1883.

NEW ZEALAND.

GOVERNMENT PRINTING DEPARTMENT

(REPORT ON), FOR 1882.

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

SIR,— Government Printing Office, Wellington, 27th June, 1883.

I have the honour to submit my annual report on the operations of the Printing Department and Stationery Store for the year 1882.

Since the date of my last report the office has received a welcome addition to its plant by the arrival of the new type ordered from England. Its arrival, though delayed, was in sufficient time to enable me to use it for this session's *Hansard*, and it is being gradually brought into use for other parliamentary work. I propose to store as much of the old type as can be spared in other premises, so as to be available for use in case of fire.

THE ELECTRIC LIGHT.

The duties of compositors require as large an amount of light as can be obtained, and, in endeavouring to meet this requirement, a large number of gas lights had to be laid on in each composing-room. During session time, when the work-rooms are crowded, the use of so many lights had the effect of increasing the temperature of the rooms at night by 15 or 20 degrees, and greatly increased the risk of the men contracting colds and other diseases on emerging from the office into the open air. In other respects it was also objectionable, as so much gas burning seriously vitiated the atmosphere, and consumed the oxygen so needful for the preservation of health, resulting not unfrequently in the loss of services of employés through sickness at times when they could ill be spared.

These facts having been represented to the Government their sanction was obtained to the introduction of the electric light, and it is with much satisfaction I am able to refer to the partial accomplishment of this object in my annual report.

The new illuminator was used for the first time on Friday, the 25th May, on which occasion the office was visited by the Hon. the Premier, all the members of the Ministry, and a large number of the leading citizens of Wellington.

The tests which the light has been subjected to since its introduction have proved highly satisfactory. Its suitability for printing establishments can hardly be disputed—especially in a building such as the one now occupied by this department, where large numbers of men are crowded into small and not over-well ventilated rooms.

Of the two descriptions of lights—the arc and the incandescent—the latter is most suited to our requirements. It is of less intensity, requires less powerful currents, and is more grateful to the senses. The light used is Edison's patent, and its "installation" has been accomplished under the superintendence of the electrician of the Edison Electric Light Company, Mr. Snow. A special shed, measuring 30 feet by 20 feet, has been erected for the engine and dynamo-machine, the motive-power being obtained from a portable steam-engine of 10-horse power. A local journal (the *New Zealand Times*) published a full description of the apparatus, from which I extract the following particulars: "The dynamo-machine consists of two pillars about 4 feet 6 inches high and 8 inches in diameter, which stand less than a foot apart, and are connected on the top by a heavy piece of wrought iron. They apparently join at the bottom, space being cut here to admit of the insertion of a bobbin measuring some 12 inches in diameter and about 2 feet in length. The pillars are the two poles of a powerful electro-magnet, and consist of a core of soft iron wound with wires. The bobbin is the armature of the magnet, and it is by the rapid rotation of this between the two poles of the magnet that electricity is generated. Two mains connect the dynamo with the lamps. A regulator—a most ingenious contrivance—by which the strength of the current can be regulated according to the number of lamps which it is desired to burn, is in connection with the field-magnets. By throwing in more or less coils the magnetism of the field can be increased or reduced at will, according to the number of lamps to be lighted, and the expenditure of steam-power can be regulated accordingly. The bobbin makes 1,200 revolutions per minute when driven at full speed, additional velocity being gained by means of a countershaft. The wires leading from the dynamo

are No. 10, and are thoroughly insulated, and kept apart a distance of 2 inches, the small branches which lead direct to the lamps being alone allowed to come closer. Wherever a branch has been taken off special provision has been made for safety against fire by the insertion of a leaden plug. Should the current prove too strong for a branch this plug simply melts away, thus disconnecting the branch without interfering with any other part of the works."

The number of lamps actually used is 63, but the nominal power of the dynamo-machine is calculated for 60 lights only. The lights are distributed as follows: In two of the composing-rooms, 26 and 24 respectively; in the three reading-rooms, 5; in the engine-room, 5; and in my own office, 3. When the permanent fittings are erected, and a slightly larger dynamo-machine substituted, the lamps now used could be redistributed, and, with the addition of about three dozen more, would afford sufficient lighting power for the remaining rooms.

The lamps will require to be renewed periodically, but, as they are calculated to burn for 1,000 hours, they will serve our purpose for two years at least; and, as the "life" of a lamp is said to be capable of prolongation to nearly double the number of hours stated, if used with care, one set may be made to do duty for three or four sessions. The cost of each lamp at present is 6s., but no doubt the price will ere long be considerably reduced, as I am informed they can now be manufactured at a cost of 1s. each.

They are calculated to give about half as much light again as a good bat's-wing burner; but I am quite within the mark in saying that they afford twice the illuminating power of the gas lights hitherto used, and, what is of great importance, the light is steady and free from flicker or pulsation.

While undoubtedly a clearer, purer, and cooler light is obtained by the use of electricity, it is interesting to know at what cost it is produced as compared with gas. To obtain reliable information on this point I have caused careful observations to be made since its introduction into this office, and find that, when using the light for five hours of an evening, the cost for 63 lights is 2s. 1½d. per hour. To obtain the same illuminating power from gas would require the consumption of 440 cubic feet per hour, which, at 10s. per 1,000, would cost 4s. 4½d.

The value of the complete "installation" is £331, to which must be added the cost of the engine, £375; the erection of shed, belting, shafting, &c., and fitting-up the lights, £160; and moiety of ground-rent, £7 10s.: making a total of £873 10s. Computing the interest on this sum at 7 per cent. it would amount to £61 2s. 10d. per annum, and, as it is estimated the light will be required for about 500 hours during the year, the cost for coal, &c., would be £53 2s. 6d.; making a total of £114 5s. 4d. The gas consumed for the same number of hours would cost £109 7s. 6d., thus leaving a balance in favour of gas of £4 17s. 10d. But, when comparing the cost of the respective lights, the improved conditions under which the men work should also be considered as constituting an important factor in the calculation, for undoubtedly they are placed in a position to do considerably more work than could reasonably be expected from them with the lights they have hitherto used.

The following table shows the quantity of coal used for electric-light purposes on three different evenings:—

Date.	Description of Coal.	Quantity consumed			Time during which Light used.	Cost per Hour for Sixty-three Lights.
		In getting up Steam.	From time of Lighting up.	Total.		
		lb.	lb.	lb.	h. m.	s. d.
June 14 ...	Greymouth	127	520	647	4 30	2 2
June 15 ...	Newcastle (slack) ...	120	600	720	5 0	2 2
June 18 ...	Newcastle (screened) ...	126	558	684	5 0	2 0¾

DEPARTMENTAL RETURNS, ETC.

The usual returns will be found appended to this report. They consist of: (1.) Balance-sheet of the department for the year 1882; (2.) Return of the printing and binding executed; (3.) Number and classification of the employés; (4.) Quantity and value of paper and parchment consumed; and, (5.) Value of work performed at the Lyttelton Gaol.

The *Gazette* advertisements, subscriptions, and sale of Government publications show a satisfactory increase, and amounted to £3,009 2s. 7d. While referring to *Gazette* advertisements, I may state that not one-fourth of the existing mining companies comply with the 135th section of "The Mining Companies Act, 1872," so far as the publication in the *Gazette* of their annual statements is concerned, although heavy penalties are imposed for failing to do so. During last year only sixty-seven companies submitted statements for publication. I cannot ascertain how many are registered, but it is estimated there are fully 300 companies in existence.

The return of employés shows the number of all classes engaged in the department during each month of the year, the average per month being 113.

The total number of printers' accounts examined during the year was 4,790, from which deductions to the amount of £157 16s. 9d. were made, being at the rate of 7¾d. off each account.

The number of railway tickets for the colony, printed and issued under the superintendence of the stereotyper, was 1,828,560, and these were supplied to 482 separate stations.

I mentioned in my last report that the manufacture of rubber stamps was carried on in connection with the stereotpye branch. The number supplied to the various departments during last year was 304.

STATIONERY STORE.

The operations of the stationery store have been carried on satisfactorily, without any addition to the staff, notwithstanding a considerable augmentation in the work of the department. The requisitions received show an increase of 2,926 over the previous year, being 10,135, as against 7,209 in 1881. The receipts from the sale of publications amounted to £1,768 8s. 3d., being an increase of £382 16s. over those of the previous year. There is a slight diminution in the quantity of waste paper exported, 40½ tons having been shipped to England during last year, and sold at prices ranging from £5 10s. to £6 10s. per ton. The value of the last annual order for stationery, &c., sent to England was £10,063. The system at present adopted for procuring these supplies might, I think, be improved upon. The goods received are generally of inferior quality, and in some instances when articles of a particular make were ordered inferior descriptions of other manufacturers have been substituted. The goods are professedly examined before shipment and passed by an inspector employed by the Agent-General. Ordering direct from the manufacturers would doubtless be found preferable to the present system, and be worth while trying as an experiment. In the last contract for stationery entered into by the Agent-General, the fact of a paper-manufacturing firm having obtained the contract at prices equal to an advance of £685 on what they had previously offered to supply the same goods if ordered direct, may be quoted as an illustration in favour of the plan now proposed.

The storage of large quantities of stationery, &c., in the buildings at present used is attended with considerable risk, the structure not having been originally designed to carry the weight it has now occasionally to bear. A thorough inspection of the building by the Architect would be advisable.

I have, &c.,

GEO. DIDSBURY,

Government Printer.

The Hon. the Colonial Secretary.

Table No. 1.

BALANCE-SHEET of the GOVERNMENT PRINTING OFFICE for the Year ending 31st December, 1882.

Dr.	£ s. d.	£ s. d.	£ s. d.	Cr.	£ s. d.	£ s. d.	£ s. d.
PRINTING BRANCH:—				PRINTING BRANCH:—			
Permanent Hands—Wages	4,940 2 11			Value of work, as per detailed statement		17,301 9 11	
,, Overtime	638 1 0			Cash Receipts,—			
		5,578 3 11		Advertisements	580 4 11		
Extra general hands—Time-hands	2,137 13 5			*Gazette* subscriptions	136 4 6		
,, Piece-hands	874 3 8			Miscellaneous	287 15 8		
,, Overtime	64 8 1			Sale of official publications by Stationery Store	1,768 8 3		
		3,076 5 2		Land Transfer advertisements	131 10 3		
Hansard hands—Time-hands	1,424 2 6			Gold-mining lease advertisements	104 19 0		
,, Piece-hands	804 8 11			Value of manufactured materials, repairs, &c., by office engineer	86 16 10		
,, Overtime	471 8 7			Value of rubber stamps, electros, &c., for other departments	75 12 8		
		2,700 0 0				3,171 12 1	
Additions to stock	642 9 3						20,473 2 0
Working expenses	136 16 11						
		779 6 2					
Fuel	84 3 0						
Gas	295 4 10						
Moiety of ground-rent	150 0 0						
		1,329 7 10					
			13,463 3 1				
BINDING BRANCH:—				BINDING BRANCH:—			
Permanent Hands—Wages	1,488 6 4			Value of work as per detailed statement			6,120 10 2
,, Overtime	29 5 7						
		2,517 11 11					
Extra hands—Wages	1,122 6 1						
,, Overtime	14 6 5						
		1,136 12 6					
Additions to stock	13 0 0						
Working expenses	101 0 10						
		113 0 10					
Fuel	21 0 9						
Gas	147 12 5						
Moiety of ground-rent	50 0 0						
		218 13 2					
			3,985 18 5				
			17,449 1 6				
Balance	..	..	9,144 10 8				
			£26,593 12 2				£26,593 12 2

Table No. 2.

RETURN of the VALUE of PRINTING and BINDING executed in the GOVERNMENT PRINTING DEPARTMENT during the Year ending 31st December, 1882.

Department.	Printing.				Binding.	Totals.
	No. of Copies.	No. of Pages.	Authors' Corrections.	Value.		
			Hours.	£ s. d.	£ s. d.	£ s. d.
Audit	21,911	26	..	19 16 9	33 0 8	52 17 5
Colonial Architect	2,220	12	3	5 7 0	0 2 6	5 9 6
Colonial Secretary—						
Gazette	528,118	2,036	653	2,490 0 4	693 1 11	3,183 2 3
Stock	111,274	61	4	45 3 8	32 0 8	77 4 4
Miscellaneous	57,750	97	17	59 0 4	24 15 4	83 15 8
Constabulary	62,400	245	6	371 12 11	91 5 1	462 18 0
Customs	51,009	103	16	76 6 2	40 3 5	116 9 7
Marine	29,005	252	22	107 14 11	16 1 9	123 16 8
Crown Lands	95,259	243	64	183 10 11	96 13 9	280 4 8
Crown Law	2,390	87	71	31 14 4	54 2 8	85 17 0
Defence	104,988	174	53	109 15 4	71 19 4	181 14 8
Education	65,906	69	3	70 12 6	180 14 6	251 7 0
General Assembly—						
House of Representatives—						
Order Paper	62,571	464	44	389 18 8	26 9 0	416 7 8
Appendix	180,044	1,892	1,554	2,469 17 6	410 18 8	2,880 16 2
Journals	275	561	182	346 3 10	28 11 8	374 15 6
Miscellaneous	32,230	229	14	72 5 8	85 17 9	158 3 5
Legislative Council—						
Order Paper	43,504	142	18	107 12 10	1 16 4	109 9 2
Journals and Appendix	275	379	55	238 4 2	28 4 11	266 9 1
Miscellaneous	4,878	139	5	40 0 10	23 5 0	63 5 10
Joint Account	173,520	322	13	121 12 4	263 13 0	385 5 4
Bills	141,621	1,751	4,391	1,630 5 5	125 13 3	1,755 18 8
Hansard	103,576	2,565	3,041	2,248 15 1	736 13 7	2,985 8 8
Statutes	83,510	1,148	..	752 5 9	349 0 5	1,101 6 2
Geological	14,097	160	17	111 12 4	145 16 3	257 8 7
Gold Fields	14,555	57	2	15 2 10	13 9 10	28 12 8
Governor's Establishment	1,137	8	..	2 18 0	10 18 9	13 16 9
Insurance	93,965	75	2	65 2 4	9 10 0	74 12 4
Justice	153,933	308	24	174 18 11	174 6 8	349 5 7
Land Transfer	49,571	33	..	36 11 3	169 7 4	205 18 7
Lunatic Asylums	126,402	101	14	87 15 6	52 7 6	140 3 0
Miscellaneous	20,433	208	27	101 2 0	22 19 9	124 1 9
Native	182,060	722	25	665 6 7	156 5 7	821 12 2
Post and Telegraph	2,953,211	977	50	1,189 0 4	407 1 0	1,596 1 4
Money Order and Savings Banks	1,557,744	242	3	280 10 9	128 13 3	409 4 0
Printing	21,138	37	3	22 11 9	7 5 7	29 17 4
Property-Tax	360,876	148	51	153 19 10	293 18 6	447 18 4
Public Trustee	43,356	23	2	18 9 4	18 19 6	37 8 10
Public Works	108,136	738	226	608 15 0	103 2 4	711 17 4
Railways	281,942	133	29	103 8 4	125 7 6	228 15 10
Registrar-General	201,807	755	121	1,361 7 8	139 18 1	1,501 5 9
Stamp	86,732	60	5	54 10 10	6 2 8	60 12 6
Stationery Store	71,834	65	..	47 15 3	400 6 4	448 1 7
Surveys	23,332	22	..	14 19 0	44 19 4	59 18 4
Treasury	482,064	201	26	197 14 10	275 9 3	473 4 1
Totals	8,806,559	18,080	10,856	17,301 9 11	6,120 10 2	23,422 0 1

Table No. 3.

RETURN of the NUMBER and CLASSIFICATION of the EMPLOYES in the GOVERNMENT PRINTING OFFICE for each Month during the Year ended 31st December, 1882.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Overseers	3	3	3	3	3	3	3	3	3	3	3	3
Readers	2	2	2	2	3	3	4	4	4	3	2	2
Compositors	17	31	26	25	36	49	50	50	43	36	33	37
Machinists, pressmen, paper-wetter, cutters, and engineer	5	5	5	5	5	6	6	6	6	6	6	6
Bookbinders, including one overseer	7	8	8	9	9	11	12	12	11	10	10	11
Females in Binding Branch	13	13	13	13	14	14	15	15	16	17	17	17
Apprentices, machine- and errand-boys	36	35	37	38	41	41	40	38	37	37	40	39
Assistants in Publishing Branch	1	1	1	1	1	1	1	1	1	1	1	1
Stereotyper	1	1	1	1	1	1	1	1	1	1	1	1
Totals	85	99	96	97	113	129	132	130	122	114	113	117

Table No. 4.

RETURN showing QUANTITY and VALUE of PRINTING PAPER, &c., consumed in the GOVERNMENT PRINTING OFFICE during the Year 1882.

Quantity.		Description.	Amount.		
Rms.	qrs.	Post folio—	£	s.	d.
3	0	Hand-made	4	7	0
83	0	Double cream wove	98	4	4
36	0	,, money-orders ..	21	12	0
45	5	8vo., note, large	6	8	3
5	10	4to., letter	1	3	10
		Foolscap—			
12	5	Coloured, 15 lb.	4	16	0
8	0	,, 18 lb.	6	12	0
57	0	,, hand-made, 18 lb. ..	65	11	0
6	0	Turkey-mill, 18 lb.	5	19	0
160	10	Buff, double	44	2	9
2	0	Bank ,, ...	1	0	0
10	5	Copying ,, ...	2	6	1
3,730	10	Yellow wove printing ..	1,569	18	5
1,335	5	Blue wove ,, ..	673	3	9
30	5	Coloured printing, double blue	19	3	2
14	10	,, ,, yellow ..	5	16	0
402	15	,, ,, cream wove	292	0	0
		Demy—			
43	0	Coloured	26	3	2
163	15	Blue laid	104	7	9
357	0	Yellow wove, double.. ..	272	4	3
117	15	Hand-made..	176	12	6
638	0	Demy—*continued.* Toned, double	542	6	0
41	10	Buff ,, ...	21	2	0
42	0	Imitation hand-made ..	45	3	0
		Royal—			
1,126	5	Yellow wove printing ..	516	4	0
58	0	Coloured	31	3	6
42	10	Hand-made..	124	6	3
74	0	Hand-made, superfine ..	260	17	0
17	10	Imitation hand-made, superfine	32	7	6
29	0	Medium, hand-made	66	14	0
10	10	Imperial, hand-made	49	17	6
30	10	Cartridge, imperial, 60″ ..	38	17	9
91	15	,, dble. demy, glazed, buff	96	6	9
5	0	Medium, hand-made, loan ..	7	5	0
11	10	Brown, imperial	14	1	9
16	10	Blotting	12	7	6
142	0	Foolscap, buff, glazed	42	12	0
13,000		Cards, double large	5	17	0
55 gross		Pasteboards	30	5	0
85		Rolls parchment, 18″ x 27″ ..	318	15	0
15		,, ,, 28″ x 32″ ..	109	10	0
			£ 5,767	9	9

Table No. 5.

RETURN of the VALUE of PRINTING and BINDING executed at the LYTTELTON GAOL during the Year ending 31st December, 1882.

Department.	Value.		
	£	s.	d.
Railways..	247	17	3
Government Printing Office	547	17	3
Her Majesty's Gaol, Lyttelton	46	1	9
Her Majesty's Gaol, Mount Cook, Wellington	25	4	0
Miscellaneous	37	0	6
Total	£904	0	9

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1883.