

1904.
NEW ZEALAND.

EDUCATION: MANUAL AND TECHNICAL INSTRUCTION.

[In continuation of E.-5, 1903.]

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

No. 1.

EXTRACT FROM THE TWENTY-SEVENTH ANNUAL REPORT OF THE MINISTER
OF EDUCATION.

THE steady advance in manual and technical instruction noticeable since the passing of the Manual and Technical Instruction Act in 1900 was well maintained during 1903. At the close of 1902 the number of classes recognised under the Act was 980. During 1903 1,247 additional classes were recognised, making the number at the end of the year 2,227. Of these classes 1,659 were classes for handwork in connection with primary and secondary schools, while 568 were "special," "associated," or "college" classes, providing for instruction in the various branches of pure and applied art, engineering and science, and in plumbing, carpentry and joinery, domestic economy, and commercial subjects. There is a marked increase in the number of public schools in which handwork is being taught, not only in the lower but also in the higher standards, and there is every indication that the number of such schools will be still further increased during the present year (1904). The causes of this increase are twofold; most of the Education Boards, availing themselves of the special annual grants for the instruction of teachers in subjects of manual and technical instruction, first made in 1901 and continued up to the present time, have established training-classes which have, in general, been well attended by teachers; the revised standard regulations recently gazetted also make it possible for handwork to be taken right through the school course.

Of the various branches of handwork now being taught in the schools, cookery for girls and woodwork for boys are receiving considerable attention. In 1902 63 cookery classes and 14 woodwork classes were recognised in connection with primary and secondary schools. For 1903 the numbers were 131 and 100 respectively. Coincident with this increase is the increase in the number of teachers seeking to obtain the certificates of the City and Guilds of London Institute in cookery and woodwork.

MANUAL AND TECHNICAL INSTRUCTION, 1903—continued.

School or Classes.	Subjects of Instruction and Average Attendance.													Payments up to 31st December, 1903.												
	Number of Classes.	Freehand (from the Plane and Round), Light and Shade.	Plane and Solid Geometry, Perspective Practical Geometry.	Design and Ornament.	Drawing, Modelling, and Painting from Antique and Nature.	Architecture and Building-construction.	Mechanical Drawing and Machine-construction.	Practical Mechanics and Mathematics, Surveying.	Mechanical and Electrical Engineering.	Experimental and Natural Science (Chemistry, Physics, Botany, Photography).	Woodwork and Ironwork.	Wood-carving, Modelling, and Repousse Work.	Carpentry and Joinery, Cabinetmaking, Painters, and Decorators' Work, Coaching.	Plumbing and Tinsmiths' Work, Iron and Brass Moulding.	Cookery and Laundry-work, Dressmaking, Tailoring.	Wool-sorting.	Commercial Subjects.	English, Latin, French, German, Maori, Arithmetic.	Singing and Elocution.	Training-classes for Teachers in Elementary Hand-work.	Training-classes for Teachers in Drawing.	Capitation.	Grants for Buildings, Furniture, and Apparatus.	Grants for Material.	Pound-for-Pound Subsidies on Voluntary Contributions.	
Board of Governors, Canterbury College—																										
School of Art, Christchurch ..	58	127	67	51	98	40	34	25	84	20	..	19	24	..	..	..	..	..	..	122	374 14 3	13 9 10	3 18 5	..	..
School of Engineering, Christchurch ..	29	55	52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	208 17 9	55 9 3	114 7 9	..	..
School of Domestic Instruction, Christ-church ..	13	..	..	..	..	..	..	..	..	..	..	..	..	158	..	..	..	..	..	..	96 17 6	..	..	..	..
North Canterbury Education Board—																										
Christchurch Technical Classes Association	38	..	3	..	..	18	..	21	..	..	..	86	5	31	36	17	168	39	..	..	56 6 4	256 12 8	..	..	237 10 0
Technical classes, Normal School, Christ-church ..	6	..	..	..	..	..	..	..	..	..	17	..	..	..	..	..	..	..	..	..	38 17 0	..	..	..	..
Technical classes, Ashburton ..	1	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Lyttelton ..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Rangiora ..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10 8 3	17 1 10	..	..	10 6 0
" Leeston ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49 13 0	42 10 3	..	..	12 7 6
" Southbridge ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25 15 2	42 10 3	..	..	..
South Canterbury Education Board—																										
Timaru Technical Classes Association	17	..	9	26	14	..	15	..	..	..	10	12	..	..	16	20	44	51	..	..	14 1 3	29 5 9	..	..	17 0 0
Waimate ..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Temuka ..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Technical classes, Timaru ..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otago Education Board—																										
School of Art, Dunedin ..	41	189	86	27	46	11	6	15	26	86	40	9	25	25	74	16	166	250	..	..	330 14 3	232 17	65 1 4	122 19 6	
Technical School, Dunedin ..	42	..	..	..	..	..	..	..	..	..	..	..	..	..	63	..	..	..	..	..	213 1 3	400 0 0	..	..	24 12 6
Technical classes, Dunedin ..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	21	..	..	..	..	..	42 7 6	50 0 0	..	..	40 0 0
Technical classes, Port Chalmers ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	54 14 9	50 0 0	..	..	27 0 6
" Oamaru ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	54 15 9	..	..	..	..
" Kaitangata ..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southland Education Board—																										
Technical School, Invercargill ..	28	20	..	..	..	10	13	..	..	14	44	7	8	..	96	..	24	15	..	..	170 12 0	580 5 1	63 18 7	..	
Technical classes, Gore ..	3	..	..	..	..	..	..	..	..	..	16	..	3	..	12	..	..	..	..	..	27 10 6	99 18 9	2 9 10	..	
Country Continuation classes ..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42 19 11	1 0 0	..	..	..
Totals ..	568	904	365	136	316	149	162	165	121	199	263	142	315	176	737	53	769	481	67	375	638	4,307 18 8	7,269 8 6	478 14 6	1,225 15 0	

MANUAL AND TECHNICAL INSTRUCTION, 1903.—SCHOOL CLASSES.

Controlling Authority.	Subjects of Instruction and Number of Classes in each Subject.													Payments up to 31st December, 1903.						
	Elementary Handwork.	Drawing in Light and Shade (Blackboard Drawing).	Elementary Design and Colour Work.	Cookery.	Dressmaking.	Needlework.	Woodwork.	Chemistry.	Physics.	Botany.	Agricultural and Cottage-gardening.	Ambulance and First-aid.	Swimming and Life-saving.	Total Number of Classes.	Capitation.		Grants for Buildings, Furniture, and Apparatus.			
															£	s.	d.	£	s.	d.
Education Board, Auckland ..	140	2	8	47	..	17	37	..	..	..	..	1	252	791	16	6	2,385	7	10
Education Board, Taranaki ..	93	..	16	..	..	8	..	..	..	..	..	13	130	106	5	5	82	12	4
Board of Governors, High School, New Plymouth	..	2	..	..	1	..	..	..	..	..	..	..	3	10	15	10	11	17	3
Education Board, Wanganui ..	96	17	7	..	..	26	1	4	1	..	11	1	166	11	10	0	649	4	1
Education Board, Wellington ..	127	3	7	26	..	2	1	..	..	..	5	..	171	475	7	11	162	3	5
Board of Governors, Wellington College and Girls' High School—Girls' High School ..	..	1	3	..	..	..	..	..	..	..	..	..	9	15	0	0	..	..	..
Education Board, Hawke's Bay ..	38	..	7	..	2	1	..	..	..	..	3	7	58	135	7	0	26	11	11
Education Board, Marlborough ..	..	..	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..
Education Board, Nelson ..	30	..	..	7	3	11	..	..	..	..	..	16	77	62	17	6	36	5	0
Board of Governors, Nelson College—Boys' College ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	301	10	0
Girls' College ..	..	..	..	4	..	..	..	..	..	..	..	..	4	24	15	0	..	..	..
Education Board, Grey ..	..	..	..	..	..	1	..	..	..	..	..	..	1	2	1	3	..	..	..
Education Board, Westland ..	16	..	..	..	..	1	1	..	..	..	..	..	18	13	14	11	110	15	0
Education Board, North Canterbury	196	..	..	11	..	29	18	..	..	..	..	..	270	691	16	8	176	8	0
Board of Governors, Canterbury College—Boys' High School ..	..	..	..	..	..	..	4	1	1	..	..	..	6	51	1	6	..	..	..
Girls' High School ..	2	..	..	2	2	..	..	2	3	..	..	1	12	35	11	2	..	..	..
Board of Governors, Ashburton High School	..	..	..	..	..	..	2	..	..	..	..	..	2	16	0	0	..	..	..
Education Board, South Canterbury	47	..	2	..	..	18	1	..	1	..	..	..	69	110	3	7	29	0	5
Board of Governors, Timaru High Schools—Boys' High School ..	..	..	..	..	..	..	2	..	..	..	..	1	3	17	0	0	14	19	0
Girls' High School ..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..
Education Board, Otago ..	62	20	..	28	20	1	15	..	6	152	449	13	0	371	4	7
Board of Governors, Otago High School—Girls' High School ..	..	..	..	3	..	..	..	..	..	..	..	..	3	..	..	..	11	16	10
Education Board, Southland ..	172	..	2	7	..	42	13	..	..	2	4	..	242	210	17	11	113	5	2
Board of Governors, Southland High Schools—Boys' and Girls' High Schools ..	..	..	..	3	1	..	..	2	..	..	..	1	7	27	0	0	..	..	..
Totals ..	1,019	25	52	131	10	186	100	8	4	9	36	42	371,659	3,258	15	2	4,483	0	10	

With regard to technical classes proper, the number of towns at which classes were held during 1902 was thirty-five; during 1903 classes were held at forty towns. There appears to be an increasing desire to establish "associated" rather than "special" classes, which may be taken as an indication that Borough Councils, County Councils, and other local authorities, availing themselves of the provisions of the Act of 1902, are encouraging the establishment of technical classes. That local interest is increasing is also shown by the fact that the voluntary contributions made to technical classes during 1903 on which subsidies were paid by the Government amounted to nearly three times as much as for the previous year.

The difficulty of obtaining the services of thoroughly competent instructors continues to be felt, especially in country districts. The technical schools in the larger centres, are, however, to be looked to to remedy this as time goes on.

The regulations providing for junior technical scholarships that were gazetted in 1903 were not taken advantage of to any great extent during that year. During the present year, however, several controlling authorities have provided suitable courses of work, with the result that there are now a fair number of persons receiving free technical instruction. The object of these scholarships is to encourage those who have just left school, and adults who satisfy the conditions set forth in the regulations, to continue their education.

Thus they may, first of all, as junior scholars, take a two-years course of work designed on the one hand to further their general education, and, on the other, to prepare them for special courses of work suited to the various callings they may desire to follow. Then, if they satisfy the conditions, they may as senior scholars attend for two more years special courses suited to their professions, trades, or occupations, as the case may be.

The grants for buildings, furniture, fittings, and apparatus paid during 1903 amounted to £11,752 9s. 4d.; for material, £478 14s. 6d.; capitation, £7,566 13s. 10d.; subsidies on voluntary contributions, £1,225 15s.

STATEMENT OF EXPENDITURE BY GOVERNMENT ON MANUAL AND TECHNICAL INSTRUCTION FOR YEAR ENDING
31ST DECEMBER, 1903.

	£	s.	d.
Capitation	7,566	13	10
Subsidy of pound for pound on contributions	1,225	15	0
Grants—	£	s.	d.
Buildings and apparatus	11,752	9	4
Class material	478	14	6
	12,231 3 10		
Training of Teachers—			
Taranaki Education Board	100	0	0
Wanganui "	150	0	0
Wellington "	200	0	0
Hawke's Bay "	150	0	0
North Canterbury "	200	0	0
South Canterbury "	125	0	0
Otago "	200	0	0
Southland "	150	0	0
	1,275 0 0		
Railway fares of instructors of training-classes	145	9	8
" students attending registered classes	310	3	4
Expenses in connection with Examinations—			
Science and Art, Board of Education, South Kensington	137	13	4
City and Guilds of London Institute	211	10	7
	349 3 11		
Inspectors—			
Salaries	700	16	8
Travelling-expenses	169	4	4
	870 1 0		
Scholarships	151	10	0
Wood pamphlets	92	9	6
Plaster casts, £40; charges, £8 10s. 1d.	48	10	1
Sundries	23	8	4
	24,289 8 6		
Less recoveries (examination fees, £76 17s. 6d.; proceeds of sale of lead used at examination, £1 5s.; amount received from Agent-General, general average in connection with loss of students' examination papers sent to England for examination, £2 13s. 8d.)	80	16	2
Total	£24,208		12 4

The following table shows the results of the examinations conducted in the colony on behalf of the Board of Education, South Kensington, and the City and Guilds of London Institute:—

ART, SCIENCE, AND TECHNOLOGICAL EXAMINATIONS, 1903.

["C" represents candidates; "P" passes.]

Subjects of Examination.	Auckland.		Thames.		Wanganui.		Wellington.		Master-ton.		Napier.		Christ-church.		Timaru.		Dunedin.		Inver-cargill.		
	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	
<i>Board of Education, S. Kensington.</i>																					
Art—																					
Drawing on the blackboard ..	4	4	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
Geometrical drawing (art) ..	7	4	..	..	3	2	1	1	1	1	1	..	1	..	..	..	..	4	4	..
Perspective ..	6	6	..	..	..	..	4	4	..	..	..	..	1	..	1	..	..	7	6	..
Model-drawing ..	19	15	..	..	..	..	2	2	2	2	3	3	8	4	..	..	..	14	7	3
Freehand drawing in outline ..	41	30	..	..	9	6	..	..	13	7	2	1	3	2	..	..	..	14	4	4
Drawing in light and shade ..	7	5	..	..	1	..	1	1	2	1	1	1	2	2	..	..	..	5	4	3
Memory drawing of plant form ..	..	..	..	..	1	1	5	5	..	..	1	..	1	1	..	..	..	3	2	..
Principles of ornament ..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	3	1	..
Design ..	..	..	..	..	1	1	4	4	..	..	1	1	2	2	..	..	..	5	4	..
Painting from still life ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	3	1	..
Painting ornament ..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	1	..	..
Drawing from the antique ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	3	2	..
Drawing from life ..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	..	..	..	..	..	..
Anatomy ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Students' works ..	2	2	..	..	3	..	15	6*	..	..	5	1	..	..	..	..	..	13	7†	..
Science—																					
Practical plane and solid geometry ..	..	..	..	..	1	1	1	..	..	..	..	..	2	2	..	..	..	..	..	..
Machine construction and drawing ..	14	12	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	6	6	4
Building construction ..	..	..	..	..	2	1	12	7	..	..	..	..	3	1	..	..	..	8	4	..
Architecture ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Architectural design ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Mathematics ..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..
Applied mechanics ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..
Steam ..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Magnetism and electricity ..	..	..	..	..	..	..	3	3	..	..	1	..	..	..	..	..	..	..	..	..
Theoretical inorganic chemistry ..	..	..	..	..	10	10	..	..	..	..	..	..	..	..	..	..	..	1	1	..
<i>City and Guilds of London Institute.</i>																					
Woodwork, first year ..	..	..	..	..	..	..	..	..	..	..	1	1	7	5	..	..	..	..	14	9
Woodwork, final ..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	11	5
Plain cookery ..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	..	..	..	32	31	28
Mechanical engineering, Part I. (ordinary) ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..
Mechanical engineering, Part II. (ordinary) ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4	..
Mechanical engineering (honours) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Plumbers' work (preliminary) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
" (ordinary) ..	..	..	..	..	11	6	4	2	..	..	..	..	..	..	..	..	..	..	..	..
" (honours) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Painters and decorators' work (ordinary) ..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	..	..	..	..	..	..
Gas-manufacture ..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..
Electric light and power (preliminary) ..	..	..	8	1	..	..	6	3	..	..	1	1	..	..	..	..	..	1	1	..
" (ordinary) ..	..	..	..	..	..	..	4	1	..	..	..	..	1	1	..	..	..	1	..	..
" (honours) ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Wiremen's work ..	..	..	..	..	..	..	4	2	..	..	1	..	..	..	..	..	..	1	1	..
Telegraphy and telephony (ordinary) ..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	1	..
Telegraphy (honours) ..	..	..	..	..	..	..	..	..	..	..	1	1	2	2	..	..	..	..	..	..
Totals ..	105	82	9	1	44	30	78	48	19	11	19	10	53	31	1	141	99	69	51

Total of papers, 538; total of passes, 363.

* A book prize was gained by a Wellington student.

† Prizes were gained by two Dunedin students.

No. 2.

REPORT OF THE INSPECTOR-GENERAL OF SCHOOLS.

Right Hon. the Minister of Education.

It will, I think, be evident from the special reports of the Inspectors of Technical Instruction that technical education has continued during the past year to make good progress in the colony, at all events as far as the wants of students residing in the towns are concerned. A beginning has also been made towards providing technical education in the country districts, where it would take the form of training in the scientific principles that underlie agriculture, dairying, and similar pursuits; but it is to be regretted that so far that beginning is very small. It is true that a most important step has been taken during the year by the emphasis that is laid in the new public-school syllabus upon nature-study as the means of training the children in the primary schools in the observation of facts around them, especially of the elementary facts of plant-life; this in the hands of intelligent teachers will form a most useful preparation for future work. It is interesting to note the successful establishment in many schools of school-gardens, which in other countries have played such an important part in elementary agricultural education, and which occupy in regard to lessons in elementary agriculture the same place that the laboratory does in elementary physics or chemistry, or that the workshop does to the lessons in woodwork. But, after all, this work is only a preparation for the later stages of what may more properly be called technical agricultural education. The next step is the establishment of classes for the sons and daughters of farmers, and for others who have left the day school and are following or are likely to follow country pursuits. There seems to be an impression that the Education Department should establish such classes; but that is not the method contemplated by the Act: it is to local controlling authorities that the Act gives the function of establishing and controlling them. In this connection I venture to repeat what I said last year on the same question: "I am not sure, indeed, that if it had been otherwise—that is, if the Act had removed the power of initiative and control from the local authorities and had conferred it upon a central authority—anything whatever would have been gained; and I am quite sure that much of the benefit that follows from spontaneous growth and from healthy local control would be lost. If local authorities—by which I mean not only School Committees and Education Boards, but also agricultural and pastoral associations, County Councils, and Road Boards (which are all recognised under the Act)—would realise the immense benefits that would result from the general establishment of continuation classes and elementary agricultural, technical, or commercial classes in their respective districts, and would set to work in real earnest to establish such classes where they do not exist, they would find the first steps very much easier than they anticipated, and, although it does not follow that success would be assured everywhere, failure (which would probably be temporary only) would be more honourable than the present inaction. One of the most useful things, for instance, that an agricultural association could do in conjunction, say, with an Education Board would be to establish in its district classes conducted by a well-qualified agricultural instructor for training young farmers and teachers in the elements of some branch or branches of agriculture suited to the district. The Department would do what it has always done when requested in such cases, send one of its Inspectors to explain what initial steps should be taken, and generally to advise the local authorities as to the work of the classes." It is hoped that the attempts that are being made this year to initiate agricultural training-classes at Hawera and Stratford may be as successful as they deserve to be.

There are one or two notes of warning that should, perhaps, be uttered:—

Firstly, the number of continuation classes is still very small compared with the number of technical classes; it should not be forgotten that it is next to impossible to secure sound technical education unless there is a good basis of general education, for which the continuation classes are intended to provide.

Secondly, there is at present a tendency for students at technical schools to take detached subjects. The directors and controlling authorities of the classes will doubtless see the expediency of encouraging students to take up connected courses of study and practical work, by which alone the full benefit of technical instruction can be obtained. The importance of the proper co-ordination of instruction in the principles underlying each branch of technical work with individual practice in the laboratory and the workshop is, generally speaking, being more and more recognised. One is sorry, therefore, to see that there are many persons in the colony who are so led astray by specious advertisements of certain "Correspondence classes" as apparently to imagine that it is possible to obtain an engineering training from books alone, without a well-arranged course of laboratory and workshop practice under skilled instructors. Certificates obtained under such circumstances can have no real value; and those who have hoped (no doubt earnestly—that is the sad part of it) thus to gain real skill and knowledge in their profession are unfortunately doomed, sooner or later, to that disappointment that awaits every man who trusts in a sham. There is for us no royal road to technical or any other form of practical or scientific knowledge but the laborious path of steady, painstaking experiment and observation with our own hands and our own eyes.

G. HOGBEN,
Inspector-General of Schools.

No. 3.

REPORTS OF INSPECTORS OF TECHNICAL INSTRUCTION.

WE have the honour to make the following report on the state and progress of manual and technical instruction in the colony during the year ending the 31st December, 1903.

A. MANUAL INSTRUCTION.

In most of the education districts there has been a noticeable increase both in the number of schools, and of classes in individual schools in which some form of handwork is being taken up. Compared with last year, the number of schools in which handwork is not confined solely to the preparatory classes is much greater. In many cases the time-tables forwarded to the Department show that it has been found possible to arrange for a course of instruction in handwork for each class, from the lowest to the highest, and it is encouraging to note that during the present year (1904) quite a number of such time-tables have been received. The number of school classes recognised for 1903 was nearly three times as large as for the previous year. It may safely be said that the continuation of special Saturday classes and the establishment of specially organized summer and winter classes for teachers, together with a more general knowledge of the more modern literature of handwork, both in the shape of text-books and of articles in the educational journals, are doing much to bring about a better appreciation of the value of handwork, not as a new subject, but rather as a new method. As indicating the growth of this appreciation, it may be mentioned that some of the older and more experienced head teachers, who at first looked upon handwork with suspicion, have reconsidered the matter after watching the result of allowing those of their assistants who had previously attended courses in handwork to take up some form of it in connection with their classes; in not a few cases the effect has been that head teachers have themselves attended courses of instruction, with the result that handwork has become a recognised part of the work of their schools. While instruction in handwork will be found to react favourably on the general work of the standards, it should prove a valuable aid to the teaching of the drawing. Suitable courses in brushwork, free-arm and blackboard drawing, and modelling will be found of great assistance to freehand drawing with the pencil, while the instrumental drawing, which, it is to be feared, has not always attained a very high standard of excellence in the schools, should show a marked improvement where it has been co-ordinated with suitable courses in paper, carton, and cardboard work. The difficulties in the way of obtaining supplies of the requisite apparatus and material are gradually being removed as Education Boards and those who supply school requisites gain fuller knowledge of what is required and where best to obtain it.

Of the various forms of handwork now being taught in the schools, cookery and woodwork call for special mention. In the larger education districts these subjects are receiving considerable attention, more especially in connection with the city and suburban schools. The system adopted for the teaching of these subjects is the central system, which has much to commend it; it is economical, and by rendering it possible to place the whole of the work in charge of expert teachers, it is likely to produce better and more uniform results. On the other hand, a central school in charge of a specially trained teacher is apt to give rise to the idea that cookery and woodwork are special subjects, apart from the general school course. If they are so, the benefit derivable from the instruction cannot fail to be less than it otherwise would be. One remedy, of course, would be for the instruction at the centre to be given by the regular teacher of the class. Under present conditions, however, this is unfortunately not possible.

A few remarks on the woodwork-room and its equipment may not be out of place here. The building in which woodwork is to be taught is to be regarded rather as a workshop than a class-room. Its construction, therefore, need only be of the plainest description; for all practical purposes, a roomy, dry, well-lighted, and well-ventilated shell is all that is necessary. Careful consideration must, however, be given to the equipment. The benches must be substantial and sufficiently heavy to withstand the strain of the various operations incidental to woodwork. The bench-stops should be easily adjusted, and capable of firmly holding the pupils' work. End vices such as are found on the so-called sloyd benches are not necessary; such vices are seldom used by mechanics except as auxiliary vices. On the school-bench the proper place for the vice is the head of the bench. The vice must be substantial, and provided, preferably, with a steel screw. Simple lockers or stands for pupils' tools, two plain cupboards for general tools, &c., together with a blackboard, a grindstone, and an oil-stove for glue, complete what may be termed the bare necessities for the work. No doubt there are many accessories that for various reasons may seem to be desirable, but are they indispensable?

The number of teachers who present themselves for examination in cookery and woodwork in connection with the examinations of the City and Guilds of London Institute continues to increase. At the examinations held in 1903, fifty-eight teachers passed the examination in cookery, twenty-one obtaining first-class certificates; while twenty teachers were successful in satisfying the examiners in woodwork. It is to be hoped that it will presently be possible to utilise the services of teachers thus qualifying in connection with the instruction of school classes in the subjects named.

The following extracts from the report of the Institute are here given for the information of instructors and prospective candidates:—

Plain Cookery: The improvement noticeable in the quality of the paper-work in 1902 has been fully maintained. Many papers showed excellent work, answers being definite and confined to the point of the questions. There were, however, instances of discursiveness so pronounced as to obscure the meaning, and various errors or omissions occurred which lowered the value of some of the papers considerably. In Question 1, upon heating a body of water, some of the best papers dealt with (a) contraction of water by heat until the point of maximum density is reached, and its expansion upon increasing its temperature beyond that at which the point of maximum density occurs; (b) convection currents;

(c) slow conduction of heat, &c. Some of the weak candidates stated that 'water is heated at the top to prevent explosions,' or 'water cannot be heated at the top,' and that the steam given off at boiling-point is CO_2 . These points are mentioned to show how very incorrectly this question was in some cases dealt with. Question No. 2, on the thermometer, was well answered by the majority of the candidates. Some of the inaccuracies noticeable were, 'the boiling-point of water is 500° ,' and 'freezing-point is 32° below zero.' It was evident that a large number of candidates had received some definite teaching in elementary science bearing upon these subjects, and it may be stated that the candidates who answered these two questions well gave the best answers to the papers as a whole. The following remarks refer to some of the errors, &c., occurring in the papers: In stating articles of diet included under the name 'starchy foods,' the candidates largely confined their answers to mentioning grains, *e.g.*, rice, tapioca, &c.; flour, potatoes, &c., were almost ignored. The general principles of soup-making from bones and meat had been very well taught, but many of the recipes for vegetable-soups were very poor. Several candidates omitted to state the important point that vegetables after their nourishment and flavour are extracted should not be allowed to remain in the soup. Again, boiled vegetables passed through a sieve do not form a vegetable-soup. Attention is particularly drawn to this part of the paper-work. Vegetable-soups properly made are very palatable, nourishing, and inexpensive, and their preparation should be considered by teachers of cookery as an essential and valuable part of the instruction for cookery pupils. The preparation of food for an invalid was answered well, but the first part of the question, requiring considerations which should be a guide in selecting foods for an invalid to be stated, was omitted by quite one-third of the candidates. Answers on stoves, gas and fuel, were good. The statement that gas is economical as a cooking-agent must be made with reservation and not simply in relation to actual cost. It certainly is not generally cheaper than coal. It must be considered in relation to cleanliness, time, and convenience. The economy is in connection with these largely, and much also depends upon the watchfulness of the cook to avoid wasting the gas. The principles of roasting were accurately given, but the time stated for roasting a joint of a certain weight was erroneously stated. Methods of cooking suited to various parts of meat were with few exceptions very fairly stated, but the answers on reheating cold meat were less satisfactory. Some uncertainty was shown as to the method of boiling fish. Spelling, and writing, and composition were quite equal to the standard of last year's papers. The papers as a whole were well arranged, and very few candidates fell below 'fair' for general ability. In the practical examinations each candidate was required to cook four dishes with suitable sauces, gravies, &c., the test dishes being unknown to the candidates until they entered the examination-room. The results of the practical examinations held at seventeen centres, as estimated by professional examiners, showed that 129 passed and thirteen failed. The examiners made some careful criticisms of the work done by individual candidates. The examination was very searching, and a fairly high standard was observed. Where failures occurred reasons were mostly assigned in addition to the lists of marks under the various headings provided by the Institute's mark-sheets for analyses of the marks. Lack of judgment in regard to seasoning, thus producing indifferent flavourings, spoilt some of the dishes; carelessness or ignorance concerning temperatures produced faulty results; uncertainty as to methods, slowness, inattention to dishing up, lack of care in details, over-cooking, &c., were mentioned by the examiners.

"*Woodwork.*—(1) Practical examination: In the first year's work only a small proportion of the work done by the candidates could be assessed as 'excellent,' and as the early training so greatly influences the character of the subsequent work, a higher standard should be aimed at in the work done in these classes for teachers. In the final examination, while a great deal of really excellent work was done, some of the candidates exhibited inaccuracy in working from the diagrams, inability to 'read' the drawings, incorrect methods, and a lack of appreciation of the value of properly sharpened tools. The teachers of normal classes have a great responsibility, and they should insist on the adoption of educational methods as applied to the work generally. They should draw attention to the importance of cultivating the senses of sight and touch, and the use of these senses should precede mechanical tests for truth of surface, correctness of right angles, and judgment of general form of the exercises given for practice, and thus help on to a real 'hand and eye' training. (2) Drawing examination: First year—The paper was generally well done, but there was a noticeable lack of freehand sketches for the oblique views. In many cases the set-squares and tee-square had been used carelessly. Some candidates were obviously using set-squares which were untrue; the ease with which the accuracy of a set-square may be checked makes such a fault inexcusable. Dimensions should be transferred to the drawing by the application of a thin-edged scale to the lines to be marked. Such faults as these indicate that the instruction of candidates might be improved. In Question 3, one of the projections should have shown the irregular outline of the vertical face. Many candidates made a choice of two views in which the object appeared only rectangular. Final—The first question was a test of accurate draughtsmanship, and the small-scale projections were well made in a fair percentage of cases, but in making the detail drawings to a larger scale few candidates checked the length of piece A by proportion, the errors of the first drawing were thus magnified four-fold. In Question 2, the orthographic projections were well done. Some candidates carelessly assumed certain dimension-lines to be a part of the projection required, and drew these lines in; this fault did not occur with those who made a successful oblique projection, showing that it arose from an inability to picture the object. In Question 3, most candidates guarded against a cumulative error in setting out the octagon; but any method of setting out a many-sided figure, which is not self-checking, should be avoided. Generally, greater attention should be paid to accuracy of measurement and projection. (3) Written examination: The papers show very little knowledge of teaching method. Too little attention seems to have been paid to sections 3 and 4 of the syllabus. It was quite an exception to come across notes of lessons systematically arranged showing 'matter' and 'method' put forward with a due regard to educational sequence. The following notes were made on the answers to special questions: The first part of Question 1 was excellently done.

Candidates generally did not answer the latter part correctly, as they did not show how to identify the six timbers from the variation of the details shown on the transverse section. Few attempted Question 2, and still fewer were successful in their answers. Very little knowledge was shown of the utility of woody fibre in the manufacture of valuable commercial products. The form of the notes of lessons was poor. Question 3 was not well answered. The assumption laid down in the question was in most cases neglected. Few candidates showed a knowledge of teaching by the comparative method. The brace, in the answers to Question 4, was well drawn; but the sketch of the centre-bit was very defective in a large number of papers. The answers to Question 5 were for the most part very satisfactory. A detailed description of the two forms of box mentioned was given in most cases as the answer to Question 6. Few candidates attempted to show any teaching-method, and not more than two or three pointed out the analogy between the pins of a dovetail in a dovetailed box and the nails in a nailed box. Many of the sketches of the dovetail showed faulty construction. Question 7 was well answered as a rule. The door, however, was absent in quite a large number of plans. In the answers to Question 8, the majority seemed to be in favour of the jack plane. Its disadvantage was stated to be its weight, but hardly a candidate called attention to the difficult task which a teacher performs in training his pupils to appreciate the accuracy of a plane surface. The point that the shape of a tenon saw is a great help to its accurate manipulation was generally missed; as was also the point that the scholar is better able to appreciate a straight line than a plane surface. The fact that drawing is an important consideration in determining the sequence of tools in a scheme of manual training was almost entirely overlooked in the answers to Question 9. The surroundings or social condition of a district in which a scheme was to be taught were passed over save by one or two candidates. The actual tools were not asked for; but many candidates wrote out lists, and even went to the length of describing a first lesson. The answers to Question 10 betrayed considerable confusion of terms in the minds of candidates."

A subject that is increasing in favour with country schools is cottage-gardening, quite a number of classes in connection with several schools, principally in the Wanganui and Otago Districts, having been recognised during the year. Under present conditions, the establishment of classes for cookery, woodwork, or practical science in connection with country schools is beset with many difficulties. It is very desirable, however, that provision of some sort should be made whereby the children in the country districts should at all events have some opportunity of gaining a little knowledge at first hand. Instruction in cottage-gardening is a valuable means to this end, especially when it is co-ordinated, as in many instances it is, with instruction in agriculture. The initial expense, also, of equipping classes for cottage-gardening is small compared with what it would cost to establish cookery, woodwork, or science classes in country schools. The cottage-garden, if worked on lines such as are followed at the Boscombe British School gardens, may fairly be said to stand in the same relation to the class in agriculture as the laboratory does to the science class. It may be here pointed out that the nature of the work seems to call for the substitution of another and more appropriate name for the subject. Elementary experimental agriculture would, it is suggested, give a better idea of the work that is done. We are glad to be able to say that the work in connection with not a few of the cottage-gardening classes recognised under the Act is following more or less closely the Boscombe School programme; that is to say, the instruction does not merely relate to the ordinary operations of gardening, but is directed mainly to the development of the powers of observation and to the cultivation of habits of order, neatness, and economy. Nor is the utilitarian aspect of the work overlooked; at some schools the pupils are encouraged to sell the produce of the school-garden, and to keep a record of their transactions, opening for the purpose accounts at the Post-office Savings-bank. Above all, the work is calculated to foster a healthy interest in the phenomena of animal and vegetable life. To create an interest is to stimulate the growth of mental power, with a consequent beneficial effect on the routine work of the school. Copies of the Boscombe programme have been issued by the Department for the information of teachers desirous of taking up the work. The number of school classes in the several education districts, together with the subjects of instruction, is set forth in the table on pages 2 and 3.

B. TECHNICAL INSTRUCTION.

The general character of the work during the year of the various technical schools and classes throughout the colony may be gathered from the extracts from the reports supplied by controlling authorities that are attached to this report. In addition to the classes held at specially equipped technical and art schools, of which there are now sixteen, classes were also held at about thirty places in more or less suitable temporary buildings. Where classes are being established for the first time it would appear the wisest plan to commence with such accommodation as may be available. This course has been followed in many instances, the class-rooms of the local school being utilised for the accommodation of the classes. It is chiefly by trial that the actual, as distinguished from the supposed, needs of a community can be accurately gauged; the establishment first of all of a few classes held in temporary premises enables those concerned to estimate the probable requirements, with the result that the possible danger of making provision for buildings and equipment for classes that are not likely to be well and regularly attended is considerably minimised. During the year buildings for technical classes have been erected at Auckland, Stratford, Reefton, Port Chalmers, and Invercargill, while provision has been made for the erection of buildings at Gisborne, Hastings, Nelson, Timaru, Waimate, and Kaitangata. The buildings at Auckland are primarily for the instruction on the central system of school classes in cooking and woodwork; they are also utilised for teachers' classes in the same subjects. At Stratford, one of the rooms is designed for dairy-work in connection with school and adult classes. These classes, which are the first to be established under the Act, will be watched with much interest. In the Wanganui District considerable progress has been made in connection with the arrangements for technical and continuation classes conducted at the district high schools at Wanganui, Palmerton North, and Hawera. As far as the smaller centres are concerned there is no doubt that the plan

of bringing classes for manual and technical instruction into close relationship with the district high school is likely to work well and to prove of mutual benefit, especially when, as is not infrequently the case, provision is made for the instruction of school classes in the same subjects as, or in subjects leading up to, the subjects treated of in the technical and continuation classes.

The classes conducted by the recently constituted Technical Classes Association in Christchurch may be said to have accomplished a successful year's work, especially when it is remembered that they have had to be conducted in temporary premises which are in many ways unsuited to the purpose. It is to be hoped that means may be found in the near future whereby the difficulties in the way of proceeding with the arrangements for providing permanent buildings may be overcome.

The change in the constitution of the classes held at the technical schools in Wellington and Dunedin appears to have been advantageous to the classes concerned. The success or otherwise of newly established classes depends largely on the interest taken in them, and there is little doubt that the interest is likely to be wider and more lasting where the classes are established as associated classes conducted by a board of managers representing the various local bodies interested in technical instruction, and contributing to the maintenance of the classes; and in this connection we are glad to note that the number of classes established under the section of the Act relating to associated classes is increasing. With regard to the general work of the classes it is to be regretted that there is not wanting evidence of one great obstacle to progress. We refer to the difficulty of getting students in many cases to take up regular courses of work. At certain of the large schools, where provision has been made for such courses, the results have not come up to expectations. Too many students attend technical classes not with the intention of taking up regular courses of work but to get, say, one or two quarter's instruction in subjects a knowledge of which the exigencies of their particular avocations appear to render desirable. It goes without saying that classes containing many students of this type are not likely to achieve much success, or to do other than handicap and dishearten the instructors, especially when, as is not infrequently the case, many of the students have forgotten much of what they learnt at school, and have, moreover, lost the habit of regular and systematic study. There is a cure for this, and that is to continue to endeavour to get hold of youths as they leave the primary schools; and we look forward to the day when technical schools, in the large centres at any rate, will cease to be what to all intents and purposes they are at present—namely, evening schools only, and will take their place alongside the secondary schools as institutions at which scholars, on leaving the primary school, may continue their education along lines suited to their prospective avocations. As exemplifying one of the sources from which assistance in bringing about this most desirable state of affairs might well be expected, an extract from a letter that appeared in the *Merchant and Shipper* is here given.

“It may be interesting to know that the stimulus of raising the wages of apprentices on passing examinations is attracting considerable attention both of the employers and their apprentices, so much so that, as regards Derby, the question of technical education is certainly in a great part solved, as the local Technical College is full to overflowing with eager apprentices, and it has been necessary to form new classes. To all employers of labour the question of technical education is of great interest and importance. The attitude taken up in regard to any particular technical school, from a master's point of view, is often of a negative quality, simply because such a particular institute does not happen to fulfil the particular ideal of a particular master. The attitude in this case should be, ‘Although such an institute may not be perfect, how far can I possibly make use of it, and in what degree can I further increase the use of that part I propose to utilise?’ The advantages of training apprentices are many, but quite apart from the actual knowledge gained the greater value lies in the contact of your impressionable minds with highly trained, fine characters, who are experts at reaping wisdom and teaching it, and who can take a wide view of the many questions dealt with. Such apprentices come back to the workshop with a greater appreciation for their work, a wider attitude of thought, which will bring into everything that is attempted logic and real common-sense, based upon soundly scientific and practical methods. The facilities with which boys can be sent to such classes must in each case depend upon the surrounding circumstances and the total number employed. In large concerns, such as railway shops, where the number of apprentices would perhaps exceed the convenient capacity of the local technical institutes, it might be worth while to have a special training school in the works itself. In regard to the time taken for classes, this should be, if possible, in the morning between the hours of 8 and 1. Boys taking such classes can take things more easily, and in such a way be quite fresh for the work they have to do. In most cases the work is done in the evening after the work of the day. The result cannot be so good, as it requires much more effort to really concentrate the attention of the mind when all the muscles of the body are crying out for rest. Ever since the old guilds disappeared a wall of misunderstanding and coldness has grown up between employers and men. The men have formed unions, and the masters have federated. All combinations of labour should make the most of their organization to promote and enhance greater intelligence in the younger men. English industry, balance, and reliability, combined with intellect trained to approach, attack, and surmount the increasing number of problems appearing for solution, would certainly be successful in keeping pace with German and American competition. There is no doubt at all that technical institutions are increasing in value, and will continue to prosper directly as an intelligent interest is taken in all that is attempted, and a real effort made to utilise even a fraction of what is offered. The time is coming for the masters and men to approach and come together through the medium of technical education—the first move being taken by the employer.”

With classes composed largely of young people just fresh from school, it should, it is considered, be possible to so arrange the courses at the technical schools as to eliminate, as far as may be, what are termed “trade classes.” Even with the many difficulties with which those in charge of technical schools have to contend, there is not wanting evidence of a movement in favour of technical classes proper, as opposed to trade classes, that is to say of classes in which the instruction in the principles

that underlie the practice is receiving greater attention than heretofore. Practical work is important, but it should ever be subordinated to the purpose of a technical school, which is not to teach trades, but rather to give instruction in principles together with such practical instruction as is necessary to illustrate those principles. Thus it should be possible to carry out a thoroughly good technical course in mechanical engineering—one of the subjects that is likely in the near future to occupy a prominent place in the curriculum of certain of the larger technical schools—without including in the equipment heavy or complex machine tools, or types of the latest kinds of labour-saving machines. No doubt a knowledge of such appliances would not be without benefit to the students; but is it primarily the function of a technical school to provide opportunities for obtaining such knowledge? The equipment should first of all consist of a selection of a sufficient number of the best types of machine tools suitable for carrying out such work as the limited time at the disposal of the students for workshop practice would allow of. With such an equipment, and an expert demonstrator, it should be possible for students to gain such an insight into principles and methods at first hand as could not fail to be other than of benefit to them in their daily work in the engineering workshop or factory.

During the year 568 technical and continuation classes, with an average attendance of 6,433 students, were recognised under the Act. The corresponding numbers for 1902 were 390 and 6,100 respectively. The number of classes at the various centres and the average attendance at each class are given in the table on pages 2 and 3. An examination of this table shows that the subjects most generally taken up were drawing, modelling, painting, woodwork, cookery, dressmaking, plumbing, and commercial subjects. Good work on the whole has been done by the art classes, but the number of students taking up art seriously still remains small compared with the numbers of students whose aim is merely to get some knowledge of this or that branch without reference to a graduated course of study. It is not easy to see how this is to be altogether avoided when it is remembered that circumstances do not at present admit of anything like compulsory attendance being thought of. Attempts are being made with, in general, encouraging results, to institute, when opportunity offers, courses of instruction in applied art. We hope to see still greater prominence given, as time goes on, to instruction in art as applied to industries, the importance of such instruction being more and more recognised every day.

There continues to be a demand for classes for instruction in plumbing, due largely to the regulations now in force in many parts of the colony regarding the licensing of plumbers. The work, generally, may be described as good; in some cases, especially at one or two of the smaller centres, really excellent results have been obtained. The principle of obliging those wishing to undertake sanitary work to show evidence of having received a satisfactory preliminary training in the theory and practice of the subject cannot but have a beneficial effect on the character of plumbing and sanitary work generally. The extension of this principle in other directions is recommended for the careful consideration of local authorities, in whose power it lies to take the necessary steps.

There appears to be a very general demand for classes for instruction in commercial subjects, and, while a large number of the existing classes are of the nature of continuation classes, that is to say, classes that only provide for instruction in specific subjects such as shorthand, typewriting, and book-keeping, it is encouraging to note that the number of classes providing for courses of commercial instruction, and ranking, therefore, as technical classes, is increasing. There appears to be a tendency to attach undue importance to shorthand and typewriting in connection with courses of commercial instruction, with the result that too little attention is given to what should form the most important feature of the work. The subjects named, especially the latter, belong to what may be described as the mechanics of commercial work, and as such they no doubt have their proper place in a scheme of commercial instruction. The work in connection with a scheme devised for those preparing for general clerical work should, it is considered, be directed chiefly to instruction in English composition and arithmetic, on lines suited to the end in view. With this as a basis, instruction in general business methods, commercial technology, shorthand, and typewriting would follow as a matter of course; but such instruction should be kept subservient to the main object of the course, which should be to prepare students for commercial work rather than to render them, more or less, proficient in certain of the operations incident to such work. There are, no doubt, many real difficulties to be surmounted in connection with the establishment of courses of commercial instruction on right lines, not the least of which is the indifference of those for whom the courses are intended, many of whom desire nothing beyond a bare knowledge of shorthand and typewriting sufficient to enable them to obtain employment of a sort. The adoption by employers of rules similar to those now obtaining in many places in connection with plumbing and sanitary work would, we think, do much to strengthen the hands of local authorities in charge of technical instruction, and to raise the standard of attainments of those engaged in clerical work.

Classes in the various branches of domestic economy have been established in an increasing number of centres; cooking and dressmaking being the subjects most in demand. The instruction generally has been on good lines, and the classes have been well attended. With regard to cookery it seems necessary to emphasize the desirability of devoting more attention to a proper understanding of the principles that underlie the various operations incident to the culinary art. Instruction in cookery, if it is to be regarded as technical instruction in the full sense of the term, should include something more than the preparation of this or that dish in accordance with accepted recipes or instructions. May not the kitchen from the point of view of technical instruction be regarded as a laboratory adapted to a special purpose, and might not therefore some of the work at any rate be of an experimental nature? Would it be a waste of time and material if, for example, a given recipe were occasionally analysed, say, by omitting altogether, or altering the proportions of, one or more of the more important ingredients? By this means something could be done in the way of ascertaining the reasons for the presence and the amounts of the several ingredients, and, *inter alia*, of learning something of their properties. Surely more benefit to the students would result from such work as this, than from merely preparing dishes without reference to the principles on which the recipes or instructions are based. Dressmaking

in many of the classes continues to be taught by means of one or other of the various systems necessitating the use of special charts. No doubt these systems supply a need; whether they should form the basis of a technical course in dressmaking is another matter. It is worthy of remark that at the examinations of the City and Guilds of London Institute in dressmaking, no charts of any sort are allowed, and it would seem that a course in dressmaking that claims to rank as a technical course should have a higher end in view than that of familiarising a class with the methods of a system necessitating the use of special charts based on principles a proper understanding of which forms no part of the course of instruction. If the course included practice in the construction of charts there would be little left to be desired.

The remaining subjects of instruction dealt with in the classes in the various centres do not call for special remark. Art, science, and technological examinations were, as usual, conducted by the Department on behalf of the Board of Education, South Kensington, and the City and Guilds of London Institute. The results, which are given in a special table attached to this report, may be summarised as follows. At the art examinations 245 papers in 14 subjects were taken by candidates, and 38 certificate-works were submitted for examination; 170 passes were obtained and 18 works accepted. At the science examinations 82 papers in 10 subjects were taken and 61 passes obtained. The examinations were held at 9 centres. At the technological examinations, which were held at 8 centres, 173 papers were taken and 116 passes obtained. In connection with the National Competition a book prize was awarded to a student of the Wellington Technical School, and prizes to two students of the Dunedin School of Art.

M. H. BROWNE,

E. C. ISAAC,

Inspectors of Technical Instruction.

No. 4.

MANUAL AND TECHNICAL INSTRUCTION IN THE SEVERAL EDUCATION DISTRICTS.

AUCKLAND.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Manual and Technical Instruction.—The report of the Director of Technical Education presents a full and comprehensive statement of what has been accomplished during the year. The boys and girls of Standards V., VI., and VII. in eighteen of the town and suburban schools have received regular and efficient instruction in woodwork and cookery respectively, and the headmasters of those schools have cheerfully co-operated in assisting to carry out the arrangements made by the Director for such instruction. Thirty-nine schools have carried on instruction in handwork, and in fourteen schools (under the sole charge of male teachers) provision has been made for the instruction of girls in needlework. A large number of teachers have availed themselves of the Saturday classes in woodwork and cookery, some of them having to travel long distances weekly in order to do so. Arrangements will be made this year for the instruction of teachers and pupil-teachers in art and science.

For manual and technical instruction (exclusive of buildings) the Board received a sum of £1,807 7s. 1d., and expended £2,599 6s. 5d., leaving a debit balance of £791 19s. 4d. To this has to be added a debit balance of £396 0s. 10d. on account of the Auckland Technical School, brought forward from the year 1902, thus making a total deficiency of £1,188 0s. 2d.

The capitation grants earned during the year, and since received, amount to £1,150 2s. 10d.

For buildings the receipts amounted to £19,600 17s. 3d., and the expenditure to £20,639 11s. 10d., leaving a debit balance of £1,092 14s. 7d., to which should be added the debit balance of £1,156 18s. 6d. brought forward on Building Account from 1902, showing a total deficiency of £2,249 13s. 1d. on this account at the end of the year.

The building and fitting-up of the three manual-training schools proved more costly than was anticipated. Their total cost was £3,591 8s. 1d., towards which the Government grants amounted to £2,292. The Board has applied for a supplementary grant of £1,299 8s. 1d. to meet the additional cost, and the request is still under consideration.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

In many schools some form of handwork is now taken up, and in several directions teachers have got beyond the stage of feeling their way. Cane-weaving and paper-folding are often efficiently taught, and in a few schools creditable work in modelling and designing in plasticine has been seen. Much of the plasticine-work of primer pupils is rough and without finish, and appears a doubtful means of educative training. Brush drawing has been taken up in some of the larger schools and occasionally in smaller ones, and in general fair initial work is being done. Books containing definite suitable courses of work for the guidance of teachers, and for use by the pupils in at least the smaller schools, would be of service in connection with this new form of drawing and colour-work.

In most of the Auckland and suburban schools the pupils of Standards V. and VI. have taken woodwork or cookery at the manual training-centres organized under the advice of the Director of Technical Education. Good work is being done at these centres, and in general the classes are popular and well appreciated.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF TECHNICAL EDUCATION.

During the past year considerable progress has been made in this district in matters relating to manual training or hand and eye work, and technical education.

At the beginning of the year, during the Christmas holidays, a summer school was held in Auckland, at which nearly three hundred teachers in the service of the Board attended. Amongst those who gave lectures and instruction was Miss Eva Hooper, late Organizer in Kindergarten Work to the Victorian Education Department, who was specially engaged from Melbourne to give information relative to the teaching of hand and eye work in primary schools. At the conclusion of the summer school, Miss Hooper was engaged by the Board for a further period of three months to hold classes for teachers and to visit the various city and suburban schools to give advice to the teachers as to the methods of teaching hand and eye work, more particularly in connection with the infant department. Miss Hooper's classes included lectures on "The Principles of Teaching," and practical work in paper and cardboard cutting and folding, and in brush drawing. Two hundred and thirty-four teachers attended these classes, which were held in the evenings and on Saturday mornings, the average attendance being 190. Regarding the work of these classes, Miss Hooper reported as follows: "The majority of those attending the classes were badly handicapped, first, by having to attend the classes after school-hours, when they were already tired; secondly, on account of the shortness of the time at my disposal much of the work had to be done at home in time overcrowded already; thirdly, by the apparent entire absence of early training in handwork, or anything requiring precision. In the brushwork classes this was noticeable in the lack of control of the muscles of the hand and wrist, and in the paper-work classes by the general absence of accurate work. Control of the hand for brushwork can only be obtained through long practice, and for that, of course, the time with me has been too short. I have been able to show how the preliminary manipulations of the brush are carried out, and only subsequent practice can give the precision which is necessary for carrying out successful work. In the paper-work I can fairly say that there has been great progress during the last half of the course. Most of the teachers are now beginning to understand the absolute need of accuracy in the smallest detail of the work, and I think the models which were on view at the exhibition of work reflect credit upon the members of the class. Here again, of course, it has been impossible to do more than suggest lines of work. Cardboard-work alone requires more time than we have been able to devote to the whole subject. With regard to the supply of materials to the schools, I should recommend that your Board make arrangements for getting the needful supplies in large quantities, and from such a stock supply the schools as required. This would be found, I am sure, cheaper and more satisfactory than leaving such schools to provide for their own needs. Finally, let me express my conviction that a training college for teachers, with a practising school attached, is very badly needed in this district. By this, I mean a college in which teachers will be taught the science and art of teaching, and in which this will take the premier position, not a place to which young teachers will go to pursue their academic studies."

One of the results of Miss Hooper's teaching has been that a number of teachers have introduced handwork into their schools. With the idea of giving teachers an opportunity of acquiring a thorough knowledge of drawing in the various branches (a subject of the utmost importance to the teaching profession) the Board has engaged from England a specialist, Mr. Harry Wallace, who for the past four years has been Organising Instructor in Art and Hand and Eye Work to the Burslem School Board, and who has earned for himself a very high reputation in the Old Country. In addition to giving instruction to teachers in drawing and handwork, Mr. Wallace will visit the primary schools as expert adviser in these subjects.

During the year three manual-training schools have been built and equipped at Newton (Upper Queen Street), Newmarket (Manukau Road), and Ponsonby (Richmond Road) respectively. Six instructors (three for cookery and three for woodwork) were engaged from England, and work was commenced on the 20th July last. At each of these three manual-training centres the pupils of Standards V., VI., and VII., from six or seven of the primary schools in the vicinity of the centre, attend once a week (two hours) for cookery and woodwork respectively. The number of pupils on the rolls of the several cookery and woodwork classes was 878 and 934 respectively. Although these classes have been commenced only a little more than six months, the work done has created a most favourable impression upon the teachers of the primary schools, as well as upon the parents of the children. Germany, United States of America, England, Scotland, and other countries strongly advocate the introduction of manual training into the primary-school curriculum, and I feel sure that the beneficial effects of the work will soon be felt upon the rising generation in Auckland.

In order that the schools in the country districts may be able to benefit by the introduction of cookery and woodwork into their curricula, special classes for teachers are held in these subjects at each of the three manual-training schools on Saturdays. This will enable teachers to become qualified to give instruction in cookery or woodwork in the schools in which they may be engaged. A special course of instruction in each subject has been drawn up to extend over a period of two years, an examination being held at the end of each year. During October last I visited some of the larger centres of population in the province—viz., Thames, Paeroa, Waihi, Hamilton, and Cambridge. At each of these places I gave addresses to the School Committees and others interested in manual training and technical education, and, as a result, representations were made to the Board from Thames, Waihi, Hamilton, and Cambridge for the establishment of a manual-training school in each of these places. These schools, in addition to providing manual training in the day for pupils of the primary schools of the district, could be utilised for technical and continuation classes in the evenings. At Thames the provision asked for is a school of the same type as those established in Auckland, but smaller in dimensions. At Waihi, Cambridge, and Hamilton the school would be in connection with the District High School, and provision is asked for the teaching of practical science in addition to that of cookery and woodwork.

As indicated in my last report, shortly after my arrival in the colony it was decided to utilise as a temporary technical school the building in Rutland Street, and to obtain the use of two of the large rooms in the Wellesley Street Public School. A four years' course of instruction was drawn up in connection with the most important trades of the city, and the first year's portion of each course was provided for. The total number of individual students enrolled was 322, and the number of class entries 763. The work of each department is briefly dealt with below.

Commercial Department.

The subjects taken up in the first year were commercial arithmetic, commercial geography, English composition, including correspondence and *précis* writing, French, typewriting, and shorthand. Of these, the first three were compulsory for students who intended to take up the four-years course and thus obtain the diploma in commerce, whilst the last three were optional. Twenty-two students took up the full course, but only two were successful in obtaining the full first-year certificate, one of these taking all the optional subjects.

In addition to the above subjects, book-keeping was taken as a special subject for those students who wished to obtain a knowledge of it without taking up other commercial subjects.

Commercial Arithmetic.—Twenty-nine students were enrolled. Many of the pupils had a very poor knowledge of elementary arithmetic, with the result that very little work of an advanced nature could be dealt with during the session.

English Composition, &c., and Commercial Geography.—Many of those who joined the English classes were not only weak in composition but also in spelling, whilst the writing generally was of a very low standard. Under these circumstances only work of an elementary nature could be attempted. In commercial geography a considerable amount of enthusiasm was shown by the older students of the class, whilst many of the younger ones, whose fees had been paid by their parents, evinced little interest in their work.

French.—The work in this class was generally satisfactory, the majority of the students having reached the "age of discretion."

Shorthand, Typewriting, and Book-keeping.—The pupils attending the typewriting and shorthand classes were for the most part quite young, and were not as serious in their studies as could have been desired. In book-keeping, very satisfactory work was done by the more serious students, but, generally speaking, a lack of knowledge both of ordinary penmanship and arithmetic was shown.

Domestic Department.

The subjects dealt with in this department last session were plain cookery, and the principles and practice of dressmaking.

Plain Cookery.—Considerable difficulty was experienced in obtaining a teacher for this subject, and the class would have fallen through had not Mrs. George consented to act as honorary instructor until the arrival from England of the teachers appointed by the Board to take charge of the cookery in the new manual-training schools.

In *Dressmaking* the system taught was the Anglo-Parisian. The students attending this class were most regular, and some very satisfactory work was done.

Mechanical Engineering Department.

The subjects taken in the first year's course of this department were as follows: Practical mathematics, practical geometry, machine construction and drawing, and applied mechanics.

Practical Mathematics.—Owing to the lack of groundwork in ordinary arithmetic displayed by the pupils, a considerable portion of the session had to be devoted to this subject, so that comparatively little could be done with algebra, trigonometry, and geometry.

Machine Construction and Drawing.—The number of students enrolled for this subject was twenty-one. As in other subjects, there was evidence of a lack of early training in freehand and geometrical drawing. Although fifteen entered for the complete first year's course in mechanical engineering, only two were successful in obtaining a full certificate.

Electrical Engineering Department.

The subjects of the first year's course were the following: Magnetism and electricity (theory and practice), practical mathematics, machine construction and drawing.

Magnetism and Electricity.—Thirty-five students were enrolled in this subject. Lack of knowledge of arithmetic and English composition was very noticeable amongst the students, and considerable difficulty was experienced in getting them to see the necessity of writing up an account of the experiments they had performed in the laboratory.

Practical Mathematics, and Machine Construction and Drawing.—The same remarks apply to these subjects as in the case of the work done in the mechanical engineering department. For the full first year's course in electrical engineering twenty-two students were enrolled, but only two were successful in obtaining the complete certificate.

Cabinetmaking Department.

The subjects dealt with in the first year's course were as follows: Theory and practice of cabinet-making, freehand, model, and geometrical drawing, and arithmetic and mensuration.

Theory and Practice of Cabinetmaking.—In addition to the practical work, lectures were given on timber, furniture, veneering, brasswork, tools, &c.

Arithmetic and Mensuration.—Instruction in this class was given with special reference to measurement of timber, &c., some very satisfactory work being done.

Drawing.—The course of instruction in this subject included freehand, model, and geometrical drawing, with special reference to the cabinetmaking trade.

Wood-carving.—A course of lessons in this subject was given with the idea of encouraging those engaged in the cabinetmaking trade to take up this branch of their work. Of the nine students enrolled, however, only one was engaged in the trade. Of the seven students who entered for the complete first year's course in cabinetmaking, two were successful in obtaining a complete certificate.

Building Trades Department.

The subjects dealt with in the first year's course were practical mathematics, freehand, model, and geometrical drawing, and theory and practice of carpentry and joinery. A special course of instruction in carpentry and joinery was given to journeymen, and a class in building construction and drawing was also held.

Carpentry and Joinery.—In the first year's class twenty-four students were admitted whilst sixteen students took up the journeymen's class. Considering that carpentry and joinery is one of the most important trades in Auckland, the work done during the session was not at all satisfactory.

Arithmetic and Mensuration.—The application of these subjects to carpentry and joinery was taught, and some very satisfactory work was done.

Freehand, Model, and Geometrical Drawing.—Generally speaking, drawing throughout the school was not satisfactory, and this class proved no exception. Lack of early training in the subject, no doubt, accounted to a great extent for the failure.

Building Construction and Drawing.—This class was one of the most successful of the year, the students working steadily throughout the session, whilst at the examination all who took the paper were successful, six obtaining first-class, and five second-class certificates. The number of students who took up the complete first year's course in carpentry and joinery was fourteen. Of these, one only obtained a full certificate.

Plumbing Department.

The first year's course in this department embraced arithmetic and mensuration, freehand, model, and geometrical drawing, physics and chemistry, and theory and practice of plumbing.

A special class in plumbing was also held for masters and journeymen.

Principles and Practice of Plumbing.—Excellent work was done by the apprentices in both theory and practice. Those journeymen who were in earnest also made good progress, and some were disappointed at failing in the practical examination, without taking into consideration the fact that many of them had never done a piece of lead-work in their lives previous to their coming to the Technical School. It is hardly reasonable to expect that a man can become a fully qualified plumber as a result of eighty hours' practical work.

Arithmetic and Mensuration.—As in other subjects, the apprentice plumbers showed themselves thoroughly in earnest, and excellent work in arithmetic and mensuration as applied to the trade was done.

Freehand, Model, and Geometrical Drawing.—This was the most satisfactory of all the drawing classes in connection with the trades.

Physics and Chemistry.—These subjects were dealt with, both by lectures and in the laboratory, the course having special reference to the plumbing trade. Excellent results were obtained.

Speaking generally, the work of the plumbing department was amongst the most successful of the school. Twelve students entered for the full first year's course, and five of these obtained the complete certificate.

Painting and Decorating Department.

The first year's course was as follows: Freehand, model, and geometrical drawing, arithmetic and mensuration, and theory and practice of painting and decorating. This department was the most unsatisfactory of any in connection with the school.

It is with considerable satisfaction that I have to note that the City Council have, on my recommendation, decided to set up a Board of Control to deal with the examining and licensing of plumbers. The Board is to be composed of the Director of Technical Education, the City Engineer, the City Sanitary Inspector, a representative selected by the master plumbers, and a representative selected by the journeymen plumbers.

Speaking generally, the work done in the Technical School during last session was not satisfactory. This I attribute chiefly to two causes: Firstly, the lack of sound elementary education on the part of the majority of the students entering the school; secondly, the lack of interest in their work, and the total absence of any ambition to get on, on the part of many of the pupils, especially those whose fees had been paid by the parents.

That technical education is greatly needed in Auckland is made manifest more and more every day in connection with the various trades, and it is to be sincerely hoped that the Government will take steps to put matters on a more satisfactory footing than has hitherto been the case.

GEORGE GEORGE, F.I.C., F.C.S.,
Director of Technical Education.

Summary of Income and Expenditure for the Year 1903.

MANUAL TRAINING DEPARTMENT.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Capitation on cookery and woodwork classes	544	2 0	Buildings, furniture, &c.	3,521	2 1
Grants for buildings, furniture, &c.	2,313	4 9	Materials	74	4 9
Grant (1901) for training of teachers	250	0 0	Incidentals	53	2 3
Grant for teachers' special classes	22	5 1	Expenses of engaging instructors	301	10 0
Capitation, teachers' special classes	26	2 3	Salaries of instructors	655	16 5
" for school classes (ordinary)	151	12 4	Payments to School Committees (for school classes)	149	9 10
Donations and contributions	28	13 11			
Miscellaneous receipts	16	12 0			
Balance	1,402	13 0			
	<u>£4,755</u>	<u>5 4</u>		<u>£4,755</u>	<u>5 4</u>
<i>Assets.</i>			<i>Liabilities.</i>		
	£	s. d.		£	s. d.
Balance of capitation (1903)	474	10 9	Balance brought down	1,402	13 0
Grant for training of teachers (1902-3)	328	0 0			
Subsidy on donations	10	7 0			
Balance	589	15 3			
	<u>£1,402</u>	<u>13 0</u>		<u>£1,402</u>	<u>13 0</u>

AUCKLAND TECHNICAL SCHOOL.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Fees paid by students (less rebates)	639	11 0	Balance from 1902	396	0 10
Capitation grant	32	15 0	Buildings, furniture, fittings, &c.	1,649	13 6
Grant for buildings, furniture, &c.	1,425	19 0	Materials	121	12 10
Grant for rent of Rutland Street (two years)	208	0 0	Rent	121	4 3
Grant for materials	11	1 6	Salaries of instructors, &c.	1,052	2 0
Donations and contributions	14	0 0	Incidentals	191	8 4
Miscellaneous receipts	63	8 3			
Balance	1,137	7 0			
	<u>£3,532</u>	<u>1 9</u>		<u>£3,532</u>	<u>1 9</u>
<i>Assets.</i>			<i>Liabilities.</i>		
	£	s. d.		£	s. d.
Capitation for 1903	347	12 1	Balance brought down	1,137	7 0
Subsidy on donations	14	18 0	Rent for 1904	104	0 0
Balance	878	15 11			
	<u>£1,241</u>	<u>6 0</u>		<u>£1,241</u>	<u>7 0</u>

VINCENT E. RICE,
Secretary and Treasurer.

EXTRACT FROM THE REPORT OF THE DIRECTOR, "ELAM" SCHOOL OF ART.

I am pleased to say that the attendance during 1903 was larger than that of any year since the school was opened in 1890. The increase was principally at the evening classes, and shows unmistakably that the artisan student is beginning to attach a proper importance to drawing in relation to his trade or profession. The classes for freehand drawing, model-drawing, and geometry have been very well attended, and very good progress has been made.

At the end of 1903 there were 381 students on the roll of the school, and the attendances registered amounted to 38,694.

For the examinations of the Board of Education, South Kensington, 84 students entered, and 64 passes were obtained, details of which were as follows: Freehand drawing—41 candidates, 30 passed; model-drawing—19 candidates, 15 passed; blackboard drawing—4 candidates, all passed; light and shade—7 candidates, 5 passed; geometry—7 candidates, 4 passed; perspective—6 candidates, all passed.

Only two works for teachers' certificates were sent home this year, and both these were accepted.

During the year five students completed the necessary works for the Art Class Teacher's Certificate, and duly received their certificates from London.

E. W. PAYTON, Director.

TARANAKI.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Technical Education.—The efforts of the Board to establish a thoroughly efficient system of technical education have not been relaxed, and some progress has been made, although there are still many who fail to realise the necessity of this very important branch of education. At Stratford an admirable building has been erected, and as soon as some necessary workshops and outbuildings, &c., have been completed, the building will be brought into use. The cost of the main building will be £1,084 11s., and is being found by the Government. Of this sum £894 10s. 2d. was spent at the end of the year. The foundation-stone was laid on the 30th July by the Hon. C. H. Mills, Minister of Customs, and on the 28th December the same Minister opened a very successful industrial exhibition in aid of its funds in the newly completed building. At New Plymouth the question of site remains unsettled. The matter has been advanced somewhat, however, an Act having been passed through Parliament vesting

St. Michael's Square—the site chosen, and previously the property of the New Plymouth Borough Council—in the School Commissioners, in exchange for certain education reserves at the west end of the town, with the view of having the square declared a school-site, in accordance with the power vested in the School Commissioners by the Education Reserves Act. In this connection the thanks of the Board are due to Mr. James Mackenzie, Commissioner of Crown Lands for Taranaki, for assistance given in arranging details of the Exchange Bill, also to Messrs. Smith, Jennings, Symes, and Major, Ms.H.R., for securing the passing of the Act. During the year plumbing classes in theory and practice were established at New Plymouth and Stratford. An examination held at the conclusion of the first course showed that the instruction had been on sound lines. School classes, under the Manual and Technical Act, have been established, and are progressing satisfactorily in a number of schools.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

During the year manual work was undertaken, and recognised by the Department in a little under half of the schools of the district, and in many cases a marked improvement was noticeable in the intelligence with which the subjects were treated and co-ordinated with the rest of the school work. Indeed, the teachers are making strenuous efforts to remedy what was last year pointed out as a defect, and are more and more looking upon manual work in its proper light—a method of teaching. Classes for the instruction of teachers were continued, and were well attended.

WANGANUI.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

In April the building erected in Palmerston North for the secondary department of the College Street District High School was opened. The building provides accommodation for the Technical School classes in drawing, painting, &c. Excluding furniture, the cost of the building exceeded £2,300. £800 was contributed by the Government for the District High School, and also £760 for the Technical School and fittings and furniture. A sum of £200 contributed by residents of Palmerston North several years ago for a technical school was invested until required, and earned in interest the sum of £25 4s. 8d. On the £200 there was a subsidy of £200, and the balance of the sum required was provided by the Board.

At the Wanganui Boys' District High School a science-room and a woodwork-room were erected during the year, and thoroughly equipped for practical work.

Towards the end of the year a grant was made for equipping the woodwork-rooms at Hawera and College Street District High Schools, and the science-room at the latter school. The grant for the science room at Hawera was not made until early in this year. In the opinion of the Board, provision should be made for science, cookery, and woodwork rooms at Feilding, and cookery and plumbing rooms at Wanganui.

Training of Teachers.—A week was added to the June holidays for the purpose of holding a winter school for the training of teachers. Lectures and addresses on subjects of interest to teachers were given by Miss Eva Hooper, Mr. W. Gray (Chief Inspector), and Mr. J. A. Johnson, of Timaru Main School. The female teachers were instructed in brushwork and paper-work by Miss Hooper, and the males in cardboard-modelling by Messrs. H. M. Payne and J. Banks, and in free-arm drawing by Messrs. L. J. Watkin and D. E. Hutton. More than two hundred teachers attended the classes. The majority took several subjects. To Mr. W. Gray, Chief Inspector, is due the credit for the excellent arrangements and for the consequent success of the school. Miss Eva Hooper was engaged by the Board for seven months from the beginning of June. During this time she visited many of the schools and gave advice to the teachers, chiefly on subjects of technical instruction. She also conducted classes for teachers at Palmerston North in paper-work, at Wanganui in brushwork and paper-work, and at Hawera in paper-work. These classes were fairly well attended, and much good work was done which cannot fail to be of great benefit to those who were sufficiently interested to attend regularly.

Classes for elementary handwork were held during the year in connection with eight schools. Classes for cottage-gardening were held at ten schools. Classes for swimming, science, first aid and home nursing, and woodwork were also held. Instruction in needlework was given in twenty-seven schools with an average attendance of less than forty-one. In all cases the programme of work was approved by the Department.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

The infant department received extra prominence owing to the presence in the district, for a period of six months, of Miss Eva Hooper, whose services the Board was fortunate to secure. Miss Hooper has had large experience in kindergarten methods, in giving instructions in various branches of manual work suitable for the lower classes, and in lecturing to teachers upon educational subjects. She conducted teachers' classes at Wanganui, Palmerston, and Hawera, and visited as many of our infant-rooms as she could in the time at her disposal.

We have to acknowledge our thanks to the Board for the generous manner in which it has responded to various requests that we have from time to time made for grants towards the purchase of material for our schools. All the schools in Grades 1, 2, and 3 have been supplied with crayons, bricks, sticks, and plasticine for the use of the primer classes. It has always been recognised that one of the chief difficulties in schools under one teacher is to find suitable desk employment for the little ones. He should now be able, by means of the apparatus provided, to devise occupations which will profitably engage the attention of the primers while he is busy with the standard classes. A grant was also made towards the purchase of science material, and there is now no excuse for teaching this subject without apparatus. A number of teachers have already procured such apparatus as they require; and we would urge upon all who have not done so to make application without delay.

Winter School.—One of the chief difficulties experienced by teachers far removed from the larger centres is that of keeping in touch with recent developments in school work. To overcome this difficulty, and following in the lines laid down at the summer school in 1902, we arranged for a winter gathering of teachers. This was held in the week before the midwinter vacation. The programme included practical classes in cardboard-modelling, free-arm drawing, and brushwork for country schools, and lectures on topics of general interest to teachers. About three hundred teachers attended, and a praiseworthy spirit of earnestness and enthusiasm was manifest in all the meetings. We propose to hold a similar meeting this year.

EXTRACT FROM THE REPORT ON THE WANGANUI TECHNICAL CLASSES.

The number of students who attended the various classes of the school during the four quarters was as follows: Drawing and painting, 74; building-construction, 26; machine-construction, 14; geometry and perspective, 41; plumbing—theoretical 12, practical 18; Saturday teachers' class, 20; wood-carving, 43; modelling in clay, 4; life class, 5; singing and theory of music, 28.

Drawing and Painting Classes.—The work has comprised drawing in outline and in light and shade from the cast, and from groups of objects; and painting from still life and from flowers. Fairly satisfactory progress has been made. Some difficulty is experienced in inducing students to take up a course leading up to higher work in art, many students being satisfied with obtaining pretty effects of colour with the delineation all at fault. During the fourth quarter a junior class was started to enable school-children to attend. The class was largely attended, great interest being taken in the work. It is hoped that this class will be the means of urging pupils to continue their studies in the more advanced stages. Instruction to teachers and pupil-teachers has been continued as usual, considerable interest being manifested in most branches of the work. The work in freehand has been from the cast, which gives the student a greater power of representing objects than does drawing from flat diagrams. The work of the senior pupil-teachers in geometry and perspective was highly satisfactory. The model-drawing class completed a useful course of work, drawing from geometrical models and from common objects based thereon. I should like to see more teachers taking up this subject in the schools, as ability to draw from objects is of greater value to the artisan than ability to copy flat representations of objects.

The attendance at evening art classes has not increased in any marked degree. The general work of these classes was freehand from the cast, and drawing in light and shade. Instruction was also given in painting in sepia and monochrome from still life and from the antique.

The attendance at the class for machine-construction was the same as for the previous year; excellent work was done. New examples of machinery, kindly given by the General Manager of Railways, proved a valuable aid to the instructor. I trust others will follow the example set by the General Manager of Railways.

The attendance at the class for building-construction was higher than in previous years. Satisfactory work was executed by the class as a whole. Some students took both the elementary and the advanced course with advantage. The Wanganui Master Builders' Association has kindly offered a prize, to be competed for annually by apprentices. The first examination will be held towards the end of this year. The life class has executed good work during the past year from the draped model in chalk and in oils.

The attendance at the wood-carving and modelling classes has steadily increased, and some excellent work in carving has been executed by the students from original designs and from photographic representations of carvings. The modelling class has steadily increased in numbers, and has done good work from the cast and from photographs.

The attendance at the class for plane and solid geometry was the largest since the school was formed, geometrical drawing being made compulsory for all trade students.

The average attendance at the class for practical plumbers has been well maintained. The work was based on the City and Guilds of London syllabus for plumbing. The room in which the class is held is far from satisfactory, and I trust that we shall have an up-to-date plumbing workshop before next year. The Borough Council kindly contributed the sum of £10 towards this class. A Board of Control in connection with plumbing and sanitary work was established in Wanganui with the approval of the Chief Health Officer. The Education Board, the builders, the Master Plumbers' Association, and the Journeymen Plumbers' Union are represented on the Board. There can be no doubt of the use of such a body in placing the plumbing craft on a higher footing, and acting as an advisory body on plumbing and sanitary questions.

Three candidates gained second-class certificates at the City and Guilds of London Institute Examination in plumbers' work (ordinary grade), and three candidates gained second-class certificates in the principles of plumbing (ordinary grade). At the first examination in practical and theoretical plumbing held by the Board of Control ten candidates presented themselves for examination. Five passed in theoretical plumbing, but their practical work only entitled them to a second-grade pass, which grade is not recognised in local examinations.

Classes were held in connection with the Girls' College in freehand and object drawing, in drawing from nature, brushwork, and applied design, and in drawing and shading from the cast.

A class for painting was also held, instruction being given in painting in monochrome from the cast, painting from still life and from flowers.

The Education Department sent for public exhibition some fifty framed specimens of worked exercises accepted by the Science and Art Department at the several art examinations. The exhibition was open to the public and attracted a number of visitors. The value of the collection to art and science students cannot be overestimated. I trust the Department will see its way to give a few examples of specimen work to this school.

The open scholarships offered by the Education Board in art, architecture, and machine-drawing were duly competed for, and awards were made in connection with the nominated scholarships.

Two scholarships in connection with the wood-carving class were donated by A. Hatrick, Esq., and J. Thain, Esq.

At the annual examinations of the Board of Education, South Kensington, in science and art, the following were the results: Freehand—first class 5 passes, second class 1 pass; design (elementary)—second class, 1 pass; drawing of plant-form—second class, 1 pass; practical plane and solid geometry—second class, 1 pass; machine construction—first class, 2 passes; building construction—first class, 1 pass; theoretical inorganic chemistry—first class 3 passes, second class 7 passes; plant-form from memory—second class, 1 pass.

DAVID E. HUTTON, Director.

In addition to the classes referred to in the above report, classes in Latin, English, mathematics, electricity, and commercial subjects were also held. The classes in Latin and English were fairly well attended, and several of the students passed the Matriculation Examination at the end of the year. The classes in mathematics and shorthand were very poorly attended, financial loss being incurred in the case of the class in mathematics. The classes in commercial subjects, including accountancy and commercial and industrial law, were well attended, and some students sat at the New Zealand Institute of Accountants' examinations.

The electricity class was largely attended. Among the students were a number of the District High School boys. The general conduct, work, and attendance of the students were on the whole very satisfactory.

EXTRACT FROM THE REPORT ON THE PALMERSTON NORTH TECHNICAL CLASSES.

Classes were held during the year by Mr. L. Watkin in drawing, painting, building construction, machine drawing, signwriting, brushwork, and drawing from life. In addition to the usual day and evening classes, a special class for teachers was held on Saturdays.

At the beginning of the second quarter the school was removed from the Library buildings to the new rooms. New furniture and casts have been provided during the year.

The average number of students during the year was sixty-five, an increase of ten over the previous year.

A public exhibition of students' work was held at the opening of the new rooms.

EXTRACT FROM THE REPORT OF THE HAWERA TECHNICAL CLASSES.

Classes were held in freehand and geometrical drawing, free-arm drawing, drawing in light and shade, brushwork, and painting from still life in oils and in water-colours. Twenty-five students exclusive of school children attended the several classes. Advantage is taken of the proximity of the Art School to the District High School to allow the pupils of the latter school receiving instruction in drawing, brushwork, and modelling at the Art School. The number of pupils receiving such instruction was 331. In addition to the art classes, continuation classes in shorthand and book-keeping were also held, the number of students being fourteen and eleven respectively. Excellent progress was made by the majority of the students.

WELLINGTON.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Manual and Technical Instruction.—In April the Technical School was placed under the control of an Associated Board, constituted under the provisions of "The Manual and Technical Instruction Act, 1900," consisting of the Rev. W. A. Evans, John P. Luke, John Smith, and James J. Devine, representing the City Council; David Robertson, representing the Industrial Association; and F. Bradey, A. W. Hogg, and R. Lee, representing the Education Board. On Mr. Bradey asking to be relieved of the position, Mr. William Allan was elected one of the Board's representatives. For the three months of the year during which the Technical School remained under the Board's management the receipts were £450 15s. 5d., and the expenditure £744 15s. 6d. The grants received by the Board as controlling authority, during the nine months of the year, and handed over to the associated Board, amounted to £1,856 5s. 11d.

With regard to technical education, the total cost to the Board for this work since 1886 has been £14,285 18s. 4d., the receipts having been £21,349 6s. 3d., and the expenditure £35,635 4s. 7d.

During the past year manual instruction was given in sixty-three schools, the subjects taken up embracing: Stick-laying, paper weaving and plaiting, drawing in chalk, free-arm drawing, bricklaying, paper-folding, designing in coloured paper, modelling in plasticine, modelling in carton, brush drawing, cane-weaving, free-arm and blackboard drawing, elementary design and colour-work, cottage gardening, swimming, elementary agriculture, sewing, mat-weaving, geometrical drawing, basket-weaving, paper-cutting and mounting, and cookery. The present year should see this work taken up in almost every school under the Board's control.

Cookery.—The cookery classes were controlled by the Technical School until the end of June, when the Board took over the management. The city classes were removed to the Newtown School, where a room was fitted up for the purpose, the cost of such fittings—£111 13s.—being defrayed by the Government. The teacher, Miss Ivey, having obtained six months' leave of absence, her position was filled by Miss Manning. The cost of the classes will be covered by capitation.

The Wairarapa classes continue under the instruction of Miss Millington. The lessons for the first half-year are given at Masterton, Clareville, Featherston, Greytown, and Carterton, and for the second half-year at Eketahuna, Mangatainoka, Hukanui, Scarborough, and Pahiataua.

Training of Teachers.—The special grant of £200 for training of teachers in manual and technical subjects has been expended in giving teachers and pupil-teachers class instruction in freehand, model and memory drawing, perspective, light and shade, brushwork, and cardboard modelling—under the direction of the Technical School, and in science (chemistry) under Mr. Foster.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

We are pleased to notice that some of our teachers in the country are taking up a course of lessons on the simpler facts of such animal and plant life as may be seen in their district, and combining these lessons with a course in handwork, such as cottage-gardening. One note in the new syllabus is worthy of repetition: "Even with careful attention to individual practical work, a course of science for young children will probably fail as an educational instrument if it is too far dissociated from their daily life and experience." It is worth noting here that the successful work done in agriculture by Mr. Davies in the Mauriceville West School has attracted the attention of the Government Biologist, Mr. T. W. Kirk. In the Annual Report of the Department of Agriculture for 1903 (p. 420) photos of the laboratory and school garden are reproduced, with a plan of the garden, and a syllabus of work for two years as set out by Mr. Davies is given. Mr. Kirk remarks, "The teacher, Mr. W. C. Davies, is a thoroughly able enthusiast. Nothing more need be said. The pictures and syllabus speak for themselves. It is to be hoped that the example set by Mr. Davies will be followed in many rural schools." We feel sure that Mr. Kirk will willingly assist those teachers who are following the example of Mauriceville West.

Handwork is finding more favour with our teachers. Last year seventy schools earned capitation under the Manual and Technical Act, and this year we expect that the number will increase. The subjects taken were modelling, paper-folding, cutting and mounting, mat-weaving, cane-weaving, stick-laying, brick-laying, brushwork, design, free-arm drawing, cottage-gardening, cookery, elementary agriculture, swimming, and sewing. We hope to see some schools earning capitation in physics, chemistry, botany, physiography, first aid and ambulance, and cardboard modelling. The Saturday drawing, technical, and drill classes are being continued as before, and we hope later in the year to establish classes for the teachers in woodwork and cookery. A grant from the Department enabled the Board to fit up cookery rooms in the Newtown and Terrace Schools. These centres are now being used under the temporary charge of Mrs. Neeley, a teacher who holds first-class certificates in artisan and high-class cookery. The Wairarapa classes, which have given such satisfaction to the country people in the past, are being continued by Miss Millington.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE TECHNICAL SCHOOL.

The inspection of drawing and kindred subjects in connection with the primary schools, usually conducted by the Technical School, ceased upon the change in the Board of Management. Assistance in the transfer of this section of work to the Education Board in relation to forms and applications has been rendered where necessary.

Cookery classes were carried on by the new Board until April in the Pahiataua District, and until June in the Wellington Centre, after which periods the work was handed over to the Education Board. At the Wellington Centre, 256 pupils, drawn from ten schools, received instruction, and at Forty-mile Bush, 125 pupils, drawn from six schools. The Wellington Gas Company generously donated the sum of £25 towards the Wellington Centre.

The work of the sixty-two scholars holding free studentships has been satisfactory. The boys' course of manual instruction has been considerably improved. The scholars manifest a keen interest in this branch of the work. The girls' course included light and shade and colour work in design from plant-form, as well as clay-modelling. Useful work is being done in this section, which acts as a connecting-link between the primary and the technical schools. These free studentships are now to be offered half as industrial and half as commercial, available in each case for twelve months, the selection to be made by the Education Board authorities.

I would again urge the establishment of an intermediate school between the primary and technical work. A school so established would enable a course of instruction to be given upon the most modern lines to all scholars now in the seventh standards, particularly in the city and suburban schools. Manual and domestic instruction, chemistry, physics and mathematics, and commercial subjects could by this means be more practically dealt with. Some such scheme of an intermediate school is an urgent necessity in this city, for a very large percentage of children will otherwise proceed to work at a time when additional training provided by such a school would be of exceptional advantage.

The number of students on the rolls of the various classes was for the first quarter 1,064; for the second, 1,072; for the third, 1,089; and for the last quarter, 953.

Instruction to Teachers and Pupil-teachers.

Classes have been continued, as in former years, in plane and solid geometry, freehand, model, light and shade, and memory drawing, and in cardboard modelling, and brush form-work, drawing from life, animals, birds, plants. The numbers in attendance were very satisfactory.

A special course of six lectures was given at Masterton and Pahiataua during the latter part of the year, with excellent attendance in both centres. The subjects dealt with were drawing, modelling, paper-mounting, and brushwork as applicable to the standards.

Classes were also held at Masterton throughout the year, and at Carterton up to the 30th June.

Art Section.

The work generally in these classes has been very satisfactory all round. During the year the cookery-room became available for modelling purposes, which has considerably relieved the congested state of former accommodation. The advantages of modelling are slowly becoming recognised.

Drawing and Painting.—Good work has been done throughout the year in all classes: the number of students in attendance during the day is, however, discouraging. Students were remarkably successful at the Wellington and Wanganui Art Societies' exhibitions.

Modelling.—This class has increased to about thirty students in all sections, a number of young architects and plasterers having joined with considerable advantage to themselves. A special room is urgently required for casting purposes.

Design has again formed an important feature. Many important pieces of decorative work in stencilled hangings, covers, panels for furniture, and illustrated work have been executed during the year. *Metal Repoussé and Leather-embossing* have also been successfully established; the results exhibited at the Technical School Exhibition speak for themselves.

Wood-carving has made considerable progress, many very handsome pieces of decoration having been produced during the year. The numbers have steadily increased. Modelling and carving are now worked in conjunction with each other, students having evenings set aside for that purpose.

Plane and Solid Geometry and Model-drawing have, as usual, been very largely attended throughout the year. The course of work has been revised to meet more closely the trade requirements.

Decoration and Signwriting.—This class was established at the beginning of the second quarter. The class has apparently met a want. Nineteen students joined, all showing an appreciation of the advantages offered.

Engineering Section.

Mechanical Drawing and Machine Construction continue to attract large numbers of students, an assistant being provided for the junior section of the work. The additional models provided by the Education Department have greatly assisted the work of this section. The lantern has now been introduced for the purpose of class lecturing, and it is proposed to extend this method of instruction to other branches of the work. I regret that the laboratory course is still unprovided. This is a matter of urgent necessity, and it is to be hoped that the necessary extension will be made without delay.

Experimental Mechanics and Heat have continued. I can only regret the small number in attendance at this section. I am afraid students will, in the near future, experience considerable regret at the fact that they have neglected golden opportunities. The lack of preliminary training in elementary mathematics severely handicaps the students. Adequate laboratory appliances are also necessary.

Electric Light and Power Distribution is now a recognised feature of the school's course. The apparatus supplied by the Education Department, under the Technical Instruction Act, has greatly enhanced the value of the instruction. The want of knowledge in mathematics on the part of the greater number of the class is a bar to success; it is absolutely necessary that students in future shall attend the mathematical course previous to the electrical course. The want of reasonable accommodation has, however, been a very considerable drawback towards the success of the work. A laboratory and class-room are essential if real success is to be looked for.

Civil Engineering.—An effort was made during the year to establish a civil engineering course, but little encouragement was given in point of numbers. A surveying-class was, however, established, and is appreciated by those in attendance. Unless, however, the numbers are to be increased it cannot be continued.

Architectural Section.

Building construction classes have suffered considerably from want of accommodation, the classes being overcrowded. The Industrial Hall, rented at the beginning of the year, was found inadequate to the requirements. The classes have now been placed in the large hall of the Education Board. Additional apparatus has been provided by the Department, which places the classes in a strong position. A separate class for the study of architectural design is a necessity.

Carpentry and Joinery.—The number of trade apprentices has increased. An advanced class has been established on behalf of the trade only, and an additional class in the theory of carpentry and joinery.

Plumbing, Theory and Practice, continues to attract large numbers of students, the classes being well attended throughout. New regulations have been approved by the Plumbers' Board, and agreed to by the Master Plumbers' Association and the Plumbers' Union. A complete course of work is established for all apprentices, and arrangements made for a special course for honours work. The workshop ventilation has been improved, but for the large numbers in attendance new premises are a necessity. Provision is made in the proposed new workshops for these classes.

Arts and Crafts Guild.

In connection with the art department of the school, the guild has done much useful work. The repoussé in metal, embossed leather, art needlework, photography, and the architectural sections have all done good work. The repoussé and embossing sections are now carried on as an ordinary part of the school's work, irrespective of the guild. Excellent examples of work have been produced by the combination of students in the joinery, repoussé, and gesso workers. All completed examples found a ready sale, and have shown a high standard of excellence.

The architectural section has read papers regularly, and paid a visit to Christchurch during the Christmas holidays, under the guidance of Messrs. McKay and Lawrence, where the section was well received by a number of the local architects, and escorted to various places of architectural interest. Fourteen papers on various subjects were read before the section during the year.

General and Commercial Classes.

Mathematics.—This class has made progress upon last year's work. The work has been separated into four distinct sections—elementary, advanced, and practical mathematics—thus insuring a more thorough course of instruction. Greater regularity in attendance and more individual effort are requisite in this section.

Book-keeping.—The numbers have considerably increased upon the previous year. Several of the students presented themselves for the Institute of Accountants' examination, two of whom headed the list of the students' section. The advanced class established during the year has met with success.

Shorthand and Typewriting.—All classes have proved successful, and good work has been done throughout. A considerable number of students have left the school to take up permanent positions in various city offices. Students have the advantage of dealing with the office correspondence daily. Increased accommodation is necessary for the evening classes. In connection with the examinations, I should like to see a Colonial Board of Examiners appointed by the Government for the control of this work.

Arithmetic.—This class steadily maintains its numbers. It is highly essential that all students requiring a technical training should be well grounded; it is therefore a pleasure to see the steady progress, which means greater efficiency in the more advanced and special instruction to follow. Considerable difficulty is experienced with students joining this class in the third and fourth quarters, instead of attending a yearly course.

Latin and English.—These classes have been continued as formerly, with gratifying success in the Matriculation and Civil Service Examinations.

French and German were begun in the third quarter, and as these subjects are of considerable importance to commercial students, it is hoped that the classes will be well attended.

Wellington College and Girls' High School.—In the former institution the work of drawing, design, and manual instruction has been continued as formerly. It is still held out of school-hours, and considered an extra in the upper forms. The Headmaster is, however, desirous of removing this restriction, and it is hoped that the work may shortly be considered a part of the ordinary school course within school-hours, and without extra payment.

The Girls' High School classes in drawing and brushwork have continued, as during the previous year, within school-hours and without extra payment; and, although the time allowed is short, nevertheless it is a beginning in the right direction, and I hope to see an excellent course of lessons developed in the various sections of the work throughout the school, with a reasonable amount of time at our disposal for the carrying-out of such a course.

Plumbers' Examinations.

The Board of Control has met several times during the year, and dealt with matters affecting the conduct of examinations and other subjects connected with the general work of sanitary classes conducted by the school. In January last, at the meeting of masters and journeymen plumbers called by the Board, an amended scheme of instruction for the plumbing trade was agreed upon, and is now in full operation. A suggestion for the registration of all plumbers, and a Board of Control for the whole colony in relation to instruction and examination, was also put forward.

Examinations.

The usual examinations have been held during the year. In the higher grade work there has been a considerable diminution of candidates, practically only those who found it necessary to present themselves for teaching or trade certificates coming forward. Wherever possible, students have been dissuaded from taking these examinations unless certificates are specially required. The number of certificates issued in all grades since the school was established in 1886 is 54,036, subdivided as follows: Primary or first grade, 44,750; intermediate or second grade, 5,151; higher or third grade, 1,650; South Kensington, 2,316; and the City and Guilds of London, 169.

Second Grade (Local).—Total number of papers taken, 393; number of individual candidates examined, 251; passed, 199.

Third Grade (Local).—Number of papers worked, 62; number of passes, 45.

Board of Education, South Kensington.

The school has again recorded success in the National Art Competition under the above Board, Miss Alcorn having been awarded a National Book Prize for a design worked upon material.

For 1902, 51 candidates presented themselves for examination under this department; 36 passes were obtained, and 15 failed. The results for 1903 are not yet to hand.

I would urge the adoption of a Colonial Examination in all branches of technical and art work, and a Colonial National Competition of Art Works, on the lines of the present English competitions. By this means the schools will be brought closer into touch with each other, the results will be quickly obtained, and greater efficiency secured.

City and Guilds of London Institute.

The examinations held in connection with the above institution are now conducted by the Education Department, which has taken the entire control. Examinations were held as usual, the number of candidates being 22—10 passes, 12 failures.

Free Studentships.

The holders of the free studentships awarded for two years by the Industrial Association and the Education Board have all done satisfactory work.

Library.

The number of volumes contained in the library is as follows: Fine arts, 460; architecture and building-construction, 239; mechanical, 319; general, 545: making a total of 1,563, an increase of 118 volumes.

The number of works from the lending branch taken out by the students during the year was 1,088. The library is much valued by all sections of students. The space set apart for readers is too small, and the space for works exhausted.

Exhibition.

An exhibition of students' work in all branches was held in the main hall during the first week of the first quarter, and attracted a very large number of visitors, who took a keen interest in the various examples shown.

Finance.

The school is in credit to the extent of £11. The position, which is, however, far from satisfactory, has not come about without careful management and the obtaining of funds from every available source. It is easy enough to work an institution successfully when plenty of funds are available, but the present conditions are a constant source of anxiety to the managers. The apparatus of the school has been considerably increased during the year, with a corresponding increased efficiency in the class work generally.

Extension of Work.

Increased accommodation is an urgent necessity, and I sincerely hope that the Government will see the necessity of providing the necessary grant to enable additional buildings to be erected. During the past year I found considerable difficulty in accommodating the number of students enrolled. In addition to this, urgent workshop accommodation is required for mechanical engineering, plumbing, carpentry and joinery, and pattern-making; and class-rooms for electricity, building construction, casting, lithography and photography, practical mechanics, commercial work, painting and decorating, &c.

Director's Resignation.

It is with considerable regret that I have tendered my resignation as Director and Secretary, after an association of eighteen years with the cause of technical education in this district. As, however, the financial conditions under which the Board is working do not offer much hope of improvement in my position, I am compelled to take this step. I shall always take a keen interest in the cause of technical education, and hope particularly to see the Wellington School extending its usefulness.

Statement of Accounts.

<i>Receipts.</i>			<i>£</i>	<i>s.</i>	<i>d.</i>	<i>Expenditure.</i>			<i>£</i>	<i>s.</i>	<i>d.</i>
Fees received	..	..	1,493	4	11	Salaries	..	..	2,761	18	4
Government capitation	..	..	1,203	11	3	Model fees	..	..	58	0	0
Government grants	..	..	433	15	6	Printing and advertising	..	..	139	11	0
Government subsidies on voluntary contributions	..	..	132	12	6	Examinations and prizes	..	..	51	8	4
Voluntary contributions	..	..	136	17	6	Apparatus	..	..	336	1	11
Sundry receipts	..	..	380	4	11	Material	..	..	207	0	3
Scholarships	..	..	151	10	0	Buildings	..	..	89	4	1
Teachers' training	..	..	170	0	0	Travelling	..	..	12	1	6
Education Board	..	..	200	0	8	Cleaning and lighting	..	..	308	9	3
						Rent	..	..	40	0	0
						Sundries	..	..	287	2	7
			<u>£4,301</u>	<u>17</u>	<u>3</u>				<u>£4,290</u>	<u>17</u>	<u>3</u>

Credit Balance, £11.

ARTHUR D. RILEY,
Director and Secretary.

REPORT OF THE MANAGERS OF THE MASTERTON TECHNICAL CLASSES ASSOCIATION.

The managers desire to place on record their appreciation of the liberality of the Trust Lands Trustees, who again voted £100 in aid of the technical classes. Largely owing to the assistance thus rendered by the Trust the managers have been enabled not only to widen the scope of the work of the classes, but also to strengthen its efficiency.

The thanks of the managers are also due to the Education Department for the exceedingly liberal manner in which the school has been treated during the past year. In addition to the quarterly capitation payments, grants amounting in all to £42 18s. 11d. have been voted by the Department in aid of material, apparatus, &c., required in connection with the working of the classes.

In addition also to the grants thus referred to, the collection of students' works lent to the managers by the Department is still on exhibition in our school, and forms a valuable object lesson to students working in the subjects of which they are illustrative.

In their report last year the managers referred to the urgent necessity that exists for securing a suitable site upon which to erect a properly equipped technical school. This necessity has become greatly accentuated during the period that has elapsed since the report referred to was submitted, and yet, notwithstanding, nothing has been accomplished in this direction. Under the prevailing conditions, not only is the scope of the work of the classes greatly limited and their successful working seriously hampered owing to the unsuitability of the present buildings, but the building itself occupies its site on sufferance only, and is liable to removal at the shortest notice. Owing to these reasons it will doubtless be recognised how urgent is the necessity for prompt action in the establishment of new premises.

During the year just ended a poll of the voters of the Trust Lands Trust was taken. As a result of this poll the Trustees were empowered, in accordance with the terms of "The Masterton Trust Lands Trust Empowering Act, 1902," to convey or transfer to the Crown land described in the schedule thereto, to be used as a site for a technical school. Here, however, the matter ends for the present. It is now

hoped that the Trustees will at an early date place the managers in such a position that they will be enabled to approach the Government with a request for a substantial subsidy in aid of the erection of a technical-school building suited to the requirements of the town and district.

In response to a request from the plumbers of Masterton, classes for instruction in the theory and practice of plumbing were inaugurated in April last, and were successfully conducted for three consecutive terms of ten weeks each. These classes were well attended, students travelling considerable distances in order to take advantage of the facilities thus afforded. At the close of the course of instruction two of the students sat for the plumber's certificate issued by the Wellington Technical School. Mr. Barry, the examiner sent up by the Wellington Technical Board to conduct the practical part of the examination, in referring to the work done by the class, stated that it compared most favourably with the work of the Wellington plumbing class. Several samples of the work done were exhibited at the Masterton Industrial Exhibition, and were there very favourably commented upon by persons well qualified to judge. These facts speak for themselves, and encourage the managers in the belief that efforts for the furtherance of technical education in Masterton will, as the range of the work expands, prove of much benefit to the district at large.

During the year three sessions were held, classes being established in the following subjects: Drawing, painting, dressmaking, woodwork, plumbing, book-keeping, shorthand, typewriting, general knowledge, and Civil Service and matriculation subjects. The classes in drawing and painting were carried on for a fourth term. The average number of pupils on the roll of the drawing and painting classes was forty-four. Several of the pupils sat for the South Kensington (London) Art Examinations held here in July last. Seven passed in freehand drawing, one in geometrical drawing, two in model-drawing, and one in light and shade. A number of pupils also passed the examinations held here in December last in connection with the Wellington Technical Board. The dressmaking class was fairly well attended during the three terms, the average roll number being nine. The attendance at the carpentry class was well maintained, the average roll number being nine. This class works under the serious drawback of being cramped for room. The book-keeping class did not meet with the success that a class of this nature should exact, the average roll number for the three terms being only six. In the case of the shorthand classes the average roll number was six. The general-knowledge class is a class formed with the object of assisting pupils who have left school in carrying on their studies, and may almost be regarded as introductory to the Civil Service and matriculation class. This class received a fair amount of support during the year, and gives promise of greater success in the future. The average roll number was eight. The average roll number for the Civil Service and matriculation class was ten. To students entering for the Civil Service and Matriculation Examinations this class affords excellent facilities, and should, therefore, command considerable support during the coming year. At the end of the second term the managers secured two typewriters. A typewriting class was held during the third term with a roll number of four pupils.

A glance at the accompanying statement of receipts and expenditure reveals the fact that on the 31st December the managers' account at the Bank of New South Wales showed a credit balance of £87 Os. 4d. After all claims for the year were settled, this balance was reduced by £79 3s. 5d., leaving the sum of £7 16s. 11d. to be carried forward to next year's operations.

During the coming year the managers hope to be able to arrange for a series of lectures on popular subjects being delivered from time to time under the auspices of the association.

In conclusion, the managers desire to express the hope that the general public may be induced to show a more lively interest in matters connected with this school, and afford it the amount of support and encouragement so worthy a cause merits. At present the work is being carried on under great disadvantages, but, given fair opportunities, there is every prospect of the school developing into an institution which will prove of lasting benefit to the community.

EDWIN FEIST, Chairman.

Statement of Receipts and Expenditure for the Year ending 31st December, 1903.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Balance from year 1902	83	19 5	Salaries for year 1903	340	10 0
Class fees for year 1903	120	5 0	Printing and advertising	9	8 6
Rent received for use of rooms	6	7 6	Lighting and cleaning	24	11 4
Grant from Trust Lands Trustees	100	0 0	Apparatus from Chapman and Hall, London	32	9 2
Capitation, 1903	82	12 6	Charges on same	17	10 7
Receipts from lecture	2	8 6	Apparatus for plumbing, woodwork and drawing classes	18	7 3
Grant from Department in aid of one year's rent of workshops	13	0 0	Material for class use	5	11 0
Grant from Department in aid of charges on apparatus ordered from London	8	15 3	Sundries	4	11 8
Grant from Department in aid of apparatus for plumbing, woodwork, and drawing classes	9	3 8	Balance, 31st December, 1903	87	0 4
Grant from Department in aid of material for plumbing class	12	0 0			
Pound-for-pound subsidy on account of grant voted by Trust Lands Trustees	100	0 0			
Cash in hand (voluntary contributions)	1	8 0			
	<u>£539</u>	<u>19 10</u>		<u>£539</u>	<u>19 10</u>
<i>Assets.</i>			<i>Liabilities.</i>		
	£	s. d.		£	s. d.
Balance, 31st December, 1903	87	0 4	Typewriters	32	0 0
			Salary of instructor	9	17 6
			Rent of workshops	28	15 0
			Printing, advertising, and material	8	10 11
			Balance	7	16 11
	<u>£87</u>	<u>0 4</u>		<u>£87</u>	<u>0 4</u>

N. D. BUNTING, Treasurer.

HAWKE'S BAY.

EXTRACT FROM THE REPORT OF THE BOARD OF EDUCATION.

Technical.—A good deal is being done in the way of carrying out the provisions of the Manual and Technical Act. A committee of control has been appointed by the Board to further the establishment of special classes. The committee consists of the Chairman and another member of the Board, a representative of the Napier Borough Council, and one of the Napier High School, with the Inspector of Schools. Similar committees are being established at Hastings, Dannevirke, and Woodville. They will all act under the immediate control of the Board. At Gisborne the High School Board, established under a special Act, is now busy erecting buildings as an adjunct to the secondary classes of the District High School. It is hoped arrangements will be made to establish Saturday classes for teachers similar to those so successfully carried on in Napier and Dannevirke during the past year.

EXTRACT FROM THE REPORT OF THE INSPECTOR OF SCHOOLS.

In anticipation of changes in the standard syllabus, much attention has been given to the fostering of classes for the training of teachers in subjects of instruction that will be required under the amended syllabus. Drawing and woodwork have been successfully taught in Napier and Dannevirke in the special classes for teachers. Unfortunately the heavy expense connected with similar classes in Gisborne for the benefit of teachers in Poverty Bay made it impossible to continue them throughout the year, but it is hoped that arrangements will be made to reopen the classes when the Technical School now being built in Gisborne is ready for occupation.

Special classes for technical instruction under the Manual and Technical Instruction Act were carried on in Napier during the winter months with considerable success, but the accommodation is far from satisfactory. The plumbing class is taken in a separate building from that temporarily used as a technical school. The rooms used for instruction in woodwork and in decoration are quite unsuitable, and it is hoped that a new technical school will be provided by the Government to meet the growing needs of Napier and district.

The special classes for teachers that were opened in Napier during the midwinter holidays brought together all those that had been unable to avail themselves of the Saturday classes in consequence of their living so far from Napier or Dannevirke. The course of instruction included drawing and plasticine work.

EXTRACT FROM THE REPORT ON THE NAPIER TECHNICAL CLASSES.

The scope of the work has been greatly increased by grants from the Government in aid of the rent of a more suitable and more central building in which to carry on the work. The rooms have been altered and renovated to suit the requirements of the various classes, and to make accommodation for new subjects. In addition to the art classes and plumbers' classes already in operation in the old building, the following new classes were established during the year: Shorthand, typewriting, book-keeping, building-construction, painters' and decorators' work, botany, dressmaking, and woodwork. The total number of students for all classes was 393.

The following is a brief summary of the work of the classes:—

Art Classes.—The attendance at these classes has increased. The number of students who attended the several classes was sixty-four. The more central position of the school was very largely the cause of the increased attendance. In the evening classes much good work was done in light and shade, pen and ink, design and stencil cutting, the two latter subjects being especially popular with students. Excellent results were produced in decorative designs to a large scale for wall-papers, friezes, and panels, mostly in stencilled work in tempera and body colour. The sketching and painting class did good work, especially in out-of-door sketching.

Teachers' Classes.—This important branch of the work which has now been in operation for nearly six years has greatly advanced. Ninety-four teachers received instruction in various branches of drawing and handwork. Teachers are beginning to realise the necessity of qualifying themselves in subjects of hand and eye training, and acknowledge, by their attendance at the classes especially established for them, the value of the work in relation to the curriculum of the public school. Some time must yet elapse, however, before the majority of teachers in this district can be said to be thoroughly proficient in hand and eye training. Early in the year grants were made by the Government for the equipment of a workshop for woodwork. A class for teachers was established, and has proved popular. Although the early hour of commencement and unsuitability of trains have prevented many of the country teachers from joining the class, thirty teachers attended the class. Instruction was given in accordance with the Department's manual on the subject. Some of the teachers were prepared for the City and Guilds of London Examination in Woodwork, good progress being made by the prospective candidates.

Commercial Classes.—The number of students at the various classes was forty-four. Classes in shorthand were established at the beginning of the second quarter, and later in the year classes in book-keeping and typewriting. The shorthand class was by far the most popular, though typewriting would have been largely taken up had more machines been available. Several students sat for Pitman's examinations in shorthand with excellent results. The book-keeping class commenced work towards the end of the year, but was only fairly well attended, though much good work was done.

Plumbing Classes, Theory and Practice.—The instructor of the plumbing classes at Napier reports as follows: "These classes have been continued throughout the year, but have not been attended as well as might have been expected; many who would attend are prevented from so doing through often having to work out of town. Thirty students attended the classes. The fact that the borough authorities are now insisting on plumbers obtaining a certificate of competency will no doubt cause an increase

in the number of students. A local examination was held in March, 1904, when several candidates secured passes. Three students also sat for the City and Guilds of London Examination in May, 1904."

Evening Woodwork Class.—An evening class for woodwork was commenced early in the year, attended by thirty-two students. The attendance, however, fell off after a time owing to the disinclination on the part of many of the students to follow a set course of instruction. It is proposed in future only to give instruction in this class to boys from the town schools.

Painters and Decorators' Class.—This class was attended by twenty students, mostly local tradesmen. The course included instruction in marbling and graining. The class was well attended during the winter months.

Dressmaking, Building Construction, Botany.—Classes in these subjects were also held under special instructors, but the attendance was not altogether satisfactory.

In a town the size of Napier it is to be expected that the attendances at classes for subjects that bear only upon one special trade or industry will fluctuate considerably. The classes likely to be well supported are those that meet the general needs of the district, and it is in connection with these classes that a considerable extension of the work is to be hoped for.

R. N. ANDERSON, Director.

EXTRACT FROM THE REPORT ON TECHNICAL CLASSES AT DANNEVIRKE.

Commercial Classes.—During the first quarter shorthand and book-keeping were taught. Twenty-five students were enrolled, the attendance on the whole being satisfactory. Later in the year a class for typewriting was established, which was continued till the end of the year, in order to carry out a full commercial course as originally intended. The attendance at this class was not so good as it would have been had the class commenced work earlier in the year.

Plumbing Class.—This class was commenced in October, and was well attended. Instruction is given on one night a week, one hour being given to theory, and two hours to practice. The students are making satisfactory progress, and in due course arrangements will be made for an examination. A matter that deserves the favourable consideration of the Education Department is that of granting free passes, or reduced railway fares, to students desirous of attending technical classes in the country centres. The cost of travelling to attend classes is usually more than many can afford, thus the utility of technical classes in country centres is much restricted under prevailing conditions.

EXTRACT FROM THE REPORT ON TECHNICAL CLASSES CONDUCTED BY THE GISBORNE HIGH SCHOOL BOARD OF GOVERNORS.

Classes were held during the year in dressmaking, shorthand, book-keeping, mechanical drawing, mathematics, and English. The average attendance at all classes was eighty-eight, the classes for commercial subjects attracting the greater number of students. The receipts for the year were £136 8s. 6d., the expenditure was £126 8s. 10d., leaving a balance of £9 19s. 8d.

NELSON.

EXTRACT FROM THE REPORT OF THE BOARD OF EDUCATION.

Manual and Technical Instruction.—Handwork of various kinds has been taught at twenty-four of the Board's schools during the year, modelling in plasticine still being the subject most favoured by the teachers. Cookery classes have been held in Nelson under the management of Miss M. Tendall (diplômée of the National Training-school of Cookery, London); but they have been carried on at a loss, and it is doubtful whether they can be resumed in 1904 unless the grant of 15s. a head be continued. A technical school, containing two rooms, one for woodwork and one for cookery, has been erected at Reefton, and arrangements are already made for the teaching of cookery, and it is expected that woodwork classes will be begun very shortly. The site for the building was purchased by a grant from the Inangahua County Council. A very excellent and valuable site for a technical school has been presented to the Board by the Nelson City Council, and it is expected that the new building will be erected, and, it is hoped, ready for use before winter. Efforts have been made to secure a site for a technical school in Westport, and the Board regrets that the Westport Borough Council has not yet seen its way to present one to the Board.

EXTRACT FROM THE THE REPORT OF THE INSPECTORS OF SCHOOLS.

Handwork.—Sixteen of the schools taking up branches of handwork were classified as ranging from satisfactory to excellent, and four as fair. Although nine schools have during the year been added to the list of those giving instruction in manual work, the teachers generally have not shown remarkable enterprise in this direction. Many have been awaiting such reduction of the subjects of the syllabus as would enable them to make fresh departures. In at least all schools above Grade 6 the junior classes should take up some branch of handwork. In the higher classes (S. 3-7) one hour a week is now sufficient to earn capitation. The subjects undertaken in the schools by the permanent staff include modelling in plasticine, bricklaying, paper-folding, and free-arm drawing. Outside instructors have carried on classes in cookery at Toitot Valley, and dressmaking at Westport. Sewing has been recognised as a technical subject in ten schools where there are sole male teachers, thus enabling sewing-mistresses to be employed. The claims made for capitation in connection with school classes amount to £236 13s. 5d.,

to which a few small sums have yet to be added. If brushwork be taken up, the initial cost of apparatus must in future be met by capitation from other classes. A second grant of £125 enabled the Board to continue the instruction to teachers' classes, and under this head much good work has been done in free-arm drawing, model-drawing, brushwork, dressmaking, ambulance, and woodwork. In June new regulations were issued, granting in respect of continuation and technical classes a higher rate of capitation, provided that pupils working under certain conditions be taught free—*i.e.*, be granted what are called Junior Technical Scholarships. We believe that these very liberal grants will result in attracting the services of highly qualified instructors. Sums of £500 and £1,000 respectively have been granted towards building technical schools at Reefton and Nelson. It is hoped that these schools will soon be in operation. The building at Reefton is now complete.

WESTLAND.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Manual and Technical Instruction.—Ten school classes in handwork have been recognised by the Education Department. Other schools also include handwork in the course of instruction. The Board supplies the necessary material and text-books for teachers, in order to remove as far as possible every obstacle in the way of progress in this part of the school course. The class in woodwork connected with the Kumara School continues to produce satisfactory results, and closed the year with twenty-four students. A similar class was instituted in October in connection with the Hokitika District High School, and a good beginning was made by the two divisions, which have an aggregate roll number of thirty-eight.

REPORT ON WOODWORK CLASSES AT KUMARA AND HOKITIKA.

Kumara.—The number of students attending this class at the end of the year was twenty-four, of which number fourteen had joined during the year. The class has continued to make sound progress, and the work has been carried on with regularity and earnestness. The syllabus issued during the year by the Education Department has been strictly adhered to.

Hokitika.—A class in woodwork has been instituted in connection with the District High School, and began operations on the 7th September, 1903. The number of students in attendance was thirty-eight. These were taken in two divisions, which met alternately on four days each week from 4.15 p.m. to 5.15 p.m. During the course considerable interest was displayed in the work by the students, and satisfactory progress has been made. The course of instruction was in accordance with the syllabus issued by the Education Department.

The following are statements of accounts for the year ending the 31st December, 1903, in connection with the two classes:—

				<i>Hokitika Carpentry Class.</i>						
<i>Receipts.</i>				£	s.	d.	<i>Expenditure.</i>			
Government grant for building, tools, &c. . .	110	15	0	Fitting up workshop	..	..	69	0	6
Grants from Education Board	2	11	7	Tools .. .. .	..	..	42	7	6
Fees of students	4	15	0	Timber for class .. .. .	..	..	1	18	7
				Balance .. .. .	..	..	4	15	0
				<u>£118</u>	<u>1</u>	<u>7</u>	<u>£118</u>	<u>1</u>	<u>7</u>	

				<i>Kumara Carpentry Class.</i>						
<i>Receipts.</i>				£	s.	d.	<i>Expenditure.</i>			
Balance	3	11	5	Salary of instructor .. .. .	..	..	73	14	7
Fees of students	5	4	0	Timber for class .. .. .	..	..	1	14	9
Government capitation	73	14	7	Balance .. .. .	..	..	7	12	8
Sale of furniture	0	12	0							
				<u>£83</u>	<u>2</u>	<u>0</u>	<u>£83</u>	<u>2</u>	<u>0</u>	

A. J. MORTON, B.A., Inspector.

NORTH CANTERBURY.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Manual and Technical Instruction.—The technical classes at Christchurch, Ashburton, Lyttelton, Rangiora, and Leeston have continued in operation during the year, the subjects of instruction finding most favour being woodwork and cookery, though towards the close of the year signs were not wanting that dressmaking would in future be also taken up at most centres. At Leeston, in addition to woodwork, instruction in ironwork had been carried on throughout the year. The teachers' handwork and woodwork classes held at the Normal School have been well attended. The Christchurch School of Domestic Instruction has continued to give instruction in cookery to a number of large classes from the Board's schools. During the year 1903 developments promised in connection with technical instruction, owing to the establishment of the Christchurch Technical Classes Association, have taken definite shape, resulting in the successful formation and carrying-on of a large number of technical and continuation classes by the association, to which body much credit is due for the steps taken to afford

youths of either sex an opportunity of making themselves better acquainted with the principles underlying their respective trades or occupations. Of the schools that took up manual work early in the year, seventy-one have carried on the instruction with sufficient regularity to entitle the Board to grants from the Department. About eighty schools have submitted particulars of classes proposed to be held during the present year. There is still some difficulty in supplying material and apparatus for these classes. It is not practicable for teachers to submit complete requisitions until the close of the preceding year; this leaves the Board insufficient time to obtain the material and apparatus, which has to be imported. The difficulty can be best met by the Board anticipating the year's requirements by ordering beforehand what may be termed "current lines," leaving the purchase of articles not in general use until the requisitions have been sent in; the amount now in hand and due in respect of classes already held will enable the Board to adopt this course for the future. Further simplification in the returns required of teachers appears necessary, among which may be mentioned that of the average attendance for the year, which, with benefit to all concerned, might well be made the ordinary average attendance of the class instructed.

REPORT ON WOODWORK CLASSES.

Christchurch Classes.—The number of boys attending these classes increased so much that additional hours had to be set apart for them. During the first two terms there were eight classes for boys. In addition to these there was also a teachers' class on Saturday mornings and a Tuesday evening class for adults. During the third term a class of Seventh Standard boys attended from the Normal School. The work done during the year has been quite up to the standard of previous years. Many of the Board's teachers have assisted in arranging the classes, several of which were held during school-hours. Much of the drawing required is now done at the schools under the teachers' supervision, in which connection the inspectors have met the teachers and myself in a liberal spirit. The teachers' class has been fairly well attended, and several teachers have successfully passed the City and Guilds of London Examination in Woodwork.

Lyttelton Classes.—The boys' classes have continued to be well attended, and the work is good. The headmaster of the borough school is taking great interest in the work, and consequently there is good attendance and excellent discipline. The evening class for adults has not been so well attended as previously.

Ashburton Classes.—These are the best school classes under the Board's control. As in previous years, the attendance has been excellent and the discipline good. The drawing has been done in school hours. In all cases more or less school time has been used to allow the boys to attend, each class being accompanied by a teacher. At this centre the inspectors have also materially helped the work. The public of Ashburton take great interest in the work and subscribe liberally to the prize fund. A most successful exhibition was held in November, on the occasion of the Agricultural and Pastoral Association's Annual Show. The President has been a liberal supporter of the classes, and loses no opportunity of bringing visitors to see the boys at work.

F. W. SANDFORD, Instructor.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE CHRISTCHURCH TECHNICAL CLASSES ASSOCIATION.

Three years ago the Canterbury Industrial Association, whose object is to aid, foster, and encourage the industries and products of New Zealand, set up a strong committee to consider the importance of technical training. That committee invited the co-operation of the city and suburban Councils, the leading educational and other public institutions, also the city and district members of Parliament, and, after many conferences, resolved to organize associated classes under "The Manual and Technical Instruction Act, 1900." A guarantee fund was established by the various public and local bodies, and a Board of Managers appointed. In April, 1903, eight continuation classes were formed, with a roll of 66 students, to which were added in the second term 17 additional classes, consisting of 4 continuation classes with 68 students, 9 classes for commercial subjects with 199 students, and 4 technical classes with 79 students, making a full total of 25 classes with 405 students. The work was still further extended in the third and last term of the year, 31 classes being held with a roll of 505 students, the additional classes being 4 for commercial subjects and 5 for technical.

The subjects treated of in the continuation classes included arithmetic, mensuration, mathematics, and drawing. In the commercial classes instruction was given in shorthand, typewriting and correspondence, and commercial law. The technical classes included classes for carpentry and joinery, coach-building, tailoring, plumbing, and wool-classing.

The great difficulty experienced by the Board in providing accommodation for the increasing demands of each term was from time to time placed before the Minister of Education, with the result that a subsidy was offered up to £3,000 on the sum arising from the sale of the South Belt School and site for the purpose of erecting permanent buildings for a technical school in Christchurch. It is to be regretted that future progress in this direction cannot be recorded owing to the sale of the South Belt site not taking place.

As regards the work accomplished, it is considered that a fair amount of success has been attained, and this view is confirmed by the Government Inspector and by the delegates of the contributing bodies who inspected the classes at work, and it is hoped that the aim of the managers to create a more intelligent and deeper interest on the part of students in their daily avocations has been partly attained.

A study of the first year's work reveals a demand for premature specialisation of a kind that will give showy results without the drudgery of solid foundation-work, but the future managers will do well, even at the risk of a reduction in numbers, to direct this demand into a channel that will give more practical results.

Statement of Receipts and Expenditure for Year ending 31st December, 1903.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Voluntary contributions	260	15 10	Working-expenses	71	17 7
Government subsidy on contributions	237	10 0	Printing and advertising	102	6 7
Fees	334	16 6	Furniture, fittings, and apparatus	319	16 2
Grants for furniture, fittings, and apparatus	220	1 8	Material	1	12 10
Grants for rent	36	11 0	Salaries	551	13 6
Capitation	56	6 4	Rent	61	11 0
			Balance	37	3 8
	<u>£1,146</u>	<u>1 4</u>		<u>£1,146</u>	<u>1 4</u>

T. GERRARD, Secretary.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE SCHOOL OF DOMESTIC INSTRUCTION.

The school has carried on its work successfully during another year. The number of those attending the cooking classes has been large, including all classes of the community. The dressmaking and laundry classes have not been largely attended, but this is in part at least accounted for by the fact that instruction in these departments can easily be obtained elsewhere.

During three months of the year the Principal was prevented by sickness from carrying on her work; she has some time since resumed her duties with all her vigour and thoroughness. During her absence Miss Rennie took charge of the school, and, ably supported by the other members of the staff, carried on the work to the entire satisfaction of the managers, which speaks well for the organization of the school. In all other respects the work has gone on quietly and regularly. The City and Guilds of London Institute Examination in Cookery was held in June. Only four candidates presented themselves for examination, of whom two passed. In December the usual examination for the association's certificates was conducted by Mrs. R. D. Harman. The managers regret that the work of the school is still hampered by insufficient and unsuitable accommodation. In view of the increased attention which is now bestowed on technical instruction as a necessary part of national education, we may hope that suitable provision out of public funds will soon be made for the needs of the school.

Mrs. R. D. Harman reports that she held the annual examination in cookery at the School for Domestic Instruction with very satisfactory results, a large number of the students passing creditably. A new and pleasing feature this year was the number of candidates for high-class certificates; seven attended this class and all passed well, two with honours. The general practical work in this class was really splendid, so quick, neat, and thorough in every detail, showing that the students had an excellent knowledge of the principles and methods of cookery, reflecting very great credit on the teachers. In plain cookery seven also passed, their practical and theoretical work being well up to the mark. In both plain and high-class cookery it would be well to grade the certificates, as there are so many who just touch the border-line, not quite up to first-class form and yet by no means failures; in these cases a second-class certificate would nearly always encourage a student to persevere, with an almost certainty of a first-class next year. In most cases the great difficulty is the home practice: the papers are nearly always good.

The following is the record of attendances for the year:—*Technical Classes*: First quarter—Cookery, 6 classes, with an attendance of 110; dressmaking, 1 class, attendance 12; laundry, 1 class, attendance 11: total, 133. Second quarter—Cookery, 7 classes, attendance 103; dressmaking, 1 class, attendance 9; laundry, 1 class, attendance 11: total 123. Third quarter—Cooking, 6 classes, attendance, 108; dressmaking, 4 classes, attendance 48: total 154. *School Classes*: First quarter—Cooking, 8 schools, attendance 358; second quarter—cooking, 5 schools, attendance 257; third quarter—cooking, 8 schools, attendance 358.

NOTE.—In both technical and school classes the same number of lessons were given during the three quarters of this year that were given during the four quarters of last year.

W. J. ANDERSON, Chairman of Board of Managers.

Statement of Accounts for Year ending 31st December, 1903.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Balance	203	13 2	Petty Cash	22	0 0
Capitation (school classes)	217	13 10	Gas	41	0 9
Capitation (technical classes)	96	17 6	Rent	86	0 0
Government grants—			Salaries	298	1 6
Apparatus	12	19 3	Bonuses	35	0 0
Material	114	7 9	Material	218	1 11
Rent	43	0 0	Furniture and apparatus	33	9 8
Fees	145	5 0	Printing and advertising	18	19 2
Sales	64	4 6	General expenses	51	3 3
			Refund of loan	25	0 0
			Balance	69	4 9
	<u>£898</u>	<u>1 0</u>		<u>£898</u>	<u>1 0</u>

O'BRYEN HOARE, Hon. Treasurer.

EXTRACT FROM THE REPORT OF THE CHAIRMAN OF THE BOARD OF GOVERNORS OF CANTERBURY COLLEGE.

School of Art.

The Art Master reported:—

As compared with 1902, the numbers in attendance were:—1902: First term—morning 27, afternoon 1, evening 203, Saturday 138; second term—morning 29, afternoon 4, evening 175, Saturday

101; third term—morning 29, afternoon 2, evening 155, Saturday 87. 1903: First term—morning 29, afternoon 5, evening 157, Saturday 74; second term—morning 30, afternoon 3, evening 144, Saturday 92; third term—morning 30, afternoon 2, evening 135, Saturday 98.

Drawing and Painting.—This has comprised work from the antique, life, landscape, and still life, whilst all students have been encouraged also to take modelling as a help in the study of form. The standard of work has been well up to that of former years, especially in life and landscape. Less antique and still-life work have been done, as more attention is now being devoted to applied art work, such as repoussé and carving.

Modelling, Moulding, and Casting.—Work has been done from the cast (ornament and antique), from the life, a few busts, and from animal forms. It has been done in different kinds of relief, and in the round or full relief. A few students have modelled their ornaments preparatory to carving or repoussé, and it is to be hoped this practice will increase. There are still very few tradesmen attending to whom this work would be of benefit, such as plasterers, carvers, &c.

Wood and Stone Carving and Repoussé Work.—The character of this work has been of a similar nature and standard to that of the previous year. Repoussé has been the more favoured work, comparatively few doing carving. There has on the whole been a greater desire and ambition to produce original designs, but there is still much room for improvement in this respect. It is desirable that other forms of applied art should be encouraged and practised, as embossed leather, gesso, stencilling, enamelling, sgraffito, &c., and an endeavour will be made to introduce these.

Painters' and Decorators' Work.—Notwithstanding the better facilities provided, the attendance has been less than in 1902. The youths, in this as well as in other branches of technical education, seem to allow the most trivial thing to interfere with their self-improvement in matters pertaining to their life-work. Some excellent work was done in glass-embossing, panel-decoration, and grisaille work, while two students carried out full-size a wall-decoration (dado, filling, and frieze). The interest shown by the Painters' Union and Mr. Sey, one of the master painters, has again been very helpful to the class.

Decorative Design.—This class has again been very unsatisfactory in attendance, considering the important bearing it has on the work of so many of the students. Arrangements have, however, been made for conducting the work differently this year, with, I trust, better results.

Geometry and Pattern-drawing for Tinsmiths.—This class has been working for a little over a year, and though the last term there was a fall in the attendance, it has amply justified its existence. Similar to last year elementary plane and solid geometry were given, followed by application to trade requirements. The work in this branch has now been placed in charge of a qualified tradesman who has gone through the course of work given.

Geometry and Perspective.—There has again been a satisfactory attendance, especially in the former subject. The average attendance for the last three years has been—1901, 76; 1902, 96; 1903, 86.

Architecture and Building-construction.—In the latter subject the work and attendance have been thoroughly good, but not so much in the former. I have again to regret not being able to obtain a set of models, and would urge the necessity for these for lecture purposes and use by the students.

Carpentry and Joinery.—This class is co-ordinated with building-construction and geometry. It has done good useful work and been fairly well attended, the average on the roll for the year being sixteen. The Architects' Association gave a prize in this class, which was keenly competed for.

Instruction to Teachers and Pupil-teachers.—This work has comprised freehand, model, geometry, perspective, modelling in plasticine, brushwork, cardboard modelling, free-arm and blackboard drawing and carving. The attendance has not been nearly so large as in 1902, as a large number of the teachers, having secured the minimum knowledge necessary, ceased to come. The arrangement was also unsatisfactory, compelling them to take two particular subjects if they wished their fees paid, instead of allowing them the choice of any two.

Scholarships (Builders' Association).—These were again competed for in December.

State School Scholarships (Boys).—At the beginning of the year scholarships were awarded to the head boy in drawing in fourteen district State schools having over 170 pupils.

State School Scholarships (Girls).—On the results of the annual competition seven scholarships were awarded to girls from State schools having not less than 400 pupils on the roll, and four to girls from schools having less than that number on the roll.

Free Studentships.—The seven studentships offered by the Board for annual competition on the past year's work were awarded as usual.

Prizes.—Prizes were presented by Messrs. Whitcombe and Tombs, A. W. Fielder, and W. Sey, and by the Architectural Association, the Tinsmiths' Union, and the Painters' Union, for competition in various subjects, and were all awarded.

Local Examinations.—The results were as follows:—Second-grade passes: Freehand, 74; model, 74; geometry, 7; perspective, 9; blackboard, 8. Full second-grade certificates, 3. Passes in other subjects: Brushwork—Advanced stage, 12; elementary stage, 24. Modelling in plasticine—Advanced stage, 5; elementary stage, 10. Modelling from cast in clay—Elementary antique, 2; elementary ornament, 8; first-grade geometry, 37; free-arm work for the standards, 11; cardboard modelling, 1; mensuration, 6. Tinsmiths' geometry and pattern-drawing—First year, 4; second year, 1. Building-construction—First year, 15; second year, 10; third year, 2. Carpentry and joinery—First year, 9. Architecture—History and design, 2. Decorative design—Elementary, 9; advanced, 2. Plant-form—First year, 3; second year, 1.

G. H. ELLIOTT, Headmaster.

School of Engineering, Electricity, and Technical Science.

Students.—During the year 201 students attended lectures, the hour attendances per week being 1,425, which gives an increase of 6 per cent. in students and 26 per cent. in hour attendances on the numbers for the previous year. There were forty-eight matriculated students taking the full course

for the University degree or the associateship in engineering, this being an increase of 23 per cent. as compared with the number in 1902. In addition to these, nine College students taking the B.A., B.Sc., or medical courses attended lectures and laboratory work in electricity and magnetism at the School of Engineering.

Results of Examinations.—University examinations, 1902: Ten students passed part of the first examination for B.Sc. in Engineering; six completed the first examination; and two passed part of the second examination.

Associateship of the School of Engineering.—At the annual examination, 1903, the passes were: In electricity and magnetism, 5; advanced electricity, 1; freehand mechanical drawing, 13; descriptive geometry (advanced), 10; steam-engine (elementary), 10; elementary applied mechanics, 8; mechanical drawing (second year), 5; applied mechanics, 6; mechanics of machinery, 5; steam-engine (advanced), 7; strength of materials, 6; theory of workshop practice, 2; and elementary electrical engineering, 3. Two passed the final examination.

Evening Students.—Of the students attending evening lectures 118 passed satisfactory examinations, and certificates were awarded as follows: First Class—The steam-engine (elementary), 12; elementary applied mechanics, 10; elementary strength of materials, 1; mechanical drawing, Section I. 7, Section II. 2, Section III. 2; freehand mechanical drawing, Sections I. and II., 11; descriptive geometry and setting-out work, 12; elementary electricity, 4; electricity and magnetism, 1; advanced electrical engineering, 2. Second Class—The steam-engine (elementary), 13; elementary strength of materials, 1; mechanical drawing, Section I. 7, Section II. 4, Section III. 1; freehand mechanical drawing, Sections I. and II., 13; descriptive geometry and setting-out work, 7; theory of workshop practice, 3; advanced electricity, 1; elementary electrical engineering, 4.

Testing in Engineering Laboratory.—The tests conducted in the Engineering Laboratory during the year comprised a comprehensive test of the properties of certain coals for the Westport Coal Company; of overhead and other gear for the contractors of the Dunedin tramways, Messrs. Noyes Bros.; and sundry minor tests for several engineering firms and individuals.

New Apparatus.—Only a comparatively small quantity of apparatus was obtained during the year. This was chiefly electrical, and comprised voltmeters and ammeters, resistance-frames, &c.

University Senate.—The Board of Governors of Canterbury College, under the new University Act, elected the professor in charge as one of their representatives on the University Senate.

Civil Engineering Course.—The Board of Governors authorised the re-establishment of the Civil Engineering Course, contingent on the necessary funds being forthcoming.

ROBT J. SCOTT, Professor in Charge.

SOUTH CANTERBURY.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Manual and Technical Instruction.—The number of school classes in manual instruction continues to increase. Twenty-one of our schools earned capitation during the year, and as many more made attempts to introduce the subjects, though the lessons were not given with sufficient regularity to entitle the schools to grants from the Government. Seventeen schools taught by male teachers took advantage of the grants for needlework. The average salary of the sewing-mistresses was only £5 14s. 4d., a sum which does not compare well with the £12 paid in this district before the passing of the Teachers' Salaries Act. The "associated classes" at Timaru and Waimate were continued during the year with an increasing number of pupils, and similar classes were established at Temuka. The managers have hitherto found a difficulty in providing suitable accommodation for these classes, but during the year buildings for technical schools at Waimate and Timaru were begun and are now nearing completion, and tenders have been received for a building at Temuka. The estimated cost of these buildings is £2,800. Classes for the training of teachers in brush drawing, modelling, and woodwork were held from May to October. The attendance of the teachers was generally satisfactory, and in many cases good progress was made. A very successful exhibition of manual work done by both pupils and teachers was held at the conclusion of the classes.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

From May to October Saturday classes for the training of teachers were held in Timaru. The classes for brush drawing and modelling in plasticine were well attended, and sound progress was made by a large proportion of those that took up this work. A woodwork class for men was also held, the practical work being supplemented by a brief course of lessons in the kind of drawing that is necessary for such work. We have to thank the Principal of the Timaru Boys' High School for conducting these drawing lessons. At the close of the course in brush drawing and modelling, an exhibition of work done by the teachers and by pupils of public and private schools in the district was held in the Timaru Main School. Through the kindness of Mr. Elliott, of the Christchurch School of Art, there were exhibited with the local work specimens of what was being done under his direction. Variety was given to the exhibition by the inclusion of specimens of needlework, of freehand drawing, and of writing. The exhibition served its purpose well. Visitors were delighted with what they saw; and teachers who availed themselves of the privilege of examining the work and of comparing their own or their pupils' work with that done by others reaped much profit as well as pleasure from the exhibition.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE TIMARU TECHNICAL CLASSES ASSOCIATION.

The classes held during the winter months of 1903 fully maintained their usefulness and popularity. The total number of individual students enrolled during the year was 254. There were nineteen classes placed on the syllabus. Of these five failed to proceed for lack of students. It was found impossible to establish the cookery and singing classes. A class in photography was successfully inaugurated. The following shows what classes were carried on during the session, and the numbers in each class each term: Wool-classing, 29, 10; dressmaking, 17, 14; mechanical drawing, 18, 11; modelling from life, 13, 16, 12 (a third term); wood-carving and model-drawing, 11, 12; perspective and geometrical drawing, 8, 9; junior shorthand, 24, 24; senior shorthand, 10, 6; book-keeping, 13, 11; English literature, 22, 21; Latin, 13, 7; French, 4 (no second term); arithmetic, 15 (no second term); photography, 18 (only started second term). With the completion of the new buildings, it is expected that classes in wood-carving, cooking, and sanitary plumbing will be inaugurated.

At the close of the session examinations were held in wool-sorting, book-keeping, and shorthand. It is intended to present the certificates won at these examinations at the opening of the new buildings. The experience of the last three years has shown that the work of the association cannot be carried on without regular help from the citizens of Timaru. The managers, therefore, express the hope that the citizens will warmly support the association in its endeavour to promote the cause of technical education.

Statement of Accounts for Year ending 31st December, 1903.

				<i>Receipts.</i>		£ s. d.						<i>Expenditure.</i>		£ s. d.		
Balance	149	5	9	Salaries	..	..	..	..	205	19	0
Fees	123	14	10	Working-expenses	..	..	..	..	34	1	0
Voluntary contributions	34	12	0	Printing and gas	..	..	..	..	16	13	4
Government grant on account of building	200	0	0	Material and models	..	..	..	..	3	10	2
									Buildings	..	..	..	..	60	0	0
									Sundries	..	..	..	..	0	12	0
									Balance	..	..	..	..	186	17	1
								£507							£507	
								12							12	
								7							7	

Audited and found correct.—WM. IRWIN. 26th February, 1904.

G. CRAWSHAW, Secretary.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE WAIMATE TECHNICAL CLASSES ASSOCIATION.

The following classes were held: Arithmetic, book-keeping, dressmaking, shorthand, English, and mechanical drawing. The attendance, though showing a slight decrease on that of the previous year, was very gratifying, and the managers are pleased to report that the work done by the students was very good. It was also proposed to hold a woodwork class; but, as suitable arrangements could not be made for the proper working of this class, it was decided to postpone the establishment of the class until the new building was completed.

The new building is now nearing completion. It is built of brick, and has three commodious classrooms intended for cookery, woodwork, and science respectively.

Only a few citizens became members of the association during the year, but the outlook for the coming year is more promising. The balance-sheet shows a credit of £7 11s. 9d. on the year's working. The managers take this opportunity of thanking those who assisted in making the classes a success, and also the local bodies who subscribed towards the funds of the association. The attention of the citizens is again directed to the claim the association has upon their earnest support, and the young people of the town would do well to take advantage of the opportunities of self-improvement furnished by the classes.

J. HUTCHINSON, Hon. Secretary.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE TEMUKA TECHNICAL CLASSES ASSOCIATION.

The managers of the Temuka Technical Classes Association have the honour to submit their first annual report on the working of the classes for the past year, and feel sure that all members will admit that it is a matter for congratulation that the classes, which were started on such a small scale, have attained such an important standing in the district. The residents have heartily supported the inauguration of the classes for technical education in their midst, and though last season's classes were hastily organized, and not in the perfect order and with the full scope that such classes should have, yet it is expected that with the many advantages now possessed by the association the classes next year will show a great improvement, both as regards teaching and the aims in view. The association should be grateful for the financial support accorded them by the Borough Council, Road Board, and School Committee, and trust that when these bodies see the progress of technical education in the district, they will have no cause to regret the support given by them to it.

Financially, the year's operations have been successful to a far greater extent than was anticipated, for whereas at the inauguration of the association teachers took on their duties with the probability of receiving no remuneration whatsoever, our balance-sheet shows that we have paid £110 2s. in salaries. The receipts for the year have been £202 2s., of which sum £131 15s. 3d. has been received in grants from the Government. The association has a credit balance of £20 0s. 4d., and also possesses three typewriters, purchased during the year with money received for the purpose from the Department.

Advantage has been taken of the free-scholarship regulations in connection with technical education, and a large number of pupils received free tuition during the second quarter. The sum of £15 is still due to the association from the Government on account of these free pupils. A scheme will be submitted to the incoming Board of Managers whereby most of the classes will be made free not only to those who have passed the Sixth Standard of the primary school, but also to others.

It is proposed during the coming year to group typewriting, shorthand, and book-keeping, thus forming a commercial course, and enabling an afternoon class to be formed for the benefit of the country students coming by train. Dressmaking will also be taught in the afternoon. New classes for next year will probably be wool-classing, photography, and wood-carving.

In conclusion, the managers solicit the hearty co-operation of all residents in the district, and trust that with a new year a large number of fresh pupils will be enrolled, and that ere long the benefit of technical education will be felt and appreciated. They will gladly welcome suggestions from intending pupils desiring instruction in any subject not at present taught, and if a sufficient number of pupils be forthcoming, will gladly make arrangements for the engagement of a competent teacher for that subject.

H. M. MILES, Chairman.

OTAGO.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

Classes in elementary handwork have been held during the year in connection with twenty-one schools. Cookery and woodwork classes have been held in connection with several schools, including the Dunedin City and suburban schools and the Oamaru schools. Cottage gardening has been taught at seventeen country schools, and swimming at four schools.

The programmes of instruction followed by all of these classes have been approved by the Department, and the capitation earned has been applied to the purchase of the material used and to the payment of the instructors where these were not on the ordinary staff of the school. The cookery and woodwork classes in connection with the Dunedin and suburban schools have been held at the Dunedin Technical School, and the classes in Oamaru in the same subjects have been held at the Middle School. The drawback to the Central School system of instruction is, of course, the time consumed by the pupils in travelling to and from the place of instruction, but at present this is the only method of instruction in these subjects that it is possible to adopt. The Board trusts, in the near future, to be able to erect in the suburbs one or more buildings for woodwork and cookery classes. During the year the Technical School at Port Chalmers was completed, and classes for woodwork and cookery will be started there at the beginning of 1904. A grant for rooms for similar classes at Kaitangata has been promised by the Department, and plans for the building are now being prepared. Needlework instruction has been given to the girls of twenty-nine of the schools that have an average attendance below forty-one. The rate of capitation allowed by the Department is 10s. per unit of the average attendance; but this rate does not permit of the teacher receiving fair remuneration for the work done. In quite a number of cases it has been most difficult to obtain the services of a suitable teacher, and, in some districts, no needlework is taught owing to the lack of a teacher. Special classes for instruction of teachers in woodwork and cookery were held during the year and were very well attended. Thirty of the Board's female teachers sat for the London City and Guilds Examination in Plain Cookery in the month of May, and all were successful in passing the examination, fourteen obtaining first-class and sixteen second-class certificates. Fifteen of the Board's male teachers purpose sitting for the London City and Guilds Examination in Woodwork this year.

Other successes in connection with the Institute's examinations were as follows: Plumbers' work—Preliminary, 1 pass; honours, 1 second-class pass. Electric lighting—Preliminary, 1 pass. Wiremen's work—1 second-class pass. Telegraphy and telephony—Ordinary, 1 pass. Mechanical Engineering—Ordinary, Part I., 2 passes; Part II., 1 first-class pass, 3 second-class passes: honours, 2 second-class passes.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

Handwork now forms an integral part of the work of a considerable number of schools; and great praise is due to the teachers for the efforts they have made, often at no small personal inconvenience, to qualify themselves to give instruction in the new kinds of work prescribed by the Department. Much of the work done in the schools is of creditable quality, and we consider that the cottage-gardening classes, the woodwork classes, and the cookery classes are so far a decided success.

During the year fourteen teachers gained first-class and sixteen second-class certificates in cookery, and a large number of teachers are now preparing for examination in cookery and woodwork. The rooms in which the pupils and teachers have to work are entirely unsuitable. We would therefore urge upon the Board the necessity for proceeding with the erection of the rooms that were designed some time ago.

EXTRACT FROM THE REPORT OF THE PRINCIPAL OF THE SCHOOL OF ART AND DESIGN.

During the period over which this report extends—viz., from the 4th February to the 22nd December—the number of students who received instruction was 386. This included 51 teachers and pupil-teachers, 24 students from the Training College, 86 students who attended the day classes, 157 students who attended the evening classes, and 68 teachers and pupil-teachers who attended the Saturday classes. The usual classes for elementary and advanced freehand and model drawing, and for light and shade were held throughout the year. The work comprised outline drawing from models, familiar objects, and ornament from the cast, light and shade of ornament from the cast, from the antique, and from life. The course of work in painting was very similar to that of last year, and consisted of brushwork, painting in monochrome from the cast, colour studies from groups of still life, painting flowers from nature, painting from life, and landscape painting from nature, once a week, when the weather proved favourable. As regards modelling, the elementary students worked from simple casts of ornament,

while the more advanced worked from the antique, from life, and from original designs. The work in plant-form and elementary design comprised drawing and tinting foliage, flowers, and other natural forms from nature, and analysis of their ornamental details. Various original designs of considerable merit were produced by the students for tiles, panels, linoleum, wall-papers, book-covers, &c. The course for pupil-teachers, as in the previous year, consisted of freehand, model-drawing, geometrical drawing, and perspective. The attendance of the students was regular, and their work throughout the year satisfactory. At their annual examination, held in July, 31 passed in model-drawing (these having previously passed in freehand), 21 passed in geometrical drawing, and 11 passed in perspective. The course of instruction attended by students of the Training College who had not previously studied drawing consisted of freehand, model-drawing, and geometrical drawing, and for those who had passed the prescribed pupil-teachers' second-grade examination in drawing, drawing on the blackboard from models, and from familiar objects, light and shade from the cast, and modelling. The students showed great pleasure in their work and an anxious desire to progress. At their examination, 12 passed in freehand, 7 in model-drawing, 12 in geometrical drawing, 3 in perspective, 4 in light and shade, 10 in drawing on the blackboard, and 9 in modelling. Next session it is intended to extend blackboard-work so as to include brushwork. Classes were held as usual on Saturday morning, and were largely attended by teachers and pupil-teachers of country schools. The work of the teachers comprised a great deal of outline drawing from models, light and shade from the cast, and modelling from simple casts of ornament. They worked conscientiously and seemed anxious to make the most of their time. Several showed considerable taste and aptitude in manipulating the clay in modelling. Students from the School of Mines received instruction in practical plane and solid geometry on Tuesday and Thursday from 8.30 to 9.30 a.m. At their examination, held in October, 5 gained first-class certificates, 4 second-class, and 1 third-class.

Classes for practical plane and solid geometry, building construction, and machine construction and drawing were also held. The courses of instruction were the same as previously reported on. Good progress was made by the students, who were thoroughly interested and took a keen interest in their work. These classes are now fully equipped with up-to-date apparatus for the practical instruction of students who wish to gain a sound, practical, and theoretical knowledge of building and machine construction.

Six works by as many students were accepted for the Art Class Teachers' Certificate of the Board of Education, South Kensington, London. The subjects were geometrical drawing, light and shade from the cast, and shading from models.

One work in perspective was accepted for the Art Masters' Certificate.

In the national competition for 1903, two students gained awards—viz., Alfred Dunstan, book prize for a group of models, shaded, and Aletta de Britain Hutton, book prize for light and shade from the cast.

The results of the Science and Art Examination of the Board of Education, South Kensington, London, were as follows:—

Science.—Building construction—Elementary, first-class, 3 passes; advanced, second-class, 1 pass. Machine construction—Elementary, first-class, 5 passes; advanced, second class, 1 pass. Applied mechanics—Advanced, second class, 1 pass. Inorganic chemistry—Elementary, second class, 1 pass.

Art.—Freehand drawing—First-class, 2 passes; second class, 2 passes. Model-drawing—First class, 2 passes; second class, 5 passes. Geometrical drawing—First class, 3 passes; second class, 1 pass. Perspective—Second class, 6 passes. Design—First class, 2 passes; second class, 2 passes. Memory drawing of plant-form—Second class, 2 passes. Drawing from the antique—First class, 2 passes. Principles of ornament—Second class, 1 pass. Painting from still life—Second class, 1 pass. Architecture—Second class, 1 pass.

Owing to the last week of the session coming so near Christmas, the annual exhibition of the students' work was postponed, and held, instead, at the beginning of the present year. This arrangement proved highly satisfactory, since many who were out of town for the holidays were enabled to see the exhibits. The work on the whole was of a higher standard than that of former years. In conclusion, I have to thank the members of the staff for the efficient manner in which they have performed their respective duties.

DAVID T. HUTTON.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE DUNEDIN TECHNICAL CLASSES ASSOCIATION.

The necessary arrangements having been made, the Otago Education Board, the Technical Association, and the Dunedin City Council became associated, and the work for the year has been carried on under the control of managers elected by these bodies. The Education Board elected four managers, the association three, and the City Council two.

The staff of the school still consists of the Superintendent and twenty-eight regular teachers. Several changes were made in the teaching staff during the year.

The Superintendent's report shows that during the year 15 classes for instruction in continuation subjects, 9 classes in commercial subjects, and 19 in technical subjects were held. A pleasing feature is the gradually increasing attention being given to technical subjects. The number of students enrolled for our classes practically constitutes a record, for the figures for the years 1899, 1900, and 1901 included the students attending at Port Chalmers, where the association has now ceased operations. Subjoined is a statement showing the number of enrolments for each year since the initiation of the classes: 1889, 288; 1890, 170; 1891, 318; 1892, 364; 1893, 390; 1894, 385; 1895, 457; 1896, 458; 1897, 701; 1898, 731; 1899, 767; 1900, 781; 1901, 753; 1902, 634; 1903, 775.

Year by year it is becoming more apparent that the present premises are not suitable for technical-school purposes, and already the rooms at our disposal are found to be altogether inadequate for the work of the classes. During the year arrangements were made for the occupancy of the building opposite the Technical School, and in this building the apparatus for the teaching of practical electricity has been erected. But the rent of these premises is relatively a heavy item, and the arrangement can therefore at best be regarded only as a temporary expedient. The accommodation for the practical-plumbing class has by the erection of extra benches been somewhat extended; but here, too, further and more complete provision requires to be made. During the year the class for carpentry has been furnished with a complete outfit of tools for the use of students, while a large indent order has been given for the models, appliances, and material required for the classes in chemistry, carpentry, and theoretical plumbing. Consideration must be given to the equipment of a laboratory for the use of students of the electrical and engineering class. It is also suggested that a few of the oldest and most worn typewriters be replaced by new and up-to-date machines. The sewing-machine procured for the use of the pupils of the dressmaking class has proved such an advantage that the advisability of purchasing another during the current year will probably be considered.

A copy of the statement of receipts and expenditure for the year ended the 31st December is herewith appended, and shows the credit balance at that date to be £279 9s. 6d., a pleasing contrast to last year's statement, which showed a balance of £99 on the other side of the ledger. The Education Department deserves thanks for the spirit in which all claims for grants and capitation have been met during the past year. The association, it may be mentioned, has on its part refrained from claiming to the utmost.

The thanks of the association are again due to the examiners for so willingly undertaking the annual examination of the work, and to the Press for valuable assistance rendered during the year. The Superintendent and his staff also deserve mention for the success which has attended the past year's operations.

Statement of Receipts and Expenditure for Year ended 31st December, 1903.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Fees	570	14 0	Bank overdraft, 31st December, 1902 ..	99	9 11
Donations	131	5 0	Salaries	734	12 8
Government grants—			Printing, advertising, &c.	37	17 1
Capitation allowance (technical classes) ..	228	8 11	Insurance	16	12 4
Capitation allowance (continuation classes)	165	13 8	Rates	7	2 0
Subsidy on Donations	122	19 6	Rent	27	10 0
Grant for apparatus, fittings, and furniture	292	17 2	Gas	29	16 5
Grant for material	65	1 4	Materials	88	15 2
			Apparatus, fittings, and furniture ..	249	11 3
			Repairs	6	3 3
			Bank balance, 31st December, 1903 ..	279	9 6
	<u>£1,576</u>	<u>19 7</u>		<u>£1,576</u>	<u>19 7</u>

Examined and found correct.

Dunedin, 22nd January, 1903.

C. GRATER, F.N.Z.A.A., Auditor.

Extract from the Report of the Superintendent.

The number of students enrolled during the present year was 775, as compared with 634 in 1902. In continuation subjects the following fifteen classes were carried on: English (junior, intermediate, and senior); Latin (junior and senior); French (junior and senior); Maori, mathematics (junior, senior, and advanced); arithmetic (junior and senior); elocution (junior and senior). The adoption by the association of the technical-scholarship regulations brought a large influx of students to the classes for English. Most of the newcomers were young people with much of the ordinary school-work still fresh in their minds, and consequently able to take full advantage of the instruction given in our school. This enabled a higher standard to be reached, and the three outside examiners in their separate reports each commend the excellence of the work, particularly the training given in English composition. To the best student of this class Professor Gilray offers free tuition in his class at the University, and the competition for this led to healthy rivalry among the students of the senior class this year, so much so that two students are bracketed equal. The attendance at the Latin class was somewhat greater than in former years, and, taking the examiner's report, the results indicate that the instruction given is both thorough and systematic. The class for French was but fairly attended; probably this is owing to the limited demand for instruction in the subject, as the teacher is noted for his painstaking manner as well as for his ability and enthusiasm. Maori received little attention this year, and the subject will in all probability not find a place in next year's syllabus. In arithmetic the senior class was, as is usual with this subject, the better attended, and the more satisfactory one of the two. Evidently it will soon be necessary either to bring the subject within the commercial group or to establish a separate class for the treatment of commercial arithmetic. Since the division of the class for mathematics the attendance has gradually increased, and this year the classes were larger than in any previous year. To meet the tendency of the times the work was treated in a more practical way than formerly. At the request of a number of students the teacher agreed to carry on a preparatory class for instruction in the course of mathematics prescribed for the B.A. degree, and the support accorded the undertaking justifies provision being made for such a class.

The nine classes for instruction in commercial subjects were: Shorthand (elementary, theory and practice, speed), book-keeping (junior taking single entry, senior taking double entry), typewriting (elementary and advanced), commercial law, and penmanship and commercial correspondence. After the midwinter vacation so many beginners entered for shorthand that the classes had to be rearranged. The elementary and junior divisions, however, proved rather large for efficient working, and should the

demand for instruction in this subject continue it will be necessary to appoint a third teacher of short-hand. The speed section did good work, and certificates to be issued this year indicate that the rate varied from 50 to 130 words per minute. On the other hand, the classes for book-keeping were not so well attended as in former years, the falling-off being greater in the senior division than in the junior. This is to be regretted, for, though the standard of the senior class is high, students having once entered on the study of the subject should not be satisfied till they have qualified for a first-class certificate in the upper division. Numerically the class for commercial law was small, but the students were of more than ordinary ability. It is intended to next year recast the syllabus of work of this class so as to bring the course of instruction in law more into accord with the requirements of students engaged in mercantile pursuits. The class for penmanship and commercial correspondence was well attended, students evincing greater interest in their work, and the examiners report that they are very favourably impressed with the style of penmanship taught by the present teacher.

The classes for technical subjects under the regulations were 19 in number, and comprised the following subjects: Chemistry, botany (two classes), physics, practical electricity (two classes), mechanical engineering, principles of sanitary plumbing, practical plumbing, carpentry and joinery (two classes), wood-carving, wool-classing, tailors' cutting and fitting, dressmaking (two classes), cookery (three classes). It is to be regretted that the majority of the students of the chemistry class do not attempt to follow the subject beyond the elementary stage. To the best student in this class Professor Black grants free tuition in his class at the University. In the autumn, in addition to the usual botany class, a special class suited to the requirements of teachers was established. The class was attended by sixteen teachers, several of whom at the end of the term expressed the hope that the class would be continued next year. Considering the importance of the physics, I cannot but express disappointment at the paucity of the attendance at the class. Evidently a large body of apprentices still fail to recognise the important bearing this subject has upon many of the trades. Professor Shand again offers free tuition in his University class to the association's best student in physics. In marked contrast to the attendance at physics was the number of students who applied for admission to the class established for instruction in practical electricity. Eighty-eight students were enrolled within a week, while large numbers were for various reasons refused admission, and many of those who were admitted had no idea of the nature and scope of the work they were entering upon. The result was that about half the number who attended regularly during the first term failed to enrol for the second term now going on. Mechanical engineering was again well attended, and students invariably devoted themselves earnestly to their work. This class is being gradually furnished and equipped with the models and appliances necessary for the illustration of the principles of the work, and the class evidently continues to be very popular with students. The class for practical plumbing was this year attended by more students than could be conveniently accommodated at one time, and the teacher overcame the difficulty by giving extra lessons to those able to attend on a different evening. I have repeatedly directed attention to the quality of the work done in our plumbing classes, and I am therefore pleased to call attention to the fact that one of the students, after two years' preparation in our plumbing classes, visited London, and after some months' attendance at the Polytechnic plumbing classes, sat for the City and Guilds Examination, gaining second-class honours in principles of plumbing, and first-class honours in plumbers' work, ordinary grade; he also gained a silver medal and three book prizes.

Although the tailoring class was not large, the students showed great interest in their work, and their attendance was both regular and continuous, and the efforts of the teacher are evidently greatly appreciated. Towards the end of the term the attendance at the class for wool-sorting fell away, and evidence of increased attendance will be required to justify room being made for it next year. Two classes for dressmaking were held, and these were both well attended. The sewing-machine provided greatly facilitated the work, while the adoption of the "Frisko system" of cutting out also proved a decided advantage, students tending to become more reliant upon their own efforts and judgment and less dependent upon the teacher. Further, it is considered that after their withdrawal from the class students taking the system are more likely to attempt the cutting-out and making required for their own use. The examiner reports that the finish of the work in dressmaking this year, as compared with previous years, reflects great credit on the teacher. The attendance at the three cookery classes was up to the average of former years, but only a few of the students sat for the final examination.

Looking back on the year's operations, I have to express the opinion that so far as the actual working of the classes is concerned, the staff attained all that may reasonably be expected or even desired, but it is a matter for regret that so few of our students continue their attendance long enough to receive the full benefit of the education and training that has been placed within their reach.

On the coming into force of the technical-scholarship regulations, 121 pupils were allowed to join classes without payment of fees. Several of these attended only once or twice, while at least a third of the number failed to make the minimum attendances required to entitle the association to the capitation grant. The scholarship-holders were, however, of more than average ability and power of application, the explanation probably being that the majority of them, having just recently passed through public schools, retained a good knowledge of the fundamental principles of the work. This confirms the view made public by me in previous reports that were pupils to enter our school immediately on their withdrawal from the day school much greater benefit would be derived than is usually the case when entrance is postponed, as at present, till much has been forgotten. With the exception of those for tailoring, wool-sorting, wood-carving, and practical electricity, all the classes were examined. To the honorary examiners the thanks of the association are again due. Most of them have, year after year, given considerable time and care to the examination of the work. The members of the staff have worked in harmony, consulted students' interests, and rendered me every assistance. They are therefore entitled to most of the credit for the success attained.

ANGUS MARSHALL,
Secretary and Superintendent.

SOUTHLAND.

EXTRACT FROM THE REPORT OF THE EDUCATION BOARD.

It is unnecessary that any lengthy reference should here be made to the work of manual and technical instruction as carried on under the Board's control, seeing that the Director of Technical Instruction will furnish a special report dealing with this subject. It will be sufficient to state that substantial progress has been made during the year in the various forms of work introduced under the provisions of the Manual and Technical Instruction Act and Regulations, and that the financial results of the year's operations, as shown in the Director's balance-sheet, have been quite satisfactory. In the early part of the year the Board undertook the erection of the first section of the proposed new Technical School—rooms for cookery and woodwork classes—at a cost of £557, such amount being received from the Government as a first instalment of the special vote promised for this purpose. The completion of the building will be amongst the most important works to be undertaken during the coming year. Taking advantage of the provisions of section 26, (e), of regulations made under the Manual and Technical Instruction Acts of 1900 and 1902, the Board, early in the year, made arrangements for the teaching of sewing in all schools where the average attendance did not exceed forty by the appointment of a sewing mistress in cases where the school was in charge of a male teacher. Though in most instances the amount of fees to be earned (10s. per pupil in average attendance per annum) was not very enticing, still the Board succeeded in securing the services of fairly competent instructors for nearly all the positions advertised. There were during the year forty-three sewing-teachers employed, and to these the sum of £215 10s. 9d. was paid by way of *pro rata* capitation earned during the last nine months of the year. The Board has for years past advocated the introduction of some system whereby the girls of all schools should receive tuition in this useful art, and notes with satisfaction the consummation of their desire in the regulations framed under the Acts above referred to.

The Board has again to acknowledge the liberal provision made by the Department for the instruction of teachers in manual and technical subjects. The special vote of £150 made for this purpose was duly received. Saturday classes for teachers in woodwork and cookery were organized at Invercargill and Gore respectively, and the work of instruction prosecuted with vigour during a period of about eight months. The classes were, on the whole, well attended, and considerable progress was made, as is evidenced by the success achieved by students from this district in the examinations conducted by the City and Guilds of London Institute, the record being as follows: In cookery, 7 students were credited with first-class, and 18 students with second-class passes. In woodwork, 9 students passed in the examination prescribed for the first year, while 3 obtained a pass (with first-class honours) and 2 (with second-class honours) in the final examination.

EXTRACT FROM THE REPORT OF THE INSPECTORS OF SCHOOLS.

We must refer, in passing, to the work done by the teachers at the special classes organized last winter. The Board has already indicated its appreciation of the application and the zeal of the students, so many of whom, by their success at the City and Guilds of London Institute Examinations, reflected credit on themselves and on their teachers. Classes in cookery and woodwork will again be organized, and, in order that the available time may be utilised to the best advantage, classes in science will also, we hope, be established. It is eminently to be desired that the teachers who were successful at the recent examinations will not allow their skill and knowledge to remain unused, but will endeavour to give their pupils and the community the benefit of their special training.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF TECHNICAL INSTRUCTION.

Central Technical and Continuation Classes.

These classes were not quite so well attended as were those of last year, the numbers being 252 and 172 in the first and second terms respectively, as against 273 and 205 in the corresponding terms of the previous year. The decline in the attendance is, I think, partly attributable to the establishment of a thoroughly equipped gymnasium in the town, presided over by a competent instructor, and in view of the attention which is now given to physical development, several attended at this institution who otherwise might possibly have attended one or other of the evening classes. These fluctuations in the attendance may, however, always be looked for in towns with a small population such as Invercargill, and need cause no foreboding. The most popular class was that of cookery, a tribute to the enthusiasm and capability of the instructor, and also to the good sense of the lady members of our community. The evening class overflowed into a day class, a very pleasing circumstance indeed. Sufficient students were not found to justify the establishment of the classes in perspective, painting, chemistry, plumbing, laundry-work, Latin, and mathematics, but the other classes on the syllabus were successfully conducted through two terms, with the exception of the photography class, which was carried on for one term only. Through the generosity of the Board the pupil-teachers of the town and suburban schools were allowed to attend the freehand and model drawing classes free. Fifteen pupil-teachers took advantage of this concession, and their attendance may be regarded as very satisfactory on the whole. An exhibition of the work of the students in attendance at the various classes was held at the end of the session, and again attracted considerable attention.

Gore, Mataura, &c., Technical and Continuation Classes.

Technical and continuation classes were held this year at Gore and Mataura, and continuation classes at Arrowtown, Fernhills, Oteramika Gorge, Papatotara, and Waimumu. I am sorry that I cannot report very cheerfully on the work at either Mataura or Gore, though, for its population, the Mataura classes have succeeded fairly well. The classes conducted at Mataura were dressmaking and singing, with a total of eighteen students in attendance during the first term. At Gore, although a

syllabus of classes was prepared and considerable efforts were made to interest the residents in the work, only two classes, carpentry and shorthand, were established, with an attendance of four in each class. The result has been a financial loss to the central department. I am afraid that technical and continuation classes will not succeed in Gore until a central building is erected, as the present Technical School is not in the best position in the town; but then, unless greater interest is taken in the classes, the Department would not be justified in spending much money in the erection of a new building on another site, even if such a site could be obtained. I shall again endeavour to establish classes this winter in Gore, and see what comes of a third year's trial. An effort was also made to establish classes in some of the other centres, but without success. I shall try again this year, and will hope for better results.

Manual Instruction in Schools.

This branch of education has made considerable progress during the year, and my report in this direction can only be most encouraging. In 1901, nine schools, with a total of 1,355 children in attendance at the classes, carried on some form of manual training during the whole year, so as to enable them to earn capitation, which amounted to £108 18s. In 1902 the numbers were thirty-nine schools, 3,638 scholars, and £183 Os. 3d. capitation earned. This year the figures are eighty schools, 6,128 scholars instructed, and £504 8s. 7d. capitation earned. This large increase has been partly gained by the erection of woodwork and cookery rooms at Invercargill, and the establishment of a Technical School at Gore, by which the boys and girls of the school in these centres were enabled to get instruction in woodwork and cookery respectively. I do not expect such a large increase next year, for the reason that all the schools having more than one teacher are now giving instruction in one or other of the branches of hand and eye work to the infant classes, while many of the schools having sole teachers only on the staff find enough to do to attend to the ordinary syllabus requirements. I hope, however, that the present position will be maintained. Instruction in needlework has also been given during the year by competent sewing teachers in forty-three schools staffed by males only. The Government capitation earned by these classes amounted to £215 10s. 9d., and this amount was collected and distributed to the various sewing-mistresses at the close of the year.

Teachers' Training Classes.

The work of the year in this direction has been confined to instruction in woodwork and cookery for men and women respectively. The drill classes, which were held in the afternoon, prevented any other form of manual training being taken up. The cookery classes were attended by 72 teachers during the terms before and after the City and Guilds of London Examination. Before the examination, which was held in the month of May, only those teachers who were preparing for the examination were allowed to attend. Twenty-three sat for the examination, and of these 20 succeeded in passing—7 with first-class honours. After the examination a new class was organized to prepare for next year's examination, when I expect a large number of candidates to sit. In the woodwork class there were 64 teachers in attendance during both terms. Thirteen students sat for the first year's and 11 for the second year's examination in woodwork under the City and Guilds of London Institute, and of these 13 passed the test. A large number are preparing for this year's examination. At Gore a suitable building was secured in which to establish cookery and woodwork classes in that centre. A complete equipment of tools and utensils was supplied by the Education Department, and the classes were commenced, and have been very successful. Twenty-five teachers attended the woodwork class and twenty-four the cookery, and of this number a goodly proportion are expected to sit for the examinations in these subjects.

City and Guilds and Board of Education Examinations.

Since the coming into operation of the Manual and Technical Instruction Act, greater interest has been taken by students in regard to the examinations conducted by the City and Guilds of London Institute in technical subjects, and by the Board of Education, London, in science and art subjects. These examinations are held in the various centres of the colony at the end of May and the beginning of June each year, the Education Department acting as the colonial representative. The results of the local examinations were as under:—

City and Guilds of London Institute.

Woodwork: First year—9 passed; second year—First class 3 passed, second class 2 passed.
Cookery: First class, 7 passed; second class, 18 passed.

Board of Education, London.

Freehand drawing: First class, 2 passed; second class, 1 passed. Model-drawing: First class, 1 passed; second class, 2 passed. Machine construction and drawing: Advanced—First class, 1 passed; second class, 2 passed; elementary—First class, 1 passed. Steam: Elementary—First class, 1 passed; second class, 1 passed.

General.

Mr. E. C. Isaac, Organizing Inspector of Manual and Technical Instruction, visited this district during the month of April, and inspected the various technical and school classes in and around Invercargill. He also met and conferred with the teachers of the district at the Technical School, at the Central School, and also at Gore, giving in each case an instructive lecture and demonstration in woodwork, bricklaying, and paper-folding.

The erection of the new cookery and woodwork rooms has been a great boon, and teachers and scholars can now work with comfort and satisfaction to themselves. Both rooms are fully equipped with the necessary tools and appliances, and if good work is not done no blame can be attached to the surroundings.

Several friends who are interested in technical instruction have generously donated gifts of money or of appliances to help on the work. Chief of these was H. E. Shacklock (Limited), Dunedin, who donated two cooking-ranges, one to Invercargill and the other to Gore, of the total value of £32 5s. On these voluntary contributions the Government has given a pound-for-pound subsidy. Other donations of lesser value have been received from Messrs. Hayward Bros. and Co., of Christchurch, and Messrs. G. T. Smyth, J. W. Thomson, and W. Field, of Invercargill. To all these friends hearty thanks are due. At the end of the year, Messrs. Riddell, of the woodware-factory, and Dunbar, of the Southland Implement and Engineering Company, threw open their factories for inspection by the teachers in the woodwork class. The teachers took advantage of the invitation and attended in force, and were most courteously and kindly received and conducted over the premises. These visits formed excellent object lessons, and were much appreciated by the teachers.

It was proposed to hold a summer school in Invercargill for the benefit of those teachers in charge of schools situated too far from the railways to enable them to attend the classes held in Invercargill and Gore. It was found, however, that the time originally fixed was not convenient for the majority of those for whose benefit the classes were to be established, and other causes operating unfavourably, the project was abandoned for the time being.

Finance.

The year's financial operations closed with a credit balance of £512 19s. 10d. on the total of the accounts. Of this sum, about £120 is earmarked for the Teachers' Training Account, and other smaller sums, amounting to say £50, belong to other similar accounts, leaving the balance wherewith to carry on operations during the incoming year. The financial position is sound.

Balance-sheet for the Year ending 31st March, 1904.

<i>Receipts.</i>			£	s.	d.	<i>Expenditure.</i>			£	s.	d.
Balance from last year			226	16	3	Central Account—					
Central Account—						Advertising and printing	21	13	3		
Fees			165	2	0	Apparatus	124	3	2		
Capitation			184	15	0	Material	46	2	3		
Material-refund			38	0	4	Salaries	199	2	6		
Exhibition receipts			12	2	6	Rent of rooms	3	0	0		
Schools Technical Account—Capitation .. .			185	12	6	Rent of section	2	10	0		
Schools Standard Account—						Water rates	1	11	6		
Capitation			318	16	1	Exhibition expenses	11	15	11		
Permanent apparatus grant			99	17	2	Janitor	7	10	0		
Teachers' Training Account—						Administration (year and a half) .. .	150	0	0		
Government grant			150	0	0	Schools Technical Account—					
Material-refund			9	16	3	Salaries	101	0	4		
Gore Technical Account—						Material	34	17	6		
Fees			6	0	0	Apparatus	6	7	6		
Capitation			2	14	0	Schools Standard Account—					
Government grant for apparatus .. .			94	18	9	Material	107	4	2		
Mataura Technical Account—						Permanent apparatus	76	0	0		
Fees			8	15	0	Teachers' Training Account—					
Capitation			3	6	0	Salaries	86	0	0		
Central Building Account—						Material	43	2	6		
Government grant			557	0	0	Janitor	2	10	0		
Government subsidy on voluntary contributions			22	3	0	Gore Technical Account—					
Gore Building Account—Government subsidy on voluntary contribution .. .			10	2	0	Salaries	8	14	0		
Needlework Account—Capitation			215	10	9	Advertising and printing	2	2	6		
Country Continuation Account—Capitation			22	16	9	Apparatus	92	8	4		
						Rent of building	23	2	6		
						Mataura Technical Account—					
						Salaries	15	15	0		
						Advertising, &c.	1	10	0		
						Central Building Account	400	8	6		
						Gore Building Account	14	5	7		
						Needlework Account—Payments to teachers	215	10	9		
						Country Continuation Account—Payments to teachers	22	16	9		
						Balance	512	19	10		
			£2,334	4	4		£2,334	4	4		

In conclusion, I have again to record my thanks to all connected with educational matters in this office and district and in the central Department at Wellington for their forbearance and kindly assistance rendered in many ways during the past year.

W. A. McCaw,
Director of Technical Instruction.

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