line from The Mount to Te Puke, and approximately 34 miles from Te Puke to Matata, had been practically completed, and a regular service was maintained, although a number of the bridges were only of a temporary nature.

From Matata to the end of the Awakeri Section, a distance of 16 miles 64 chains, formation was in hand, but was not sufficiently advanced to enable platelaying to proceed.

Since 1920 the construction has been completed from Waihi to Tauranga, a distance of 37 miles 36 chains, and from Tauranga to Taneatua, a distance of 69 miles; and the whole length from Waihi to Taneatua, a total distance of approximately 97½ miles, has been handed over to the Railway Department.

On the Waihi-Tauranga portion, 18 miles 23 chains were constructed by Messrs. Armstrong, Whitworth, and Co. under contract.

The total length of bridging on the whole section was 12,265 lineal feet, of which the two most important were the Tauranga Harbour Bridge, of 1,470 ft., and the Whakatane Bridge, of 1,200 ft. 1,640 ft. of bridging was completed prior to 31st March, 1920.

On the Tauranga-Taneatua Section regular traffic was instituted as construction progressed, and similarly on both ends of the Waihi-Tauranga Section.

GISBORNE-NAPIER RAILWAY—NORTH END.

This line branches from the Gisborne-Motu Railway at Makaraka, about 4 miles from Gisborne, and in 1920 had been completed to Ngatapa, a distance of 11 miles 18 chains from Makaraka, passenger and goods traffic being handled by the Public Works Department.

In 1920 work was commenced on the Waikura Section (from Ngatapa southwards). It was found that the country traversed by the next section was of a very treacherous nature, and slips were encountered in many places. In 1924 it was decided that the difficulties were such that a complete change of route was desirable. In December of that year the section ending at Ngatapa was handed over to the Railway Department, and work on the Waikura Section discontinued.

The route to be adopted has not yet been decided. The coastal route has been surveyed, but owing to further representations by settlers it was decided to investigate the inland route further. This later survey is nearing completion, and data will soon be available for a decision to be made as to the most suitable route.

Expenditure, £119,746.

FRASERTOWN SECTION.

From Frasertown towards Gisborne, work was put in hand in September, 1919, and during the next year the formation, which is light, was practically completed to 1 mile 72 chains. Since then, owing to the doubt as to the future route, all work has been suspended.

Expenditure, £20,712.

NAPIER-WAIROA RAILWAY.

(Total distance, $71\frac{1}{2}$ miles, approximately.)

In March, 1920, the formation of the Eskdale Section was practically completed from 0 miles to 10 miles 51 chains, and the formation of the Tutira Section from 10 miles 51 chains was well in hand. No platelaying had been carried out beyond Eskdale.

The first portion of this line, Eskdale Section, from 0 miles to 11 miles 73 chains, was handed over to the Railway Department on 23rd July, 1923, leaving approximately 60 miles to complete.

The rail-head was advanced to Waikoau in January, 1927, and then on to Tutira in August, 1928, approximately 28 miles from Napier, and a regular passenger and goods service has been maintained between Eskdale and the rail-heads.

At the present time the rail-head is at the Matahoura Viaduct, approximately $33\frac{1}{2}$ miles from Napier.

The Waikoau Viaduct, of four 60 ft. and one 250 ft. spans in length, and 236 ft. in height, was completed last year; and the Matahoura Viaduct, of two 40 ft., two 60 ft., and one 250 ft. spans in length, and 210 ft. in height, will be completed this year.

From the present rail-head, at $33\frac{1}{2}$ miles, to the terminus at Wairoa, $71\frac{1}{2}$ miles, a distance of about 38 miles, the formation for several miles is completed, and on most miles the formation is either well in hand or in various stages of completion.

Practically all the culverts, side drains, and water-drives are completed, and fencing for several miles has been erected.

Four tunnels are in various stages of progress, three being nearly complete and one about half finished.

One tunnel, 900 yards long, has not yet been commenced.

Formation of station-yard at Putorino is in hand, but station-yards at Kotemaori, Mohaka, Waihua, and Hurumua have not been commenced.

Three large viaducts—at Waikare, Mohaka, and Maungaturanga—have not been commenced, but a good deal of preliminary work has been done in connection with them.

The Wairoa River Bridge, at 68 miles 59 chains, consisting of two 107 ft. spans, two 106 ft. spans, and two 15 ft. spans, is in course of erection, one pier being practically complete.

The station-yard at Wairoa is practically complete.

The expenditure from 31st March, 1920, is £1,245,049, and the estimated cost to complete is £792,000.

WAIROA-WAIKOKOPU.

(Length, 25 miles.)

This section extends from Wairoa to Waikokopu Wharf, a distance of 25 miles.

The formation, which was comparatively light, was commenced in 1920, and has been pushed on steadily.

Platelaying was commenced in 1922, and in 1923 the formation and platelaying was nearly completed and a limited goods service was being handled by the Department.

In 1924 the construction of the wharf was put in hand, and in 1925 the wharf and line generally was practically completed, and since then a continuous service has been maintained over the section.

The total expenditure to date is £572,760.

HUTT VALLEY RAILWAY DEVIATION.

(Length, 2 miles 20 chains of double track.)

This line runs from 7 miles 56 chains, on the Wellington-Napier line, to Waterloo Road. Construction on this line was commenced in April, 1925, and the work completed and handed over to the Railway Department on 25th May, 1927.

The principal work consisted mainly of bridges and station-yards, buildings, &c. The principal bridge was the crossing of the Hutt River at 8 miles 30 chains. This bridge consists of sixteen 45 ft. plate-girder spans on reinforced-concrete piers and abutments.

Total expenditure, £288,000.

STRATFORD MAIN TRUNK RAILWAY—EAST END.

(0 miles to 32 miles. Length, 32 miles.)

In March, 1920, formation was in hand to about $1\frac{1}{2}$ miles beyond Matiere, a distance of 11 miles 61 chains, but no platelaying or ballasting had been put in hand.

Since then the formation, platelaying, and ballasting have been completed to Ohura, at 19 miles 10 chains. This section is practically ready for handing over to the Railway Department, but in order to facilitate the construction work ahead it is intended to retain it some little while longer; in the meantime a regular goods and passenger service is being run for the benefit of the settlers, and is well patronized.

Beyond Ohura, formation is in hand for another 2 miles.

The total length of bridging on this section is 2,090 ft., practically all of which has been carried out since 31st March, 1920. There are 11,076 ft. of tunnelling, 6,451 ft. of which were practically completed prior to the period under review, and 3,670 ft. remain to be done.

It is anticipated that a junction will be made with the construction work from the west end at 32 miles, thus leaving approximately 13 miles of formation yet to complete on this end. The estimated cost of completion to Tahora is £830,000, and the amount spent between 31st March, 1920, and 31st March, 1928, is £720,110.

STRATFORD—MAIN TRUNK RAILWAY—WEST END.

(Length, 9 miles 40 chains.)

On 31st March, 1920, the line had been completed and handed over to the Railway Department as far as Kohuratahi, at 42 miles 26 chains. From there to Tahora, a distance of 5 miles 14 chains, the formation and platelaying had been completed, and the ballasting and general cleaning up of the section was in hand.

A small amount of work had been started on the section beyond, but this was shortly discontinued, and when the section to Tahora was handed over to the Railway Department on 21st November, 1924, practically all activities at this end of the line ceased.

In 1926 construction work was again commenced at this end of the railway, a vigorous policy being initiated, and the piercing of the four large and two small tunnels which were the main obstacle to the final completion of the line was put in hand.

In order to deal effectively with the large amount of tunnelling on this section, a large steam-power house for generating electric energy for the construction works was erected at Tangarakau Flat, and the work generally is well equipped.

At the present time, of these six tunnels which constitute the main part of the formation of this end of the line, one, with a total length of 2,041 lineal feet, has been completed, and four others, involving lengths of 3,574 ft., 4,158 ft., 726 ft., and 410 ft. respectively are in hand, while one is so far untouched.

The total length from Tahora to the point of junction with the construction from the eastern end is $9\frac{1}{2}$ miles, and the estimated cost of completion for the whole line, including the eastern end, is £830,000.

The expenditure from the time of recommencing (in 1926) the work was £238,470.

OPUNAKE BRANCH RAILWAY.

(Length, 23 miles.)

On 31st March, 1920, the formation on this line had been practically completed as far as Kapuni Station yard, a distance of 6 miles 74 chains. Beyond Kapuni a further length of $2\frac{1}{2}$ miles was well in hand, but platelaying and ballasting had not commenced, and a considerable amount of bridging had yet to be done on the sections mentioned.

Since then the line has been completed to Opunake, a distance of 23 miles, and was handed over to the Railway Department on 12th July, 1926.

On this section one of the most important works was the construction of the Waingongoro Bridge, 312 ft. in length, made up of a series of five concrete arches.

In addition to this, there are 1,910 ft. of bridging, mostly consisting of steel girders on concrete piers.

The cost of construction was £451,699.

MIDLAND RAILWAY.

(Length, 7 miles 68 chains.)

For some time prior to 1920 work on this railway had been suspended; the line had been handed over to Glenhope, and about $2\frac{1}{2}$ miles of formation towards Kawatiri was almost completed.

Work was renewed in 1920, and has been carried on steadily since.

In June, 1926, a length of 3 miles 73 chains was completed and handed over to the Railway Department.

From Kawatiri to the Gowan Bridge, a distance of 3 miles 75 chains, the formation is practically completed, the platelaying, ballasting, and erection of the station buildings at the Gowan Bridge being the only work yet to do.

The expenditure from 31st March, 1920, to 31st October, 1928, has been £196,519, and the estimated cost to complete to the Gowan is £20,000.

ARTHUR'S PASS TUNNEL AND APPROACHES.

(Length, 8 miles 14 chains.)

Of the total length of 8 miles 14 chains, the tunnel itself comprises 5 miles 554 yards, and on 31st March, 1920, although the headings had actually been holed through in August, 1918, there still remained approximately 50 chains of enlarging and concreting to complete.

On 16th September, 1920, a contract was let for the electrification of the tunnel and the adjoining station-yards. The erection of the large powerhouse and the installation of the steam plant was carried out by the Department. The whole section was handed over to the Railway Department on 26th May, 1924.

Total expenditure, including station-yards, £1,527,393. Expenditure since 31st March, 1920, £738,108.

GREYMOUTH - POINT ELIZABETH RAILWAY.

(3 miles 45 chains to 6 miles 10 chains. Length, 2 miles 45 chains.)

The extension of the Greymouth - Point Elizabeth Railway from the existing terminus at 3 miles 45 chains to the new terminus at Rapahoe (6 miles 10 chains) was commenced in 1920, and was completed and handed over to the Railway Department on 3rd September, 1923.

In addition to the railway proper, it was necessary to construct 32 chains of line from the main line to the beach for the purpose of obtaining ballast.

The line terminates at Rapahoe, where the station-yard was constructed and bins erected for the handling of coal from the State mine.

Cost of construction was £74,139.

LAWRENCE-ROXBURGH RAILWAY.

(34 miles 69 chains to 58 miles 69 chains. Length, 24 miles.)

In 1920 permanent surveys were completed for the formation beyond Beaumont, and work was commenced on the Beaumont-Miller's Flat Section in 1921 to provide relief work, and was carried on under these conditions until September, 1924, when relief-work rates of pay were abolished and construction carried on under normal conditions.

The formation, platelaying, and ballasting were completed, and the section handed over to the Railway Department on 16th December, 1925, the principal work apart from general formation, being the construction of five bridges, of a total length of 480 ft., and station buildings at Miller's Flat.

A goods service was run on the section for some little time prior to the handing-over.

In July, 1926, formation work was commenced on the further section to Roxburgh at 58 miles 69 chains, a length of 9 miles 10 chains. This section was completed and handed over to the Railway Department on 19th April, 1928.

In addition to earthwork, platelaying, and ballasting, 370 ft. of bridging was carried out, and station buildings erected at Teviot and Roxburgh.

The cost of construction from Miller's Flat to Roxburgh was £135,845, and from Beaumont to Miller's Flat £273,030.

OREPUKI-WAIAU EXTENSION.

(Length, 8 miles 18 chains.)

This section extends from 48 miles 23 chains to 56 miles 41 chains, and construction, which had ceased for some time on this section, was resumed in October, 1919. The work was, however, prosecuted only on a small scale, and the section was finally completed and handed over to the Railway Department on 20th October, 1925.

There is a total of 580 ft. of bridging, but construction work generally was not heavy.

The cost of construction was £112,378.

OTAGO CENTRAL RAILWAY—CROMWELL SECTION.

(44 miles 52 chains to 52 miles 6 chains. Length, 12 miles 34 chains.)

Work on this railway was practically completed at 31st March, 1920, the actual work still to complete being the construction of five bridges and the final trimming-up and ballasting throughout.

In addition, it was found necessary to construct a number of concrete flood-channels at some of the bridges and culverts to cope with cloudbursts, which are of comparatively frequent occurrence on this section.

The line was handed over to the Railway Department on 9th July, 1921, goods and passenger service having been carried on by the Department for some time prior to that date.

Trial surveys of the route from Cromwell northwards have been made via Lowburn, crossing the Clutha River, Cromwell, and Bendigo; also, alternative routes and bridge sites have been surveyed at the gorge in Cromwell. These surveys have been completed to 71 miles.

Cost of construction was £152,683.

WESTPORT-INANGAHUA RAILWAY.

Prior to 1920 the majority of the heavy formation work on the section beyond Teku had been completed, and all construction work had ceased about 1915.

When it was decided to recommence work in 1926 the completion of formation, the erection of bridges, platelaying, and ballasting were the main items yet to do.

Since then a section of 3 miles 8 chains from Te Kuha to Cascade Creek has been completed, and the Railway Department are operating trains over it in connection with the Cascade Coal-mining Co.'s mine. From this point, at 8 miles 78 chains, work is in hand to 13 miles, bushfelling and clearing being completed, and the formation for the first 2 miles being almost complete.

The survey to Inangahua Junction, at 27 miles, has been completed, but the final estimates for the completion have not yet been prepared.

The formation of this line is very heavy, both for the portion completed and for the greater part of that yet to do, as it runs through the Buller Gorge and involves very heavy rock excavation.

The expenditure since 31st March, 1920, is £106,194, and the provisional estimated cost to complete is £602,800.

NEW ZEALAND RAILWAYS CONSTRUCTION.—RETURN SHOWING THE AVERAGE NUMBER
OF MEN EMPLOYED FROM 1920 TO 1928.

	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
NORTH ISLAND RAILWAYS.									
North Auckland Main Trunk—									
Ngapuhi Northward .. ..	..	..	..	42	4	8	..	..	..
Waiohira .. ..	..	..	..	560	580	575	310	360	135
Ranganui-Kirikopuni—									
Whangarei District	180	230	265	..	..	..	..	..	..
Auckland District	145	145	185	120	110	60	..	..	..
Okaihau Northwards .. ..	..	..	..	..	..	75	175	250	300
Kawakawa-Hokianga	82	55	40	42	..	..	..	..	..
Whangarei Branch	100	95	100	105	95	95	..	..	..
Kaihu Valley Extension	52	42	37	13	..	..	..	..	..
Dargaville Branch .. ..	..	..	..	..	..	..	..	55	200
Tauraroa Quarry .. ..	..	..	..	..	..	40	50	50	50
East Coast Main Trunk—									
Tauranga Eastward	350	380	435	460	425	400	345	265	210
Tauranga Westward	45	32	9	..	..	..	..	..	..
Waihi Eastward	50	50	105	155	115	82	85	68	45
Waihi Eastward (contractor's men)	..	..	..	..	155	430	475	255	130
Napier-Wairoa	170	115	110	220	340	495	550	505	435
Gisborne-Wairoa	80	80	55	60	45	20	12	6	13
Waikokopu Branch	120	230	335	265	330	205	80	45	40
Auckland-Westfield Deviation ..	..	..	..	..	..	300	405	405	360
Waiuku Branch	55	51	35	..	..	..	..	..	..
Waikokowai Branch	6	6	..	..	..	..	..	..	..
Paeroa-Pokeno .. ..	..	..	..	..	6	5	5	..	..
Huntly-Awaroa	27	60	80	45	21	..	..	..	..
Rotorua-Taupo .. ..	..	..	..	5	6	5	3	..	..
Palmerston North Deviation ..	..	..	..	..	..	..	30	80	200
Rimutaka Deviation .. ..	..	8	8	5	4	..	..	..	..
Tawa Flat Deviation .. ..	..	..	..	..	..	..	..	110	245
Hutt Deviation .. ..	..	..	..	..	..	80	190	175	..
Stratford Main Trunk Railway—									
West end	55	35	35	50	45	95	200	260	290
East end	85	70	110	140	155	150	155	170	215
Opunake Branch	52	40	110	150	192	185	120	..	..
SOUTH ISLAND RAILWAYS.									
Bealey-Otira	190	185	215	130	83	3	1	1	..
Nelson-Westland	30	27	29	50	82	86	83	80	60
Westport-Inangahua .. ..	..	..	..	..	32	60	35	35	110
Greymouth - Point Elizabeth ..	79	48	57	21	..	..	..	..	..
Waihao Downs	31	11	..	..	..	..	..	..	..
Clyde-Cromwell	95	50	..	..	..	..	..	..	..
Lawrence-Roxburgh .. ..	..	110	185	200	210	155	163	85	21
Onepuki-Waiau	45	22	28	47	70	43	..	..	..
Totals	2,124	2,177	2,568	2,885	3,105	3,652	3,472	3,260	3,059

HYDRO-ELECTRIC DEVELOPMENT.

The policy that the Government should provide for the supply of electricity in bulk wherever the same is required was standardized, and estimates were made for a considerable number of years in the future as to the demands in various localities, and a programme of development was decided upon to provide for the demand.

In addition to the Government's policy of developing power in bulk, its policy of having the reticulation and distribution of the power carried out by Electric-power Boards was encouraged and assisted not only by the advice of the Department's officers, but also by the passing of legislation which would make for smoother and more efficient working in connection with the policy of providing every one, within reason, with the advantages of moderately priced electric power.

So far the works carried through have been very successful, and at the present time at least two-thirds of the total population is supplied with electric power.

The Government's scheme for the public supply of electricity has been based on a generating-plant capacity of $\frac{1}{5}$ horse-power per head of population.

The generating plants throughout the country (Government and local authorities) are now equivalent to about $\frac{1}{7}$ horse-power per head of the total population of the Dominion.

In the period under review—viz., March, 1920, to March, 1928—the growth in output from the various Government power-stations has increased from 7,000 kw., with a unit output of 33,000,000 units, to 57,000 kw., and 257,000,000 units; and the actual operating capital involved from £422,000 in 1920 to £4,544,000 in 1928. In addition to this, a further sum approximating to £3,000,000 is now in construction, and will be brought to revenue within the next twelve months.

COLERIDGE.

In the year ending 1920 the Lake Coleridge scheme, which was then the only Government scheme in active operation, had an installed capacity of 6,000 kw. This was increased to 12,000 kw. by the addition of two 3,000 kw. units in 1923 and 1924 respectively. The addition of a further two units of 6,000 kw. capacity each in 1926–27 brought the station to its present capacity of 24,000 kw., and preparations are now in hand for the installation of a further 6,000 kw. set, which is now on order.

HORAHORA.

This power-station, of a capacity of 6,300 kw., was purchased from the Waihi Company in November of 1919, and taken over by the Government in March of the following year. Growth of load necessitating extensions to the plant in 1925, two additional 2,000 kw. units were installed, bringing the capacity of the station up to 10,300 kw.

MANGAHAO AND WAIKAREMOANA.

Work on the Mangahao scheme, on the installation of 18,000 kw. of plant, was commenced in 1920, and the station put into operation in 1924. This was such an immediate success that within two and a half years the station was overloaded, and the work of constructing a further station at Waikaremoana had to be put in hand earlier than was anticipated to relieve the situation. This last scheme (of which the first section only is in hand) will have an ultimate capacity of 105,000 kw. At present two 15,000 kw. units are in process of installation, and should be in operation early in the coming year.

ARAPUNI.

After extended investigation at Arapuni, a site for the dam was selected, and a contract let for the complete work in July, 1924. There have been one or two unfortunate hitches in the work; however, No. 1 Section is completed, and No. 2, or the Powerhouse Section, which has been taken over from the contractors by the Department, is progressing so favourably that it may safely be anticipated that supply therefrom will be available by the middle of next year.

The present installation consists of three 15,000 kw. units, and demand of the district is such that the station will be fully loaded from its inception.

WAITAKI.

To cope with the demand in the South Island, work on a new station at Kurow, on the Waitaki River, has been put in hand. The first installation will be of the order of 30,000 kw. out of an ultimate capacity of 75,000 kw.

Tenders for the main items of plant have been called, and construction is being pushed, with the aim of having the station in operation in the winter of 1931–32.

GENERAL.

The total plant capacity in the Dominion in 1920 in both Government and other supply authorities' stations was 43,899 kw. feeding 54,900 consumers, and representing an invested capital of £3,250,000. To-day the installed plant capacity is 146,360 kw., feeding 244,000 consumers, and representing an invested capital of £20,000,000.

The total length of distribution-lines has grown in the period mentioned from 2,500 in 1920 to 17,063 route-miles in 1928.

In the year ending 31st March, 1920, under the Power Boards Act, ten Power Boards had been formed, to serve a then population of 138,000, and an area of 17,000

square miles. Five of these districts took a poll for a loan amounting in all to £2,000,000.

The following table gives the growth of reticulation year by year from 1920 to 1928 :—

Year ending 31st March,				Number of Districts licensed.	Area of District supplied.	Population.	Amount of Loan.	Number operating.
					Sq. miles.		£	
1920	..	..	..	10	17,000	138,000	2,000,000	..
1921	..	..	..	14	19,000	158,000	2,900,000	..
1922	..	..	..	23	31,000	470,000	4,900,000	4
1923	..	..	..	31	47,000	582,000	6,600,000	9
1924	..	..	..	36	58,000	680,000	7,900,000	13
1925	..	..	..	40	62,500	776,000	9,400,000	27
1926	..	..	..	41	63,300	781,000	10,100,000	32
1927	..	..	..	42	64,000	800,000	11,000,000	34
1928	..	..	..	43	67,000	866,000	11,300,000	35

Amendments to the original Act were passed in 1919, 1920, 1921, 1922, and 1923, and all consolidated in the Power Boards Act, 1925.

In April of 1925 an Act to make provision for the registration of engineers came into force, and the following year an Act enforcing the registration of electrical wiremen. The net result of this last has been to considerably raise the standard of work all round, to the material benefit of the consumer.

In July of 1927 new regulations governing electrical supply and wiring were brought into service, being necessitated by the huge growth in the system of supply.

ROADS CONSTRUCTION.

PROGRESS IN RESPECT TO ROADS CONSTRUCTION DURING THE PERIOD FROM 1ST APRIL, 1920, TO 31ST MARCH, 1928.

During the period mentioned above a sum amounting to £4,949,030 was expended by the Government on the construction of roads and bridges other than main highways. Details of the amounts of each class of roadwork completed are set out in the following statement, the figures shown representing the lengths completed either out of funds provided wholly by the Government or towards the cost of which the Government assisted the local bodies by way of subsidies.

Period.	Formation.		Surfacing.		Bridges.	Culverts.
	16 ft and over.	Under 16 ft.	Concrete, &c.	Metal or Gravel.		
	M. ch.	M. ch.	M. ch.	M. ch.	Lin. ft.	Lin. ft.
1/4/20 to 31/3/23 ..	267 11 $\frac{1}{4}$	962 52	5 14	990 29 $\frac{1}{4}$	40,266	110,647
1/4/23 to 31/3/24 ..	94 49 $\frac{3}{4}$	375 23 $\frac{3}{4}$	2 4	478 14 $\frac{3}{4}$	17,477	47,481
1/4/24 to 31/3/25 ..	145 29 $\frac{1}{2}$	323 59 $\frac{1}{4}$	13 44	401 5 $\frac{3}{4}$	15,268	52,388
1/4/25 to 31/3/26 ..	149 44 $\frac{3}{4}$	309 41	12 65 $\frac{1}{2}$	456 20 $\frac{1}{2}$	12,155	42,907
1/4/26 to 31/3/27 ..	124 10 $\frac{1}{2}$	309 47 $\frac{3}{4}$	9 59	453 29 $\frac{1}{4}$	15,226	50,524
1/4/27 to 31/3/28 ..	173 22 $\frac{1}{2}$	316 61 $\frac{3}{4}$	5 12	489 19 $\frac{1}{4}$	15,188	65,318
Totals ..	954 8 $\frac{1}{4}$	2,597 45 $\frac{1}{2}$	48 38 $\frac{1}{2}$	3,268 39	115,580	369,265

Regarding the policy of the Government, in so far as roading is concerned, several new principles have been adopted which have tended to smoother and more advantageous working of the Public Works Department and greater co-operation between the Department and the local authorities. Among these is the system whereby the amount of funds made available by Parliament for roading purposes is automatically allocated to the various counties throughout the Dominion. The factors used in this system represent "Area," "Population," "Amount of rates derivable," "Total mileage of roads in use apart from metalled or surfaced roads," "Loans raised by local bodies," "Value of undeveloped Crown and Native lands," and "The estimated amount required to complete all roads as metalled roads." This system has worked very satisfactorily, and has been the means of a fairer distribution of the roading funds to the various districts than was previously the case. The area

which were backward in roading and development have thereby received a greater proportion of the available money than they otherwise would have done.

During recent years the ever-increasing motor traffic necessitated considerable attention being paid to the question of road surfacing, and, with a view to reducing the cost of upkeep, the Government decided to adopt the principle of assisting local bodies with the cost of laying down bitumen or other improved surfaces. At the same time the question of the future maintenance of surfaced roads had very careful consideration, in order to avoid a wastage of Government funds by the metalling or other surfacing of roads for which the controlling authority had not sufficient funds to cover adequate maintenance. As a result it was decided that in all cases where subsidies or grants for metalling purposes were applied for the local body had to satisfy the Government that its finances would permit of a sufficient sum being set aside annually for maintenance purposes, and for some time past it has been the practice to obtain resolutions to that effect before authorities covering the Government's quota have been actually issued. This practice has worked very satisfactorily, and doubtless many thousands of pounds of Government funds have been saved.

Mention has already been made of the automatic allocation system, and in this connection, although the backward districts received a certain amount of relief thereby, it was realized that many of the sparsely populated and isolated areas were still in urgent need of additional assistance. The Government, therefore, decided in 1926 to create a new vote to be known as the "Roads to give access to outlying districts vote," and the first funds were made available under this vote in 1927.

The idea of annually setting aside a specific amount apart from the ordinary Roads vote, which is automatically allocated, was for the purpose of enabling the Government to grant more liberal assistance in those cases where the outlying settlers were clamouring for access, and the local authority, owing to the small amount of rates received, was unable to provide anything towards the cost. The operation of this vote has resulted in great benefit having been derived by these settlers, as a result of roads having been completed which in ordinary circumstances would not have been put in hand for many years.

HIGHWAYS.

As the result of the appreciation by the Minister of Public Works (at that time the Hon. J. G. Coates) of the difficulties under which local authorities, particularly County Councils, were struggling in their endeavours to keep the roads of the country in a fit state to carry the rapidly increasing number of motor-vehicles, the idea was conceived of raising revenue from those who used the roads for motor transport and allocating these funds to assist rural local authorities in maintaining and improving the standard and construction of the chief roads of the Dominion.

As the result of a considerable amount of investigation and consideration the Main Highways Act, 1922, was drafted, introduced to Parliament, and passed. At the time the Act was passed there was no system of registration throughout the Dominion, and consequently there was no source by which evidence could be obtained as to the number of motor-vehicles then existing, or concerning the rate at which they were increasing. The provisions of the Act were therefore drawn on fairly conservative lines. The chief purpose of the Act was to declare a system of roads throughout the Dominion as main highways, and to give to the local authorities controlling them a pound-for-pound subsidy on the cost of new works, and a £1 subsidy on the cost of maintenance.

Soon after the Board began to function and the motor-cars to be registered it was realized that more money would be received in revenue than had been anticipated, and a year after the Board began to function the rate of subsidy for maintenance was increased from 10s. for £1 to £1 for £1. The number of motor-cars still increased at a very high rate, and in 1926 the rate of subsidy was increased again to 30s. for £1, and during the last session of Parliament, 1928, the Act was further amended and the rate of subsidy is now £2 for £1.

In addition to increasing the maintenance subsidy, generally, very many special cases were given a specially liberal subsidy, and in some cases the Board has even carried out large works with free money.

The record of the Highways operations has been one of continual increase in the rate of assistance both for maintenance and construction, together with an increase in the mileage of highways, and a general increase in the liberality with which all matters were treated. Last year the ability of the Board to still further assist was made possible by the imposition of the petrol-tax.

The system whereby the Board has purchased plant on behalf of local authorities, thereby obtaining the best terms, and allowing the local authorities to pay for the same under the hire-purchase system, has given great satisfaction.

In addition to assisting rural local authorities in accordance with the spirit of the first Act, assistance has been extended first to small boroughs, and later to all boroughs, and even the large cities obtain a considerable amount of assistance from the funds derived from the petrol-tax.

The attached sheet gives an indication of the work accomplished by the Board since it commenced actual operations.

The Board now has in course of construction a large mileage of high-class pavements, including many miles of concrete pavement on roads radiating from Christchurch, as well as up-to-date pavements extending radially from most of the large centres of population.

RETURN SHOWING MAIN-HIGHWAY CONSTRUCTION WORK COMPLETED 1924 TO 1928.

				Formation and Widening.	Gravelling and Metalling.	Tar and Bitumen Sealing.	Bitumen Macadam (Penetra- tion).	Bitumen Concrete.	Portland Cement Concrete.	Bridges.
				M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	Feet.
1924-25	..	..	..	18 60	62 76	6 19	2 72	1 55	..	2,434
1925-26	..	..	..	45 10	88 12	16 00	45 26	3 50	6 24	5,168
1926-27	..	..	..	173 59	150 65	35 80	38 30	11 63	15 70	6,408
1927-28	..	..	..	173 20	133 22	83 16	33 52	0 14	6 16	7,760
1924-28	..	..	..	410 69	435 15	140 43	120 20	17 22	28 30	21,770

IRRIGATION.

The policy was continued of providing water for irrigation to all lands the owners of which were prepared to enter into binding agreements to pay to the Government the cost of storing, transporting, and distributing irrigation-water, and which were, in the opinion of the Government's agricultural advisers, sufficiently promising to justify the expectation of ultimate success.

The lands of the arid area in Central Otago were examined, the soil survey in great detail being a most valuable portion of the investigation.

Considerable assistance to settlers in the dry belt was also rendered by the establishment of a demonstration irrigation farm on which the suitability of various crops, kinds and methods of farming, are being tried out under the direction of the Department of Agriculture, assisted by local committees of practical farmers, together with engineers of the Public Works Department.

The benefits derived from irrigation are manifested in the new era of prosperity which has commenced in Central Otago—the increased business on the railways, larger carrying-capacity of the land, and incidentally increased revenue to the Government in the sale of water. The effects of the water on the land, the suitability of various crops, the amount of water necessary for economic farming on land of varying quality, the marketing of produce from irrigated areas, and all the other complicated questions connected with the development of a new system of farming have been the subject of continual study by the Government and its officers. The material progress attained has been as follows:—

Length of main canals in 1921	..	..	..	M.	ch.
Length of main canals in 1928	..	..	..	85	55
Increase	..	..	..	299	29
Length of distributaries in 1921	..	..	..	91	78
Length of distributaries in 1928	..	..	..	245	67
Increase	..	..	..	153	69

Number of schemes completed and under construction in 1921, seven—viz., Steward Settlement, Otekaike, Ida Valley, Galloway, Manuherikia—Alexandra—Clyde (No. 1), Ardour, and Earnsclough (Fraser River).

Number of schemes completed and under construction in 1928, fourteen — viz., Steward Settlement, Otekaike, Galloway, Ida Valley, Manuherikia—Alexandra—Clyde (No. 1), Ardgour, Arrow River, Hawkdun, Earnscliffe, Last Chance, Tarras, Bengerburn, Teviot River, and Teviot River Extension.

	Acres.
Areas commanded by schemes completed and under construction in 1921	71,000
Areas commanded by schemes completed and under construction in 1928	101,747
Areas irrigated in 1920	3,200
Areas irrigated in 1928	33,749
Increase	30,549
	£
Total amount expended on schemes to 31st March, 1920	194,835
Total amount expended on schemes to 31st March, 1928	785,401
Increase	590,566
Number of irrigators in 1928	288
Revenue derived from sales of water from schemes in operation—	£
Year 1921–22	2,032
Year 1927–28	8,527

Number of schemes under investigation in 1928, ten — viz., Maniototo, Cromwell Flat and Lowburn, Upper Manuherikia, Hawea Flats (first alternative), Hawea Flats (later alternative), Chapman's Gully, Bendigo Flat, Miller's Flat, Luggate Burn, and Scandinavian.

Area commanded by schemes investigated 245,000 acres.

Soil survey in the irrigation districts has been completed and plans are being prepared. 250,000 acres were surveyed last year, in addition to 625,000 surveyed in the previous two years.

A deferred scale of charges was put into operation in the later part of 1925. Under this system the rate for the first year of supply is on a very low basis, the scale rising in a period of six to ten years to its maximum. This policy was adopted to assist irrigators in the early years of development of an irrigation farm and while irrigators are gaining experience in that class of farming.

A demonstration plot of 10 acres was laid down at Manuherikia in 1926 for the information of intending irrigators.

A demonstration plot of 15 acres was laid down at Earnscliffe in 1926 under the border-dyke system, half was sown in permanent pasture and half in lucerne.

Experimental plots are situated at Earnscliffe, Springvale, Tarras, and Galloway, and were laid out by the Public Works Department with the object of ascertaining the most economical use of irrigation-water on the varying types of soils represented, a particular feature being the use of the border-dyke system of water-distribution.

Last year the Government set up an investigating committee, under the chairmanship of the Assistant Engineer-in-Chief of the Public Works Department, to report to the Government. The order of reference of this committee included an examination into the question of the duty of irrigation-water, of the question of the rates of payment therefor, and of the future administration of irrigation undertakings. This committee has now completed an exhaustive investigation and has prepared its report, which, when before the Government for consideration, will be found a most valuable and constructive report.

Since the return of land actually irrigated which accompanied the Public Works Statement of last year was compiled, a further 11,040 acres have been brought under water-supply.

BUILDINGS.

The increasing population and the expansion in Government activities has made it necessary to enlarge our public buildings of various kinds in many places, as well as to erect new buildings, the necessity being brought about in some cases by the obsolescence of the old buildings, by their decay, or by their having become too small. This has required an average annual expenditure of £283,483, without schools.

One of the largest buildings which the Government had in hand before the war—that is, the Parliament Buildings—has been at a standstill, the Government having felt that, with the many calls upon the public purse for things which could not be postponed, it was advisable to delay further expenditure on these buildings as long as the wooden part could be made to last. This is not an indication that the Government is satisfied to leave the most important building in the State in an unfinished condition, but simply arises from the impossibility of providing money for every purpose simultaneously.

It is rather difficult to indicate in a tabulated statement the extent of building-work, because individual buildings for the same purpose, but in different localities, may vary in cost anywhere between £100 and £100,000.

At the request of the Minister of Education, the Public Works Department undertook the work of designing and erecting secondary-school buildings. This work had previously been carried out by private practitioners employed by the various School Boards and other authorities controlling secondary education. This has involved very considerable increase in the work of the Department. Later, at the instigation of the Department of Health, arrangements were made for the Department to act for Hospital Boards who desired to avail themselves of Public Works organization and the specialized knowledge of the Government Architect and his staff. The system is an optional one, and has been considerably availed of, with satisfactory results.

The succeeding details set out the position fairly well. It will be seen that there has been a new post-office or telephone exchange erected every three weeks.

The following is a list of the various buildings erected during the period 1920-28 :—

DEPARTMENT OF AGRICULTURE.

Sixteen buildings, of a total cost of £23,675, were erected, and plans, &c., were prepared for one building, erection of which was deferred.

COURTHOUSES.

Thirteen Courthouses, of a total cost of £31,750, were completed, and plans, &c., were prepared for two buildings which were not erected. One of these (Blenheim) was estimated to cost £16,500.

The largest job was the new Arbitration Court, Wellington, completed this year at a cost of approximately £12,000.

Plans are practically completed for a new Courthouse at Hamilton, to cost about £20,000.

DEFENCE DEPARTMENT.

Twelve new buildings have been erected, at a cost of £41,600. Other extensive works have been carried out by the Department at Ngauwauahia Mobilization Camp, and the new Air Force Base at Hobsonville, Auckland, is being rapidly pushed on with.

DEPARTMENTAL BUILDINGS.

Nine new buildings, of a total cost of £40,700, have been completed. This item includes the model village at Arapuni Hydro-electric Works, and quarters for sub-station staff operators in several localities. At Taumarunui a new building to house the various departments was provided at a cost of approximately £10,000.

EDUCATION DEPARTMENT.

Secondary Schools.

Sixty buildings, costing approximately £296,000, have been erected in the period 1924-28. These figures include a number of additions to existing schools, ranging in cost from £2,000 to £20,000.

Among new high schools may be mentioned : Whangarei High School, £42,000 ; Southland Boys' High School, £36,000 ; Hastings Technical High School, £30,000 ; Hutt High School, £20,000 ; Wellington Technical Workshops, £15,000 ; Marlborough High School, £16,000 ; Timaru High School, £14,000.

Additions, in the nature of an assembly hall and extensions of the class-room accommodation, to the Seddon Memorial Technical College, Auckland, absorbed approximately £20,000.

HEALTH DEPARTMENT.

Seventeen buildings were erected between 1923 and 1928, at a total cost of £80,950.

Plans have been prepared for a large maternity hospital and nurses' home at Christchurch, but the job has not yet been commenced. This will cost between £40,000 and £50,000.

At Hanmer Springs a hospital for women was erected at a cost of £25,000, and a nurses' home to accommodate sixty nurses is in course of erection. Other buildings and extensions of buildings have been completed at the various sanatoria and other institutions under the direct control of the Health Department.

HOSPITAL BOARDS.

During the period 1925-28 thirty buildings were erected at a cost of £180,350.

Plans, &c., were prepared for five buildings which were not erected, on account of temporary financial stringency.

The figures include several large additions to existing hospitals, in the nature of new wards, operating, kitchen, and laundry blocks, &c., and new nurses' homes. Very extensive works were recently carried out at Wellington Hospital to provide a new boiler and machinery block, kitchen block, and laundry block to serve the whole of the institution. At Napier new buildings, costing well over £20,000, have been provided during the last couple of years, and the new Fallen Soldiers Memorial Hospital, Hastings, provided by public subscription, was completed this year at a cost of £21,000. Other extensive works have been spread over the country from Auckland to Southland.

It is to be noted that, while Hospital Boards have the option of engaging private practitioners, most of the Boards have elected to make use of the Public Works organization, and the results have proved very satisfactory.

INTERNAL AFFAIRS.

Eleven buildings of a varied nature, and costing approximately £20,300, were erected during the period.

MENTAL HOSPITALS DEPARTMENT.

Seventy-one new buildings have been erected. The majority of these are in the nature of new blocks for existing institutions; others form the nucleus of new institutions. The total expenditure was approximately £400,400.

Thirty-seven of the seventy-one buildings were erected during the last three years. Two jobs cost over £30,000 each, and another one £20,000. The great majority of the buildings cost less than £10,000 apiece, the modern trend being towards detached units in which varying types of patients can be segregated and treated according to the nature of the complaint. This system is also more hygienic, and is a great advance on the old system of herding large numbers of patients in large buildings. A "villa," as the new buildings are called, houses from thirty to forty patients, and each "villa" is given a name. Every possible consideration is given to aspect and prospect, and the surroundings made as bright and cheerful as possible.

NATIVE SCHOOLS.

Thirty new buildings have been erected at a cost of £41,150, seventeen of them since 1926. It will be noticed that the average cost of the buildings is under £1,400, and every effort has been made to provide the small schools required in the scattered districts.

POLICE-STATIONS.

Forty-five new buildings have been erected, at a cost of £96,600. The largest number erected in any one year was ten in 1924. No large buildings have been erected, the whole of the forty-five jobs being in the nature of residences and small offices.

POST-OFFICES AND TELEPHONE EXCHANGES.

One hundred and forty-nine buildings have been erected since 1920, a yearly average of more than sixteen buildings. The total expenditure was £574,620. These figures include several additions to existing post-offices ranging in cost from £5,000 to £22,000.

Plans, &c., have been prepared for four large buildings which have not yet been commenced. Amongst these is the Dunedin Post-office, nine stories high, covering a whole city block, and estimated to cost not less than £200,000; High Street (Christchurch), £16,000; Courtenay Place (Wellington), £30,000.

The largest buildings erected in the period were: Wellington Automatic Telephone Exchange, £35,000; Napier Post-office, £53,000 (in course of erection); Stratford, £22,000; Gisborne (additions), £22,000; Hastings (additions), £16,000; Palmerston North (additions), £16,000; Dannevirke and Marton, £15,000 each; Dunedin Automatic Telephone Exchange, £13,000.

PRISONS DEPARTMENT.

Twenty-one new buildings have been erected, the total cost being £72,000.

The largest job was the men's prison, Watts Peninsula, Wellington, which cost approximately £35,000.

TOURIST DEPARTMENT.

During the last four years one new building per year has been erected, the total cost being £65,600.

The greater part of this expenditure was incurred for the new hostel at Waitomo Caves. This building, which will be a great attraction to tourists, was completed this year. It includes a steam laundry and boiler-house and a refrigerating plant, while all the cooking is done by electricity. The cost was in the vicinity of £45,000.

SUMMARY.

The grand total of buildings erected during the period was 488, at a cost of £1,965,690.

In addition to the above, very large numbers of minor works have been carried out, and a huge volume of maintenance work attended to every year by the district offices.

LIGHTHOUSES AND HARBOUR-WORKS.

The policy of the Government of making our shores safer to mariners has been steadily pursued, dealing with the greater dangers first.

In addition to providing new lighthouses and other aids to navigation, the policy of cheapening the cost of maintenance, without sacrificing efficiency, by the adoption of automatic lights instead of watched lights at a number of suitable stations has been followed. This is a work in which it is unwise to step too boldly in view of the vital interests concerned, but as the experience both here and in the rest of the world demonstrates the reliability of new methods, these are adopted. The following shows in detail the work that has been done in connection with lighthouses.

With harbours, the greater number of these are controlled by their own local authorities; but in the case of the Westport Harbour, the Government, after full consideration of the position, decided to abolish the Harbour Board and to assume control.

In addition to work in harbours actually maintained by the Government, assistance has been given in the case of a large number of small ports, either by means of direct grants or by subsidies, according to the requirements of the case, the work being supervised by the Government. Some details of the work are given.

MARINE WORKS.—LIGHTHOUSES.

Since March, 1920, a considerable number of new lighthouses have been built and, where suitable and advisable, some of the existing watched lights have been converted to automatic operation. In addition, two powerful fog-signals have been provided, direction-finder installed, new residences built, and various minor works carried out. The principal works dealt with are as under:—

North Cape.—Automatic flashing light provided, and now in course of erection.

Cape Maria van Diemen.—Two lighthouse-keepers' cottages have been erected.

Cape Brett.—New cranes, oil-engine, &c., provided and installed.

Kaipara Heads.—New beacons.

Kaipara South Head.—New flashing light (automatic) provided.

Three Kings Island.—The question of a light on these islands was fully investigated, and in place of a light, which would have involved considerable difficulty and expense to install, as well as heavy maintenance charges, it was decided to install a modern wireless direction-finding station at Cape Maria van Diemen, to enable shipmasters to fix their position under any conditions.

Oheua Island.—New automatic lighthouse.

Tiritiri.—This light was converted from a watched oil-burner to automatic operation.

Matakaoa Point.—A new powerful automatic light was erected here.

Cow Rock, Coromandel.—Automatic light erected.

Piako River.—New automatic light erected at river-entrance.

Manukau South Head.—Apparatus provided, and about to be installed.

French Pass.—A new automatic flashing light has been provided in place of the old oil-burning light.

East Cape Lighthouse.—The lighthouse, buildings, &c., were transferred to the mainland and re-erected, on account of the fretting-away of the island, which endangered the original site.

Somes Island.—Converted from watched to automatic operation.

Chetwode Island.—A steel tower and automatic light was erected.

Stephen Island.—New winches and improvements to inclines, as well as the provision and installation of a wireless receiving and sending outfit.

Pencarrow Head.—New and powerful fog-signal installed.

Godley Head.—New and powerful fog-signal installed.

Cape Foulwind.—Existing watched light converted to automatic operation (first use in New Zealand of new type of Dalen incandescent burner).

Kahurangi.—Existing watched light converted to automatic (same type as Cape Foulwind).

Chatham Island.—New electrically operated light erected on wireless-mast.

Puysegur Point.—This station was equipped with a wireless sending and receiving outfit in place of the old land line, which was expensive and unreliable owing to the difficult nature of the country traversed.

Angle Point.—New automatic light provided.

Dog Island.—The existing optical apparatus, which had been in use for many years and had become obsolete, was replaced by a standard second-order lens with incandescent oil-burner. A new keeper's cottage was also erected.

Kahu Rocks.—Apparatus on order

Cape Egmont.—One of the latest type of powerful automatic lights has been ordered, and will be installed immediately on delivery.

Cape Campbell.—Two lighthouse-keepers' cottages have been erected.

Gable Island.—New automatic lighthouse.

MARINE WORKS—HARBOURS.

Westport Harbour.—This harbour was taken over by the Government on the 1st April, 1921, and the control of the various harbour-works, dredging, &c., has been exercised by the Marine Department, while the wharves and railways connected with the port have been controlled by the Railway Department. The volume of dredging has been greatly increased during the past two years, and a large amount of work has been carried out in strengthening and protecting, with heavy stone, portions of the river-banks which showed signs of erosion, while the breakwaters have been well maintained and strengthened where necessary.

Karamea Harbour.—At this harbour, which is under the control of the Marine Department, very extensive works have been put in hand in order to replace the existing pile and fascine breakwater with stone. A quarry has been opened up, 3½ miles of tram-line constructed, and the depositing of the necessary stone is now in hand. Increased wharf and shed accommodation has also been provided.

Waikokopu.—In order to cope with the increasing traffic at this port, due to the deterioration of the Port of Wairoa, a substantial wharf, crane, goods-sheds, and railway terminal facilities have been provided. A contract is also in hand for the construction of a stone breakwater.

General.—A large number of works were carried out by or under the supervision of the Department in addition to those which are directly under the control of the Government. Among the principal are the following :—

Russell : Concrete Wharf.	Kawhia : Wharf.
Whangaroa : Concrete wharf.	Elmslie Bay : Wharf.
Kaikoura : Improvements to boat-harbour.	Mokau : River improvement.
Bruce Bay : Landing-crane and approach bridge.	Collingwood : Wharf.
Stewart Island : New wharf.	Rawene : Launch-landings.
One Tree Point : New wharf.	Chatham Islands : Surveys and harbour investigations generally.
Kawau Point : New wharf.	Kawakawa Bay : Wharf.
Kaipara Point : Wharf.	Little Wanganui : Wharf.
Pahea Point : Wharf.	Manaroa, Pelorous Sound : Wharf.
Naumai : Wharf.	Matakawa : Wharf, &c.
Miranda : Wharf.	Karaka Point : Wharf.
	Opunake : Harbour improvements.

RAILWAYS IMPROVEMENT.

In accordance with the Railway Department's policy of improving main-trunk lines, deviations at Auckland (extending to Westfield), Wellington (extending to Tawa Flat), and Palmerston North—a length of 6 $\frac{3}{4}$ miles—were decided upon.

These deviations, which involve heavy work, with a double-track line and considerable tunnelling, will have the effect of greatly facilitating the heavy traffic to be dealt with at the respective points, by the reduction in grade, the improvement in curvature, and the providing for two-way traffic.

The work of construction was taken in hand by the Public Works Department, and is now well advanced, as indicated by the details following :—

PALMERSTON NORTH DEVIATION.

(Length, 6 miles 66 chains.)

The purpose of this deviation was to keep the railway-line clear of the Town of Palmerston North, and it has also the effect of straightening the main line and decreasing the length by about a mile.

Preliminary work was started on a small scale in 1926, and this work has gone on steadily since that date. One of the main features of this deviation is the construction of seven reinforced-concrete overbridges, which, owing to the flat nature of the country, involve expensive approaches.

The deviation was about one-fourth complete on the 31st March last.

The expenditure to date is £103,801. Final estimated cost is not at present available, as a number of details are not yet finally settled in regard to lay-out of station-yards, &c.

TAWA FLAT DEVIATION.

(Length, 7 miles 40 chains.)

The object of this deviation is to cut out the heavy grades between Wellington and Johnsonville. The deviation leaves the Wellington-Wairarapa line at 1 mile 70 chains near Kaiwarra, and joins the Wellington-New Plymouth line at 11 miles 45 chains from Wellington.

Work was commenced in July, 1927, to open up No. 1 tunnel, after which the driving of the lower heading was let to a private contractor. The south end of this heading was later taken over by the Department, the contractor continuing to work the north end.

Several bridges are in course of construction, and No. 2 tunnel is being opened up at the north end, and preparations are being made by sinking a shaft to allow four faces to be worked simultaneously.

The estimated cost of completion is £1,010,000, and the expenditure to date is approximately £153,961.

AUCKLAND-WESTFIELD DEVIATION.

This deviation, 8 miles 70 chains in length, was commenced in 1925. Formation is at present almost complete, the only work still to be completed being the trimming and widening of cuttings, &c.

Platelaying has just been commenced, about 30 chains of rails having been laid.

On this section, apart from the general formation, the construction of the Purewa Tunnel, with a total length of 1,954 ft., the building of approximately 2 miles of embankment across Judges Bay and the Orakei Basin, with bridges totalling 380 ft., were important works.

The expenditure to 31st October on this line is £502,081, and the estimated cost to complete it is £113,000, excluding rails, sleepers, fastenings, &c., which is being defrayed by the Railway Department direct.

EXPENDITURE ON CONSTRUCTION OF PUBLIC WORKS BY PUBLIC WORKS DEPARTMENT
(EXCLUDING MAINTENANCE EXPENDITURE).

	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	Six Months ended 30th September, 1928.	Total.
	£	£	£	£	£	£	£	£	£	£
Railways	944,150	1,276,819	1,359,722	1,216,846	1,135,896	1,146,927	1,096,368	908,668	415,484	9,500,880
Roads, &c.	512,399	552,900	643,055	746,869	603,966	565,694	575,131	669,832	301,152	5,170,998
Roads to give access to Outlying Districts .. .. .	..	..	..	..	..	..	..	37,882	19,583	57,465
Roads on goldfields	11,050	11,264	4,848	2,867	2,755	3,934	2,230	2,354	788	42,090
Buildings, general	44,504	77,057	113,552	8,151	24,791	29,469	39,548	42,308	1,921	381,301
Courthouses	1,399	4,357	2,015	2,447	5,362	7,209	1,261	7,532	4,120	35,702
Prisons	40,037	41,740	23,112	26,484	25,279	24,196	22,812	22,359	5,632	231,651
Police-stations	36,807	22,544	6,298	12,838	18,553	16,594	7,412	6,191	1,302	128,539
Post and Telegraph	93,365	112,906	77,112	109,115	65,917	89,866	86,052	77,195	15,031	726,559
Agricultural	9,345	1,214	514	282	3,248	7,932	4,164	2,863	290	29,852
Mental hospitals	27,368	41,837	13,852	26,540	68,438	117,875	68,635	51,118	35,514	451,177
Health and hospitals	19,628	33,712	21,134	7,591	28,234	31,177	15,840	14,357	4,195	175,868
Tourist resorts	19,041	17,996	5,435	7,264	12,343	44,486	31,981	36,673	10,516	185,735
Lighthouses	567	16,351	3,259	4,470	2,852	5,691	5,758	7,979	328	47,255
Harbour-works	4,171	2,334	6,224	6,334	423	2,717	13,262	15,891	8,204	59,560
Lands, miscellaneous .. .. .	..	17,478	26,202	18,172	34,172	70,492	55,267	72,898	40,700	335,381
Irrigation	55,344	82,713	58,131	95,467	127,995	56,196	56,937	46,937	16,361	596,081
Electric supply	356,451	834,060	454,014	812,971	847,478	945,532	1,130,013	1,389,341	654,161	7,424,021
Waihou and Ohinemuri rivers improvement	62,249	54,379	66,708	70,533	53,887	47,908	65,855	59,644	28,348	509,511
Highways-construction .. .. .	..	..	..	..	225,454	380,448	549,649	547,997	200,139	1,903,687
Roads to open up Crown lands	28,896	51,471	78,350	49,185	13,144	17,180	12,714	6,337	..	257,277
Railways Improvement Account (Public Works section) .. .. .	..	..	..	..	19,065	224,911	203,104	275,867	174,547	897,494
Totals	2,266,771	3,253,132	2,963,537	3,224,426	3,319,252	3,836,434	4,043,993	3,302,223	1,938,316	29,148,084

Expenditure by other Departments—*e.g.*, Telegraph extension, additions to open lines, contingent defence, and purchases of Native lands—is excluded.

RELIEF OF UNEMPLOYMENT BY THE GOVERNMENT.

PERIOD MAY, 1926, to 24TH NOVEMBER, 1928.

Introductory.

The present series of relief works was commenced in the latter end of May, 1926, with 74 men engaged during the week ended 29th May, and the numbers increased rapidly until there were 1,207 men employed on 20th November of that year. Men then left to return to seasonal occupations, and there were only 381 men on relief works in the middle of February, 1927.

The registrations with the Labour Bureaux showed a decided increase about that time, and instructions were issued for further relief works to be started, and the number of men employed on relief works rose rapidly to 2,626 early in September, 1927. There was a gradual diminution from that date until the middle of February, 1928, when the returns showed that there were 1,435 men on relief works.

As in the previous year, registrations at Labour Bureaux increased in February, 1928, and instructions were issued for further relief works to be started, with the result that there were 2,055 men engaged on Government relief works at 31st March last, and 4,451 at 1st September, 1928. Forestry Department's works have now closed down for the season, and the number of men on relief works has decreased to 3,363.

The Forestry Department employed a fair number of relief workers during the 1927 tree-planting season. This year, however, it has rendered greater assistance, and the average weekly number of men employed by it as relief workers from early in May to 30th September was 689. The Lands Department has also employed a few men on relief works during the last five months, the weekly average being 35.

With these exceptions all relief workers who have been provided with Government employment have been placed on works under the control of the Public Works Department, and have been employed principally on road-construction, including main highways. It should be noted, however, that other large employing Departments—i.e., Railway and Post and Telegraph—have also assisted by finding work for some of their own temporary employees, who might have been paid off in ordinary circumstances.

Employment of Men on Relief Works.

During the period 24th May, 1926, to 24th November, 1928, 15,623 men were sent to Government relief works, and 8,266 left of their own accord; the figures for the different years being as follows:—

Sent to relief works:—

24th May, 1926, to 31st March, 1927	2,400
1st April, 1927, to 31st March, 1928	6,200
1st April, 1928, to 24th November, 1928	7,023
	<hr/>
	15,623

Left relief works of their own accord:—

24th April, 1926, to 31st March, 1927	1,100
1st April, 1927, to 31st March, 1928	3,000
1st April, 1928, to 24th November, 1928	4,166
	<hr/>
	8,266

The average weekly number of men employed on relief works each year from 24th May, 1926, to 24th November, 1928, was as follows:—

24th May, 1926, to 31st March, 1927	758
1st April, 1927, to 31st March, 1928	1,908
1st April, 1928, to 24th November, 1928	3,341

The peak was reached on 1st September, 1928, when there were 4,451 men on Government relief works. There has been a reduction each week since then owing to forestry works closing down, and the number employed on 24th November, 1928, was 3,363.

Expenditure.

The expenditure by the Government on relief works (including subsidies paid to local bodies) from 24th May, 1926, to 31st October, 1928, amounted to £1,040,184. The separate expenditure during each year was as follows:—

24th May, 1926, to 31st March, 1927 (Government works)	£	£
.. .. .	..	130,000
1st April, 1927, to 31st March, 1928—		
Government works	397,565	
Subsidies to local bodies	75,106	
		472,671
1st April, 1928, to 31st October, 1928—		
Government works	413,513	
Subsidies to local bodies	24,000	
		437,513
Total	£1,040,184	

Subsidies to Local Bodies.

Local authorities were authorized by the Local Bodies Empowering (Relief of Unemployment) Act, 1926, to borrow money for relief works until 30th June, 1927, without taking a poll of the ratepayers as provided in the Local Bodies' Loans Act. As unemployment was acute in 1927, and it was understood that local bodies were willing to assist by undertaking relief works in their districts, the provisions of the Local Bodies Empowering (Relief of Unemployment) Act, 1926, were extended for another year, and again during last session.

Provision was also made in the Imprest Supply Act (No. 1), 1927, for granting subsidies not exceeding £150,000 in all to local bodies in connection with relief works; and this was increased to £300,000 by Parliament last session in the Local Bodies Empowering (Relief of Unemployment) Amendment Act, 1928.

The attached copy of a statement dated 27th July, 1928 (marked "A") outlines the conditions on which Government subsidies are granted. The bases of these subsidies are—

- (1) *Works undertaken from public subscriptions:* A full pound-for-pound subsidy on materials and wages without any limitation on the rates of wages paid by the local body.
- (2) *Works undertaken from revenue or with loan-moneys:* Subsidy of 50 per cent. of labour only, based on relief rates of pay.

Since the Local Bodies Empowering (Relief of Unemployment) Amendment Act, 1927, and Imprest Supply Act (No. 1), 1927, were passed 47 applications by local bodies to raise loans totalling £211,999 have been sanctioned by the Local Government Loans Board. Thirty-one of these, amounting to £134,466, were approved last year, and the other 16, amounting to £77,533, have been sanctioned since 1st April last. (For details see statement "C" attached.)

Subsidies totalling £173,921 have been promised to 85 local bodies. Of this amount £113,031 was promised last year, and £60,890 since 1st April of this year. (For details see statement "B" attached.)

Earnings of Men on Relief Works.

When relief works were first started the rates of pay for married men were fixed at 14s. per day and single men at 10s. After the first year, however, it was found that men were not leaving relief works to seek other employment, and, moreover, as unemployment was acute and the Government was likely to be involved in a very considerable expenditure, the wages of married men were reduced to 12s. per day and single men to 9s. The rates of men who were already employed on relief works were not, however, reduced.

The average earnings of married men on all Government relief works during the three months ended 31st July, 1928, were 12s. 7d. per day of eight hours, while the average earnings of single men were 10s. 1½d. per day. These figures show that the unit prices of co-operative contracts have on the whole been correctly assessed.

The average earnings in the different Public Works districts and on Forestry works were as follows :—

District.					Married Men.	Single Men.
					s. d.	s. d.
Whangarei	..	..	..	..	13 6	9 4 $\frac{3}{4}$
Auckland	..	..	..	..	12 4	9 8 $\frac{1}{2}$
Tauranga	..	..	..	..	12 11 $\frac{1}{2}$	9 10 $\frac{1}{4}$
Taumarunui	..	..	..	..	10 7 $\frac{1}{2}$	9 1 $\frac{3}{4}$
Gisborne	..	..	..	..	11 6	9 4 $\frac{1}{2}$
Napier	..	..	..	..	12 8	10 10
Stratford	..	..	..	..	12 8	10 3 $\frac{1}{4}$
Wellington	..	..	..	..	12 8	9 4
Nelson	..	..	..	..	12 8 $\frac{3}{4}$	10 7 $\frac{1}{2}$
Greymouth	..	..	..	..	13 2	12 4 $\frac{1}{2}$
Christchurch	..	..	..	..	13 7	11 3 $\frac{1}{4}$
Dunedin and Invercargill	..	..	..	..	12 3 $\frac{1}{2}$	9 4 $\frac{1}{2}$
Forestry Department	..	..	..	..	12 1 $\frac{3}{4}$	9 10

A. SUBSIDIES TO LOCAL BODIES.

Provision has been made in the Local Authorities Empowering (Relief of Unemployment) Amendment Act, 1928, for payment of subsidies aggregating £300,000 to local bodies (within the meaning of the Local Bodies Loans Act, 1926) for relief of unemployment, including the £150,000 authorized by the Imprest Supply Act (No. 1), 1927.

The provisions of the Local Authorities Empowering (Relief of Unemployment) Act, 1926, under which local bodies were empowered, subject to the approval of the Local Government Loans Board, to raise loans for relief of unemployment without taking a poll of the ratepayers, have been extended to 30th June, 1929, by the Local Authorities Empowering (Relief of Unemployment) Amendment Act, 1928, and applications for sanction of loans should be made to the Local Government Loans Board on the required form, accompanied by the necessary detailed information.

Where the number of unemployed in districts is sufficient to warrant local bodies undertaking relief works, subsidies of 50 per cent. of labour based on relief-work rates of pay (married men and single men with dependants 12s. per day ; single men without dependants 9s. per day) will be granted in respect to—

- (a) Moneys borrowed for the sole purpose of relief of unemployment, provided the works on which such moneys are to be expended have not been included in any schedule of works for which a loan has already been raised by the local authority.
- (b) Moneys expended from revenue on works of a capital nature undertaken expressly for relief of unemployment.

Pound-for-pound subsidies on materials as well as wages are also granted on works which are being undertaken with voluntary subscriptions, and the subsidy as far as labour is concerned is not limited to relief-work rates of pay.

The above-mentioned subsidies apply to urban and suburban districts (City Councils, Boroughs Councils, &c.). In rural districts (County Councils, Road Boards, &c.) subsidy is also payable on materials as well as wages in respect to works undertaken from revenue, loans, or public subscriptions, but the portion of the subsidy regarding wages is limited to relief-work rates of pay in the case of loan-money or ordinary revenue.

Works which local bodies propose to undertake with public subscriptions, and all works in rural districts, must contain at least 60 per cent. of labour, as subsidy is payable on materials as well as wages ; but Cabinet recently decided to waive this condition in the case of works to be financed from special loans or revenue by City Councils, Borough Councils, &c., seeing that subsidy on those works is not payable on materials.

Expenditure on transport or cartage is to be classified as labour, and in this connection the Government has agreed to pay subsidy on wages, at relief-work rates of pay, of drivers of drays or motor-vehicles owned by local bodies when used on relief works for transport of materials, and also on the running-expenses of the motor-vehicles (benzine, oils, &c.), but not on interest, depreciation, or other overhead expenses. Where, however, a local body requires to hire drays or motor-lorries solely for use on a relief work, the Government will pay subsidy on the full hire charges while engaged on that work.

Works which local bodies propose to undertake for relief of unemployment and obtain a subsidy from the Government must be approved by the Minister of Public Works, and in order to avoid unnecessary delay local bodies should submit their proposals direct to the local District Engineer of the Public Works Department, who will have the matter investigated and submit a report to his Head Office as expeditiously as possible.

As indicated above, subsidies can only be granted to local bodies as defined by the Local Bodies' Loans Act, 1926.

B. SUBSIDIES APPROVED BY THE MINISTERS OF PUBLIC WORKS AND FINANCE
UP TO 24TH NOVEMBER, 1928.

Local Body.				Last Year.			This Year.			Total.		
				£	s.	d.	£	s.	d.	£	s.	d.
Auckland City Council	..	..	..	17,805	0	0	4,437	0	0	22,242	0	0
Ashburton Borough Council	..	..	..	200	0	0	..	..	..	200	0	0
Birkenhead Borough Council	..	..	..	106	0	0	..	..	..	106	0	0
Buckley Drainage Board	..	..	..	..	..	..	750	0	0	750	0	0
Blenheim Borough Council	..	..	..	765	0	0	1,705	0	0	2,470	0	0
Cambridge Borough Council	..	..	..	170	0	0	..	..	..	170	0	0
Christchurch City Council	..	..	..	14,520	0	0	7,450	0	0	21,970	0	0
Cook County Council	..	..	..	..	..	..	50	0	0	50	0	0
Christchurch Tramway Board	..	..	..	120	0	0	..	..	..	120	0	0
Clifton County Council	..	..	..	100	0	0	..	..	..	100	0	0
Dargaville Borough Council	..	..	..	..	..	..	44	0	0	44	0	0
Dannevirke Borough Council	..	..	..	150	0	0	75	0	0	225	0	0
Devonport Borough Council	..	..	..	1,289	0	0	530	0	0	1,819	0	0
Dunedin City Council	..	..	..	4,885	0	0	3,115	0	0	8,000	0	0
Edendale South Town Board	..	..	..	..	..	..	80	0	0	80	0	0
Ellerslie Town Board	..	..	..	327	0	0	..	..	..	327	0	0
Eltham Borough Council	..	..	..	..	..	..	74	0	0	74	0	0
Feilding Borough Council	..	..	..	1,290	0	0	..	..	..	1,290	0	0
Geraldine Borough Council	..	..	..	100	0	0	..	..	..	100	0	0
Glen Eden Town Board	..	..	..	..	..	..	125	0	0	125	0	0
Gisborne Borough Council	..	..	..	2,000	0	0	1,727	10	0	3,727	10	0
Gore Borough Council	..	..	..	212	0	0	..	..	..	212	0	0
Green Island Borough Council	..	..	..	145	0	0	..	..	..	145	0	0
Hamilton Borough Council	..	..	..	1,891	0	0	1,855	0	0	3,746	0	0
Hawke's Bay River Board	..	..	..	..	..	..	425	0	0	425	0	0
Hawke's Bay County Council	..	..	..	..	..	..	60	0	0	60	0	0
Hastings Borough Council	..	..	..	990	0	0	240	0	0	1,230	0	0
Havelock North Town Board	..	..	..	140	0	0	..	..	..	140	0	0
Hawera Borough Council	..	..	..	250	0	0	..	..	..	250	0	0
Heathcote County Council	..	..	..	776	0	0	..	..	..	776	0	0
Huntly Town Board	..	..	..	40	0	0	..	..	..	40	0	0
Hutt County Council	..	..	..	800	0	0	..	..	..	800	0	0
Invercargill Borough Council	..	..	..	3,474	0	0	1,891	0	0	5,365	0	0
Kiwaita County Council	..	..	..	200	0	0	..	..	..	200	0	0
Kaponga Town Board	..	..	..	..	..	..	62	10	0	62	10	0
Kaipoi Borough Council	..	..	..	116	0	0	198	0	0	314	0	0
Levin Borough Council	..	..	..	44	0	0	..	..	..	44	0	0
Lower Hutt Borough Council	..	..	..	1,606	0	0	1,700	0	0	3,306	0	0
Lytelton Borough Council	..	..	..	200	0	0	80	0	0	280	0	0
Marlborough County Council	..	..	..	150	0	0	243	0	0	393	0	0
Mataura Borough Council	..	..	..	962	0	0	90	0	0	1,052	0	0
Masterton Borough Council	..	..	..	..	..	..	200	0	0	200	0	0
Mount Wellington Road Board	..	..	..	500	0	0	..	..	..	500	0	0
Manawatu Drainage Board	..	..	..	..	..	..	750	0	0	750	0	0
Mount Albert Borough Council (Mount Albert Domain)	..	..	..	186	0	0	..	..	..	186	0	0
Napier Borough Council	..	..	..	2,275	0	0	2,250	0	0	4,525	0	0
Nelson City Council	..	..	..	1,747	0	0	595	0	0	2,342	0	0
New Plymouth Borough Council	..	..	..	3,825	0	0	1,720	0	0	5,545	0	0
Northcote Borough Council	..	..	..	116	0	0	296	0	0	412	0	0
Onehunga Borough Council	..	..	..	..	..	..	2,037	0	0	2,037	0	0
Otahuhu Borough Council	..	..	..	1,160	0	0	110	0	0	1,270	0	0
Oamaru Borough Council	..	..	..	..	..	..	80	0	0	80	0	0
Paeroa Borough Council	..	..	..	1,000	0	0	530	0	0	1,530	0	0
Palmerston North Borough Council	..	..	..	1,545	0	0	175	14	0	1,720	14	0
Petone Borough Council	..	..	..	1,901	0	0	500	0	0	2,401	0	0
Petone and Hutt Gas Board	..	..	..	599	0	0	..	..	..	599	0	0
Picton Borough Council	..	..	..	172	0	0	..	..	..	172	0	0
Raetihi Borough Council	..	..	..	116	0	0	..	..	..	116	0	0
Rangitikei County Council	..	..	..	..	..	..	2,000	0	0	2,000	0	0
Ross Borough Council	..	..	..	50	0	0	..	..	..	50	0	0
Shannon Borough Council	..	..	..	213	0	0	25	0	0	238	0	0
Stratford County Council	..	..	..	125	0	0	..	..	..	125	0	0
Stratford Borough Council	..	..	..	818	0	0	75	0	0	893	0	0

**B. SUBSIDIES APPROVED BY THE MINISTERS OF PUBLIC WORKS AND FINANCE UP TO
24TH NOVEMBER, 1928—continued.**

Local Body.	Last Year.			This Year.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
South Invercargill Borough Council	48	0	0	..	..	..	48	0	0
Sumner Borough Council	120	0	0	100	0	0	220	0	0
Tauranga Borough Council	860	0	0	125	0	0	985	0	0
Te Aroha Borough Council	180	0	0	40	0	0	220	0	0
Te Kuiti Borough Council .. ..	..	..	..	90	0	0	90	0	0
Te Puke Town Board	150	0	0	..	..	..	150	0	0
Te Awamutu Borough Council .. ..	..	..	..	33	0	0	33	0	0
Thames Borough Council	494	0	0	..	..	..	494	0	0
Taradale Town Board .. ..	..	..	..	206	0	0	206	0	0
Timaru Borough Council	890	0	0	3,503	0	0	4,393	0	0
Temuka Borough Council .. ..	..	..	..	160	0	0	160	0	0
Upper Hutt Borough Council	500	0	0	226	5	0	726	5	0
Wairoa Borough Council	200	0	0	..	..	..	200	0	0
Waimate County Council	90	0	0	..	..	..	90	0	0
Waipawa County Council	60	0	0	..	..	..	60	0	0
Waimakariri River Trust .. ..	..	..	..	106	0	0	106	0	0
Waipukurau Borough Council	38	0	0	100	0	0	138	0	0
Wanganui County Council	302	0	0	..	..	..	302	0	0
Wanganui Borough Council	5,140	0	0	3,350	0	0	8,490	0	0
Wanganui Harbour Board	65	0	0	..	..	..	65	0	0
Wellington City Council	31,208	0	0	14,500	0	0	45,708	0	0
Whangarei Borough Council	515	0	0	..	..	..	515	0	0
Grand totals	113,031	0	0	60,889	19	0	173,920	19	0

APPLICATIONS TO RAISE UNEMPLOYMENT LOANS SANCTIONED BY LOCAL GOVERNMENT LOANS BOARD TO 24TH NOVEMBER, 1928.

Local Body.	Year ended 31st March, 1928.	This Year to 24th November, 1928.	Total.
	£	£	£
Auckland City Council .. ..	..	10,000	10,000
Buckley Drainage Board .. ..	..	1,000	1,000
Christchurch City Council	25,000	..	25,000
Devonport Borough Council	11,110	..	11,110
Ellerslie Town Board	1,000	..	1,000
Greymouth Borough Council	1,400	3,000	4,400
Hamilton Borough Council	2,931	1,000	3,931
Hutt County Council	500	..	500
Invercargill Borough Council	6,700	..	6,700
Lower Hutt Borough Council	7,900	10,800	18,700
Mataura Borough Council	2,600	..	2,600
Mount Eden Borough Council	6,000	2,000	8,000
Manawatu Drainage Board .. ..	..	2,000	2,000
Napier Borough Council	4,225	4,183	8,408
Nelson City Council	2,500	800	3,300
Newmarket Borough Council	3,000	..	3,000
New Plymouth Borough Council	1,200	..	1,200
Otahuhu Borough Council	2,900	..	2,900
Paeroa Borough Council	2,000	..	2,000
Palmerston North Borough Council	3,000	..	3,000
Petone Borough Council	1,000	..	1,000
Petone and Lower Hutt Gas-lighting Board ..	3,500	..	3,500
Shannon Borough Council	250	..	250
Stratford Borough Council	750	..	750
Taradale Town Board	250	..	250
Tauranga Borough Council	2,000	..	2,000
Upper Hutt Borough Council	750	750	1,500
Waipara County Council .. ..	..	7,000	7,000
Wanganui City Council	6,000	..	6,000
Wellington City Council	36,000	35,000	71,000
Totals	134,466	77,533	211,999

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TABLE 1. SUMMARY OF THE RESULTS OF THE 1958 ELECTIONS FOR THE BOARD OF SUPERVISORS, BY DISTRICT

District	Local Body	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	564	563	562	561	560	559	558	557	556	555	554	553	552	551	550	549	548</
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