1915.

NEW ZEALAND.

FIRE BRIGADES OF THE DOMINION

(REPORT ON THE), BY THE INSPECTOR OF FIRE BRIGADES, FOR THE YEAR ENDED 30TH JUNE, 1915.

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

The INSPECTOR OF FIRE BRIGADES to the Hon. the MINISTER OF INTERNAL AFFAIRS.

SIR,— Office of Inspector of Fire Brigades, Wellington, 9th August, 1915.

Herewith I have the honour to lay before you my seventh annual report for the year ended the 30th June, 1915, relative to the working of the Fire Brigades Act, and including matters in connection therewith.

During the year there has been an increase in the number of proclaimed fire districts gazetted as follows: Tauranga, 27th July, 1914; Ohakune, 24th September, 1914; and Woolston, 21st June, 1915: these bringing the total number up to twenty-five, viz.: Auckland, Christchurch, Dannevirke, Dunedin, Feilding, Gisborne, Greymouth, Hamilton, Hastings, Hawera, Hokitika, Lawrence, Maori Hill, Masterton, Milton, New Plymouth, Oamaru, Ohakune, Palmerston North, Petone, Rotorua, Tauranga, Timaru, Whangarei, and Woolston.

I have officially inspected the brigades working under the control of Fire Boards, their stations and equipment, &c., as follows:—

Auckland—14th and 16th November, 1914; 17th and 18th May, 1915.
Christchurch—3rd December, 1914; 16th and 17th April, 1915.
Dannevirke—23rd October, 1914; 8th June, 1915.
Dunedin—10th and 12th October, 1914; 12th March, 1915.
South Dunedin—11th March, 1915.
Roslyn—12th March, 1915.
Caversham—11th March, 1915.
Feilding—7th December, 1914; 26th April, 1915.
Gisborne—6th and 7th January, 1915.
Greymouth—1st December, 1914; 13th April, 1915.
Hamilton—3rd November, 1914; 11th May, 1915.
Hastings—22nd October, 1914; 11th February, 7th June, 1915.
Hawera—17th September, 1914; 3rd February, 1915.
Hokitika—2nd December, 1914; 14th April, 1915.
Lawrence—8th October, 1914; 10th March, 1915.
Maori Hill—9th October, 1914; 8th March, 1915.
Masterton—15th December, 1914; 27th May, 1915.
Milton—7th October, 1914; 9th March, 1915.
New Plymouth—15th September, 1914; 2nd February, 1915.
Fitzroy—16th September, 1914.
Oamaru—6th October, 1914; 5th March, 1915.
Palmerston North—8th December, 1914; 27th April, 1915.
Petone—18th December, 1914; 21st June, 1915.
Rotorua—5th November, 1914; 26th March, 1915.
Tauranga—6th November, 1914; 25th March, 1915.
Timaru—4th December, 1914; 19th April, 1915.
Whangarei—11th November, 1914; 14th May, 1915.

In addition to the statutory inspections, visits were paid for special purposes, as also were a number of visits sanctioned by the Minister of Internal Affairs in accordance with requests received from various local and other bodies, as follows :—

Rotorua—5th August, 1914 : Consideration of tenders for the supply of a motor fire-appliance.
Taihape—6th August : Inspection of a locally invented street fire-alarm system.
Palmerston North—6th August, 1914 : Inspection and report upon the safety of exits from Municipal Opera House.
Petone—4th September, 1914 : Testing of flow-gauges.
Hamilton—21st January, 1915 : Special Board meeting for consideration of motor tenders.
Timaru—21st to 27th February, 1915 : Annual Conference and demonstration of the United Fire Brigades Association.
Dannevirke—16th March, 1915 : Consultation with Fire Board.
Ruakura—11th May, 1915 : Inspection of the fire-prevention equipment at the Government Farm of Instruction.

In all, fifty-eight personal visits were made, and, as usual, instructional addresses were given at the conclusion of the inspection drills, with special attention to the prevention of fires. Advice has been given to local bodies and others in relation to fire risks and protection and purchase of fire appliances. Imported machinery has been tested, specifications drawn up, and supervision exercised over the manufacture of plant and appliances made in the Dominion.

Following upon the invitation received from the executive officers of the United Fire Brigades Association, I attended their annual conference, as also the biennial demonstration held at Timaru in February last. An address on various fire matters, more particularly on the subject of modern motor appliances, was delivered to the delegates attending the Conference. The results of the competitions were a very decided improvement on those of preceding years, mainly brought about by the association adopting as the standard for the competitions plant made in accordance with the Government patterns, and that ultimately met with almost unanimous commendation from both officials and competitors. I hope to see at the next Conference a number of improvements made in the conditions governing the competitions, particularly in the coiled hose and the baby-rescue event; the last mentioned, for instance, is at present carried out in a manner never seen, in fact would be impossible in actual fire work.

About the usual number of accidents have occurred to firemen in the execution of their duty, of which the following were the most serious : Hamilton, 18th August, 1914 : A fireman severely burned on hands and arms; at the same time another fireman sustained burns about the neck and chest. Masterton, 10th January, 1915 : Through the fire-engine skidding and striking the kerb whilst proceeding to a fire, one of the firemen was thrown off and broke a small bone in his foot. Greymouth, 5th March, 1915 : A fireman considerably hurt by a fall caused by the slipping of a ladder. Hawera, 14th May, 1915 : A fireman sustained a severe cut just below the knee-cap, caused by the slipping of his axe when using it.

No fatalities to citizens has been reported from any of the fire districts, and only one casualty : Dunedin, 5th March, 1915 : A married woman severely burned about the face.

The principal improvements in equipment, effected or in course of being carried out, are as follows :—

Stations.—Timaru : A new central station built, and now in occupation. The building is of two stories, in brick, and in addition to two sets of married quarters, provides accommodation for eight single men ; an engine-house (50 ft. by 32 ft.), watch-room, large social hall, and all other necessary accommodation and conveniences.

New Plymouth : A new central station erected, and now in occupation. The building, of two stories in reinforced concrete, and which is practically a first section, provides accommodation for eight single men, engine-house (48 ft. by 31 ft.), social hall (49 ft. by 31 ft.), watch, board, and store rooms, kitchen, and all necessary conveniences. A cottage, originally on the section of land when purchased, has been renovated, and is being utilized as married quarters for a permanent caretaker.

Gisborne : A new central station is now in course of erection, and should be ready for occupation in about six months' time.

Motor Appliances.- Timaru : A new 65 h.p. motor was received in Timaru last March. The machine is fitted with hose-box, turbine pump having a pumping capacity of 400–500 gallons per minute, and a 60 ft. detachable extension ladder.

Dunedin : An electric traction turn-table ladder was received last month. The ladder, also manipulated by electricity, has an extended height of 83 ft.

Hastings : A 25 h.p. ordinary commercial chassis was purchased, and a body built thereon locally to suit requirements; also the 40-gallon chemical cylinder was taken off its own carriage and mounted on the chassis.

Rotorua : A 45 h.p. second-hand motor was purchased, the old body taken off and a new one built locally to carry men, hose, and ladders.

New motor appliances are on order as follows :—

Masterton : A 60 h.p. hose, ladder, and reciprocating-pump machine.
Whangarei : A 50 h.p. machine, fitted with extension ladder and first-aid pumping outfit.
Christchurch : A 40 h.p. hose and turbine-pump machine.
Hamilton : A 65 h.p. hose, ladder, and turbine-pump machine.
New Plymouth : A 65 h.p. hose, ladder, turbine-pump, and first-aid pumping outfit machine.

The first three mentioned have now been on order for over twelve months, but war exigencies have delayed delivery, and, according to information received from the manufacturers, it will probably be some considerable time yet before any deliveries are made.

Four new circuits and forty-eight new call-boxes have been added to the street fire-alarm installations—viz., Auckland, three circuits and thirty-three call-boxes; Christchurch, fourteen call-boxes; Timaru, one circuit and one call-box. One more automatic fire-detector system has been installed in Christchurch, and one in Dunedin.

Compared with the estimates for 1914-15, although one more fire district is included, there is a decrease of £1,031 in the total amount of estimated expenditure for the coming year.

The total number of calls received by the brigades throughout the various fire districts was 864, as against 777 for the previous year, an increase of 87. As compared with 1913–14, there has been a decrease of 8 in the number of out-of-district calls, but an increase under all other headings viz., chimney fires, 86 (70), increase 16; bush and rubbish fires, 93 (48), increase 45; false alarms, 165 (160), increase 5; actual fires, 484 (455), increase 29. Of the 484 fires 12 are reported as due to incendiarism, 22 as having occurred on unoccupied premises, with a large increase in the number of those returned as of unknown origin—211 as against 144, an increase of 67. Again, as in previous years, analysis of the reports show a number of instances of over or excessive insurance.

Losses throughout the Fire Districts.—The two heaviest district losses occurred in Dunedin, £30,500, and Gisborne, £18,385; the total loss for the twelve months ending the 30th June amounting to £120,057, and comparing with the previous years as follows:—

	Insured. £	Uninsured. £	Total. £
1913–14	70,522	13,845	84,367
1914–15	100,534	19,523	120,057
Increase	30,012	5,678	35,690

Losses throughout the Dominion.—The insured loss throughout the Dominion for the year ended the 31st December, 1914 (probably underestimated), was £468,506, and compares as follows:—

	£		£
Year ending 31/12/13 ..	484,462	Average 10 years ending 31/12/13	432,144
„ 31/12/14 ..	468,506	Loss year ending 31/12/14 ..	468,506
Decrease	15,956	Increase	36,362

Following the same line of deduction as adopted in previous years, and adding 33⅓ per cent. to the ascertained insured loss, so as to arrive at the approximate fire waste, the total loss for the year ended the 31st December, 1914, is thus shown to be £624,675, a decrease of £21,274 as compared with 1913, but an increase of £48,483 when compared with the average for the preceding ten years. It will be observed that the losses throughout the fire district and the losses throughout the Dominion, quoted above, are each for a term of twelve months, but ending at different periods of the year; and the insured loss for the simultaneous twelve months ending the 31st December, 1914, is—for the Dominion £468,506, and for the fire districts £71,593, or 15·36 per cent. of the total loss with the inhabitants of the fire districts, comprising something over 25 per cent. of the whole population of New Zealand.

Some portion of the increased loss shown under the heading of "Losses throughout the Fire Districts" must, of course, be set down as due to the greater number of fires that occurred, but a factor in the matter is the large number of both permanent and volunteer firemen that have enlisted in the Expeditionary Forces, and the fire-fighting efficiency, particularly of the country brigades, has suffered in consequence, more so in that a large majority of those enlisted consist of the more energetic and experienced firemen of their respective brigades.

Out of the total amount of the loss for the year, £38,969 has been incurred on dwellinghouse property, and, as is to be expected, the most serious individual losses have taken place in those cases where the property is more remotely situated from the fire-stations, or in those districts where the equipment of the brigade still leaves much to be desired; and when such local conditions exist it would be a common-sense precaution on the part of the householders, at any rate, in the better and more expensive class of dwellings, to purchase and place in the houses one of the many recognized and duly tested patterns of liquid chemical extintincteurs now on the market. The initial cost is not great, and the cost of maintenance at most only a matter of a couple of shillings a year. Then, with very little but requisite looking-after there is always at hand an instantaneous and effective means of extinguishing an incipient fire, or at the least keeping it in check until the arrival of the brigade, and that can be used effectively by any female or young person.

It is to be regretted that more has not been done during the year in the way of installing automatic fire-detectors in the larger warehouses, departmental stores, factories, &c., particularly so in view of the continual increase of practical evidence regarding the beneficial results obtained, and their great value as a factor in efficient fire-protection, as also seeing that the installation of any such system is entirely in the interest of the individual property-owner and at practically no additional cost, for in the majority of cases, at least, the amount of rebate on the insurance premiums will more than cover the interest on the capital cost of installation.

Appended are the following tables:—

1. Summary of calls attended by each brigade;
2. Fire loss in each district;
3. Annual cost of each brigade;
4. Summary of the causes of fires in each district;
5. Personnel and equipment of each brigade;

Also detailed reports dealing with each fire district.

I have, &c.,

THOS. T. HUGO,

Inspector of Fire Brigades.

1. Summary of Fire Calls.

District.	Fires.	Chimney Fires.	Bush, Grass, and Rubbish Fires.	False Alarms.	Out of District.	Totals.
Auckland	100	22	25	46	7	200
Christchurch	75	9	17	50	8	159
Dannevirke	8	1	2	1	2	14
Dunedin	97	28	10	29	3	167
Feilding	9	2	2	..	1	14
Gisborne	35	1	4	7	7	54
Greymouth	13	3	..	..	2	18
Hamilton	12	..	5	..	1	18
Hastings	27	2	6	4	1	40
Hawera	4	..	..	..	..	4
Hokitika	7	1	..	..	..	8
Lawrence	3	..	..	..	..	3
Maori Hill	3	1	1	2	..	7
Masterton	14	7	5	4	2	32
Milton	1	..	..	..	..	1
New Plymouth	6	3	..	..	..	9
Oamaru	9	2	..	..	..	11
Palmerston North	16	2	5	5	2	30
Petone	10	..	..	7	..	17
Rotorua	4	1	2	..	..	7
Tauranga	5	..	..	..	..	5
Timaru	20	1	9	10	..	40
Whangarei	6	..	..	..	..	6
Totals	484	86	93	165	36	864

2. Summary of Fire Losses.

District.	Insured.	Uninsured.	Totals.
	£	£	£
Auckland	16,063	2,214	18,277
Christchurch	9,682	1,992	11,674
Dannevirke	526	173	699
Dunedin	28,968	1,582	30,550
Feilding	3,548	..	3,548
Gisborne	15,411	2,974	18,385
Greymouth	442	271	713
Hamilton	4,073	3,489	7,562
Hastings	3,901	817	4,718
Hawera	305	12	317
Hokitika	964	183	1,147
Lawrence	640	665	1,305
Maori Hill	1,310	12	1,322
Masterton	2,328	1,321	3,649
Milton	250	..	250
New Plymouth	341	..	341
Oamaru	6,403	920	7,323
Palmerston North	1,669	981	2,650
Petone	162	131	293
Rotorua	401	501	902
Tauranga	490	687	1,177
Timaru	2,554	575	3,129
Whangarei	103	23	126
Totals	100,534	19,523	120,057

3. Cost of Fire Brigades (Capital Expenditure included).

As taken from the Estimates for the respective Years.

District.	Year ending 30th June, 1912.			Year ending 30th June, 1913.			Year ending 30th June, 1914.			Year ending 30th June, 1915.			Year ending 30th June, 1916.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Auckland ..	8,174	0	0	8,190	0	0	10,110	0	0	10,256	0	0	10,811	0	0
Christchurch ..	6,645	0	0	7,830	0	0	9,000	0	0	8,000	0	0	7,210	0	0
Dannevirke ..	592	9	4	685	6	0	881	3	5	612	6	9	639	16	1
Dunedin	6,500	0	0	6,500	0	0	7,000	0	0	7,000	0	0	7,000	0	0
Feilding	590	0	0	600	0	0	612	10	0	683	11	0	544	11	2
Gisborne	1,159	4	6	382	19	10	789	10	3	763	0	0	1,125	0	0
Greymouth ..	850	6	0	950	0	0	964	0	0	864	0	0	844	0	0
Hamilton ..	..			..			300	0	0	850	0	0	600	0	0
Hastings	1,096	0	0	1,051	0	0	1,146	0	0	1,105	0	0	1,287	0	0
Hawera	496	0	0	509	15	9	617	16	0	767	0	0	647	5	10
Hokitika	500	0	0	433	6	8	433	6	8	433	6	8	460	0	0
Lawrence ..	75	2	6	75	6	2	75	0	0	60	0	0	80	0	0
Maori Hill ..	242	0	0	225	0	0	200	0	0	200	0	0	130	0	0
Masterton ..	1,023	19	0	1,136	14	0	1,150	0	0	1,151	1	4	1,246	18	0
Milton	140	0	0	120	0	0	120	0	0	100	0	0	110	0	0
New Plymouth ..	559	2	0	1,058	0	3	1,098	1	3	1,098	1	3	1,200	0	0
Oamaru	500	0	0	360	0	0	340	0	0	370	0	0	477	0	0
Palmerston North ..	1,699	14	0	1,724	1	4	1,842	9	1	1,939	3	4	1,685	19	0
Petone	762	6	7	1,247	7	6	847	16	10	1,076	11	9	880	13	7
Rotorua	..			697	0	0	419	10	0	614	0	0	752	7	0
Tauranga ..	..			..			..			..			655	6	8
Timaru	..			..			1,500	0	0	2,825	0	0	1,450	0	0
Whangarei ..	300	0	0	550	0	0	480	0	0	600	0	0	500	0	0
Totals ..	31,905	3	11	34,325	17	6	39,927	3	6	41,368	2	1	40,336	17	4

4. Summary of Causes.

Cause.	Auckland.	Christchurch.	Dannevirke.	Dunedin.	Feilding.	Gisborne.	Greymouth.	Hamilton.	Hastings.	Hawera.	Hokitika.	Lawrence.	Maori Hill.	Masterton.	Milton.	New Plymouth.	Oamaru.	Palmerston North.	Petone.	Rotorua.	Tauranga.	Timaru.	Whangarei.	Totals.
Ashes, live	..	1	1	3	..	1	..	..	..	..	..	..	..	3	..	..	..	1	1	..	..	..	2	13
Benzene in proximity to lights	1	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	5
,, vapour, in proximity to lights	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	4
,, upsetting, explosions	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Birds' nests	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Candles, drapery, &c., in contact	5	4	1	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	14
,, left burning ..	3	2	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	..	11
Clothes airing before fire ..	1	..	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	5
Defective building	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3
,, chimneys, hearths ..	2	5	1	5	3	..	1	..	..	..	..	..	1	..	..	1	2	..	1	1	..	..	..	23
Electric lighting, fusing of wires	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	6
,, iron left standing ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Fireworks	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Gas, defective fittings ..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
,, explosion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
,, jets in contact ..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
,, rings, stoves ..	2	2	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	7
Ignition, picture-films ..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Incendiarism, or suspected ..	1	5	..	..	..	2	..	..	..	..	2	..	..	..	..	..	1	1	..	..	..	..	..	12
Kerosene-lamp explosions ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
,, lamps knocked over	1	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
,, stoves or heaters overheated	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	3
Matches, children playing with	1	4	..	4	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	14
,, rats gnawing ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
,, thrown down alight	1	9	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	15
Motors, back-firing	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3
Overheating beeswax, fat, &c.	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	5
,, incubator ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
,, tar	6	4	..	4	1	2	1	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	22
,, wood in proximity to furnaces	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
,, wood in proximity to boilers	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Painters burning off paint ..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	5
Phosphorus	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Smoking	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	4
,, cigarette, butts thrown down	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Sparks from chimneys ..	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	5
,, copper-fires ..	2	6	..	4	..	4	..	1	1	..	..	..	..	1	..	..	..	1	1	..	1	..	..	22
,, fireplaces ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
,, furnaces ..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	6
,, engines ..	2	..	..	1	..	..	..	..	1	..	1	..	..	2	..	..	..	..	..	..	..	..	1	8
,, stoves, ranges ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	4
,, other fires ..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	5
Spontaneous combustion ..	1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	7
Vagrants	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Unknown	50	15	3	41	3	18	8	7	18	2	3	3	1	7	1	3	4	6	2	1	2	10	3	211
Totals	100	75	8	97	9	35	13	12	27	4	7	3	3	14	1	6	9	16	10	4	5	20	6	484

5. Summary.—Personnel, Plant, and Appliances.

—	Auckland.	Christchurch.	Dannevirke.	Dunedin.	Feilding.	Gisborne.	Greymouth.	Hamilton.	Hastings.	Hawera.	Hokitika.	Lawrence.
Brigades, total strength of	75	36	22	75	24	22	25	15	26	24	30	12
Fire police, total strength of	..	..	..	..	..	..	..	..	15	..	..	..
Fire-stations, residential	6	3	1	1	1	..	1	1	1	1	..	..
,, non-residential	..	..	1	3	1	4	5	..	..	1	5	1
Fire-alarms—(C.) circuits, (B.) boxes	27 C., 174 B.	16 C., 103 B.	..	7 C., 64 B.	..	..	..	..	..	..	..	..
,, Automatic, private	12	22	..	26	..	..	..	..	..	..	..	..
Telephones, points	Tel.	Tel.	Tel.	Tel.	5	100	4	9	3	5	9	..
Horses	2	..	..	1 (on hire)	1	..	1 (on hire)	..	..	..	1 (on hire)	..
Motors, hose-and-ladder (h.p.)	5 (65, 45, 40, 40, 40)	1 (12)	..	1 (15)	..	..	..	..	..	..	..	..
,, chemical, hose-and-ladder (h.p.)	..	3 (30, 30, 14)	..	2 (70, 55)	..	1 (50)	..	..	1 (25)	..	..	..
,, pump, hose-and-ladder (h.p.)	1(110)800 gal.	1 (70) 500 gal.	..	..	..	..	..	..	..	..	..	..
,, electric, ladder (height)	1 (87′)	..	..	1 (83′)	..	..	..	..	..	..	..	..
Fire-engines, steam (gallons)	1 (400)	2 (260, 450)	..	..	..	1 (600) stationary	1 (600)	..	1 (600)	..	1 (380)	..
,, manual (gallons)	..	..	..	..	..	1 (100)	1 (60)	..	1 (80)	1 (100)	2 (80, each)	..
Chemical engines, hand-drawn (gallons)	..	1 (70)	..	..	..	..	..	..	..	1 (60)	..	..
Hose carts, reels, horse-drawn	..	..	..	1	1	..	..	..	..	..	..	..
,, ,, hand-drawn	2	2	2	4	2	2	5	2	2	3	5	2
Ladders, horse-drawn (height)	1 (60′)	1 (65′) motor traction	..	1 (80′)	..	..	..	..	..	..	..	..
,, extension (height)	2 (24′)	2 (42′, 45′)	..	4(2,32′),(2,16′)	..	1 (35′)	1 (40′)	..	1 (40′)	1 (28′)	..	1 (24′)
,, coupling (total length)	..	17	..	..	6 (56′)	2 (25′), 1 (16′)	2 (20′, 35′)	2 (14′), 2 (8′)	1 (20′)	3 (36′)	2 (32′)	..
,, single lengths (total length)	..	3 (20′)	6 (130′)	..	2 (25′, 20′)	..	3(16′,20′,25′)	4 (25′ each)	6 (148′)	3 (85′)	3 (63′)	1 (30′)
Jumping-sheets (square feet)	5 (10′ x 10′)	3 (10′ x 10′)	..	1 (12′ x 12′)	..	..	1 (8′ x 8′)	..	2 (12′ x 14′)	..	..	..
Smoke-jackets (J.), helmets (H.)	2 J., 1 H.	2 H.	..	2 J., 1 H.	..	1 H.	..	..	..	..	..	..
Hand-pumps	5	5	2	2	1	1	1	1	2	2	2	1
Hand chemical extincteurs	2	4	2	6	..	..	..	..	..	..	..	2
Stand-pipes, ratchet valves	11	1	..	9	..	..	..	1	..	1	..	1
,, double heads	..	19	7	5	6	7	10	1	6	5	5	2
,, single heads	7	..	..	..	..	6	1	4	..	2	2	..
Hose, rubber-lined (diameter)	2,000′ (3¾″)	2,600′ (2¾″)	..	..	..	..	..	..	..	..	..	..
,, unlined (diameter)	8,600′ (2¾″)	9,500′ (2¾″)	2,300′ (2½″)	11,000′ (2½″)	2,700′ (2½″)	4,450′ (2½″)	5,000′ (2½″)	2000′ (2½″)	2,000′ (2½″)	2,800′ (2½″)	3,000′ (2½″)	1,500′ (2½″)
Water-supply (G. = gravitation)	G.	G.	G.	G.	G.	G.	G.	G.	G.	G.	G.	G.
Pressure, average, noon–midnight	5–130	95–106	86–88	120–150	90–100	100–150	115–120	39–42	120–130	55–80	105–110	70–80

5. SUMMARY.—PERSONNEL, PLANT, AND APPLIANCES—*continued.*

——	Maori Hill.	Masterton.	Milton.	New Plymouth.	Oamaru.	Palmerston North.	Petone.	Rotorua.	Tauranga.	Tinaru.	Whangarei.	Totals.
Brigades, total strength of	20	31	15	35	16	26	20	19	22	16	20	626
Fire police, total strength of	..	..	..	..	..	..	..	..	..	..	..	15
Fire-stations, residential	..	1	1	2	1	2	1	1	1	1	1	28
,, non-residential	2	2	..	3	1	1	..	1	1	1	2	35
Fire-alarms—(C.) circuits, (B.) boxes	1 C., 5 B.	5 C., 12 B.	..	..	..	..	1 C., 7 B.	..	..	6 C., 22 B.	..	63 C., 387 B.
,, Automatic, private	..	..	..	..	..	1	2	..	..	1	..	64
Telephones, points	Tel.	Tel.	..	Tel.	10	Tel.	..	5	..	4	6	168
Horses	..	2	..	..	1	1	1	..	..	..	..	11
Motors, hose-and-ladder (h.p.)	..	..	..	1 (20)	..	..	..	1 (45)	..	..	..	9
,, chemical, hose-and-ladder (h.p.)	..	..	..	..	..	..	..	..	..	..	..	7
,, pump, hose-and-ladder (h.p.)	..	..	..	..	..	1 (50) 350 gal.	..	..	..	1 (60) 400 gal.	..	4
,, electric, ladder (height)	..	..	..	..	..	..	..	..	..	..	..	2
Fire-engines, steam (gallons)	..	1 (350)	..	..	..	..	..	..	..	..	..	8
,, manual (gallons)	..	1 (60)	1 (50)	..	..	..	..	..	..	1 (80)	..	9
Chemical engines, hand-drawn (gallons)	..	..	1 (50)	..	..	..	..	..	..	..	..	3
Hose carts, reels, horse-drawn	..	..	..	..	1	2	1	..	..	1	..	7
,, ,, hand-drawn	3	4	..	9	3	4	2	3	3	3	4	71
Ladders, horse-drawn (height)	..	..	..	..	..	..	..	..	..	..	..	3
,, extension (height)	1 (16′)	..	..	3 (90′)	1 (20′)	..	1 (30′)	..	1 (35′)	..	1 (30′)	21
,, coupling (total length)	2 (14′)	4 (40′)	2 (31′)	..	..	8 (80′)	7 (62′)	2 (14′)	2 (20′)	..	..	65
,, single lengths (total length)	1 (20′)	6 (115′)	1 (25′)	3 (75′)	2 (41′)	2 (37′)	..	3 (61′)	..	7 (185′)	2 (22′)	58
Jumping-sheets (square feet)	..	..	..	1 (12′ x 10′)	..	1 (12′ x 12′)	..	1 (11′ x 11′)	..	1 (10′ x 10′)	..	16
Smoke-jackets (J.), helmets (H.)	..	..	..	..	1 H.	..	1 H.	..	..	1 H.	..	12
Hand-pumps	..	2	1	3	1	2	2	1	2	2	2	43
Hand chemical extincteurs	2	1	2	3	1	1	..	2	..	2	..	30
Stand-pipes, ratchet valves	2	2	..	1	1	..	..	..	..	1	..	31
,, double heads	3	2	..	8	3	5	1	1	2	3	3	104
,, single heads	..	5	..	1	2	3	6	3	5	2	1	50
Hose, rubber-lined (diameter)	..	..	..	..	..	..	..	..	..	..	..	4,600
,, unlined (diameter)	1,700′ (2½″)	3,200′ (2½″)	750′ (2½″)	4,700′ (2½″)	2,300′ (2½″)	5,000′ (2½″)	3,260′ (2½″)	1,250′ (2½″)	2,000′ (2½″)	3,000′ (2½″)	1,600′ (2½″)	83,610
Water-suppy (G. = gravitation)	G.	G.	Wells and tanks	G.	G.	G.	G.	G.	G.	G.	G.	..
Pressure, average, noon–midnight	60–130	45–70	..	100–135	100–130	75–100	60–70	48–51	105–118	70–80	115–125	..

AUCKLAND.

Two inspections of the Auckland Fire Brigade and its station and equipment has been made—viz., the 14th and 16th November, 1914, and the 17th and 18th May, 1915.

Both inspections are covered by the following reports forwarded to the Secretary of the Board :—

SIR,— 26th November, 1914.

An inspection of the Auckland Fire Brigade, its stations and equipment, was made on the 14th and 16th instant, when I found the stations and plant in good order generally, but conditions in Parnell district are unsatisfactory, and I must again direct the attention of your Board to the urgent necessity for the erection of a new fire-station in that district. The accommodation provided by the present building, that has now been in the occupation of your Board's brigade for nearly two years, is totally inadequate, and the men's quarters overcrowded and unsuitable, so much so that instead of offering an inducement to good active men who have been well trained to remain in the brigade it must result in a discontent leading to resignations, &c., that reacts badly on the efficiency of the brigade as a whole.

With the addition of an engine-house, a rearrangement of the internal accommodation as proposed, and the placing of a motor hose-tender there the Grey Lynn Station recently taken over should prove a suitable fitting-in with the scheme for the better fire-protection of the city.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 29th May, 1915.

An inspection of the Auckland Fire Brigade, its stations and equipment, was made on the 17th and 18th instant, and, in that connection, I beg to submit the following report for the consideration of your Board :—

The "turn out" at the different stations was carried out smartly, and in an efficient manner. The plant and appliances at all stations is in excellent order, but I must again (see report dated the 26th November, 1914) call the attention of your Board to the most unsatisfactory condition of the accommodation provided for the men at the present Parnell Station, and again emphasize the bad effect such conditions have upon the efficiency of the brigade as a whole.

The incorporation of the city with the Remuera district has now made it possible and necessary to formulate a permanent scheme for the present and future protection of the greater portion of the city, and with that object in view I would respectfully suggest that your Board should take into consideration the whole position, treating the matter in order of importance as follows :—

First, purchase of site and erection of a new station in Parnell ; and I suggest as the most suitable position a site in Manukau Road, somewhere in the vicinity of Claybrooke Street.

Second, fixing of a position for the Remuera Station. Failing satisfactory arrangements for the taking-over of a suitable portion of the present site, I suggest purchase of one of the vacant sections situated in Remuera Road between Norana Avenue and Armadale Road, and erection of a new station thereon.

Third, purchase of a motor hose-tender fitted with a modern 60 ft. extension ladder, dispensing with the horses and obsolete horse-drawn ladder at present maintained at the Central Station. This will effect a considerable saving not only in regard to the cost of maintaining the horses in comparison wtih the cost for interest on the purchase price of the proposed motor machine, but it also means practically the addition of another man to the working-strength of the brigade, as well as the increased efficiency obtained.

Fourth, in anticipation of the resumption by the Corporation of the present Beach Road Station, it is necessary to acquire a site at some suitable position on the Harbour Board reclamation, a station to be erected thereon having accommodation for one married man and, say, seven single men, and to house the motor pump and the electrical ladder.

All the above suggestions were fully discussed with the Chairman and other members of your Board, as also with the Superintendent of the brigade, when I was in Auckland, and, whilst the whole scheme should receive immediate attention and a definite line of policy be adopted, the first matter mentioned, "Parnell Station," is and should be regarded by the Board as most urgent, and taken in hand at once.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

During the year the Remuera Road District has become incorporated with the city, and six firemen with a motor hose-and-ladder tender has been stationed there. Additions to the equipment include two new 40 h.p. motor hose-tenders, three new fire-alarm circuits, and thirty-three more call-boxes have been installed, making in all twenty-seven circuits, having 174 call-points ; but I regret to note there is a reduction of two in the number of private automatic detector installations. All the V-thread screw-connections on the hose, standpipes, and branches have now been replaced by an instantaneous pattern of coupling. One of the older motor hose-tenders has been sold out of the service.

During the year the brigade received 200 calls, of which 100 proved to be for actual fires occurring within the district, five more than during the previous year.

The fire loss amounted to £18,277, as compared with £5,596 for 1913–14, an increase of £12,681.

The estimated cost of the brigade for 1915–16 is £10,811, as compared with £10,256 for 1914–15, an increase of £555.

CHRISTCHURCH.

Two inspections of the Christchurch Fire Brigade and its stations and equipment have been made —viz., 3rd December, 1914, and the 16th and 17th April, 1915.

At both inspections the Central and the substations at Sydenham and St. Albans, with their respective equipments, were found in good order, the " turn outs " were performed smartly, and the various drills carried out in a satisfactory manner.

In view of the circumstances I considered it necessary to forward the following letter to the Secretary of the Board :—

SIR,— 19th March, 1915.

I would respectfully call the attention of your Board to the dangerous fire conditions existing in your city at any time the brigade is away attending fires at what is locally known as the " guaranteed risks " situated outside the city boundaries, these risks mostly consisting of large stores, factories, mills, &c. Upon receipt of an alarm of fire from any one of them, the Superintendent considers it necessary to despatch the large motor pump machine with a squad of seven men, a quite small enough contingent to hope to deal successfully with a fire occurring in buildings of the class in question.

During the daytime the number of men available at the Central Station for actual fire-work is fourteen all told, so that with seven men away outside the city it leaves only seven men available at the Central Station. Upon receiving an alarm of fire from within a certain area of the more risky portion of the city, it is customary to turn out practically the full city strength of men and appliances, and the only hope of checking an outbreak in buildings such as Strange's or Ballantyne's, with their enormous and most inflammable stocks, wherein the fire spreads with almost incredible rapidity, and when every second counts, is the prompt arrival of the brigade with a sufficiency of men and appliances ; and for a brigade in any city under similar circumstances to those prevailing in Christchurch—that is, as to organization and cost of its fire service—to be able to respond to such a call with only one appliance and seven men is, in my opinion, a most inefficient system of working, this always excepting what is practically unavoidable, such as a simultaneous or second call occurring from within the city boundaries. Therefore I would strongly recommend that your Board should not allow their Brigade to attend fires outside the city boundaries, or if it is decided to continue the present system, then the strength of the brigade should be increased by the addition of certainly not less than three more men.

I have, &c.,
THOS. T. HUGO.
Inspector of Fire Brigades.

Thirteen more street call-boxes have been installed, and the street fire-alarm system now comprises sixteen circuits, having 103 call-points. One more private automatic fire-detector installation has been connected up with the Central Station, making twenty-two in all. The 40 h.p. motor hose-and-turbine-pump machine, ordered over twelve months ago, has not yet been received, the delay in delivery being due to the prevailing war conditions.

During the year 159 calls were received, out of which number seventy-five proved to be for actual fires within the district a decrease of twenty when compared with those of last year.

The fire loss for the year amounted to £11,674, as against £17,709 for 1913–14, a decrease of £6,035.

The estimated cost of the brigade for 1915–16 is £7,210, as compared with £8,000 for 1914–15, a decrease of £790.

DANNEVIRKE.

Two inspections of the Dannevirke Brigade, its stations and equipment, have been made—viz., 23rd October, 1914, and 8th June, 1915. The following report, forwarded to the Secretary of the Board, covers the first inspection :—

SIR,— 30th October, 1914.

An inspection of the Dannevirke Fire Brigade and its equipment was made on the 23rd instant, when there was present at the inspection muster the Superintendent, Deputy, and fourteen firemen, these representing the full strength of the brigade then on the roll. Certain tests were made of the pressure and flow of water from the main in High Street, when directly off the 8 in. main with a standing pressure of 91 lb. through $2\frac{5}{16}$ in. delivery-pipe the instruments registered a flow of 460 gallons per minute, and off the same main but through the 3 in. branch on to the footpath the flow registered was 430 gallons per minute.

Herewith I beg to confirm the verbal recommendations that were discussed in detail with the Chairman and members of your Board at the informal meeting at the fire-station the same evening, viz. : First, the necessity of providing motor transport for the men and appliances ; second, utilizing of the existing telephone service as an auxiliary system of fire-alarms until such time that your Board can see the way clear to install a modern street fire-alarm system ; third, the matter of the installation of automatic fire-alarms in the large stores and warehouses.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

At the second inspection muster in June there was present the Superintendent, Deputy, fifteen firemen, and two messengers. These accounted for nineteen out of a total strength of twenty then on the roll. During the carrying-out of the subsequent various drills it was evident that the men required

more instruction and drill, as was pointed out at the time. The station and equipment are maintained in good order.

During the year fourteen calls were received, and of that number eight proved to be actual fires occurring within the district two more than during the previous year. The attendance of members of the brigade at thirteen of the calls, No. 4 omitted, averaged 15·46 per call, or 81·37 per cent. of an average strength of nineteen throughout the year, a good record.

The fire loss amounted to £699, as against £206 for 1913–14, an increase of £493.

The estimated cost of the brigade for 1915–16 is £639 16s. 1d., as compared with £612 6s. 9d. for 1914–15, an increase of £27 9s. 4d.

DUNEDIN.

Inspections of the Dunedin brigades and their equipment have been made as follows: City section of the brigade, on the 12th October, when there was present at the inspection muster the Superintendent, Deputy, fourteen permanent, and eight auxiliary firemen. The "turn out" and various drills were carried out in a smart and efficient manner, and the station and equipment was in good order. A test of the flow of water from the mains on some of the higher levels was made, and a visit paid to a site in Beta Street, where it is proposed to build a new station to serve the Roslyn portion of the district; and I consider the site suitable, and well situated for the purpose. An inspection of the Dunedin South section of the brigade was made on the 11th March, when there was present at the muster the Captain, Lieutenant, and ten firemen; these, with one on leave, accounted for the total strength. Here, as usual, the various drills were carried out in a very efficient manner, and the station and equipment found in good order. Later the same evening the Caversham section was inspected, when there was present the Captain, Lieutenant, and seven firemen; these, with four on leave, accounted for thirteen out of a total strength of fourteen. Hose-reel dry drill was carried out, and during its progress it was very evident that the men required more instruction and drill. This was commented upon at the time. The same old inadequate dilapidated wooden structure, which has been the object of adverse criticism for years past, is still being made to serve as the fire-station for the Caversham part of the district. An inspection of the Roslyn section was made at 8 p.m. on the 12th March, when there was present the Captain, Lieutenant, and six firemen; these, with six on leave—they were at work—accounted for only fourteen out of a total strength of seventeen—not a satisfactory attendance. Various wet drills were carried out in a fairly satisfactory manner. The equipment was found in good order. The City section was inspected at 9 p.m. on the 12th March. There was present on parade the Superintendent, Deputy, fourteen permanent, and six auxiliary firemen. The "turn out" and subsequent wet drill was executed smartly and efficiently.

A valuable addition to the equipment of the brigade is an 83 ft. electrical extension ladder. The ladder, which was ordered in England two years ago, and has only just been received, is similar in design and construction to one that has been in use in Auckland for some three years past, and which has proved on a number of occasions of most valuable service to the brigade of that city. The new street fire-alarm installation—a locally invented system—is proving most efficient, and up to the present, as reported to me, is giving entire satisfaction.

Very little progress has been made in the matter of building a new fire-station to serve the South Dunedin, Caversham, and St. Clair portions of the fire district, and, in fact, no improvement has been made as regards stations or equipment within the said portions of the city since they came under control of the Fire Board; and to-day local conditions remain the same as at the time when I made my first inspection nearly seven years ago. In my annual report for 1912-13 I drew attention to the fact that one-third of the total loss in the district occurred within the above-mentioned areas, and again this year the loss is heavy; also, particularly seeing that they are practically residential districts, the average loss per fire in the Roslyn and North-east Valley areas has been very high, and the Board should at once carry into effect the long-delayed scheme for the better protection of the outer-lying portions of the district.

No agreement has yet been arrived at between the Harbour and Fire Boards for the adequate protection of the wharves and shipping.

During the year 167 calls were received, of which ninety-seven proved to be for actual fires, an increase of eighteen in the number of calls and of nine in the number of fires over those of the previous year.

The fire loss amounted to £30,550, as compared with £13,435 for 1913–14, an increase of £17,115.

The estimated cost of the brigade for 1915–16 is £7,000, the same as that for 1914–15.

FEILDING.

Two inspections of the Feilding Fire Brigade and its equipment have been made—viz., 7th December, 1914, and 26th April, 1915.

At the first inspection there was present at the inspection muster the Deputy Superintendent and nineteen firemen; these, with one on theatre duty and the Superintendent unavoidably absent, accounted for the full strength (twenty-two) then on the roll.

The "turn out" of the horse-drawn hose and ladder-cart was performed smartly; but during the progress of the subsequently carried out wet and dry drills it became apparent that the men required more drill and instruction. The station and plant was in good order and condition.

The second inspection is covered by the following report forwarded to the Secretary of the Board :—

SIR,— 6th May, 1915.

An inspection of the Feilding Fire Brigade and its equipment was made on the 26th ultimo, and in that connection I beg to submit the following report for the consideration of your Board :—

At the inspection muster there was present the Superintendent, Deputy, and fourteen firemen ; these, with two on theatre duty and one on leave, accounting for the full strength then on the roll.

Various wet and dry drills were carried out, with not very satisfactory results ; but considerable allowance must be made, owing to the fact that a number of the more experienced firemen have recently left the brigade and gone to the front. The vacancies, of course, have had to be filled by inexperienced men, and sufficient time had not elapsed to bring them up to any degree of efficiency, but they should be given extra drilling with that object in view.

Now that the Feilding Telephone Exchange is open all night, I would again suggest to your Board the advisability of utilizing the telephone service as an auxiliary fire-alarm system on the lines as previously recommended.

The price of hose has gone up considerably during the last two or three months, and my information is that further rises may be expected ; therefore I consider it would be good policy to purchase, say, another 500 ft at present quotations.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

During the year fourteen calls were received, of which nine proved to be actual fires within the district, the same number as during the previous year. The attendance of members of the brigade at the fourteen calls averaged 13·2 per call or 60 per cent. on an average strength of twenty-two members.

The fire loss for the year amounted to £3,548, as against £756 for 1913–14, an increase of £2,792.

The estimated cost of the brigade for 1915–16 is £544 11s. 2d., as compared with £683 11s. for 1914–15, a decrease of £138 19s. 10d.

GISBORNE.

One inspection of the Gisborne Fire Brigade has been made, and is covered by the following report forwarded to the Secretary of the Board :—

SIR,— 18th January, 1915.

An inspection of the Gisborne Fire Brigade and its equipment was made on the 6th and 7th instant, and following is a report in that connection :—

At the inspection muster on the 7th there was present the Superintendent, Deputy, sixteen firemen, and four messengers ; these, with two on leave, representing the full strength of the brigade then on the roll.

The motor hose-tender and chemical engine fully loaded with eight men on board was taken for a test run over various rises in the borough, and twice over the Ormond Road Hill on the top gear, when on each occasion the engine was accelerated and the speed of the machine increased whilst on the steepest portion of the rise.

Various drills were carried out in a satisfactory manner, also a test was made of the flow of water from the 4 in. main in Bright Street, when with 120 lb. pressure a flow of 385 gallons per minute was registered.

In view of the necessity of providing for the maintenance of the present auxiliary salt-water system the new site for the central fire-station on the corner of Bright Street and Palmerston Road is a suitable one. No alteration to the existing plans for the new building is necessary more than was pointed out and explained at the time of my visit—viz., the removal and readjustment of the porch and external staircase, so that the building may be brought up to the street-line in Bright Street.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

As in past years, the fire loss in Gisborne is very heavy, more than usually so, and is, in fact, the second highest in all the fire districts ; and for the last two years the average loss per head of the population of the borough is very much higher than that of any other fire district in New Zealand. As stated in my report for 1913–14, in my opinion the higher ratio of loss is not due to any laxity or inefficiency on the part of the personnel of the brigade, but, amongst other things, more particularly due to the want of a suitable central station providing accommodation for men to sleep on the premises. However, the Board has at last made a definite move in that direction, and the new station is now in course of erection ; but had it been built, as it should have been, some years ago, many thousands of pounds would have been saved in the borough. The public telephones are now being utilized as a subsidiary fire-alarm service until such time as a proper street fire-alarm system is installed.

During the year fifty-four calls were received, of which number thirty-five proved to be actual fires within the district, fourteen more fires than occurred during the previous year. The attendance of members of the brigade at the fifty-four calls averaged 16·31 per call, or 83·64 per cent. of an average total strength of 19·50—a good record.

The fire loss amounted to £18,385, as against £9,917 for 1913–14, an increase of £8,468.

The estimated cost of the brigade for 1915–16 is £1,125, as compared with £763 for 1914–15, an increase of £362.

GREYMOUTH.

Two inspections of the Greymouth Brigade, its stations and equipment, have been made—viz., 1st December, 1914, and 3rd April, 1915.

At the first inspection in December there was present the Superintendent, Deputy, and seventeen firemen; these, with one on leave, representing the full strength of the brigade. Various drills were carried out in a satisfactory manner.

The following report, forwarded to the Secretary of the Board, covers the second inspection:—

SIR,— 6th May, 1915.

An inspection of the Greymouth Fire Brigade and its equipment was made on the 13th ultimo, and the following is a report in that connection:—

At the inspection muster there was present the Superintendent, Deputy, and seventeen firemen; these, with one absent, accounting for the full strength of the brigade. Hose-reel and ladder drills were carried out in a satisfactory manner, but the 40 ft. extension ladder is not of a suitable description for ordinary fire-brigade work, and care must be exercised whenever it is found necessary to use it at a fire.

The jumping-sheet is old and too small; a new one should be provided not less than 10 ft. by 10 ft., or, if circular, 10 ft. in diameter.

In the matter of better protection for the southern portion of the town, for a number of reasons, as already explained in detail to several members of your Board, in place of authorizing the formation of an independent or semi-independent body of men, it would be much better and certainly a greater efficiency will be obtained by increasing the strength of the present brigade by enrolling, say, five more men. This recommendation also for the reason that I consider the present authorized strength—viz., twenty all told—is not now an adequate number.

A circular *re* hand fire-engine for sale was recently sent out by this Department, and in the reply received from Greymouth I was much surprised to see stated therein that your Board was prepared to dispose of their steam fire-engine. In view of your present local conditions, I consider the suggestion most injudicious, and strongly deprecate any such action, recommending further that one new 10 ft. length of suction hose be purchased.

The question put to me when in Greymouth as to the liability of the Board under certain conditions is receiving consideration, and an answer will be forwarded to you in due course.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

The stations and equipment is maintained in good order and condition, and I would particularly mention the consistently good average of attendance of the members of this brigade, both at the fire-calls and at my inspections.

During the year eighteen calls were received, of which number thirteen proved to be actual fires within the district seven more than occurred during the previous year. The attendance of members of the brigade at the seventeen calls for which a general alarm was given averaged 17·88 per call, or 89·4 per cent. of the total strength.

The fire loss for the year amounted to £713, as against £1,200 for 1913–14, a decrease of £487.

The estimated cost of the brigade for 1915–16 is £844, as compared with £864 for 1914–15, a decrease of £20.

HAMILTON.

Two inspections of the Hamilton Brigade and its equipment have been made—viz, 3rd November, 1914, and 11th May, 1915; also a special visit was paid to Hamilton on the 21st January for the purpose of consulting with the Board in reference to the tenders for the supply of a motor fire-engine.

Both inspections are covered by the following two reports forwarded to the Secretary of the Board.

SIR,— 24th November, 1914.

An inspection of the Hamilton Fire Brigade and its equipment was made on the 3rd instant, and following is a report in that connection:—

There was present at the inspection muster the Superintendent, Deputy, and nine firemen or eleven out of a total strength of eighteen then on the roll. Of the seven absent, four were at Territorial drill, and three were on leave—an unsatisfactory attendance. Also, I found the appliances and gear in a very dirty state.

Certain experiments were carried out with the object of ascertaining the amount of water to be obtained from the mains for pumping purposes. The results were very unsatisfactory, as from two open standpipes shipped on the 6 in. main the flow amounted to only 110 gallons per minute from each, and from two standpipes shipped on the 4 in. main 85 gallons each.

Practically all the nozzles in use are defective, and new ones should be obtained at once—say, one ·$\frac{7}{8}$ in., two ·$\frac{3}{4}$ in., two ·$\frac{5}{8}$ in., and one ·$\frac{1}{2}$ in., or six in all.

The fire-protection service in Hamilton is at present in a most unsatisfactory state.

The water-supply, both pressure and volume, is totally inadequate.

The brigade is below its authorized strength.

The brigade equipment is badly deficient.

Altogether, from a fire-protection point of view, a dangerous condition of things exists in your town, and, as a direct consequence, at any moment a fire may occur having most disastrous results that could have been avoided had even some reasonably efficient degree of protection been provided.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

The following, also forwarded to the Secretary of the Board, explains itself :—

Office of Inspector of Fire Brigades, Wellington,
25th May, 1915.

SIR,—

An inspection of the Hamilton Fire Brigade and its equipment was made on the 11th instant, and in that connection the following report is submitted for the consideration of your Board :—

At the inspection muster there was present the Superintendent, Deputy, twelve firemen, and one messenger; these, with one on leave, represent the present full strength of the brigade—that is, six less than the authorized number. A strong effort should be made to increase the membership. As compared with my previous visits, there is an improvement in the attendance, as also in the appearance and actions of the men, and in the condition of the plant and appliances.

It will be necessary to provide some new hose for use with the new motor pump, and in view of the state of the hose-market I would recommend, as suggested when in Hamilton, that quotations be obtained as early as possible from the manufacturer for the supply of, say, 1,000 ft. of hose, to be delivered to the makers of the machine, and by them packed in the same case, and sent out with the motor-engine. It will also be necessary to provide three new branches—one $1\frac{1}{4}$ in., one $1\frac{1}{8}$ in., and two 1 in. nozzles. These, however, can be obtained locally when the machine arrives.

It is probable that a set of the accumulators will be used in England for the purpose of testing the machine prior to shipment, and on that assumption it would be as well when writing to the manufacturers to ask them to see that the accumulators are properly treated before being packed, so as to arrive out here in good condition.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,—

16th June, 1915.

I beg to acknowledge receipt of your letter dated the 11th instant, as also of a plan showing the proposed extensions of the water reticulation throughout the occupied portions of the borough.

In compliance with the request contained in your letter, following are my comments upon the proposed extensions and the reticulation scheme as a whole :—

I note there are streets showing on the plan in which no reticulation is shown, and, whilst I am aware there are a number of streets that are not yet built upon, I have not sufficient local knowledge to identify them. However, presuming that the extensions take in all the inhabitated streets, the reticulation is well laid out, the gridironing or circuiting, considering local topography, more than usually well carried out, only two dead ends are shown—viz., at the extreme end of Victoria Street and in Alma Street—both very short, and apparently unavoidable. The street hydrants are set out in a practical manner, well spaced, and sufficient in number. Altogether, with one exception, the reticulation system as set out on the plan may be considered suitable and adequate for its purpose. The exception is the small size, 6 in., of the main laid across the traffic-bridge for the supply of Hamilton East; but the linking-up with the 8 in. main crossing the railway bridge into Claudlands will then provide a sufficient volume for the whole of the east side of the river, so long as it remains a residential district only.

It must be clearly understood that the storage-capacity of the reservoir—140,000 gallons when full—is inadequate, and that in case of an outbreak of fire in any of the more closely built upon portions of the town it will be necessary to immediately start the pumps, so as to augment the supply from that source.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

In the "Return of the Personnel, Plant, &c.," the membership of the brigade as on the 30th June is set down as consisting of twelve all told. The authorized strength is twenty-two; thus the brigade is ten short of its full complement, and numerically weak to a dangerous degree, particularly in view of other local conditions that will be understood by reference to the reports published above.

Certain improvements to the water-supply—laying of a new 9 in. main along Victoria Street—has been carried out by the Borough Council, and further improvements are under consideration. In January last the Board accepted a tender for the supply of a 65 h.p. motor machine with a 50 ft. extension-ladder, a 350–500 gallons turbine pump, &c.

During the year eighteen calls were received, of which twelve proved to be actual fires within the district—seven more than during the previous year. The attendance of members of the brigade at the eighteen calls averaged 12·9 per call, or 86 per cent. of an average strength of fifteen members—a good record.

The fire loss for the year amounted to £7,562, as against £1,155 for 1913–14, an increase of £6,407.

The estimated cost of the brigade for 1915–16 is £600, as compared with £850 for 1914–15, a decrease of £250.

HASTINGS.

Three visits were paid to Hastings—viz., 22nd October, 1914, 11th February, and 7th June, 1915.

On the occasion of my first visit in October, on account of the poor attendance of members of both the brigade and fire police, due to certain local circumstances, no regular inspection was carried out.

The following report, forwarded to the Secretary of the Board, covers my second visit :—

SIR,—

16th February, 1915.

In accordance with my notification, it was my intention to hold an ordinary inspection of the Hastings Fire Brigade and the Fire Police Corps at 8 p.m. on the 11th instant, but just prior to the

inspection muster an alarm was received for an outbreak of fire on the corner of Heretaunga and Warren Streets, and the following are some remarks upon the subsequent proceedings :—

The alarm was sounded on the fire-bell at 7.45 p.m., but having to wait for the arrival of a motor-car to tow the hose-reel, it was four and a half minutes later before the first section of the brigade got away, and six minutes before the fire police got away with the salvage wagon in tow of a second motor ; the second hose-reel arrived at the fire at 8 p.m. Taking everything into consideration, on the whole, the work at the fire was carried out in a very creditable manner ; there was no confusion, the men were well under control, and carried out smartly the various orders given. The foregoing remarks apply to both the brigade and the fire police. Of the brigade there was in attendance twenty out of the full strength of twenty-five, the remaining five were on leave. There was a full attendance (fifteen) of the fire police.

An area should be set out as including the greater fire risk of the town, and instructions given to the members of the brigade that whenever an alarm of fire is received from within this defined area, after the departure of the first reel, the second reel is to be taken on to the fire without awaiting further orders.

Referring to the building of the body on the proposed new motor chassis, for sound reasons connected with the practical working of the machine I have to recommend the hose-box type be adopted instead of the hose-reel, also the chemical cylinder should be mounted on the chassis, since the installation of the high-pressure water-supply and with the adoption of the motor service the practical use of your chemical engine as it is at present—that is, mounted on its own carriage and drawn by hand—is very much restricted ; but, by mounting it on the motor, it will again become a valuable unit of the brigade equipment. I estimate the weight of the running load, made up of eight men, 1,000 ft. of hose, chemical cylinder and hose, ladders, and smaller equipment, but not including the body, will amount to 23 cwt. As I was informed by your Chairman, the chassis is equal to carrying 2 tons ; the load is well within its capacity, and the horse-power (25 h.p.) of the engine, as judging from English makers systems of rating, should be ample ; but taking into consideration the level nature of your borough, if the 25 h.p is the maximum developed by the engine, it leaves little, if any, margin over the actual power required for the effective working of the machine.

The appointment of a permanent man to act as caretaker and motor-driver should now receive the attention of your Board.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

On the 7th June there was present at the inspection muster : Fire Brigade—Superintendent, Deputy, nineteen firemen, and two messengers ; these, with one on leave, accounting for twenty-four out of a strength of twenty-five then on the roll. Fire Police Corps—Captain, two Lieutenants, and eight constables ; these, with one on leave, accounting for twelve out of a total strength of fifteen. Various drills and demonstrations of ambulance work, &c., were carried out by both bodies in a satisfactory manner. The station and all equipment was in good order and condition.

The stock of good working hose, 1,700 ft., is not sufficient, and a further 800 ft. should be provided. The Board has purchased a new motor chassis, and the body is being built locally. The chemical cylinder has been taken off its old hand-drawn carriage, and is being mounted on the motor. At the time of my last visit it was expected that the machine would be ready to put in commission within a few days.

Forty calls were received during the past year, of which twenty-seven proved to be for actual fires within the district, an increase of twenty-three calls over those of the previous year. The attendance of members of the brigade and fire police at thirty-six calls, Nos. 13, 15, 32, and 34 omitted, was as follows : Fire brigade, 18·36 per call, or 70·61 per cent. of the full strength ; fire police, 7·6 per call, or 50·7 per cent.

The fire loss for the year amounted to £4,718, as against £6,402 for 1913–14, a decrease of £1,684.

The estimated cost of the brigade for 1915–16 is £1,287, as compared with £1,105 for 1914–15, an increase of £182.

HAWERA.

Two inspections of the Hawera Fire Brigade and its equipment has been made—viz., 17th September, 1914, and 3rd February, 1915.

At the first inspection muster in September there was present the Superintendent, Deputy, seventeen firemen, and two messengers ; these representing the full strength of the brigade. Various drills were carried out in a satisfactory manner. There is a general improvement in the average pressure of water supplied from the gravitation reservoir, and at 8.1 p.m., with the pressure from that source registering 55 lb. on the station gauge, the tower supply was turned on, with the result that sixty-seven seconds after opening the valve 65 lb. was showing on the gauge. Next morning the electric pumping plant was tested with most satisfactory results.

At the second inspection there was present the Superintendent, Deputy, sixteen firemen, and two messengers ; these, with two on leave, representing the full strength of the brigade. Various drills were carried out efficiently, and the stations and equipment maintained in good order and condition. Considerable improvement is apparent in the personnel of the brigade, as also in the smarter manner and better method of carrying out the various exercises.

A test was made of the flow of water from the 4 in. main in High Street, when, with a pressure of 74 lb. a flow of 230 gallons per minute was recorded. The Board has made arrangements for the installation of a system of street fire-alarms.

Four calls were received during the year, all proving to be for actual fires, one more than occurred during the previous year. The attendance of members of the brigade at the four calls averaged 16·75 per call, or 76·1 per cent. of the full strength.

The fire loss for the year amounted to £317, as against £881 for 1913–14, a decrease of £564.

The estimated cost of the brigade for 1915–16 is £647 5s. 10d., as compared with £767 for 1914–15, a decrease of £119 14s. 2d.

HOKITIKA.

Two inspections of the Hokitika Brigade, its stations and equipment, have been made—viz., 2nd December, 1914, and 14th April, 1915.

At the first inspection, in December, there was present the Superintendent, Deputy, and eighteen firemen; these, with four on leave, accounted for twenty-four out of the total strength of twenty-nine then on the roll. The steam fire-engine was taken to the quay, and got to work from the river. The water was picked up quickly, and the head of steam and the water-pressure maintained particularly well considering the obsolete type of machine.

At the second inspection muster there was present the Superintendent and nine firemen, with one on duty and four on leave; these accounted for only fifteen out of a total membership of twenty-seven then on the roll—not a satisfactory muster. At the same time, there has been a good average of attendance at the fire-calls throughout the year. Certain drills were carried out in a satisfactory manner by those present, and the stations and equipment is maintained in very good order and condition.

During the year eight calls were received. Of that number, seven proved to be actual fires—two less than during the previous year. The attendance of members of the brigade at the eight calls averaged 20·88 per call, or 74·57 per cent. of an average strength of twenty-eight members.

The fire loss amounted to £1,147, as against £125 for 1913–14, an increase of £1,022.

The estimated cost of the brigade for 1915–16 is £460, as compared with £433 6s. 8d. for 1914–15, an increase of £26 13s. 4d.

LAWRENCE.

Two inspections of the Lawrence Fire Brigade and its equipment have been made—viz., 8th October, 1914, and 10th March, 1915.

The first inspection is covered by the following report, forwarded to the Secretary of the Board:—

SIR,— 30th October, 1914.

An inspection of the Lawrence Fire Brigade and its appliances was made on the 8th instant, when there was present at the inspection muster the Deputy Superintendent and eight firemen out of a total strength of ten then on the roll. The Superintendent was in attendance later in the evening. Various wet drills were carried out in a fairly satisfactory manner, but ferrules should be fitted on the spindles of the standpipes to prevent the ball being forced too low down on the hydrant outlets and thus choking the flow of water. If a light sounding-board were fitted over the top of the bell, cutting out the dome, I consider it will enable the bell to be heard at a greater distance than is now the case.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

At the second inspection muster there was present the Superintendent, Deputy, and five firemen; these, with two on sick leave and one on ordinary leave, accounted for the full strength then on the roll.

Various drills, wet and dry, were carried out in a satisfactory manner, and the station and equipment is maintained in good order and condition, with the exception that the ferules for the standpipes had not been fitted as recommended in my report of the 30th October. Whilst carrying out the wet drills the branches chocked several times through rust from the water-mains getting into the nozzles; but at the time of my visit the Borough Council had under consideration a scheme for improving the water-supply and the reticulation.

During the year three fires occurred in the district, an increase of one over those of last year. The attendance of members of the brigade at the three calls averaged 6·3 per call, or 63 per cent. on an average total strength of ten members.

The fire loss for the year amounted to £1,305, as against £142 for 1913–14, an increase of £1,163.

The estimated cost of the brigade for 1915–16 is £80, as compared with £60 for 1914–15, an increase of £20.

MAORI HILL.

Two inspections of the Maori Hill Brigade, its stations and equipment, have been made—viz., 9th October, 1914, and 8th March, 1915.

At the first inspection muster in October there were present the Superintendent and ten firemen; these, with three on ordinary leave and three just enlisted for the war, accounted for the full strength—viz., seventeen all told. Various drills were carried out in a satisfactory manner.

At the second inspection muster there were present the Superintendent, Deputy, and ten firemen; these, with one on duty and one on leave, accounted for fourteen out of the fifteen then on the roll. Certain drills were carried out in a fairly satisfactory manner. The stations and equipment are maintained in good order and condition, but the street fire-alarm system still causes trouble occasionally. The brigade has been partially equipped with Government-pattern gear.

During the year seven calls were received, three of which proved to be actual fires within the district. No fires occurred during the previous year.

The fire loss amounted to £1,322, as against no loss during 1913–14.

The estimated cost of the brigade for 1915–16 is £130, as compared with £200 for 1914–15, a decrease of £70.

MASTERTON.

Two inspections of the Masterton Fire Brigade and its equipment have been made—viz., 15th December, 1914, and 27th May, 1915. The two following reports, forwarded to the Secretary of the Board, covers both inspections:—

SIR,— 21st December, 1914.

An inspection of the Masterton Fire Brigade and its equipment was made on the 15th instant, when there was present at the inspection muster the Superintendent, Deputy, and twenty-six firemen; these, with three on leave, accounted for the full strength (thirty-one) of the brigade then on the roll.

The engine and hose-reel were turned out smartly, and various drills were carried out in a satisfactory manner. A test was also made of the flow of water from the mains at several points. The stations and appliances are in good order, but, as pointed out at the time, a buffer-spring should be fitted on the apparatus for towing the reel.

The record shows that the water-pressure has been more or less dangerously low for some time past, particularly, for instance, throughout the daytime, averaging below 20 lb. At 3 p.m. on the 15th it registered 35 lb., and at 8 p.m. only 45 lb., this with an overflowing reservoir at the time, pointing to an excessively heavy "draw off," presumably due to a very extensive watering of gardens; and, in view of the dangerous situation, I would recommend your Board should draw the attention of the Borough Council to the urgent necessity of immediately forbidding any further watering of gardens, at any rate, until such time that the improvement to the water-service now being carried out becomes an accomplished fact.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 2nd June, 1915.

An inspection of the Masterton Fire Brigade and its equipment was made on the 27th ultimo, when there were present at the inspection muster the Superintendent, Deputy, and twenty-two firemen; these, with five on leave, accounted for the full strength (twenty-nine) of the brigade then on the roll.

Various drills were carried out in a satisfactory manner, and the station and appliances are in good order.

As the fireman at present residing at the Kuripuni reel-station is shortly leaving there, and it would mean considerable outlay to put the building in a fit state for further occupation, I consider the following suggestion of the Superintendent a practical one, and recommend it for adoption—*i.e.*, that a shed large enough to house the hose-reel at present kept at the Kuripuni Station be erected in the vicinity of the Triangle, the reel placed there, and the present reel-station dispensed with.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

The Fire Police Corps has been disbanded as a body, a certain number joining the brigade and thus increasing the membership of that body to thirty-one all told. The 60 h.p. hose, ladder, and turbine-pump machine ordered over twelve months ago has not yet come to hand, war-conditions being responsible for its non-delivery.

Thirty-two calls were received during the year, of which fourteen proved to be actual fires occurring within the district, an increase over those of last year of fourteen in the number of calls, and of eight fires. The attendance of members of the brigade at the fifteen calls subsequent to the amalgamation of the fire police and brigade, for which a general alarm was given, averaged twenty-two per call, or 71 per cent. of the full strength.

The fire loss for the year amounted to £3,649, as against £3,203 for 1913–14, an increase of £246.

The estimated cost of the brigade for 1915–16 is £1,246 18s., as compared with £1,151 1s. 4d. for for 1914–15, an increase of £95 16s. 8d.

MILTON.

Two inspections of the Milton Brigade and its equipment have been made—viz., the 7th October, 1914, and the 9th March, 1915. The following two reports forwarded to the Secretary of the Board cover the respective inspections:—

SIR,— 20th October, 1914.

An inspection of the Milton Fire Brigade and its equipment was made on the 7th instant, when there was present at the inspection muster the Superintendent, Deputy, eleven firemen, and one messenger: these, with two on leave, accounting for the full strength of the brigade.

The manual pump was taken out and got to work. It was found necessary to prime the pump before any suction was obtained, and it took 4 minutes 30 seconds hard pumping before water was shown.

The manufacturer's agent informs me that the information asked for in respect to petrol-driven pumps has not yet come to hand, and, in view of the very inadequate equipment, I have to again recommend that the brigade should, without further delay, be supplied with a couple of hand pumps, London Fire Brigade pattern, and fitted with stirrups, as also with twelve collapsible canvas buckets 9 in. diameter and 12 in. in depth.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 31st March, 1915.

An inspection of the Milton Fire Brigade and its equipment was made on the 9th instant, when there was present at the inspection muster the Superintendent, Deputy, seven firemen, and one messenger, or ten out of the total strength of fifteen; the other five men were on leave. Several drills were carried out in a fairly satisfactory manner.

I note that no buckets for use with the hand pump have yet been provided, also that the new gear recently supplied to the brigade is not made in accordance with the Government patterns.

I would call the attention of your Board to the dangerous conditions existing at a certain hotel at the time of my visit to Milton, due to the escape of acetylene gas at various points throughout the building, and owing to the main cock being damaged there was a difficulty in shutting off the gas at the meter. Inquiry and examination made it apparent that there is considerable neglect in looking after the fittings, combined with the fact that the house in question is an old wooden building having narrow tortuous passage and practically entirely unprovided with any proper fire-escapes. There was altogether a most dangerous condition of things existing, to which I called the attention of the Superintendent of your brigade, and I would suggest that your Board should represent to the proper authorities the need for a competent supervision of the acetylene-gas installations, &c.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Boards.

No improvement has yet been made in the supply of water for fire-extinction purposes in the borough, but the Board has recently provided the brigade with a new pump, having a pumping capacity of 50 gallons per minute. It is mounted on a two-wheeled detachable carriage, from which it is dismounted when pumping operations are necessary.

During the year only one fire occurred in the district, two less than during the previous year.

The fire loss amounted to £250, as against £1,125 for 1913–14, a decrease of £875.

The estimated cost of the brigade for 1915–16 is £110, as compared with £100 for 1914–15, an increase of £10.

NEW PLYMOUTH

Two inspections of the New Plymouth and one of the Fitzroy Brigades, with their respective equipment, have been made—viz., 15th and 16th September, 1914, and 2nd February, 1915.

The two following reports forwarded to the Secretary of the Board cover the three inspections :—

SIR,— Office of Inspector of Fire Brigades, Wellington, 25th September, 1914.

An inspection of the New Plymouth Fire Brigade and its equipment was made on the 15th instant, when there was present at the inspection muster the Superintendent, Deputy, and eighteen firemen; these, with one on duty and one on leave, accounted for the full strength of twenty-two then on the roll.

The first-aid motor tender was turned out, and got to work smartly, and a test run up some of the steeper gradients proves that the motor is equal to perform the work required under the restricted conditions as laid down by your Board; also a heavier load was placed on this machine, and a further run made for experimental purposes. Certain experiments were made with the recently purchased 30 ft. extension ladder, which proved that the ladder in question is not sufficiently stable for the work of your brigade.

An inspection of the Fitzroy section of the brigade was made on the 16th instant, when there was present the Captain, Lieutenant, and twelve firemen; these, with one on leave, representing the full strength of the brigade. When getting to work in Darnell Street I found the standpipe could not be properly shipped on the hydrant; that was, when screwed down as tightly as possible the head of the standpipe rocked some 6 in., and the same fault was found in a second out of the three hydrants laid down in that street, also out of the four hydrants laid down in Sackville Street; the standpipe could not be shipped at all on one hydrant, and not properly on another. Further, I would point out that when laying down street hydrants it is customary, with the object of facilitating the work of the brigade, so to place the hydrants that the entrance-way for the foot of the standpipe all point in the same direction. Contrary to this custom, I found that of the four hydrants in Sackville Street the entrance-way of two lie parallel with the street, one is at right angles, and the fourth in a diagonal direction. In Darnell Street two are parallel and one at a right angle with the street. Time did not permit of me making further investigations, but, as the whole matter seriously affects the efficient work of the brigade, an immediate inspection of all the street-hydrants should be made, and the Borough Council requested to at once remedy the defect, and in future to observe uniformity in the patterns and method of laying down the street hydrants.

I would again (see report dated the 24th February) direct the attention of your Board to the advisability of utilizing the town telephone system as an auxiliary fire-alarm service on the lines as already fully explained.

In the matter of the new Central Fire Station, for the reasons given at the time of my visit to New Plymouth, I would recommend your Board to cut out the tower as showing in the plan at present, and substitute therefore an iron-framed skeleton tower, or, should it be more convenient at the present stage, the question of the tower might be left in abeyance for a short time.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 9th February, 1915.

An inspection of the New Plymouth Fire Brigade and its equipment was made on the 2nd instant, when there was present at the inspection muster the Superintendent, Deputy, and eighteen firemen; these, with one on duty and one on leave, accounted for the full strength of the brigade.

The motor hose-tender was turned out, and various drills performed in a satisfactory manner. A test was made of the flow of water from the 4 in. main in Powderham Street, when, with a pressure of 114 lb. through one delivery of a regulation standpipe, a flow of 260 gallons per minute was registered; this output is less than it should be, pointing to some obstruction in the mains, probably corrosion.

In company with the Chairman of the Board, &c., an inspection was made of the new Central Fire-station now in course of erection, and several recommendations were made, of which the principal are as follows: The walls of the watchroom to be plastered; a charging board to be installed; the asphalt floor at present proposed to be laid down in the engine-house is not substantial enough for the new motor-pump machine to stand upon, and either the whole of this floor should be constructed of concrete or a solid runway laid down from the front to the back door to carry the machine.

Upon the removal of the bell-tower from the Eastern Station to the Central Station sites it will be necessary to lengthen the legs so that the mouth of the bell will hang just above the level of the apex of the roof of the new building.

In reply to you letter dated the 5th instant, *re* inspection of exhibits at the Timaru demonstration, I shall be pleased to report thereon as requested by your Board.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

Thos. L. Buxton, Esq., Secretary, Fire Board, New Plymouth.

The brigade is now in occupation of the new Central Station, erected with its frontage on Liardet Street. The building, which is of two storys and of concrete construction, contains engine-house (48 x 31), social hall (48 x 31), four bedrooms for single men (14 ft. 11 in. x 9 in. 10 in. each), watch-room, workshop, &c., with necessary conveniences. A wooden house already on the section of land will be utilized as married quarters until such time as it is necessary to extend the main building. The Board has placed an order for a motor combination machine with an engine capable of developing 75 h.p., and fitted with a turbine pump having a pumping-capacity of 400 to 500 gallons per minute, a four-section 50 ft. extension ladder, and a first-aid pumping outfit; also the Board is calling for tenders for the installation of a street fire-alarm system.

During the year nine calls were received, of which number six proved to be actual fires—one less than occurred during the previous year. The attendance of members of the brigade at the eight calls for which a general alarm was given averaged 15·75 per call, or 75 per cent. of an average strength of twenty-one members.

The fire loss amounted to £341, as against £5,383 for 1913–14, a decrease of £5,042.

The estimated cost of the brigade for 1915–16 is £1,200, as compared with £1,098 1s. 3d. for 1914–15, an increase of £101 18s. 9d.

OAMARU.

Two inspections of the Oamaru Brigade and its equipment have been made—viz., the 6th October, 1914, and the 5th March, 1915. The two following reports, forwarded to the Secretary of the Board, cover the respective inspections:—

SIR,— 20th October, 1914.

An inspection of the Oamaru Fire Brigade and its equipment was made on the 6th instant, when there was present at the inspection muster the Superintendent and ten firemen—a good attendance in consideration of the fact that owing to some misunderstanding no notice was given to the members of the brigade until the same morning. The horse hose-wagon was turned out smartly, and various drills were carried out with the hand hose-reel.

The standpipes require lengthening, new shanks measuring 22 in. between the collars should be fitted to give the required length. A couple of hand-pumps fitted with stirrups should be provided, and a telephone should be placed in the dwelling of the fireman in charge of the North End reel-station.

I would suggest to your Board, in view of the inflammable nature of their stocks, with the heavy loss certain to follow should a "late call" be received by the brigade, that representations should be made to the proprietors or managers of the large stores such as Bullied's, North Otago Farmers' Co-operative, &c., with the object of inducing them to install in their respective buildings an automatic

fire-alarm system directly connected with the fire-brigade station. As pointed out at the time of my visit, the reduction in the premiums allowed by the insurance companies on auto-detector protected risks will in the majority of cases more than pay the interest on the cost of installation.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 7th April, 1915.

An inspection of the Oamaru Fire Brigade and its equipment was made on the 5th ultimo, when there was present at the inspection muster the Superintendent, Deputy, and twelve firemen; these, with two on leave, representing the full strength of the brigade.

Certain dry drills were carried out in a satisfactory manner. The horse hose-and-ladder cart was taken to Reed Street for the purpose of testing the flow of water from the main. I understand that on the occasion of the fire at Graves's house in that street several minutes were lost in getting water through the hose, supposed to be caused by silting up in the main obstructing the flow. However, at the test the water came through clear and in good time; but in any case the pipes should be periodically blown out.

In view of the amount of property at risk the 1½ in. main in Aln Street should be replaced with 4 in. piping, and the circuit completed by connecting up with the Ouse Street main, also the 1 in. main at present laid down in Glen Street should be replaced with a 4 in. pipe.

After running the hose-and-ladder cart to Reed Street it was very apparent that the horse is altogether too light for the work, and, whilst new ladders are certainly required by the brigade, they could not be conveyed to a fire on the hose-cart under present conditions, owing to the extra weight involved.

I note that my previous recommendations as to lengthening the barrels of the standpipes and the provision of hand-pumps has not yet been carried out.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

The hand-pumps mentioned in my report of the 5th March have since then been supplied to the brigade. A permanent caretaker, with quarters at the Central Station, has been appointed.

During the year eleven calls were received, of which number nine proved to be for actual fires three less than occurred during the previous year. The attendance of members of the brigade at the eleven calls averaged 12·55 per call, or 78·44 per cent. of the total strength.

The fire loss amounted to £7,323, as against £2,661 for 1913–14, and increase of £4,662.

The estimated cost of the brigade for 1915–16 is £477, as compared with £370 for 1914–15, and increase of £107.

PALMERSTON NORTH.

Two inspections of the Palmerston North Fire Brigade, its stations and equipment, have been made—viz., the 8th December, 1914, and the 27th April, 1915; also, following upon a request from the Borough Council, a special visit was paid on the 6th August for the purpose of inspecting and reporting upon the safety of the exit from the Palmerston North Opera House.

There was present at the first inspection muster the Superintendent, Deputy, sixteen firemen, and one messenger; these, with one on theatre duty and three on leave, accounted for twenty-three out of a total strength of twenty-four then on the roll. Various drills—motor, ladder, hose, &c.—were carried out in a very efficient manner. The stations and equipment are maintained in good order and condition.

The following report, forwarded to the Secretary of the Board, covers the second inspection :—

SIR,— 10th May, 1915.

Following upon an inspection of the Palmerston North Fire Brigade and its equipment, I beg to submit the following report for consideration of your Board :—

At the inspection muster there was present the Superintendent and fifteen firemen; these, with two on theatre duty and six on leave, accounted for the full strength of the brigade then on the roll. Various motor, ladder, and hose drills were carried out in a satisfactory manner.

In confirmation of my interview with the Chairman of your Board and yourself, I recommend that tenders be called, together with fully detailed specifications, for the supply and instalment, except street-wiring, of a complete street fire-alarm system to consist of four circuits having twenty-three call-boxes in all.

The suggestion that a lighting and charging plant be installed at the Central Station is a very practical one, and I recommend that a plant similar to the Masterton one be installed.

I would direct the attention of your Board to the unprotected condition, owing to the non-supply of water, of several built-upon comparatively large portions of the town, as for instance in the north-west, on the Native reserve, and in the neighbourhood of the railway-station at Terrace End, but more particularly that section in the north-west portion known as " Bryant's Block," and the Borough Council should be asked to at once proceed with the extension of fire mains throughout the unprotected areas; also, according to the fire-brigade records of the last few months, during the daytime the average water-pressure ranges only from 50 lb. to 75 lb., at times less than 50 lb., presumably due to the increasing " draw off " ; and for the purpose of improving the present pressure, as also in view of the necessary ex-

tensions of the reticulation as recommended above, I have to suggest that the intermediate section of 12 in. piping at present in the carrying main be replaced with 15 in. piping, and that a direct telephone-line be established between the fire-station and the filter-beds, so that the filter-beds may be cut out at once in case of a fire, or, as an alternative, the capacity of the filters be increased so that the full carrying-capacity of the 15 in. main is available at all times.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

During the year thirty calls were received, of which sixteen proved to be actual fires within the district thirteen less than during the previous year. The attendance of members of the brigade at the twenty calls for which a general alarm was given averaged seventeen per call, or 68 per cent. of an average strength of twenty-five.

The fire loss for the year amounted to £2,650, as against £5,631 for 1913–14, a decrease of £2,981.

The estimated cost of the brigade for 1915–16 is £1,685 19s., as compared with £1,939 3s. 4d. for 1914–15, a decrease of £253 4s. 4d.

PETONE.

Two inspections of the Petone Brigade and its equipment have been made—viz., 18th December, 1914, and 21st June, 1915. The two following reports forwarded to the Secretary of the Board cover the respective inspections:—

SIR,— 22nd December, 1914.

An inspection of the Petone Fire Brigade and its equipment was made on the 18th instant, when there was present at the muster the Superintendent, Deputy, and fifteen firemen; these, with five on leave, accounting for the full strength (twenty-two) of the brigade. The station, plant, and appliances are in good order.

Various wet drills were carried out in a fairly satisfactory manner, also a test was made of the flow of water from the 4 in. main in Cuba Street, when, with a pressure at the hydrant of 66 lb., a flow of 250 gallons per minute was recorded.

When turning out with the hose-wagon the horse did not start well, and when in the street opposite the station balked badly, causing a delay of some three minutes or more in getting away. This balking is, I understand, not an uncommon occurrence, and the present horse should be replaced with a more reliable animal, or in its place your Board should provide the brigade with a motor fire-appliance. Taking everything into consideration, the last proposition will prove equal from an economical point of view, and will certainly give more efficient results.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 24th June, 1915.

An inspection of the Petone Fire Brigade and its equipment was made on the 21st instant, and in that connection I beg to submit the following report for the consideration of your Board:—

At the inspection muster there were present the Superintendent, Deputy, fifteen firemen, and one messenger; these accounting for eighteen out of a total strength of twenty men now on the roll. Various drills were carried out satisfactorily so far as the men are concerned, but they require more instruction in various matters, as pointed out at the time. The station and plant is in good order and condition.

The "turn out" of the horse-drawn hose-and-ladder cart was executed very badly, owing to the difficulty of getting the horse to start. Four minutes ten seconds elapsed from the time the order was given until the cart was clear of the station, and again after pulling up it took twelve minutes to restart the horse. I understand from the Superintendent that the balking of the horse has now become of frequent occurrence. This condition of things practically nullifies in effect the expenditure incurred by your Board in bringing the brigade and its equipment up to a proper degree of efficiency, and may at any moment be the direct cause of serious loss. An immediate remedy is required, and two methods are available: First, by replacing the horse-drawn vehicle by a suitable motor fire-machine, which is the more efficient and economical method, but will take some time to carry into effect; secondly, the purchase of another horse to replace the present animal.

Some long time ago I spoke about the wrong handling and the unnecessary backing and filling to which the horse was subjected, but without any result, and if another animal is procured it must be handled differently, otherwise there will be a recurrence of the present trouble.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

A special visit was made to Petone on the 4th September for the purpose of testing a new set of flow-gauges. Since the submission of my report dated the 24th June, the Board has purchased another horse for the use of the brigade, and that is, I understand, giving satisfactory results.

During the year seventeen calls were received, of which number ten proved to be actual fires—eight less than occurred during the previous year. The attendance of members of the brigade at the seventeen calls averaged 12·41 per call, or 62 per cent. of the total strength.

The fire loss for the year amounted to £293, as against £3,866 for 1913–14, a decrease of £3,573.

The estimated cost of the brigade for 1915–16 is £880 13s. 7d., as compared with £1,076 11s. 9d. for 1914–15, a decrease of £195 18s. 2d.

ROTORUA.

Two inspections of the Rotorua Brigade, its stations and equipment, have been made—viz., 5th November, 1914, and 26th March, 1915—also a special visit was paid to Rotorua on the 5th August, for the purpose of conferring with the Board in reference to the tenders for the supply of a motor fire-machine.

The following reports forwarded to the Secretary of the Board cover both inspections :—

SIR,— 26th November, 1914.

An inspection of the Rotorua Fire Brigade and its equipment was made on the 5th instant, when there was present at the inspection muster the Superintendent and fourteen firemen, or fifteen out of a total strength of sixteen—a satisfactory attendance. Various experiments and drills were carried out in a satisfactory manner.

According to the gauge readings—on the 4th at 8 p.m. 49 lb., at midnight 50 lb., on the 5th at noon 50 lb., and at 8 p.m. 44 lb.—there is as yet no improvement in the water-pressure. More street fire-hydrants should be laid down in certain sections of the town, particularly in the settled neighbourhood of Whakarewarewa Roads, and where the hydrants are in some cases over 800 ft. apart.

After further inquiries and experiments with the extension-ladder, I am of opinion that they are quite unsuitable for ordinary fire-brigade work, and the best ladders for your purpose I know at present to be obtained in New Zealand are the 10 ft. 6 in. coupling-ladders.

In reference to the recent purchase of a second-hand motor chassis for the brigade service, for various reasons, as, for instance, the age of the machine and particularly the continuous hard work to which it has been subjected during the last two years at least, and the more or less indefinite and incomplete character of the experts examination and report, as stated to the local members of your Board at the time of my visit, I consider the purchase a very injudicious one, and in any case the price paid was, in my opinion, excessive. As a considerable factor towards securing successful results a new Claudel-Hobson carburettor should be fitted, and the body built in accordance with my recommendations made whilst in Rotorua.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 9th April, 1915.

An inspection of the Rotorua Fire Brigade and its equipment was made on the 26th ultimo, and following is a report in that connection for the consideration of your Board :—

At the inspection muster there was present the Superintendent, Deputy, and fifteen firemen; these, with one on leave, representing the full strength of the brigade—viz., eighteen all told. Various drills were carried out in a satisfactory manner.

The coupling-ladders recently delivered are not satisfactory, as at present the different sections are not interchangeable. There are loose rungs, no heel-bands are fitted, the finish is very bad, and altogether they should not be accepted in their present condition. Either your Board should have them put in proper order at the maker's expense or return them for that purpose.

As discussed with members of your Board, certain alterations to the body part of the motor hose-tender are necessary before the machine is put into commission; also the leakage from the radiator requires stopping.

As pointed out, the amount of hose available for fire-work is dangerously low. Couplings should at once be turned into the 400 ft. of new hose at present in stock, and at least 300 ft. of new hose, with the necessary couplings, purchased. There will then be 1,500 ft. of good hose available, and not less than that amount should always be maintained at the Central Station. The water pressure at 8 p.m. on the 24th registered 53 lb., and at 8 p.m. on the 26th 54 lb. That is a slight improvement when compared with previous readings.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

During the year seven calls were received, of which number four proved to be actual fires—the same number as during the previous year. The attendance of members of the brigade at the seven calls averaged 12·7 per call, or 74·7 per cent. of an average total strength of seventeen members.

The fire loss for the year amounted to £902, as against £116 for 1913–14, an increase of £786.

The estimated cost of the brigade for 1915–16 is £752 7s., as compared with £614 for 1914–15, an increase of £138 7s.

TAURANGA.

This is the first year that the Tauranga Brigade has carried on under the control of a Fire Board, Tauranga having been proclaimed a fire district on the 27th July, 1914. Two inspections of the brigade and its equipment have been made—viz., 6th November, 1914, and 25th March, 1915.

The following reports forwarded to the Secretary of the Board covers both inspections :—

SIR,— 23rd November, 1914.

An inspection of the Tauranga Fire Brigade, its stations and equipment, was made on the 6th instant, and following is my report and recommendations in that connection :—

The authorized strength of the brigade is twenty-two, but at the time of my visit there was only sixteen on the roll, and an effort should be made to bring the membership up to the full strength. At the inspection muster there were present the Superintendent, Deputy, eight firemen, and one messenger, or eleven all told. The attendance as at the time of my previous visit was very unsatisfactory, and did

not give me an opportunity of judging the brigade as a whole, and points to an absence of a proper sense of discipline and interest in the work, as well as indicating a want of control on the part of the officer in charge. The drills performed were carried out in an energetic manner, but more practice is required. The men should be provided with better uniforms, particularly with helmets. 500 ft. of new hose and one new standpipe is required. The bell-ringing apparatus at the Central Station should be put in good working-order. In accordance with my previous recommendation, a reel-shed, reel, and bell should be provided in the Quarter Acres district.

Whilst in Auckland I found that, due to the amalgamation of Parnell with the city, there are two bells for sale there, weighing approximately somewhere about 400 lb. each, that may be purchased for £12 each, which price is a little more than equal to the value of the bells as old metal, and I would recommend your Board to purchase one of them, and in that case prompt application to the Superintendent of the Auckland Brigade will be necessary. I have, &c.,

THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 9th April, 1915.

For reasons known to your Board, no inspection of the personnel of the brigade was made upon the occasion of my visit to Tauranga on the 25th ultimo. Every effort should be made to bring the membership of the brigade up to its full authorized strength as soon as possible.

I would recommend that the large bell recently purchased should be hung on the tower at the Central Station; experiment will decide the best height, the skeleton iron tower erected alongside the substation at Quarter Acres and the bell at present in the Central Station tower removed thence. If later it is considered necessary, the triangle can be removed from its present site and re-erected at some suitable point further towards the town boundary.

New couplings should be procured and turned into the hose lately purchased, and the connections on the standpipes and branches converted to the standard pattern of V thread.

I notice that my original recommendation as to the provision of hand-pumps has not been carried out, and the matter should be attended to. I have, &c.,

THOS. T. HUGO,
Inspector of Fire Brigades.

At the time of my last visit to Tauranga the brigade was very weak numerically, only having a membership of twelve all told, as against an authorized strength of twenty-two, and, in fact, was then in course of reorganization under the control of a newly appointed Superintendent, so that for the time being I cannot make a report upon the efficiency or otherwise of its personnel.

During the year five calls were received, all of which proved to be for actual fires. The attendance of members of the brigade at the five calls averaged ten per call, or 66·7 per cent. of the total strength.

The fire loss amounted to £1,177.

The estimated cost of this brigade from the 14th October, 1914, the date of constitution of the Fire Board, to the 30th June, 1916, is £655 6s. 8d.

TIMARU.

Two inspections of the Timaru Brigade and its equipment have been made—viz., 4th December, 1914, and 19th April, 1915. The two following reports, forwarded to the Secretary of the Board, cover the respective inspections:—

SIR,— 21st December, 1914.

An inspection of the Timaru Fire Brigade and its equipment was made on the 4th instant, when there was present at the inspection muster the Superintendent, Deputy, and fifteen firemen; these, with three on leave, accounting for the full strength (twenty) of the brigade. A "turn out" of the horse-reel was executed smartly, and various hose-drills were carried out in a satisfactory manner.

An inspection of the new Central Station shows it to be well and suitably designed for its purpose, and to all outward appearances well built and finished with ample furnishings and refittings; but the tower, situated in an angle of the building, causing two of its sides to be useless, is not in a suitable position. It should have been placed clear of the building, as recommended in the first instance.

Since the alterations have been made in the water-mains reticulation of the town a very material improvement is apparent both in volume and pressure.

As mentioned at the time of my visit, certain minor matters require attention.

The men should at once be provided with axe-pouches.

The barriers around the sliding-poles are dangerously low, and may at any moment prove the cause of a fatal accident. They should be raised, or an additional rail fitted.

The telegraph-posts to which the fire-alarm boxes are fixed should be painted with a band of vermillion or bright-red paint reaching from 1 ft. below to at least 2 ft. above the box, also a plate leaving the words "Fire alarm" printed thereon should be hung from the post above the box.

The brigade should be provided with at least six collapsible canvas buckets, also with two pairs of insulated wire-cutters. I have, &c.,

THOS. T. HUGO,
Inspector of Fire Brigades.

SIR,— 4th May, 1915.

An inspection of the Timaru Fire Brigade and its equipment was made on the 19th ultimo, and in that connection I beg to submit the following report for the consideration of your Board :—

There was present at the inspection muster the Superintendent, Deputy, and twelve firemen; these, with two on leave, accounting for the total number (sixteen) then on the roll. The numerical strength of the brigade is not by any means excessive when the membership is fully up to the total authorized strength of twenty, and to maintain that number as available at all times the authorized strength should be increased to twenty-four.

The motor was turned out as for an alarm of fire received from Elizabeth Street, also runs were made over gradients in various parts of the town. The machine was well handled by the chaffeur, and due attention paid to the careful turning of the different corners negotiated. Various drills were carried out with the motor, as also with the new fire-escape ladder, and certain suggestions made at the time for the more efficient working of the latter. During the afternoon the motor was taken to a position at the head of No. 3 wharf for the purpose of testing the turbine pump. With a perpendicular lift of 15 ft. all three sections (30 ft.) of the suction hose were required to reach the water. There was some delay in showing water, and upon testing the vacuum in each length of suction a leakage was found in the connection between the second and third lengths. This was remedied, and the pump again started, when water was shown from the nozzle in 11 seconds. The pump pressure-gauge was tested and found correct, and with 100 ft. of 2½ in. unlined canvas hose and 1¼ in. nozzle two gauges on the pump registered 150 lb. with 68 lb. on the nozzle-gauge, thus showing a discharge of 322 gallons per minute. With two deliveries, 100 ft. of hose on each, one 1⅛ in. nozzle and one 1 in. nozzle, the pump-pressure was 100 lb., or a total discharge from the two nozzles of 432 gallons per minute. Altogether the various tests proved satisfactory, and the machine and its fittings in all respects equal to specifications, excepting only the set of accumulators that had been in use presumably had not been properly treated prior to packing for shipment, and in consequence arrived in a badly sulphuretted condition.

Three new branches and four (one of 1¼ in., one of 1½ in., and two of 1 in. diameter) new nozzles are required for the equipment of the motor, also provision should be made for the purchase of 500 ft. of new hose. As the price of hose has already risen 2d. per foot during the last three months, and my information is that further rises are to be expected, it would probably be good policy to purchase at present quotations.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades.

The brigade has been in occupation of the new Central Station in Latter Street since the beginning of the year. The building provides accommodation for eight single men, has two sets of married quarters, an engine-house 50 ft. by 32 ft., watchroom 15 ft. by 13 ft., and all necessary conveniences are provided; in fact, the station has been exceptionally well fitted out by the Board. An iron skeleton tower for bell, hose, and drill has been erected in the yard, and an electric motor fitted for ringing the bell.

The motor, hose, ladder, and turbine-pump combination-machine was received on the 15th March, and was put in commission two weeks later, and has already proved of great value as a fire appliance.

Forty calls were received during the year, of which number twenty proved to be actual fires—four more than occurred during 1913–14. The attendance of members of the brigade at the thirty-seven calls for which a general alarm was given was fifteen per call, or 88·24 per cent. of an average strength for the year of seventeen members—a very good record.

The fire loss for the year amounted to £3,129, as against £3,392 for 1913–14, a decrease of £263.

The estimated cost of the brigade for 1915–16 is £1,450, as compared with £2,825 for 1914–15, a decrease of £1,375.

WHANGAREI.

Two inspections of the Whangarei Brigade and its equipment have been made—viz., 11th November, 1914, and 14th May, 1915.

The two following reports forwarded to the Secretary of the Board cover the respective inspections :—

SIR,— 26th November, 1914.

An inspection of the Whangarei Fire Brigade and its equipment was made on the 11th instant, when there were present the Superintendent, Deputy, and twelve firemen; these, with one on duty and two on leave, accounted for the full strength of the brigade then on the roll, three short of the authorized membership.

The outer station reel-sheds require attention, growth clearing away from the doors, &c.

I would recommend that until such time that your Board can see the way clear to install a modern street fire-alarm system, private telephones should be utilized as an auxiliary fire-alarm service, on the lines as explained at the time of my visit to Whangarei.

I have, &c.,
THOS. T. HUGO,
Inspector of Fire Brigades,

SIR,— 26th May, 1915.

An inspection of the Whangarei Fire Brigade and its equipment was made on the 14th instant, when there was present at the inspection muster the Superintendent, Deputy, and thirteen firemen; these, with four on leave and one on theatre duty, accounted for the full strength of the brigade. Various drills were carried out in a fairly satisfactory manner.

As pointed out at the time, greater attention should be paid to the maintenance and care of the fire-hose, and a more practical method adopted in its use. Consequent upon the extensive improvement in the water-supply and the high pressure that will shortly be available, some new hose is required; and, say, 500 ft. should be purchased.

The information supplied by the manufacturers of the motor hose-and-ladder tender shows that delivery of the machine cannot be expected under nine months at the earliest, and probably much longer; therefore I would recommend your Board to accept the offer made—to in the meantime house a motor-car at the fire-station for the use of the brigade, upon what, I consider, are most reasonable terms.

I have, &c.,

THOS. T. HUGO,
Inspector of Fire Brigades.

The 50 h.p. hose-ladder and first-aid pump motor machine ordered over twelve months ago has not yet been delivered, and, according to information received from the manufacturers, is not likely, even under much improved conditions, to come to hand for some months yet.

During the year six fires have occurred in the district, the same number as last year. The attendance of members of the brigade at the six calls averaged 11·5 per call, or 60·5 per cent on an average strength of nineteen members.

The fire loss for the year amounted to £126, as against £1,466 for 1913–14, a decrease of £1,340.

The estimated cost of the brigade for 1915–16 is £500, as compared with £600 for 1914–15, a decrease of £100.

Approximate Cost of Paper.—Preparation, not given; printing (1,000 copies), £17 10s.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1915.

Price 9d.]