# 1932. NEW ZEALAND.

# FIRE BRIGADES OF THE DOMINION

(REPORT ON THE) FOR THE YEAR ENDED 31st MARCH, 1932, BY THE INSPECTOR OF FIRE BRIGADES.

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.

Office of Inspector of Fire Brigades,

SIR,-

Wellington, 9th September, 1932.

I have the honour to submit the twenty-fourth annual report for the year ending 31st March, 1932, on the working of the Fire Brigades Act, 1926.

# FIRE DISTRICTS.

No new fire districts were constituted during the year, but the four Fire Boards created last year—viz., Cambridge, Woodville, Newmarket, and Birkenhead—came into operation. The Birkenhead Board was unable to arrange finance for the erection of a fire-station, and a temporary arrangement was made for the protection of the district by the Northcote Borough Council's brigade. The Newmarket Board also made an arrangement under which the district is to be protected by the Auckland Fire Board (see reference below). As will be seen from the returns attached, there are now fifty-five Fire Boards operating in New Zealand.

# DOMINION FIRE WASTE.

The fire loss for the year ending 31st December, 1931, was £1,292,094, as compared with £1,139,691 for the previous year. These figures are the total payments made by insurance companies, plus a percentage for fire loss not covered by insurance. This percentage is based on the returns of uninsured loss in Fire Board districts, and, since the uninsured loss in areas not protected by fire brigades would certainly be higher, the figures represent a conservative estimate of the Dominion fire waste. The figures for 1931 do not include any fire loss caused directly or indirectly by the Hawke's Bay earthquake, but they do include an amount of approximately £100,000 for fires which occurred in the district during the period following the earthquake when the water-supply and fire-fighting arrangements were not in operation. The following table shows the total fire loss and the loss per head of population during the past five years, and for purposes of comparison the loss per head in Great Britain, Canada, and the United States of America is also shown. The fire waste in the two latter countries, although considerably lower than during the early post-war period, is still regarded by all authorities as being excessive.

							Fire Loss 1	per Head.	
		_		Population.	Total Fire Loss.	New Zealand.	Great Britain and Ireland.	Canada.	United States of America.
				£	£	s. d.	s. d.	s. d.	s. d.
1927				1,438,814	1,361,994	19 - 0	3 7	13  7	16 2
1928			!	1,455,734	1,636,119	22 - 6	4 10	15 7	16 0
1929				1,472,925	1,230,264	16 - 9	7 1	$19 \ 11$	15 8
1930				1,492,376	1,139,691	15 - 3	5 3	19 - 4	16 10
1931				1,513,416	1,292,094	17 1	4 3	18 8	15 7
A	verage, 19	27-31			1,332,032	18 1	5 0	17 5	16 0
	verage, 19					$15 \ 10$	4 5	20 - 7	19 9

With regard to losses in Fire Board districts, it will be seen from the returns attached that, despite the increase in the number of Fire Boards operating, the total number of fires causing loss of property for the year ending 31st March, 1932, was 862, and the total fire loss £373,820. For the previous five years the average figures are: Fires, 1,274; fire loss, £536,916. The past year's figures represent a decrease of approximately one-third both in fires and in losses, and must be regarded as very satisfactory.

# Causes of Fire.

Nearly 50 per cent. of all fires in New Zealand arise from some form of carelessness in connection with cooking and heating fires. Typical fire-causes coming under this heading are: sparks and embers thrown out of fireplaces; airing clothes near fires or gas-stoves; placing hot ashes in wooden containers; fat, &c., boiling over; fuel projecting from or left lying near fireplaces or fireboxes; and using benzine near fires. Second in importance as a cause of fires is the carelessness of smokers in ways such as throwing down lighted matches, pipe-ashes, cigar or cigarette butts, or smoking in hed

Every year sees an increase in the number of fires ascribed to electricity in some form or other, three-fourths of them being due to electric irons, radiators, or other movable equipment. It cannot be too strongly emphasized that the only certain way to prevent fires (and incidentally waste of current) with this class of equipment is to remove the connecting-plug from the socket when the apparatus is disused, even for a few moments. The increase in the number of electrical fires is, of course, mainly due to the greatly increased use of electric power throughout the country. It is accompanied, as would be expected, by a corresponding decrease in fires due to accident with naked lights (candles and kerosene-lamps, &c.). In 1926, for instance, the electrical fires and those from naked lights each represented approximately 10 per cent. of the total, while in 1930 the percentage had altered to 14 per cent. and 6 per cent. respectively.

From ten to fifteen per cent. of the fires which occur every year are reported to be due to

From ten to fifteen per cent. of the fires which occur every year are reported to be due to defective chimneys. These fires are usually difficult to deal with owing to the seat of the fire being inaccessible, and the annual loss from them is exceptionally heavy, being about 30 per cent. of the total. This is one of the very few causes of fire which cannot be charged to the carelessness of the occupier of the building, as the latter seldom thinks of regarding a chimney as a possible fire hazard. The principal defects causing fire are insufficient foundations, woodwork placed below hearth or inset in brickwork, insufficient brickwork between back of fireplace or flue and the surrounding woodwork, mantelpiece carried below brickwork, and parging of flues omitted or badly carried out. Even when the chimney is otherwise well built, hazards may arise if poor mortar is used, as this will eventually fall out and allow a train of soot to form between the bricks and communicate fire to the adjoining woodwork.

To show how serious the position is, the experience of one of the insurance companies might be quoted. This firm employed an expert builder to examine chimneys in the Waikato district, and in all 1,236 buildings were inspected. Two hundred and eight chimneys were found defective, and of these about one-third were classed as very dangerous and one-third fairly dangerous, the remainder being minor defects only. The district has not been subject to any very severe earthquakes in recent years, and there is reason to think that similar conditions may exist in other parts of the country.

# INCENDIARISM.

In addition to the fires shown in the yearly returns as being due to incendiarism, a considerable number occur where the surrounding circumstances give rise to the suspicion that the fire was caused deliberately. The fact that in most instances either the owner or the occupier of the premises is found to be over-insured or in financial difficulties, or both, lends colour to the opinion expressed in a very pithy way by the Chief Officer of the London Fire Brigade some years ago, that "most fires are due either to want of care or to want of cash."

The general tendency is for incendiaristic fires to increase in times of depression. Owing to the fall in property values over-insurance becames fairly common, and it is not realized that the insurance company's liability under an ordinary policy is limited to the actual value of the property at the

3 H,—12.

time of the fire. It is assumed that the face value of the policy will be recovered, and this incorrect view tends to increase the temptation for persons financially embarrassed to set fire to their property.

In connection with the fire-prevention movement inaugurated during the year a definite attempt is being made to check this class of fire. It is the practice of the Police Department to make inquiries into every fire, and instructions have been given that in all cases where the cause is obscure or the possibility of incendiarism is not eliminated, extended inquiries are to be made and the files forwarded to Police Headquarters. These files are considered by a committee consisting of the Commissioner of Police, the General Manager of the State Fire Office, and the Inspector of Fire Brigades, and where it is considered the circumstances warrant this course a Coroner's inquiry is recommended.

A considerable number of fires have now been investigated under this arrangement and a number of inquests have been held. As is to be expected, conclusive evidence of incendiarism has not been obtained except in a few instances. There is good reason to believe, however, that the publicity given by the police inquiries, which involve in many cases the interrogation and taking of statements from more than twenty persons in connection with a single fire, and by the Court proceedings, is acting as a very real deterrent to persons who might otherwise regard a fire as a happy solution of their difficulties.

#### Construction of Buildings.

The modern tendency in building-construction is towards the erection in business areas of buildings with reinforced-concrete frame—either monolithic or steel-frame type—with floors of concrete throughout, and curtain walls of either brick or concrete with steel-framed windows. If properly designed and constructed, this type of building can be made not only earthquake-resisting, but highly fire-resisting, both with respect to the limitation of the effects of fire on any floor, and the passage of fire from floor to floor or from adjoining buildings. In addition to their internal fire-resistance, such buildings form very valuable fire-breaks, and prevent the spread of fire from other buildings through a block.

It is unfortunately a fact that many buildings of this type which have been erected in New Zealand of recent years have been poorly designed from the point of view of fire-resistance. A considerable number of instances have been observed where the fire-resisting character of the building itself has been largely nullified by the presence of unprotected stairways and the use of ordinary glass in light areas and on the sides of the building exposed to fire in adjoining premises. The question is not one of expense, since defects referred to could have been corrected at little or no cost if the necessary installations were made while the building was being erected. Experiment and experience has shown that wired glass when properly fitted is an effective protection against exposure fires, and it is just as satisfactory as ordinary glass with respect to light and visibility. In the same way the separation and subdivision of the different floors of large buildings is inexpensive if provided for in the design.

These facts, and the reference to defects in chimney-construction above, show the necessity for the standardization of building by-laws in New Zealand not only from the point of view of earth-quake-resistance, but also with respect to protection against fire. The question is not one of the economic loss only involved in bad construction, but in buildings of any considerable height there is also the possibility of danger to life owing to the difficulties of exit from the upper floors. Provision was made for standardization of by-laws in the Building Construction Bill which was considered by Parliament last session. It is understood that the Government is considering the resubmission of this Bill during the present session amended in accordance with the discussions which took place last year.

# DEATH AND INJURY IN FIRES.

The loss from fire is very generally regarded by the public as being solely an economic one, and, since it is assumed that the great bulk of the property loss is covered by insurance, the fire wastage is regarded by most people with a certain degree of equanimity. The fact that fires are responsible for loss of life and personal injuries in many cases is not generally recognized. The departmental records show that during the year under review fourteen persons were actually burned to death, five succumbed to burns received at fires, and one was killed by a fall while cutting off the power from a burning building. In addition to these twenty fatal accidents, nearly two hundred persons received more or less serious injuries either from burns or from falls, &c., occurring during fires. The following details of the fatal accidents will serve to illustrate the tragic possibilities of fire.

In May, 1931, four men were burned to death in the fire at the Union Hotel at Greymouth, and two men received burns from which they subsequently died in the fire at the Panama Hotel, Wellington. In June, 1931, an old man was burned to death in a house at North Beach, New Brighton. In July, 1931, a father and five childrem were burned to death in a fire at Putaruru. Only one member of the family—a child of six years—escaped from the burning building. In September, 1931, a relief worker living in an outbuilding attached to the Regent Hotel at Taumarunui was burned to death. In November, 1931, an infant was severely burned in a fire which broke out in a farmhouse at Tangowahine during the temporary absence of the mother, and subsequently died from the injuries received. In the same month a man was burned to death in a fire which destroyed the Church Hall at Gate Pa, Tauranga. In February, 1932, a fire at Russell resulted in a woman being burned to death. In March, 1932, a man was fatally burned by the explosion of an oil-furnace at Newton, Auckland, and during the same month a girl who was working in a manufacturing workshop at Mount Eden was enveloped in blazing wax and subsequently died from burns received.

# Fire - escapes.

The circumstances of the fires in the hotels in Greymouth and Wellington referred to above were practically identical. The fire broke out in the kitchen or one of the living-rooms on the ground floor and spread with great rapidity up the staircase and along the passages on the upper floor, so as to block all the interior exits. Similar conditions were experienced at hotel fires at Helensville and Oreti, where the occupants of the buildings had narrow escapes, and in a nurses' home in Wellington, where a number of nurses were injured in escaping from the windows of the upper floor. These fires emphasize the necessity for the provision of fixed external fire-exits, accessible from every room, in all buildings where any considerable number of persons are accommodated, and particularly in buildings of wooden interior construction.

# FIRE - PREVENTION.

For a number of years past attention has been called in these reports to the disastrous fire waste which takes place every year in New Zealand. It has on several occasions been suggested that definite measures should be taken to check this economic loss, which it will be seen from the figures quoted above has, if anything, an increasing tendency. Similar suggestions have been made by the leading Fire Brigade Superintendents and by the United Fire Brigades' Association at its annual Attention has also been drawn to the results achieved by fire-prevention work in the United States and to a lesser extent in Canada. The figures quoted above show that this work has resulted in a very definite decrease in the national fire losses, and, particularly in the United States, this decrease has been consistently maintained for the last five-year period.

The efforts in this direction in America have been directed mainly by the National Fire Protection Association, the members of which are national institutes, societies, and associations interested in the protection of life and property from loss by fire. This body has organized a "fire-prevention week" throughout the United States of America and Canada, and also maintains an inspection service which is placed at the disposal of individual cities on request. The result has been to decrease the fire loss in particular areas by as much as three-fourths, and this decrease is reflected in the

national figures.

In a country the size of New Zealand a similar organization would probably not be practicable, particularly in view of the public apathy on the question and the proportionate expense involved. If anything is to be done, it is therefore necessary that the Government should take the initiative, and a start was made last year by the inauguration of a "fire-prevention week." It is gratifying to to be able to record that the action of the Department was very favourably received by the press, and and generally by local authorities, while the fire brigades both individually and through their

association co-operated with considerable enthusiasm.

The measures adopted consisted of the circulation to all business premises of a pamphlet setting out the facts regarding the national fire waste, and the principal causes of fire and methods of protection. An inspection card was also distributed to show how individual occupiers could determine and correct any fire hazards existing in the building. An inspection and "clean up" programme, with special rubbish-collections, was arranged by most of the local authorities. Practically all the fire brigades held local demonstrations to interest the public in the work. In many cases lectures were given in the schools by fire-brigade officers, and a special effort was made to arrange for lessons being given by the teachers in every school. Addresses on fire-prevention were also given from the principal radio broadcasting stations.

The teaching of fire-prevention in schools is undoubtedly one of the most important factors in the success of fire-prevention work. Children are naturally receptive, and, the lessons being to some extent novel and outside of ordinary school-work, are very effective, and will undoubtedly result in the training of future citizens who have some realization of the necessity for greater care with respect to fire. The value of the teaching was well illustrated in an incident which occurred in the North Auckland district shortly after the lessons had been given. A fire broke out in a farmhouse, which was occupied at the time by three children, the eldest a boy of nine. The parents were absent at the milking-shed, which was about a quarter of a mile away. The eldest child took the two younger ones outside and then ran down to call his parents. He subsequently explained that this was what he had been told to do by his teacher.

It is not to be expected that very definite results would follow a single fire-prevention effort of this kind. The "week" was held late in the year, and it would, in any case, not have much effect on the national figures, although it might to some extent be reflected in the reduction of fire-district losses, the returns for which cover the year ending 31st March. It is strongly recommended that the "week" be made an annual event. The date selected-November-clashed to some extent with the election campaign and also with the school examinations, and it is suggested that in future a date

about the end of February be adopted.

# LEGISLATION.

Provision was made in section 43 of the Local Legislation Act, 1931, to authorize an agreement between the Auckland and Newmarket Fire Boards under which the Auckland Board undertook the fire protection of the Newmarket Fire District.

The present provisions of the Fire Brigades Act with respect to the formation of united fire districts are somewhat cumbersome and have not been operated under since they were first enacted in 1914. In the case of the Newmarket district, while it was generally recognized that it would be in the

H.—12.

interests of both efficiency and economy to form a united district, this was not considered practicable—firstly, because of the cost of the necessary polls of ratepayers in both districts, and, secondly, owing to the fact that, since the formation of the united district was of no great importance or advantage to the Auckland City ratepayers, it would probably be difficult to obtain a favourable decision.

Experience in both this and other countries indicates that the centralization of the control of the fire-fighting organization in any urban area is likely to be more efficient and also more economical than the operation of a number of independent brigades. Arrangements have been made by several Fire Boards to undertake the fire protection of adjoining districts under the provisions of section 64 of the Act; but this arrangement is also not altogether satisfactory, owing to the fact that the Board is not authorized to incur any capital expenditure (on fire-stations, alarm systems, &c.) within the adjoining districts, and the value of the service possible is therefore limited. It should also be noted that the whole cost of the service falls on the ratepayers of the district, and no contributions are received from insurance companies in respect of these areas.

The question of amending the Act so as to facilitate the amalgamation of fire-fighting units in

urban areas is at present under consideration.

# Inspection.

Owing to the time taken in organizing the fire-prevention campaign, it was not possible to make a complete inspection of Fire Board brigades during the year, only thirty out of fifty-five being visited. Most of those omitted have been inspected since the end of the year. The conditions found were almost universally satisfactory, and the Fire Boards are to be congratulated both on the equipment and personnel of the brigades. The drills carried out at the inspection parades and the knowledge of the work shown by the brigadesmen were satisfactory, and in many cases of a very high order. The opportunity was taken during the inspections to make inquiries regarding the water-supply and reticulation, and recommendations were made regarding improvements to the latter where it was considered that these would increase the effectiveness of the brigade's work. Recommendations were also made for the provision of a fire-pump at Tauranga and a new first-aid tender at Cambridge, both of which have since been ordered.

The usual reports were made on inspections of public buildings and institutions, and advice has been given to Fire Boards and local bodies with regard to fire-station sites and buildings, water-supply installations, &c. Reports were also made to the Local Government Loans Board on loans proposed for fire-prevention and water-supply and reticulation purposes. In view of the fact that all the brigades were not visited, it is not proposed to make a detailed report on brigades until next year.

During inspections in the Auckland urban area it was noted that no arrangements had been made for co-operation between brigades in respect of fire calls in boundary areas, and inquiries showed that the lack of this co-operation had in fact resulted in delayed attendance at fires. A conference was arranged in December last between the Fire Boards and local authorities controlling the various brigades in the area, and it was unanimously agreed that some measure of co-operation was desirable. Instructions were given to the Superintendents of the brigades to confer regarding details. This was done and a report was prepared. No action has since been taken on this report, owing to the fact that since the end of the year negotiations have been in progress for the formation of a Metropolitan Fire Board to control the whole of the urban area on the south side of the harbour. This would undoubtedly be the most satisfactory arrangement from a technical point of view.

Appended is a table of miscellaneous statistics in connection with Fire Board districts.

I have, &c.,

R. GIRLING-BUTCHER,

Inspector of Fire Brigades.

MISCELLANEOUS STATISTICS FOR FIRE DISTRICTS.

				Wires	Themenood	Insured Fire Loss	ire Loss,	Uninsured Fire Loss	Fire Loss.		Average	Expe	Expenditure Authorized	zed.
District.	Population.	Lusurance Companies' Premium Income,	Number of Fire Calls.	involving Loss of Property.	on Property involved in Fires.	Buildings.	Contents.	Buildings.	Contents.	Total Fire Loss.	Total Fire Loss for Last Three Years.	Year ending 31st March, 1931.	Year ending 31st March, 1932.	Year ending 31st March, 1933.
		3			<b>.</b>	<b>4</b>	<b>3</b>	chi	વ્ય	<b>4</b> +}	င္း	<b>ب</b> ن	43	c+2
Anckland	105,600	169,972	482	117	456,271	19,028	8,317	9	561	27,912	62,258	22,300	21,500	20,750
Balclutha	1,570	2,188	631	-	250	10	:	:	:	10	101	097	752	190
Birkenhead*	3,390	4,535	:	:		:	:	: 	:	300	•	•	446	467
Cambridge	2,150	3,616	0 l∵ 66	711	938	13 036	19.229	608.	2.479	36.553	40,877	14,300	12,600	12,000
Christohurch	89,500	8 163	61	1 10	7,230	813	811	10	15	1,649	1,943	710	745	659
Dannevirke		3,750	13	o <del>4</del> 1	2,925	540	966	009	:	2,136	1,011	522	407	393
Dangavine Dunedin	68.200	80.992	390	97	421,168	8,176	111,707	265	1,307	21,455	23,592	16,000	15,000	18,000
Eltham	2,050	2,760	-	7	009	300	300	150	• 6	750	1,871	421	372	308
Feilding	4,320	6,732	សា	ΟN 1	4,450	1,450	950 900	0.00	300	1 559	2,700	25	 180 8.7 8.7 8.7 8.7	717
Foxton	1,770	1,788	· ;	G F	1,125	3000	0020	1 055	1 768	18,232	777 21	3.300	6 0 20 0 20 0 20	9.657
Gisborne	$\frac{14,200}{3,500}$	22,727	49	 	55,960 4,050	1,327	0, 190 1, 083	٠,٠٠٠	1,703	9 971	4, 757	000	750	606
Greymouth	6,180	8,079	9 6	. PI	4,850 95,076	1,000	1,000	: -	197	2.829	4.842	3,000	3,000	2,490
Hamilton	19,000	16,020	0.9	# X	37,010	5.740	10.770	410	260	17,180	11,389	1,703	2,000	2,280
Hastings	12,000	808	53	္ oc	7.325	316	218	-	1-	542	494	1,283	1,230	1,152
Hilmondi	1.245	1.382	, ea	. eo	1,200	430	200	15	100	745	403‡	177	154	148
Holritika Holritika	2,520	3,443	. 9	က	625	275	180	:	:	455	693	670	650	630
Inversardil	20,400	25,788	95	30	57,990	1,808	1,194	95	144	3,238	8,276	5,830	5,510	5,416
Kajanoj	1,710	2,192	4	ಣ	2,005	675	250	: ;	285	1,210	1,485	290	540	019
Kaitangata	I,400	1,135	Nil	EN I	Nil	Nil.	Nil ;;	HVI	NII 10	N11	2,048	190	07T	3.2
Lawrence	$\vdots$	741		- g	225	225	100	:	OT	1 496	1 493	2001	00T	575
Levin	2,680	4,440	SS	7.	10,010	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7 0 00 70 00 70 70 00 70	564	1.499	11 462	7,946	2.100	2.102	2.086
Masterton	3,000	15,321	70	-	007.01	20	300.5	12		32	26	200	190	100
Militon	066.4	6,380		+ oc	8.210	3.652	1.667	:	:	4.719	3,077	1,135	1,150	1,148
Moulic roskin Namer	16,200	22,724	46	000	9,947	2,571	1,206	310	88	4,175	15,335	4,200	5,000	4,180
Newmarkets	3,260	6,921	:	:		:	:	:	:			. 1	856	505
New Plymouth	15,900	20.247	26	-	22,625	2,914	2,352	:	001	5,366	6,439	2,528	886,T	2,425
Oamaru	7,600	8,641	13 -	<b>!~</b> (	9,058	1,420	1.001	•••	0.50 [	2,421	9,090 E 799	1,430	920	970
Ohakune	1,470	1,424			1,250	300	00g	9000	1,000	106	9,00	1 690	782	1 470
Onehunga	11,160	9,835	X 1	Э. C	010.6	1 590	901	12.5	# -	1 783	665	620	440	450
Opotiki	1,360			00	10,210	1,000	40	001	. <u></u>	170	308	357	313	303
Otaki	1,620			10	19,000	2 548	3.179	3	£66	6.724	6.828	335	340	416
Pahiatua	91,000		105	26	109.810	, es 2,883,	1,851	156	98 -	5,970	13,393	4,484	4,557	4,276
Determine			98	=	10,630	950	605	:	:	1,555	3,157	1,789	1,565	1,658
Port Chalmers	2.580	2,274	) 	5	4,750	630	496	:	οι 	1,131	824	216	216	253
Pukekohe	2,510		1,-	ಣ	200	2	:	:		_	4	181	124	631
Rotorua	5,270		29	10	11,100	1,615	815	:	150	2,580	2,411	1,020	000	866 1890
Taihape	2,500		6	1C	3,445	481	325	:	ર 	958 828	2000 t	0#0	437	920
Taumarunui	2,500	3,272	e ·	₹,	1,505	388	357	150 9.	99 91	991 145	1,030 9,085	564	969	1 039
Tauranga	2,930	4,890	<del>-</del>	- -	ANT	201	:	Š	2	) •	) } •	) )		1

e Aroha	:	2,480	4,296	20	4	3,695	1.184	528	;	_	1.712	934	649	533	, in
wamutu	•	1,840	3,875	9	1	1,160	m	ļ <del>- 1</del>	: :	: :	4	404	460	440	420
n	* ,	16,800	18,460	65	19	30,205	2.245	4.138	:	30	6.413	4.564	3.150	2,700	002.3
:	:	3,020	2,954	65 63	4	2.350	300	150	110	173	733	2,447	664	715	969
ıkurau	:	1,970	3,163	₹	П	400	200		:	92.	250	2,280	430	350	330
Wairoa	:	2,620	4,358	∞	4	8,095	616	1.600	25	:	2.544	49.468	714	200	065
Vaitara	:	1,830	2,785	က	ଦୀ	1,700	438	577	:		$\frac{1.015}{1.015}$	3,319	277	280	230
Vanganui	:	25,050	35,928	122	15	22,795	3,755	2.970	:	631	7.356	10,374	8.100	8.000	6.930
Vellington	;	111,500	209,283	815	183	721,921	45,362	63,485	5.164	2.185	116,196	92,711	30,400	30,400	28,760
restport	:	3,940	4,745	12	œ	6,560	1,104	835	06		2,029	1,820	008	7007	690
/hangarei	:	7,600	8,680	13	9	27,700	9,105	19.250	2.042	6.172	36,569	16,983	1.123	1.163	1 194
rille	:	1,140	1,559	4	4	2,750	685	310	590	520	2,105	+		559	338
		674,680	990,248	3,076	862	2,611,959	158,768	178,886	14,759	21,407	373,820	447,008	145,045	142,257	138,638
		* Board no	Board not in operation.	† First year	First year of operation	ı under Board.	‡ Does not c	Does not cover full three-year period.	rear period.	§ Returns	included with	Returns included with Auckland Fire 1	District.		

Approximate Cost of Paper.—Preparation, not given; printing (1,065 copies), £9 7s. 6d.

Price 6d.]

By Authority: W. A. G. SKINNER, GOVERNMENT Printer, Wellington.—1932.

