

1901.
NEW ZEALAND.

EDUCATION : MANUAL AND TECHNICAL INSTRUCTION.

[In continuation of E.-5, 1900.]

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

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

MANUAL TRAINING AND TECHNICAL INSTRUCTION.

LAST year was marked by the most important step that has yet been taken in this colony for the advancement of manual and technical instruction—namely, the passing of the Manual and Technical Instruction Act. Already a considerable impetus to progress in this direction is manifest, but the history of it belongs almost entirely to the present year (1901), and not to the year of which this report treats. Organizing Inspectors have been appointed, and the regulations required to give effect to the Act have been issued. The Act and regulations will, it is believed, offer a degree of encouragement to manual and technical education as liberal as is offered by the State in any part of the world. The Inspectors have already (August, 1901) visited nearly every part of the colony, have met teachers and others interested, giving model lessons and such information and advice as will enable local controlling authorities to begin work on the best lines or extend the work that has already been begun. The Inspectors have also in hand a series of small manuals suggesting suitable programmes of work in manual and technical classes. One of these, on “Modelling,” has already appeared, and two others, on “Woodwork” and “Cardboard-modelling” respectively, will be ready shortly. One of the most satisfactory features of the movement is the degree of interest that is being manifested in regard to the introduction of hand-and-eye training into the schools of the colony, which is, it is satisfactory to note, most marked in the matter of the increasing adoption of kindergarten methods into the teaching of the infant classes. It is recognised that trained teachers are essential for effective work, and accordingly special grants, amounting to £1,875 in all, have been given to the Boards of Education to enable them to provide training for their teachers in those subjects prescribed by the regulations under the head of “Handwork” in school classes. Free railway passes are also being granted to teachers from country districts who attend such training classes. The extension of technical education proper will be sufficiently indicated when it is stated that since the passing of the Act there have been, exclusive of school classes, some forty or fifty applications for grants in aid of buildings, apparatus, and material.

The controlling authorities recognised are Boards of Education, governing bodies of secondary schools, university colleges, and, in the case of certain classes in existence before the passing of the Act, the managers of those classes. School classes, or classes held in connection with primary or secondary schools, are under the control of the Boards of Education or of the governing bodies respectively. “Special classes”—that is, continuation classes or classes for manual or technical instruction—established by the same bodies are also under their control. “College classes” are classes for higher technical instruction established and controlled by a university college. Classes may also be established by any suitable public association or corporation acting jointly with a Board of Education or university college; these are called “associated classes,” and all the contributing bodies may have a voice, according to the share of the cost of maintenance borne by them, in the election of the managers of the classes. The grants for capitation on the average attendance are twice, or nearly twice, as liberal as under the former Act, and many classes that could not be

TABLE Y.—MANUAL AND TECHNICAL INSTRUCTION, 1900—continued.

School or Instructor.	Subjects of Instruction (grouped), and Average Attendance.													Payments.	
	Freehand (from Flat and Round) and Shading.	Drawing from Nature, Painting, and Modelling.	Mechanical Drawing and Engineering, and Machine-construction.	Geometry and Perspective.	Design and Ornament.	Architecture, and Building-construction.	Mathematics.	Natural and Experimental Science (Botany, Chemistry, and Physics).	Woodwork.	Plumbing (Theory and Practice).	Domestic Instruction.	English, and Commercial Subjects.	Singing.	Capitation.	Special Grants.
Anderson, Mr. R. N., Napier ..	29	13	14	17	8	..	..	..	..	..	..	..	..	£ s. d. 20 18 9	£ s. d.
Education Board, Napier—															
Napier Public School ..	75	..	..	82	77	..	..	..	..	..	..	..	..	38 9 7	..
Port Ahuriri Public School ..	61	..	..	64	63	..	..	..	..	..	..	..	..	15 10 0	..
Becroft, Miss M. M., Hastings ..	4	..	..	..	..	..	..	..	..	..	..	..	..	2 8 9	..
Education Board, Nelson—															
Nelson cookery class ..	..	..	..	..	..	..	..	..	..	..	43	..	..	5 7 6	..
Education Board, Grey—															
Greymouth District High School ..	..	..	..	..	..	..	..	..	11	..	..	..	..	12 7 9	..
Education Board, Westland—															
Kumara District High School ..	..	..	..	..	..	..	..	..	17	..	..	..	..	18 11 6	..
Canterbury College—															
School of Art, Christchurch ..	260	133	..	119	73	22	..	..	33	..	..	..	..	174 7 5	..
School of Engineering and Technical Science, Christchurch ..	..	..	149	51	..	..	..	..	..	..	..	..	..	21 12 6	..
School of Domestic Instruction, Christchurch ..	..	..	..	..	..	..	..	..	..	..	255	..	..	127 5 3	20 0 0
Education Board, North Canterbury—															
Normal School ..	..	..	..	..	..	..	..	..	61	..	..	..	..	30 2 6	..
Amberley Public School ..	..	..	..	..	..	..	..	..	..	..	25	..	..	18 18 9	..
Leeston and Doyleston Public Schools ..	..	..	..	..	..	..	..	..	12	..	19	..	..	16 2 6	..
Technical Classes Association, Dunedin ..	..	..	43	..	8	..	20	36	30	18	63	85	..	113 5 11	..
Ditto, Waiwera South ..	..	..	6	..	..	..	..	..	..	..	..	..	..	2 1 0	..
Invercargill ..	6	..	15	..	..	10	..	7	32	..	10	19	..	28 14 9	30 0 0
Education Board, Otago—															
School of Art, Dunedin ..	151	13	14	87	10	9	..	..	..	..	..	..	..	174 16 5	..
Tokomairiro District High School ..	..	..	..	..	..	..	..	12	11	..	..	..	..	6 7 7	..
Totals	978	301	344	603	288	82	48	88	939	62	608	157	45	1,555 5 3	400 0 0

The incidental expenditure is as follows: Examinations of Board of Education, formerly Science and Art Department, South Kensington, £99 14s. 9d.; examinations of City and Guilds of London Institute, £36 11s. 3d.; railway fares of students, £137 3s. 4d.; railway fares of instructors, £66 4s. 9d.; art collection (students' works), £58 17s. 7d.; publications, £28 0s. 2d.; advertising and sundries, £6 15s. 8d.: total, £433 7s. 6d.

Out of the vote of £10,000 for technical school buildings and apparatus, £2,178 6s. 10d. was granted to the Dunedin Technical Classes Association, leaving an unexpended balance of £7,821 13s. 2d. on the 31st March, 1901. Several other grants have, however, been made since that date. As subsidy on voluntary contributions in aid of classes, £335 4s. 11d. was distributed, as follows: Wellington Education Board (Technical School, Wellington), £122; Dunedin Technical Classes Association, £179 18s. 3d.; and Masterton Technical School, £33 6s. 8d.

Considerable stimulus has been given in the past to New Zealand students by the examinations held here on behalf of the Science and Art Department (now the Board of Education), London, and of the City and Guilds of London Institute. It is worthy of consideration, however, whether the time is not approaching when some of these examinations should be conducted by the department itself. The delay that is almost inevitably associated with examinations conducted by or on behalf of examining bodies on the other side of the world would be avoided if at least the more elementary subjects or branches were dealt with entirely in the colony.

Besides the work that is taken account of here, much important technical work has been done in connection with the Otago and other Schools of Mines, the Canterbury College Engineering School, and other institutions.

The following table shows the results of examinations conducted in the colony on behalf of the Science and Art Department, London, and of the City and Guilds of London Institute :—

LONDON TECHNICAL AND ART EXAMINATIONS, 1900.

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

Subjects of Examination.	Auckland.		Wanganui.		Wellington.		Wellington Sub-centres.*		Napier.		Nelson.		Christchurch.		Timaru.		Dunedin.	
	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.
<i>Science and Art Department.</i>																		
<i>Art—</i>																		
Drawing in light and shade ..	19	18	3	2	14	11	..	..	7	5	..	..	6	6	1	1	21	16
Perspective (elementary) ..	4	4	..	..	6	6	..	..	4	4	..	..	13	12	2	2	10	7
Model drawing ..	23	14	4	4	30	13	2	1	17	3	..	..	20	10	2	..	46	19
Freehand drawing of ornament ..	37	28	15	8	25	19	13	..	30	8	..	..	17	13	2	2	66	41
Architecture ..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..
Geometrical drawing (art) ..	8	6	6	5	..	..	..	..	..	..	4	4	..	..	..	..	11	9
Design ..	..	..	2	2	8	6	..	..	..	..	..	..	3	2	..	..	..	..
Painting from still life ..	4	3	3	3	3	3	..	..	3	..	..	..	3	3	1	1	..	..
Drawing from life ..	..	..	..	..	1	1	..	..	..	..	..	..	2	2	..	..	..	..
" the antique ..	9	9	2	..	2	2	..	..	..	..	..	..	..	..	..	..	3	2
Painting ornament ..	..	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1
Principles of ornament (elementary) ..	..	..	1	1	1	1	..	..	1	1	..	..	..	..	..	..	3	3
Students' works ..	14	8	13	5	43	22†	..	..	..	..	..	..	5	3†	..	..	13	7
<i>Science—</i>																		
Practical plane and solid geometry ..	4	2	2	1	8	6	1	1	..	..	..	..	1	1	..	..	5	5
Mathematics, stages 1, 2, 3, and 4 ..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Machine construction and drawing ..	20	8	4	2	8	4	..	..	..	..	..	..	..	..	..	..	11	9
Building construction ..	5	5	2	2	11	9	..	..	..	..	..	..	5	4	..	..	10	7
Steam ..	11	5	..	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..
Inorganic chemistry ..	..	..	3	1	..	..	5	1	..	..	..	..	..	..	..	..	..	..
Applied mechanics ..	7	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Magnetism and electricity ..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
<i>City and Guilds of London Institute.</i>																		
Telegraphy and telephony ..	..	..	..	..	1	1	..	..	..	..	..	..	2	1	..	..	..	..
Electric light and power (preliminary) ..	..	..	..	..	6	4	..	..	..	..	..	..	..	..	..	..	..	..
Electric light and power ..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..
Gas manufacture ..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Metal plate work (honours) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Carpentry and joinery (ordinary) ..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" (honours) ..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Woodwork, first year ..	..	..	2	1	..	..	..	..	..	..	..	..	3	3	..	..	1	1
" final ..	..	..	2	2	..	..	..	..	..	..	..	..	7	3	..	..	..	..
Bookbinding ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cookery ..	..	..	..	..	..	..	..	..	..	..	..	..	16	12	..	..	..	..
Mechanical engineering ..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4
Plumbing (preliminary) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4
" (written) ..	..	..	..	..	9	5	..	..	..	..	..	..	..	..	..	..	8	6
" (practical) ..	..	..	..	..	9	3	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	168	115	72	46	195	124	21	3	63	22	4	4	103	75	8	6	222	143

Total of papers, 856; total of passes, 538.

* Pahiatua and Masterton.

† Includes a book prize and a prize.

‡ Includes a prize.

REPORTS OF TECHNICAL SCHOOLS AND CLASSES.

AUCKLAND TECHNICAL SCHOOL ASSOCIATION.

THE Council beg to present the following report for the year ended 31st December, 1900 :—

The attendances during the year compared favourably with 1899. In one or two classes the enrolments were somewhat better; many of the old students continued their studies, a fact which may be accepted as evidence of the satisfactory character of the instruction provided.

The usual examinations in connection with the South Kensington Science and Art Department were held during the year. The results may be summarised as follows :—Geometrical drawing: Two. Freehand drawing of ornament: First class—two; second class—three. Model-drawing: Second class—four. Drawing in light and shade: First class—one; second class—two. Machine construction and drawing: Second class—one. Building-construction: First class—three; second class—two.

City and Guilds of London Institute.—Owing to the smallness of the attendances in some of the trade classes, the examinations in connection with this institution were abandoned for the year. It is noteworthy that some of the school-work done for the City and Guilds of London Institute Examination, and which came into competition with similar exhibits from other parts of New Zealand, was pronounced by first-class competent judges to be much superior to any other in its class. At the recent Canterbury Industrial Exhibition special mention was made of the excellence of the exhibits in the Auckland Technical School Section, and marked reference was made to the trade exhibits in particular.

No changes occurred in the *personnel* of the school staff, who continue to give entire satisfaction.

As it was evident that the ordinary revenue of the school would be insufficient, application was made to the Government for a further grant; and, this having been paid, the Council were enabled to carry on all the classes for the whole four terms of the year.

In order to secure the more permanent and satisfactory control of technical instruction in this district, the Council again waited upon the Auckland Education Board at the latter part of the year, and requested that body to take over the school. Assurance was given by members of the Board of their sympathy with the proposal and their desire to further the interests of technical education.

G. MAURICE O'RORKE, President.

STATEMENT of RECEIPTS and EXPENDITURE for Year ended 31st December, 1900.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Balances	50	5 7	Salaries	173	10 0
Cash sales	27	6 9	General expenses—viz., gas, secretary's and		
Fees	172	17 6	caretaker's salaries, &c.	132	13 4
Paymaster-General—			Stock and plant	48	15 10
Capitation	63	7 9	Rent	90	0 0
Models	4	7 0	Bank	159	3 4
Grant	300	0 0	Cash	14	2 7
Discounts	2	15 2	Petty cash	2	14 8
	<u>£620</u>	<u>19 9</u>		<u>£620</u>	<u>19 9</u>

Audited and found correct.—J. C. WEBSTER, Auditor.—Auckland, 17th May, 1901.

ELAM SCHOOL OF ART.

SIR,—

Art Gallery, Auckland, 8th February, 1901.

I have the honour to submit a report of the work of this school during the past year.

The year 1900 was divided, as usual, into four terms of ten weeks each, and 320 well-attended classes were held during that time.

The subjects of instruction have included freehand and model drawing, geometry and perspective, drawing in light and shade, painting in oil and water colours, design, mechanical drawing, and wood-carving.

The interest of the students in their work has been well maintained in all subjects, and the average of the work done has been quite satisfactory.

In the examinations of the Science and Art Department eighty-seven papers were used by students of this school, and sixty-eight passes were obtained. The failures were almost entirely in the freehand and model sections, and were owing to the fact that the elementary examinations as held in 1899 were done away with, and a higher grade substituted, and this was only known in Auckland just before the examinations took place, so that those students who were preparing for the elementary examinations had either to take the higher standard or miss the examinations altogether.

The following is the list of subjects for which students entered, with their passes and failures:—Drawing from the antique: Passes, 9; failures, 0. Geometrical drawing (art): Passes, 4; failure, 1. Freehand drawing of ornament: Passes, 21; failures, 8. Model-drawing: Passes, 10; failures, 6. Light and shade: Passes, 15; failure, 1. Painting from still life: Passes, 3; failure, 1. Perspective: Passes, 4; failures, 0. Science—Subject I., geometry: Passes, 2; failures, 2.

This school is attended chiefly by a class of students who, sooner or later, have to make their own livings, and I am pleased to say that a very large number of former pupils of the Elam School are now earning their livings in various businesses or professions in Auckland in which they have been enabled to obtain employment from the work in some branch or other that they have done in this school; and I constantly receive letters from grateful students acknowledging their indebtedness to the late Dr. Elam's bequest.

I am in hopes that the increased capitulation under the Manual and Technical Instruction Act may enable the trustees to commence evening classes in at least some of our subjects, as such classes have been badly wanted for a long time. Up till now it has been impossible to extend the classes for want of funds, as all teaching is quite free, and each additional class means a considerable extra drain on the slender resources of the trust.

I have, &c.,

The Hon. the Minister of Education, Wellington.

E. W. PAYTON, Director.

AUCKLAND AND SUBURBS TECHNICAL AND ENGINEERING CLASSES.

SIR,—

22nd December, 1900.

I have the honour to submit a report of the work done in these classes during the year 1900.

The general arrangements and work of the classes in Auckland and suburbs is substantially the same as in the previous year. The principal Auckland classes in the Wellesley Street School have been held two evenings a week, and also on Saturday afternoons, the full four terms of the year. During that time they have been attended by sixty-four individual students, the average attendance being thirty-four at the three classes. Suburban classes have also been held once a week for four terms at Onehunga and Ponsonby Schools, and for three terms at the Remuera

School. Thirty-eight individual pupils have attended these outside classes, the average attendance for the year being twenty-seven for the three classes.

The subjects taught were also the same as in past years. Practical plane and solid geometry and perspective chiefly on Saturday afternoons for Board teachers preparing for examinations held in June and January. Mechanical drawing and machine-construction has been taken up by nearly all the evening-class pupils; so also has science subject, steam and steam-engine, in preparation for the examinations of the New Zealand Government, as well as for the South Kensington Science and Art Department. In the subject, applied mechanics, a substantial advance has been made during the year. Graphic statics and builders' quantities have also been taken up by a few pupils, who have worked through a course. Larger results, however, may be expected when the importance of these branches is better known.

At the South Kensington examinations, held in Auckland this year, the following number of pupils from these classes were presented: Nineteen in machine construction and drawing, eleven in steam and steam-engine, seven in applied mechanics, and also two in mechanical engineering at the City Guilds examination. The results of these are not as yet to hand.

Though the work of the year has been in most respects the same as before, the quality of it has improved, and there is a greater appreciation of the English science and technical examinations, now within reach once a year.

The following are the results of examinations held this year and last year:—

New Zealand Government Examinations in Land and Marine Engineering, held in 1900.—First-class certificates granted, 1; second class, 1; third class, 4; river engineers' certificates, 3; marine-engine drivers' certificates, 6; locomotive- and traction-engine drivers' certificates, 3; winding engineers' certificates, 4.

South Kensington Science and Art Department Examination, held in 1899.—Machine construction and drawing: First advanced, 1; second advanced, 2; first elementary, 7; second elementary, 4. Steam and steam-engine: First elementary, 5; second elementary, 1.

I have, &c.,

The Hon. the Minister of Education.

W. I. ROBINSON.

WANGANUI TECHNICAL SCHOOL.

SIR,—

9th February, 1901.

I have the honour to submit my annual report upon the primary drawing and work of the Technical School for the year 1900, as follows:—

At the beginning of the third quarter a change was made in the teaching staff. Mr. H. I. Babbage was transferred from this school to Hawera, where he has to devote the whole of his time to the building-up of a permanent school. Mr. L. J. Watkin was transferred to Palmerston North, to devote the whole of his time to that school. Miss Murphy, who acted as instructress in cookery, resigned, and these classes have been for the present discontinued. Miss G. E. Browne and Mr. James Richardson were appointed pupil-teachers in the art department of this school. After serving the Board for the last three years Mr. Bruce severed his connection with this school. Praise is due to him for the efficient way in which he discharged his duties as instructor in carpentry and joinery, and manual-training classes. The Board decided to appoint Mr. James Thornton in his place. The rest of the staff remains the same as it was last year. I may state that I am entirely satisfied with the new appointments.

The average enrolment of students who attended the different classes of this school during the four quarters was as follows: Day classes for drawing and painting, 11; evening class for drawing and painting, 26; building-construction, 4·2; machine-construction, 10·25; perspective and geometry, 16·5; plumbing, 3; teachers' Saturday class, 9·5; botany, 4; wood-carving, 23·75; clay-modelling, 2; bench-work, 5·66; experimental science, 5·5; chemistry, 5·5; book-keeping, 3·5; Latin and English, 27; mathematics, 12·25; cooking (including country classes), 119; perspective (day), 3; mensuration, 4: total, 286·2.

The following list shows the occupations of the students who attended the various classes: Architect, 1; artist, 1; bookseller, 1; blacksmiths, 2; bricklayer, 1; butcher, 1; boilermaker, 1; carpenters, 11; clerks, 12; chemists, 5; cutter, 1; cabinetmakers, 8; draper, 1; dressmakers, 2; dentist, 1; engineers, 9; fitters, 2; farmers, 4; grocers, 2; home duties, 25; ironmonger, 1; joiner, 1; law clerks, 3; mill-hand, 1; merchants, 2; music-teachers, 4; nurse, 1; plumbers, 3; photographer, 1; painter, 1; tailor, 1; turner, 1; telegraphist, 1; teachers and pupil-teachers, 37; retouchers, 2; upholsterer, 1; students, 14; watchmaker, 1; warehouseman, 1; wood-carvers, 2.

Drawing and Painting.—The same course of instruction has been pursued as last year. The attendance has made a slight increase since my last report. The more advanced students were taken out for a day's practice in sketching from nature; some good work was executed. The class for teachers and pupil-teachers was held every Saturday from 9.30 to 1 p.m. The subjects of instruction were freehand, model-drawing, geometry, memory drawing from objects and copies. I am pleased to report that considerable interest is manifested in most branches of work. In the model-drawing and geometry the work has improved.

Life Class.—This class has been held every Wednesday and Friday from 7 to 9 p.m. for the study of the human figure. The general work has greatly improved since last year, the advanced students working in oil and water colour.

Machine Drawing and Construction.—This class has increased in attendance. The work is principally the sketching and dimensioning details of engines and complete machines; designing steam-boilers and engines, with all their various parts.

Building-construction.—Satisfactory work has been done in this class during the year. The attendance has been broken up owing to the shifting-about of the students from one part of the

country to another. Lectures were given in brickwork, stonework, woodwork, plumbing, and the sanitary arrangements of buildings; drawing plans, elevations, and sections of details; and designing for the advanced class.

Practical Plane and Solid Geometry.—This class has been fairly well attended. I am pleased to see the junior students taking up the advanced stages of this useful subject, which is the groundwork for all mechanical and architectural work.

Wood-carving.—This class has kept up the average attendance. Some good work has been executed by the students, which was exhibited at the annual exhibition. The Thursday afternoon class was changed to Tuesday to allow the instructor (Mr. Andrews) to visit Hawera and Eltham to conduct classes in these two towns.

Clay-modelling.—This class has been poorly attended during last year. The work was from the human figure, ornamental panels, &c.

Mathematics.—The attendance in this class was about the same as mentioned in last year's report. The work is divided into two sections—the elementary and the advanced—for the study of arithmetic, algebra, Euclid, and trigonometry. At the beginning of the third quarter a mensuration class was started, which will be of great use to those who are engaged in the industrial arts.

Latin and English.—The attendance has increased largely. The work includes English grammar, composition, analysis, literature, Latin grammar, "Via Latina," Cæsar, Horace, and Latin prose.

Botany.—The attendance was good. The principal work was the study of the structure of the seed of plants, cell-structures, cell-growth, and tissues; germination, plant-food, root-functions, stem-structure, inflorescence, &c.; also the study of the Pteridophyta, and the following natural orders: Compositæ, Coniferæ, Cruciferae, Graminaceæ, Labiatae, Leguminosæ, Liliaceæ, Ranunculaceæ, Rosaceæ, Umbelliferae, Rutaceæ, Solanaceæ.

Chemistry.—The attendance was good. Work includes preparing students for the Pharmaceutical and South Kensington Examinations, lectures and experiments, analysis of metals, &c.

Book-keeping.—This class was held as usual, the principal work being real, personal, and nominal accounts, balance-sheets, capital accounts, and how to open a ledger. I am surprised that this class is not better attended than it has been.

Correspondence Class.—This has been continued through the year; regular notes were issued of all lectures on university and other work. Students who, by reason of distance, are prevented from attending the school can thus proceed with their studies.

Cookery Classes.—These classes were held in Marton, Bull's, Turakina, Feilding, and Wanganui. The general attendance for the five towns was 119, a decrease of 382 from last year's return. Owing to the great expense these classes were conducted at, it was decided to discontinue them after the third quarter.

Saturday Pupil-teachers' Class.—The attendance was fair. The pupil-teachers were taken through freehand, model-drawing, geometry, and blackboard-work according to the revised syllabus that I suggested last year. The blackboard drawing from memory of every-day objects, and freehand copies, has made satisfactory progress. Some excellent work was shown in the Board's yearly examination of that subject. The model-drawing paper was also well drawn. The solid geometry was only fair.

Girls' College Drawing and Painting Classes.—The lower form was taught freehand drawing from the blackboard. Miss Broome has assisted me by taking this class. Some very good work was done during the year. In other forms freehand drawing and brushwork were taught on Tuesdays, and model-drawing on Fridays. The more advanced students were taught drawing and shading from the cast and from groups of geometrical models. During the year the painting class has been held on Monday and Wednesday afternoons. The principal work was the study of painting from still life, painting flowers from nature, and monochrome painting from the cast. An exhibition of work done during the year was held in the art-room at the college, which attracted a number of visitors.

Prize Drawings.—Drawings were sent to the Christchurch Jubilee Exhibition for competition. Miss J. Ross was awarded the second prize (a silver medal) for still-life painting from nature. For mechanical drawing Roy Barrow was awarded the first prize (a silver medal), a gold medal for the best work in the section, and a special prize of £1 10s.

In the various examinations the following pupils, among others, were successful: H. McIntyre, who was a member of the correspondence class, has passed the final examination for the B.A. degree at New Zealand University; J. Blair passed first section of B.A. English examination; N. G. Armstrong passed final college examination in all subjects, and also the first section of the B.A.; M. Neilson passed E Teachers' Examination, gaining special mention in science; eleven students were successful at the Teachers' Examinations, receiving special mention on five occasions; J. Gillies passed in chemistry in the Pharmaceutical Examination, also obtaining a first-class certificate in that subject at the South Kensington Examination; N. G. Armstrong passed in advanced mathematics at South Kensington Examination; M. Neilson passed in elementary mathematics at South Kensington Examination; Kathleen Alcorn and Mary Neilson passed matriculation—only two students were entered. Three competitive scholarships offered by the Education Board were won by students. Four nominated scholarships, tenable for two years in this school, were awarded.

The results of the City and Guilds of London Institute's Examination for 1900 were as follows: Carpentry and joinery, honours grade, 1 candidate, passed first class; gas-manufacture, ordinary grade, 1 candidate, passed second class; first year's manual training woodwork, 1 candidate, passed; second year's manual training woodwork, final examination, 2 candidates, passed (1 first class, 1 second class).

Local Examinations.—The total number of papers examined during the year was 114, subdivided as follows: Freehand, second grade: 32 candidates; 26 passed, 6 failed. Memory drawing on blackboard, freehand: 21 candidates; 18 passed, 3 failed. Model-drawing: 28 candidates; 21 passed, 7 failed. Memory drawing on blackboard (objects): 20 candidates; 17 passed, 3 failed. Geometrical drawing (art): 23 candidates; 18 passed, 5 failed.

The work of the pupil-teachers has made a decided advance since I suggested the raising of the syllabus to that required by the South Kensington Department. In the model-drawing and blackboard drawing good results were obtained. Four papers were marked "Excellent."

The following works were accepted by the South Kensington Science and Art Department for the art-class teachers' certificates: One sheet geometrical problems (1a), F. A. Liffiton; one sheet drawing from a group of models (5a), C. Price; one sheet geometrical problems (1a), J. E. Richardson; one sheet outline in pencil of ornament (3b), J. E. Richardson; one sheet outline in pencil of ornament (3b), Winifred Anderson.

During the month of October a collection of specimen sheets of art-class teachers' and art masters' work, also a number of worked examination-papers from the Department of Science and Art, South Kensington, London, which were acquired by the Education Department of New Zealand, were exhibited in the large art-room of this school. The exhibit was inspected by a large number of people during the ten days it was open. May I suggest that some of the specimen sheets be obtained from the Department for this school, as examples of work accepted by the Home Department for the several certificates?

I have, &c.,

The Chairman, Education Board, Wanganui.

DAVID E. HUTTON, Director.

The South Kensington Science and Art Department Examination was held on the 9th to the 20th June, with the following results:—

Subject.	Stage.	Number examined.	Passed.		Failed.
			First Class.	Second Class.	
Freehand drawing of ornament (advanced)	3b	15	4	4	7
Model-drawing (advanced) ...	5a	4	...	4	...
Drawing in light and shade (advanced) ...	5b	3	...	2	1
Design ...	23c	2	1	1	...
Principles of ornament... ..	22	1	1	...	...
Painting in monochrome ...	11a	3	1	2	...
Drawing from the antique ...	8b2	2	...	...	2
Painting from still life ...	15	3	1	2	...
Geometrical drawing (art) ...	1a	6	5	...	1
Building-construction ...	111	1	...	1	...
Building-construction (honours) ...	111	1	1	...	...
Practical plane and solid geometry ...	1	2	...	1	1
Machine-construction ...	1	4	2	...	2
Mathematics ...	V.	3	1	1	1
Inorganic chemistry ...	X.	3	1	...	2
Totals	...	53	18	18	17

MISS CAVERHILL'S ART CLASSES AT PETONE.

SIR,—

Petone, 13th December, 1900.

The following is the report on my drawing and painting classes held at Petone:—

The subjects I have been teaching are freehand and model, light and shade from the cast and models, and painting from still life. Classes have been held on two afternoons and two evenings of each week. The students attend regularly, and, judging from the year's work, have made good progress. Eight students sat for examination this month, and six were successful in obtaining certificates.

I have, &c.,

The Hon. the Minister of Education, Wellington.

LAURA CAVERHILL.

WELLINGTON TECHNICAL SCHOOL.

ANNUAL REPORT OF THE DIRECTOR FOR 1900.

Primary Instruction.

During the past year the schools visited were mostly country schools in the Wairarapa, Pahiataua, and West Coast districts. The changes in method of instruction in drawing, from the ordinary freehand copies to that of elementary design and freehand combined, will naturally take time to develop. Generally much bolder work in drawing is being done; in a large number of schools coloured-chalk work upon brown paper has been successfully established, and a considerable amount of blackboard drawing is done. The present condition of the general syllabus

prevents the broad expansion of drawing and hand-and-eye work combined. This expansion is in the direction of combining the head with the hand in the production of work, instead of the purely imitative methods usually practised in schools, which tend to mould every child in the same direction. By a combination of drawing, modelling, colour-work, and elementary design a more intelligent and harmonious system of work may be arranged with great advantage to our primary-school system. I had hoped that the rearrangement of the syllabus would have enabled the first-grade drawing examination to be dispensed with during the present year. It has been decided, however, to continue this examination until the Education Department has issued its new regulations relative to primary instruction. Hand-and-eye exercises have, however, considerably increased in number during the past year. Now that assistance is rendered by the Department of Education for hand-and-eye work and manual instruction, I have no doubt a very considerable increase in this important work will take place, as the funds provided will practically cover the cost of material. The Board of Education has made arrangements by which a supply of material will be available for all schools taking the subjects as specified in the regulations recently issued by the Education Department.

First-grade Drawing Examinations.

In this examination the following were the results: The total number of papers issued was 6,895, and the number worked 6,291. Passed: Freehand, 1,136; geometry, 1,158; scale, 1,014; model, 479: total, 3,787.

Of the above papers 668 were taken by schools not under the Wellington Board, and 471 passes were recorded. Number of papers "excellent," 101; number of papers "good," 291; individual candidates, 4,691; individual passes, 3,102; schools presenting candidates, 148.

The total number of papers worked—6,291—shows a decrease upon that of last year.

The following are the schools representing the 668 papers:—Marlborough District: Blenheim Boys', Blenheim Girls'. Westland District: Kawhaka, Kumara, Woodstock, Blue Spur, Callaghan's, Jackson's. Greymouth District: District High School, Hatter's, Granville, Paroa, Poerua, Humphrey's. Nelson District: Appleby, Girls' Central, Boys' Central, Reefton, Foxhill, Promised Land. Convent of Mercy (Lyttelton); St. Mary's Convent (Christchurch); Convent School (Hokitika); St. Francis Xavier's (Wellington); Convent School (Newtown); St. Mary's (Boulcott Street); St. Joseph's Orphanage (Wellington); St. Patrick's (Masterton); St. Joseph's (Greymouth); Convent (Greymouth); Convent (Akaroa); Miss Page's Studio (Napier). The total number of certificates issued in connection with this examination since its inauguration in 1884 is 41,086.

Manual Instruction in Wood.

No progress in this important work is to be reported. Arrangements will, it is to be hoped, be made for a teachers' class from July to December next.

Domestic Economy.

Cookery classes, under the instruction of Miss Ivey in the Wellington centre, Miss Millington in the Wairarapa and Forty-mile Bush, have been continued throughout the year; whilst Miss Williams conducted classes for the West Coast, Petone, and the Hutt during part of the year. Owing to the cost the latter were discontinued in August. The regulations issued by the Education Department will prevent the continuance of this work as at present organized, with the exception of the Wellington centre; the continuance of the latter depends upon the contribution of the Wellington Gas Company being continued. The visits of a cookery instructor to individual schools cannot be continued in the country districts under the present regulations, the capitation being insufficient to anything like meet the expenses of upkeep and travelling.

At the Wellington centre the total number receiving instruction was 489. In Wairarapa and the Forty-mile Bush the number receiving instruction was 321; at Levin, 28; at Otaki, 26; at the Lower Hutt, 41; and at Petone, 40.

The general progress has been satisfactory. Appreciation has been shown in all the centres, and it is to be regretted that the finances of the Board prevent the continuance of the whole of the work. The West Coast instruction was discontinued at the middle of the year, much to the regret of all concerned.

The Wellington Gas Company gave a generous donation of £50 towards the Wellington centre; this, with the Government subsidy, will enable the classes to be carried on for a further period of twelve months. The capitation received is insufficient to cover the cost, unless the subject is taught by the teachers of the primary schools.

Primary Drawing Free Studentships.

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 upon brown paper, 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. The number of competitors continues as large as in former years, 179 competing for the vacancies. For the twelve second-year free studentships there were eighteen competitors. The above are awarded to holders of first-year studentships, the work of the past year being taken into consideration, as well as the results of the second-grade drawing examinations.

Instruction of Teachers and Pupil-teachers.

These classes have been continued as during the previous year, geometry, model, freehand, light and shade, blackboard-work, and colour being the main features of instruction.

The work done in plane and solid geometry and model-drawing was fairly efficient; the freehand and blackboard drawing showed lack of interest, particularly the latter subject, which is generally considered a trial by the junior teachers. If those in attendance would only try to appreciate the great advantages this work gives them in ordinary class-teaching there would not be the present tendency to shirk the same when possible.

The more advanced classes have, as usual, kept up their standard of efficiency. During the latter portion of the year the classes were considerably affected by the doubt thrown upon their continuance, owing to financial troubles, the attendance being seriously interfered with. Many pupil-teachers are indifferent in the matter of attendance; strong measures will be necessary to check this in future.

The singing classes suffered from the same cause, and also from the fact that the drill classes were held during the same hour in another building. As no capitation is now granted by the Education Department, this important subject has been discontinued.

During the latter portion of the year a series of class lectures to teachers was given, and was highly appreciated. These lessons now form a regular course of instruction in connection with the Saturday classes. The following class lectures were given: Model-drawing, paper-folding (three lectures), clay-modelling (kindergarten), cardboard-modelling, clay-modelling for the standards, brush form work.

The following is the course of work now in operation at the Central Technical School: Perspective; freehand, model, and memory drawing; light and shade, drawing from the antique, and painting; wood-carving; paper folding and mounting (first quarter); brushwork for standards (second quarter); cardboard-modelling (third quarter); clay-modelling (fourth quarter); geometrical drawing.

The correspondence class for country teachers has been considerably reduced numerically, owing to the classes held in Greytown by J. Parkinson, Carterton and Masterton by G. Irving, and Pahiatua by G. Jones. The teachers of these classes were paid 5s. per head for instruction to teachers, pupil-teachers, and scholars holding full first-grade certificates. The Committee decided to discontinue these country classes pending the receipt of information as to the support likely to be accorded by the Education Department towards the training of teachers.

Examinations.

Two teachers were successful in the South Kensington Examinations, and twelve have completed their full second-grade local drawing certificate.

Technical Instruction.

Number of Students, Central Technical School.—Day classes: Design—First quarter, 37; second, 28; third, 23; fourth, 22. Drawing and painting (whole-day students)—First quarter, 15; second, 14; third, 16; fourth, 20. Drawing and painting (half-day students)—First quarter, 49; second, 43; third, 43; fourth, 46. Geometry and perspective—First quarter, 13; second, 13; third, 9; fourth, 4. Secondary-school scholars (drawing)—Second quarter, 25; third, 27; fourth, 27. Secondary-school scholars (manual instruction)—Second quarter, 26; third, 17; fourth, 15. Primary-school scholars—First quarter, 56; second, 52; third, 46; fourth, 48. Teachers and pupil-teachers—First quarter, 89; second, 92; third, 74; fourth, 78. Wood-carving—First quarter, 8; second, 14; third, 21; fourth, 14. Manual instruction (Saturday class)—First quarter, 5; second, 6; third, 10; fourth, 7. Advanced geometry—First quarter, 12; second, 9. Clay-modelling—First quarter, 25; second, 32; third, 27; fourth, 27. Singing, Saturday—First quarter, 40; second, 34; third, 30; fourth, 32. Singing, Wednesday—First quarter, 37; second, 23; third, 23; fourth, 27. Cookery, not inclusive of primary schools—First quarter, 24; second, 28; third, 38; fourth, 30. Evening classes: Architectural and building-construction—First quarter, 29; second, 27; third, 25; fourth, 24. Mechanical drawing—First quarter, 45; second, 49; third, 53; fourth, 39. Drawing—First quarter, 67; second, 70; third, 81; fourth, 83. Life class—First quarter, 6; second, 6; third, 5; fourth, 9. Practical plumbing—First quarter, 25; second, 29; third, 29; fourth, 28. Theory of plumbing—First quarter, 8; second, 20; third, 21; fourth, 11. Wood-carving and modelling—First quarter, 15; second, 23; third, 34; fourth, 28. Mathematics—First quarter, 24; second, 21; third, 13; fourth, 10. Joinery and carpentry—First quarter, 18; second, 20; third, 22; fourth, 20. Shorthand—First quarter, 28; second, 27; third, 28; fourth, 19. Design—First quarter, 18; second, 20; third, 15; fourth, 12. Geometry and model—First quarter, 72; second, 73; third, 64; fourth, 50. Arithmetic—First quarter, 17; second, 14; third, 11; fourth, 10. Electric lighting—First quarter, 38; second, 18; third, 33; fourth, 22. Book-keeping—First quarter, 14; second, 10; third, 18; fourth, 21. Latin—First quarter, 7; second, 10; third, 13; fourth, 11. English—First quarter, 7; second, 8; third, 9; fourth, 11. Totals—First quarter, 848; second, 884; third, 878; fourth, 805.

Country Classes.—Pahiatua: Drawing—Second quarter, 19; third, 15. Singing—Second quarter, 11. Masterton: Drawing—Second quarter, 15; third, 9. Carterton: Drawing—Second quarter, 20; third, 32. Book-keeping—Second quarter, 21; third, 19. Greytown: Drawing—Second quarter, 8. Book-keeping—Second quarter, 31. Cooking—Second quarter, 16.

Inclusive of primary scholars receiving instruction in cookery by the school instructors, the number of students controlled directly by the Technical Instruction Branch is over eighteen hundred.

Reports upon Classes.

Drawing, Painting, and Modelling.—Day classes: The work in these classes has been fairly satisfactory. The most serious cause of complaint is the indifference to serious study, particularly of the junior students. In the more advanced sections of antique, still life, and drawing from the life, better work has been done all round, and a higher standard obtained. Modelling has been continued as a part of the school course, but, unfortunately, the value of this work is not by any means sufficiently appreciated by our students. The examiner of these classes—Mr. Butler—considers that the work as a whole shows a fairly high standard, excepting, perhaps, the work of the antique, which shows a lack of knowledge of detail. The work in shading from the cast (second year) shows an intelligent interest, and is proportionately high in standard. The modelling shows a tendency to “finish” before the proportion and character of the design is fully considered. The usual competitions in memory drawing, subject sketches, still life, and design were held up to the month of September, with fairly satisfactory results. Here again, however, there was shown a tendency to fall out of competition because certain students were sure to obtain the prize, the value of the competition and general good to the student being completely lost sight of. Messrs. Cassells and Co., of London, have recently made a valuable gift to the school of twelve original drawings in black and white, by well-known illustrators. Examples of this kind are of the highest importance to our students, and I cannot sufficiently thank Messrs. Cassells for their generous gift. Evening classes: The work of these classes in light and shade from the cast and antique, sepia, plant-form, modelling, drawing, and painting from the life, studies of New Zealand birds, &c., has progressed very satisfactorily. These classes, taken as a whole, are always more satisfactory than the day classes; the work is earnest and painstaking throughout. A few of the students do not sufficiently appreciate the value of modelling as an adjunct to their studies, but this, I am convinced, will be gradually overcome.

Plane and Solid Geometry and Model-drawing.—Geometrical and model drawing are now compulsory subjects for all trade students under eighteen years of age. This section has been well attended, and the interest taken and the results obtained are very satisfactory. Workshop drawing has now been included in this class-work. The advanced geometry class, held for the first two quarters of each year, was fairly well attended, and the results obtained in the examination of the Science and Art Department highly satisfactory. The higher stage of work is not (in accordance with the latest regulations issued) required for the ordinary drawing or the art-class teacher's certificate. It is still required for the City and Guilds of London Examination. The class will therefore be continued as usual.

Design.—This class has shown a marked advance upon previous years' work in the elementary section. No doubt the fact of having a room for this special study, the display of examples procured from various decorative establishments, and a definite course of study have materially helped this development. Brush and stencil forms have received particular attention, many excellent designs being produced. Plant-form, particularly native foliage, has been freely used; also designs including native birds. This class, however, does not make sufficient use of the library, where examples may be found of the best class of workmanship. Several excellent designs were produced for the cover of the Academy of Arts Catalogue, one by Miss M. Kimbell being selected for reproduction. In the advanced section little effort was made to do systematic work; this is to be much regretted.

Machine Construction and Drawing.—The number of students in attendance is still as large as the previous year, and shows evidence of the value attached to the work. The continued absences, owing to overtime work at the foundries, is the greatest drawback the class and students suffer from; it is a great pity that some arrangement cannot be made whereby students attending these classes may be relieved from such work, in order that they may continue their studies satisfactorily. The want of an applied-mechanics class has been a serious deficiency in connection with this work. The appointment by the Committee of Mr. C. E. Adams has, however, now removed this fault, and it is to be hoped the young engineers will take full advantage of this very valuable class. A course of lectures on steam has been given by Mr. Adams to this class without additional fee, and has been appreciated by the students in attendance. A workshop course is a necessity if our mechanical work is to be at all complete, but this has during the past year proved impossible, though an effort in this direction has been made. I anticipate during the coming year a prospect of this much-desired work being put in hand, when it will be possible for a student to go through a very satisfactory course of work dealing with the principles and practice of mechanism, mechanical drawing, and construction. It is not to be expected that a university course can be given, but a thorough grounding is what will be aimed at, such as will place a student in the best position to continue his work in the higher branches of engineering. The examiners, Messrs. Marchbanks and Robertson, report that the work and methods of the class are good, and show evidence of careful teaching.

Architectural Drawing and Building-construction.—Early in the year Mr. McKay, the instructor, left for England, upon nine months' leave; his place was filled by Mr. Lawrence, who has fully maintained the standard of the work. Those students who have attended regularly have done excellent work. A large number of students attend one night per week, instead of two. There is, of course, the difficulty of having their daily work often a considerable distance away, and also out of town; still, the attendance, either in number of students or regularity, is not such as it should be, particularly considering the advantages to be derived. Mr. Farr, the examiner, speaks well of the quality of the class-work, and expresses particular pleasure with regard to the answers to the examination-papers. During the last month Mr. McKay returned, and joined Mr. Lawrence in the conduct of the class, thus considerably strengthening the instruction forces.

Carpentry and Joinery.—This class has about maintained its average of last year in point of numbers. The examiner, Mr. Graham, states that there is great improvement in the work since his

last examination. The younger members of the class are now required to take a course of work in plane and solid geometry and model-drawing previous to, or in conjunction with, their shop-work. I should very much like to see an improvement in the number of apprentices in attendance. The works in the library upon construction, in addition to the drawing required and shop practice, afford students every possible facility for progress.

Plumbing Theory and Practice.—The number of students and the attendance at these classes continues very good. As in former years, a number of apprentices and younger workmen again attempted the examination in the hope of obtaining a certificate, but failed to reach the necessary standard. A two-years course of work is a necessity if success is to be obtained. The City and Guilds of London have now made it compulsory that candidates shall present themselves in theory as well as in practice at the same examination, and juniors are required to pass in the preliminary examination of the City and Guilds or the geometry and model of the Wellington School prior to the ordinary grade. The workshop has been improved by the laying of a floor, and additional ventilation has been provided, both of which were urgently needed. The theoretical class has also done good work, many students attending for the more advanced stages of work. The City Council has again contributed a sum of £60 towards the working-expenses of this class, and has repaired the workshop.

Mathematics.—In spite of the fact that the attendances have not been of the best, the work of this class has proved satisfactory. The work has varied from the elementary stages of Euclid and algebra to the full mathematical course required by the Senior Civil Service Examinations. I have to report the resignation of Mr. Robison, the instructor, who severed his connection with the class at the close of the year's work. His position has been filled by the appointment of Mr. C. E. Adams, late mathematical lecturer of Lincoln College.

Wood-carving.—There is a considerable increase in the numbers attending these classes. Several of the students have turned out excellent specimens of workmanship, and both day and evening classes have done good work.

Shorthand.—Good work has also been done in this class, the attendance being exceptionally good. Many of the students are making practical use of their knowledge in connection with their daily occupations. Several students were successful in the speed examination recently held by the Wellington Shorthand-writers' Association, on behalf of Messrs. Pitman and Sons. I am glad to report that capitation is now paid for this subject. Day classes in shorthand and typewriting are now held daily, and are meeting with considerable success.

Arithmetic.—One of the greatest difficulties instructors have in connection with their work is the want of necessary grounding in such subjects as arithmetic. The majority of boys upon leaving school drop all work of this description, concluding that they have nothing to do but enter the workshop and take up trade work. The want of this elementary knowledge will be a constant drawback to their success and a waste of the instructor's time in technical subjects. To meet this want, as there are no continuation schools, a class in arithmetic was opened. Its success has not been very encouraging, nevertheless the work has been continued. Mr. A. Erskine was appointed instructor, but resigned at the expiration of six months, and was succeeded by Mr. Renner, M.A., of the Wellington College, who has since conducted the class. I hope that his perseverance will be rewarded by an increased attendance. Mr. Renner reports satisfactorily of the work done during his term.

Latin and English.—At the request of several students these classes were established at the commencement of the year, and are also conducted by Mr. Renner, the work ranging from Standard VII. of the primary schools to Matriculation and Civil Service Examination work. The numbers have steadily increased, and the classes apparently have a good future before them.

Book-keeping.—Constant applications having been made for a class in this subject, Mr. O. S. Watkins, chartered accountant, was appointed instructor at the commencement of the year. The class has steadily gained in popularity. The instruction is directed to imparting a thorough knowledge of the theory and practice of the most modern methods of practical book-keeping and an acquaintance with general business transactions, and preparing students to undertake the duties of more responsible positions in the countinghouse and the warehouse.

Electric Light and Power Distribution.—This class was also established at the request of a number of students, under the direction of Mr. L. T. Reichel, late of the Electrical Syndicate Works. Here also success has been met with, the attendance being excellent throughout. During the last quarter of the year Mr. Reichel was unable for a time to conduct his class owing to illness. Mr. Brown, electrician, very kindly continued his work until the end of the quarter. One of the difficulties in connection with a class of this kind is the supply of instruments and apparatus, particularly so when no funds are available. In this direction the thanks of the Committee are due to Mr. Richardson, manager of the Electrical Syndicate, who very generously placed at our disposal over fifty pounds' worth of apparatus. The Technical Instruction Act will, however, obviate this difficulty, and I hope to have a complete set of instruments and machines for class use at an early date. Want of accommodation has also been a drawback to the class, and special provision in this direction is absolutely necessary. The class is divided into two grades—one for beginners, and the other for advanced students. The course is, as far as possible, of a practical nature, and is intended to assist electric-light artisans and others interested in electricity to acquire a full technical knowledge of the subject. It is especially applicable to students preparing for the City and Guilds of London Institute Examinations. In the case of this class, arithmetic is an essential if successful results are to be obtained. For the want of it several students have not made such progress as might have been expected had the necessary knowledge been obtained previous to entering the class. In due time I anticipate we shall be able to establish a preliminary course of work, through which all students must pass or give satisfactory evidence of their ability to do the necessary work previous to entering upon a special course such as that of electric lighting.

Cookery, Demonstration and Practice.—The evening classes in this subject have been continued as formerly, and have been satisfactorily attended. An attempt was made, at the request of a number of ladies, to establish an advanced course, but, the number not being sufficient to cover the cost, the attempt was abandoned.

Wellington College Classes.—Drawing and manual instruction have been continued as formerly by instructors from the central school. The want of proper accommodation and the hours at which classes are held, together with the fact that fees are required for such classes as are taught by the Technical School instructors, seriously affect the broadening influence which it is desired this work should bring about. I fully recognise Mr. Firth's difficulties, and hope, with him, that the present disabilities may shortly be removed, and the work adopted throughout the school within school-hours, and in rooms set apart for such instruction. Already several of the lower forms are receiving instruction from the regular school staff, and Mr. Firth informs me that shortly the whole school will receive this instruction. The manual-instruction class in wood is now under the care of Mr. Bastings, who also controls the drawing. This combination will have the effect of considerably strengthening the work of the College classes.

Arts and Crafts Guild.

Recent regulations in connection with English art schools require that at least one class of applied art shall be taught in connection with any such school. The weakness of our own school has been partially in this direction, the bulk of our work being what I might call paper-work—*i.e.*, studies of design upon paper without practical application. A suggestion of the students in the direction of the formation of an art club led me to suggest an arts and crafts guild for the practical working-out of designs and sketches. The suggestion met with favour, and the guild was established in September last with a membership of over eighty workers. The application of our art studies to practical purposes is therefore the object of this guild. It is really the combination of the school and the workshop. This combination of art and handicraft should be productive of valuable results, and the energy thrown into the movement by the student argues well for its success. Naturally we shall have many difficulties to overcome, but these only make success more pleasurable. Craft leaders for each section were appointed mainly from past or present instructors of the school, and class leaders were chosen from senior students in the various departments. A committee was set up of past and present students, with myself as honorary director of the guild.

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. There can be no question of the value of such an advisory body in connection with this very important work.

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 especially required. The number of papers examined during the year was 6,995. The number of certificates issued was 4,256. The number of certificates issued in all grades since the school was established in 1886 is 49,197, subdivided as follows: Primary or first grade, 41,086; intermediate or second grade, 4,285; higher or third grade, 1,467; South Kensington, 2,230; and the City and Guilds of London, 129. Second grade (local): Total number of papers taken, 437; 279 passed, 158 failed. Number of individual candidates examined, 300; passed, 206. Third grade (local): Number of papers worked, 127; number of passes, 92; failures, 35; number of individual candidates, 77; passes, 60. Papers excellent, 8; good, 20.

Board of Education (late Science and Art Department, South Kensington).—In the art examinations the old second-grade subjects have now become embodied in the third or higher grade, a second-class pass being practically equivalent to a former second-grade certificate.

Second- and Third-grade Art.—Number of papers submitted, 91; passed, 64; failed, 27. Outline from cast—25 candidates; 9 first class, 10 second class, 6 failed. Light and shade from the cast—14 candidates; 6 first class, 5 second class, 3 failed. Drawing from models—30 candidates; 1 first class, 12 second class, 17 failed. Design—8 candidates; 3 first class, 4 second class, 1 failed. Still life—3 candidates; 2 first class, 1 second class. Antique—2 candidates; 2 second class. Drawing from life—1 candidate; 1 second class. Principles of ornament—1 candidate; 1 second class. Architecture—1 candidate; 1 second class. Perspective—6 candidates; 5 first class, 1 second class.

Science.—Number of papers submitted, 32; passed, 23; failed, 9. Plane and solid geometry—8 candidates; 6 passed, 2 failed. Machine-construction—8 candidates; 4 passed, 4 failed. Building-construction—11 candidates; 9 passed, 2 failed. Steam—3 candidates; 3 passed. Magnetism and electricity—2 candidates; 1 passed, 1 failed.

The number of works accepted towards the art class and art masters' certificates was twenty.

In the National Competition Maud Kimbell was awarded a National book prize for studies of New Zealand birds.

The following students have completed their full certificates in compliance with the regulations of the Science and Art Department: Elementary drawing certificate, first class—Daisy Carter, Bessie Chapple, Myrtle Lee.

City and Guilds of London Institute for the Advancement of Technical Education.

The examinations under this Department have been conducted as usual. The number of papers examined was 17; passed, 11; failed, 6. Plumbing, theory and practice—8 candidates; 1 passed honours, 4 passed ordinary. Telegraphy and telephony—1 candidate; passed honours. Electric lighting—6 candidates; 2 passed ordinary, 2 passed preliminary. Electric-wire work—1 candidate; failed. Carpentry and joinery—1 candidate; passed ordinary.

Free Studentships.

The five free studentships offered by the Wellington Industrial Association and the six offered by the Technical Instruction Committee, all of which are available for two years, were competed for at the December examinations. The competition was keen in all sections.

Library.

The number of volumes contained in the library is as follows: Fine arts, 287; architecture and building-construction, 146; mechanical, 209; general, 500. The library, which has accommodation for readers, is open daily, and each evening from 7 to 9 o'clock. This is one of the most important departments of the school, and invaluable to all technical students and teachers. The Wellington Industrial Association have contributed three additional periodicals. Mr. R. T. Turnbull contributed forty volumes upon technical matters, and the committee of the Workingmen's Club several volumes of the *Builder* and *Scientific American*. Many valuable additions have been made by purchase at sales and by order. The whole of the periodicals are bound yearly and added to the library. The lending portion of the library has been largely availed of by the students, considerably over a thousand works having been lent during the year, in comparison with two hundred during the previous year.

Victoria College Laboratories.

Advantage has been taken of the College chemical and physical courses by several technical students. I have suggested the recognition of the University College by the City and Guilds of London in order that students may qualify in the laboratories of the College for certain scientific subjects, and thus be enabled to dispense with the English examinations.

Public Lectures.

The following lectures, open to the public, were delivered in the lecture-hall during the year, with very satisfactory attendances: "Romance of Coal-tar," Professor Easterfield; "Steam and Steam-engine," C. E. Adams; "Cookery" (two lectures), Miss Ivey.

Extension of Work.

The passing of the Technical Instruction Act will enable the work of the school to be pushed forward. For some considerable time we have required increased accommodation. The building erected as an addition to the school in 1899 served only to relieve the then congested condition of our class-rooms, only one-half the building being available for our purposes. There is urgent need of further accommodation, particularly so in connection with the mechanical and building classes, the electrical work, arts and craft rooms, and general class-rooms. Occasionally classes have to be placed in rooms totally unsuited to their requirements, without accommodation for appliances. The workshop now upon the Town Hall site will have to be removed for city building purposes. In many sections of work only a part of the complete course can be carried out owing to the want of workshops and class-rooms. The new Act will enable public bodies, such as the City Council and the Industrial Association, to obtain representation for their contributions. I sincerely hope that the City Council will see its way to grant the site now reserved next to the Technical School for the purpose of extension. Assistance will be rendered in accordance with the terms of the regulations towards the erection of buildings and the furnishing of the class-rooms. Assistance is also rendered towards the general upkeep and appliances, thus relieving the pressure upon the Board's funds to a very considerable extent.

Resignations.

The following members of the staff retired during the year: Miss Richardson, art instructor, in August; J. Campbell, sanitary science instructor, in December; G. Robinson, mathematical instructor, in December. The loss of such valuable instructors is most unfortunate, Miss Richardson and Mr. Campbell having been associated with the school for a considerable number of years.

STATEMENT OF RECEIPTS AND EXPENDITURE.

<i>Receipts.</i>		£	s.	d.	<i>Expenditure.</i>		£	s.	d.
Fees	..	1,386	10	1	Salaries and refund of fees	..	2,337	19	8
Government capitation	..	426	3	1	Incidental	..	1,102	1	8
		<u>£1,812</u>	<u>13</u>	<u>2</u>			<u>£3,440</u>	<u>1</u>	<u>4</u>

Amount chargeable to buildings, £75 13s. 6d.

ARTHUR D. RILEY, Director.

MISS BEECROFT'S ART CLASSES AT HASTINGS.

SIR,—

Hastings, Hawke's Bay, 11th December, 1900.

I have the honour to submit a report on the work of my classes for the year 1900.

The first quarter commenced on the 8th February. The class was held on Tuesday afternoons. The subjects taught were freehand and model drawing, drawing in light and shade and still life. The number of students for the four quarters was five; all attended regularly. At the Horticultural and Industrial Society's Show four prizes were taken by the pupils in the art classes.

I have, &c.,

The Hon. the Minister of Education, Wellington.

M. M. BEECROFT.

NAPIER TECHNICAL SCHOOL.

ANNUAL REPORT, 1900.

THE above school was reopened for this its second year on the 9th February. The attendance has been regular throughout the year, and, though not quite as large as the previous year, the scope of the school's work has largely increased, and now embraces classes for advanced drawing and design at the Spit Public School, as well as at the Napier Boys' High School and the Napier Main School. Another important addition is the establishment of special classes for the students in training at the White Road School, who attend the technical classes by arrangement of the Education Board.

The subjects of instruction during the year at the various classes have been: Saturday morning pupil-teachers' class—Freehand, model, geometrical, and light-and-shade drawing. General evening classes—Light-and-shade, design, model, mechanical, geometrical, scale, and freehand drawing. Students in training at White Road School—Model-drawing and elementary design. Saturday afternoon—Drawing from life, sketching from nature, painting still life.

At the South Kensington Examination of last June about forty-seven students presented themselves; of these about twenty-seven were scholars of the Napier Main School from the special classes held there for more advanced drawing, colour-work, and design.

Being now in the employment of the Hawke's Bay Education Board as technical instructor and examiner of drawing, and with the advantages offered by the new Technical Education Act, I hope largely to increase the scope of the school-work next year. I have offered to establish a system of Technical School drawing scholarships, open only to scholars of the Board schools, by granting (on the result of examination) ten scholarships in the form of one year's free tuition at the local Technical School. If arrangements can be successfully made, the boys holding the said scholarships will receive tuition for six months of the time in practical carpentry, use of tools, &c.

Little has been done this year in the way of clay- or cardboard-modelling, there not having been sufficient inducement to form classes for the subject, and also on account of the difficulty of obtaining material. The class for carpentry at the Boys' High School, of which I am instructor, continues to flourish, and is much appreciated.

In conclusion, my first notion in establishing a technical school here, two years ago, was to give the children of the Board schools of the district a like advantage to those of Wellington and other large centres *re* technical education. This to a certain extent has been realised, and the scope of the work so successfully begun is steadily increasing, so that in view of the new Technical Act, and with the authority of the Education Department, I hope to be instrumental next year in bringing about the aforesaid desirable state of things.

R. M. ANDERSON, Master.

COOKERY CLASSES, NELSON.

SIR,—

Education Board Office, Nelson, 29th November, 1900.

I beg to forward herewith the report of the Nelson School Committee. Again the only classes held under the Manual and Technical Instruction Act have been those for cooking at Toi Toi Valley School, but this year a small fee was charged for the course of lessons. The total cost was £21 2s. 3d. The sum of £6 was received in fees, and the Government subsidy was £5 7s. 6d. The balance, £9 14s. 9d., was refunded to the Nelson School Committee by the Board.

STEAD ELLIS,

Secretary to the Education Board.

The Secretary, Education Department, Wellington.

[Enclosure.]

SIR,—

Town Schools Committee, Nelson, 29th November, 1900.

The only classes held under the Committee coming under the designation of manual and technical instruction were cookery classes, held under the tuition of Miss Mabel Tendall, at the Girls' School, Toi Toi Valley. These classes lasted for twelve weeks, ending 8th September last, the time occupied being two hours per week. Forty-eight pupils were enrolled, each paying a fee of 2s. 6d. for the course. They were divided into two classes, of thirty-two and sixteen each, and the average attendance was 29.08 and 14.18 respectively. The instruction given was both practical and demonstrative.

Yours, &c.,

The Secretary, Nelson Education Board.

G. R. SELBY, Secretary.

MANUAL CLASS, GREYMOUTH DISTRICT HIGH SCHOOL.

As in past years, a class in woodwork was conducted twice a week throughout the year. Each member is charged a fee of 2s. 6d. per quarter, which is paid to the instructor in return for his services. The boys are supplied with tools and material free, and such articles as boxes, bins, tables, book-cases, and step-ladders are manufactured. The average attendance was 12·3. Mr. W. Arnett, builder, who had acted as instructor from the foundation of the class, many years ago, found it necessary, owing to the numerous demands on his professional services, to resign his position. His successor, Mr. Thomas Evans, has given full satisfaction to the management.

F. W. RIEMENSCHNEIDER, Secretary.

WOODWORK CLASS, KUMARA PUBLIC SCHOOL.

This class consisted of twenty-four pupils at the end of the year, and was divided into two sections, each meeting twice a week after the close of the school. The average attendance at each session was 12·1. The instruction was in charge of Mr. G. A. Bell. The course of instruction consists of the exercises in woodwork set by the Education Department, and the construction of various useful articles. The progress of the pupils during the year has been satisfactory. The efficiency of the instruction would be increased if the pupils were classified according to ability, and a record kept of the progress of each pupil. Appended is a statement of accounts connected with the class for the year 1900.

A. J. MORTON, Inspector.

STATEMENT OF RECEIPTS AND EXPENDITURE.

<i>Receipts.</i>		£ s. d.	<i>Expenditure.</i>		£ s. d.
Balance in bank on 1st January, 1900	..	1 9 0	Bank charges (commission and exchange)	..	0 12 0
Sale of furniture	..	3 15 0	Salary of instructor (part)	..	37 7 0
Proceeds of entertainment	..	10 0 0	Tools and material	..	16 8 8
Fees of students	..	4 12 0			
Government capitation grant	..	18 11 6			
Grant from Education Board	..	15 8 9			
Dr. balance on 31st December, 1900	..	0 11 5			
		<u>£54 7 8</u>			<u>£54 7 8</u>

CANTERBURY MANUAL-TRAINING CLASSES.

I HAVE the honour to report that the manual-training classes (woodwork) have completed a satisfactory year's work. The attendance has kept up fairly well, and the quality of the work has not been below previous years' work. The classes have been very successful in their competitions at the Canterbury and Leeston Agricultural and Pastoral Shows; also in the workers' section in the Jubilee Industrial Exhibition, now being held in Christchurch.

The Leeston class still keeps up to a good standard, being well supported by the Leeston and Doyleston School Committees.

I beg to suggest that passes on the railway should be applied for on behalf of the masters who attend any classes. Considerable expense is incurred by those who prepare for the City and Guilds of London Institute's certificate, and I am sure that more of the masters would attend the Saturday class if the passes were granted.

F. W. SANDFORD, Instructor.

TABLE showing the Number of TEACHERS and Boys attending the Manual-training Classes at the Normal School and Leeston.

Quarter commencing			Number of Classes.	Teachers.	Boys.	Total Roll-number.	Average Attendance.
<i>Normal-school Classes.</i>							
February	...	...	5	13	64	77	12·12
April	...	...	5	7	56	63	10·22
July	...	...	5	...	79	79	14·06
October	...	...	6	10	73	83	13·18
<i>Leeston Class.</i>							
February	...	...	1	3	8	11	8·80
April	...	...	1	2	11	13	9·30
July	...	...	1	2	17	19	15·00
October	...	...	1	2	20	22	16·80

CHRISTCHURCH SCHOOL OF DOMESTIC INSTRUCTION.

THE Committee, in making its seventh annual report, has pleasure in noting the maintenance of a steady interest in the work of the school, as shown by the number of attendants who, quarter by quarter, take advantage of the instruction it has to offer. Established first in 1893 through the efforts of a few private individuals, with the assistance of a small public subscription, supplemented by a Government grant of like amount, the school has consistently held a good place in public favour, and may fairly claim during the intervening years to have done excellent service in carrying out the purposes of its existence within the opportunities afforded by somewhat limited conveniences.

A school of the kind is now in common estimation a permanent necessity, and the Committee trusts that early in the coming year it may find itself in a position to make improved arrangements. Better accommodation is much needed, and a material increase in the means of practical instruction is also a requirement which the Committee should use its best efforts to satisfy. To secure these objects it relies mainly on the more liberal provisions of the Manual and Technical Instruction Act of the past session of Parliament, under which the school will now continue its work.

During the year there has been a marked increase in the number of pupils furnished by the public elementary schools. These now supply a very large proportion of the attendants during three parts of the year. In the first quarter four schools sent classes of forty to fifty girls each; in the third quarter six schools were similarly represented; and in the fourth seven, with a total attendance of upwards of three hundred children. In the second quarter there were no classes in attendance from this source, as just at that period of the year the town and suburban schools are specially preparing for their annual examination, the girls receiving at this time theoretical instruction from their teachers on some kindred subject. It is for these classes, consisting as they necessarily do of comparatively large numbers, that better accommodation is so urgently required.

Fifteen girls entered for the examination held under the auspices of the City and Guilds of London Institute; thirteen of these passed, two with first-class certificates.

It is with the greatest regret that the Committee have to record the death of our late President, Mrs. Turrell. To her efforts chiefly the school owes its existence, and the great success of the school is to be attributed largely to her enthusiasm and personal influence.

The following is the return of attendances for the several quarters of the year:—

Quarter ending	Number of Classes.			Number of Attendants.			Average Attendance.
	Cooking.	Dress-making.	Total.	Public Schools.	General.	Total.	
31st March ..	11	2	13	170	99	269	224·5
30th June ..	7	2	9	...	100	100	88·7
30th September ..	14	2	16	293	124	417	381·4
31st December ...	13	1	14	317	70	387	356·5

REPORT OF EXAMINER.

Mrs. Harman reports that she held the usual annual examination in practical and theoretical cookery at the School for Domestic Instruction, and has great pleasure in stating that the work was all done in a highly satisfactory and capable manner. The papers were most carefully written, and all the questions were answered in a clear, concise way, showing that the students thoroughly understood the subject, and had made the theory of cookery a special study. The practical work this year is the best shown yet, great accuracy being displayed in weighing and measuring the quantities of material, flavouring, &c., required for each dish. The quality of the cookery was good, all dishes being suitably seasoned and carefully dished and garnished. Great deftness and good method was also shown in all branches of scullery-work, all utensils used being thoroughly cleaned and neatly arranged on the tables at the close of the examination. Nine certificates in plain cooking were granted.

BALANCE-SHEET for the Year ending 7th December, 1900.

<i>Receipts.</i>		£	s.	d.	<i>Expenditure.</i>		£	s.	d.
Balance from last year ..	..	44	9	4	Salaries ..	..	144	15	5
Petty cash from last year ..	..	2	4	0	Cooking materials, cost ..	£132 15 3			
Capitation and donations—					Less for food sold ..	49 6 10			
From Government, special grant ..	..	20	0	0			83	8	5
From Government, capitation ..	..	127	5	3	General expenses—Rent, gas, advertising,				
School fees ..	..	245	5	4	coals, and sundries ..	..	132	7	0
					Petty cash on hand ..	..	1	3	7
					Balance in Union Bank of Australia ..	..	77	9	6
		£439	3	11			£439	3	11

Liabilities, about £50 for salaries.

W. CHRYSTAL, Hon. Treasurer.

ASHBURTON TECHNICAL CLASSES ASSOCIATION.

A PUBLIC meeting was held on the 2nd July, 1900, to consider the advisability of forming evening classes in Ashburton, and the following committee were appointed: Rev. R. A. Woodthorpe (chairman), Miss Jones, Messrs. S. Hardley, Brock, Cawsey, Ferriman, Grant, Salmond, Hiskens, and Tennant (secretary). At a subsequent meeting Messrs. H. Friedlander, D. Thomas, C. Reid, and C. D. Hardie were added to the number. This committee met three times, arranged a scheme of work (which is appended), procured teachers, obtained the use of the Borough and High Schools, adopted the rules of the Dunedin Technical School, and fixed the fees at a figure (7s. 6d.) well within the reach of every one. In order, however, that no deserving youth might be prevented by money considerations from attending, all honorary members are granted the privilege of nominating free pupils.

Programme of work: (a) Literary—English language and literature, Latin, and French; (b) commercial—arithmetic, book-keeping, shorthand, penmanship, typewriting; (c) technical—drawing, mathematics, chemistry, electricity, theoretical plumbing, carpentry. The threefold course was arranged—(a) to suit Civil Service and Matriculation candidates; (b) accountants and clerks; (c) mechanics who might desire to fit themselves for technological examinations.

On the 18th July students met for the first time, and were addressed by the Rev. R. A. Woodthorpe, after which a time-table was drawn up, and the regular class-work began the following week. The question of continuing classes where the attendance was below a certain minimum (six) was discussed, and it was decided to leave the matter in the hands of the teachers. We are pleased to say that, having given their services gratuitously, the teachers had sufficient enthusiasm in their work to carry on all those classes where even two or three pupils presented themselves.

The Committee, however, did not see their way during the present session to continue the classes in penmanship, plumbing, and carpentering, as there seemed to be little or no demand for such instruction. Some difficulty was at first experienced in procuring a suitable meeting-place, but, owing to the kindness of the High School Board and the Borough School Committee, the classes were able to meet in what proved to be most convenient rooms. The thanks of the association are also due to the vestry of St. Stephen's for granting the use of their schoolroom, where the very large literature class was able to meet in the afternoon.

I have appended a list of attendances, &c., from which it will be seen something like a hundred persons have taken advantage of our classes: English literature (Rev. Woodthorpe, M.A.), 40; French (Miss Mulholland, M.A.), 4; Latin (C. D. Hardy, B.A.), 4; English grammar (C. F. Salmond, M.A.), 5; book-keeping (C. Dixon, Esq.), 10; typewriting (Miss M. Graham), 7; shorthand (Miss E. Gates), 5; arithmetic (D. Grant, Esq.), 5; drawing (A. Ager, F.R.I.B.A.), 12; mathematics (W. Brock, Esq.), 2; chemistry (J. S. Tennant, M.A.), 2; electricity (J. S. Tennant, M.A.), 5: total, 101.

The Committee would take this opportunity of pointing out the mutual benefits which may accrue if employers would give a word of advice to their juniors about these classes.

The session of 1901 will begin in April next, and with the Government subsidy now available it is hoped that the more technical part of the work may be extended. From the appended balance-sheet it will be seen that it was impossible in this the initial term to have attempted more.

The thanks of the association are specially due to Miss Mulholland, the Rev. R. A. Woodthorpe, Messrs. Dixon, Salmond, Grant, Brock, Hardie, and Tennant for giving their services gratuitously, and thus enabling us to close our first session with a small credit balance.

In conclusion, it is to be hoped that with a roll of 101 pupils, and a body of capable and enthusiastic teachers, we may next year appeal to the public of Ashburton for the support which the movement deserves.

I am, &c.,

J. S. TENNANT, Hon. Secretary.

BALANCE-SHEET at 28th November, 1900.

<i>Receipts.</i>		£ s. d.		<i>Expenditure.</i>		£ s. d.	
Fees and subscriptions received	..	22	12	6	Gas Company (gas and fittings)	..	2 14 0
					Rent of Arcade room and furniture	..	0 18 0
					Stationery and advertising	..	2 0 3
					Teachers' fees	..	6 6 0
					Rent of three typewriters	..	3 15 0
					Sundries	..	4 14 11
					Cash at Ashburton Permanent Building Society	1	4 4
		22	12	6			22 12 6

DUNEDIN SCHOOL OF ART AND DESIGN.

DURING the year the total number of students enrolled was 395, showing a slight increase on that of the previous year. This total includes 104 students who attended the day classes, 41 pupil-teachers, 22 students from the Training College, 184 students who attended the evening classes, and 44 teachers and pupil-teachers who attended the Saturday classes.

Freehand, Model, and Light and shade Classes.—The work done in the elementary sections of these classes consisted of freehand drawing from copies and from solid models, and shading from simple casts of ornament. The advanced sections comprised drawing and shading from casts of ornament and from the figure. The students evinced great interest in their work, and made considerable progress.

Practical Geometry, Solid Geometry, and Perspective Classes were held throughout the year. The courses of instruction were very similar to those of last year, and the work accomplished was

satisfactory. The evening class for geometrical drawing increased to such an extent that it was with some difficulty, and a great deal of inconvenience, that accommodation could be found for the increased number. This, however, has now been remedied, Mr. White having kindly granted the use (in the evening) of an adjoining room in the Normal School, and a door has been constructed communicating with the two rooms.

Elementary Design.—This class was held on Friday mornings from 9.30 to 12. The first hour was taken up with sketching plant-forms from nature, and selecting from each plant studied the elements best suited for ornamental purposes. The hour and a half remaining was devoted to designing to fill given spaces, and to the principles of ornamental design. The work done was in advance of that of the previous year.

Modelling.—This class was held twice a week. The elementary work consisted of modelling from simple casts of ornament, and the more advanced that of modelling from the antique and from life. A few casts, taken in plaster from the works of the students, were exhibited at the close of the year.

Drawing the Figure from Life.—These classes maintained their numbers, and were highly appreciated by the students, amongst whom were several of very good promise.

Painting was resumed at the beginning of the third quarter, and classes were arranged as follows: Tuesday and Thursday afternoon, painting from casts; Monday and Wednesday afternoon, painting from still life; and on Friday, painting landscapes from nature. Unfortunately the weather proved very unsettled; consequently very little outdoor work was done. Still, sufficient work was accomplished to show what a little band of earnest workers can do even under adverse circumstances. The other classes call for no special comment. It was easily seen, from the regularity of their attendance, and the interest taken in their studies, that these classes were fully appreciated by the students.

Students from the Training-college received instruction on Monday and Wednesday from 11 to 12. The work comprised freehand and model drawing for students who had not previously been examined in drawing, and for students who had been pupil-teachers, and had passed their examinations in drawing, drawing on the blackboard, drawing in light and shade, and modelling. At the close of the session fifteen gained full certificates, and six passed in freehand and model drawing.

Teachers' and Pupil-teachers' Classes have been held as follows: Monday and Wednesday, from 5.45 to 6.45, freehand, model-drawing, and light and shade; Tuesday and Thursday, from 5.45 to 6.45, geometry and perspective; and on Saturday from 11 to 12 for the same subjects, including light and shade. These classes have done satisfactory work. At the pupil-teachers' annual examination fifteen passed in freehand and model drawing, twenty-one passed in geometry, and twenty passed in perspective.

School of Mines.—Classes for students of the School of Mines were arranged as follows: First-year students, Tuesday and Thursday, from 2 to 4, for model-drawing and practical geometry; Monday and Wednesday, from 2 to 4, for solid geometry and machine-drawing. Without exception the students worked hard during the session, and did very well at their examinations: three were placed first class, two second class, and five third class.

Building Construction, and Machine Construction and Drawing.—Classes for these subjects were held on Tuesday and Thursday evenings from 7 to 9. The attendance was sometimes irregular, owing to the students having to work overtime, and to other causes. Mr. Sinclair, owing to his removal to Melbourne, resigned his position as instructor of machine drawing, and was succeeded by Mr. Peck, whose qualifications and practical experience render him thoroughly qualified for the position.

A selection of the ordinary work done by the students, and representing nearly all the branches taught in the school, was framed and forwarded (for exhibition only) to the Christchurch Industrial Exhibition. The Minister of Education sent for exhibition a most interesting, instructive, and varied collection of drawings, paintings, models in plaster, and several sets of examination-papers. These specimens were exhibited in the large class-room from 9.30 a.m. to 9 p.m., and were examined by a large number of persons interested in art education, and, as the students had access to the Exhibition at all times, they profited to the utmost.

The annual exhibition of students' work was held at the end of the session, when the work of the various classes was shown, including freehand drawing, model-drawing, perspective, drawing in light and shade, painting in monochrome, painting from still life, painting from life, painting landscapes from nature, designs in outline, in colour, and casts in plaster taken from the works of the students. The exhibition was largely attended, and was well spoken of.

Science and Art Department, South Kensington.

The results of the examinations held in July last are as follow: Freehand drawing (advanced), thirty-eight passed; model-drawing (advanced), nineteen passed; drawing in light and shade (advanced), fourteen passed. (These results are in no way disappointing when it is considered that, owing to a recent change in the South Kensington Department's regulations, the students were examined in the advanced work necessary for an art-class teacher's certificate, instead of in the elementary work they had been studying.) Geometrical drawing (art), nine passed; drawing from the antique, two passed; perspective drawing, seven passed; principles of ornament, three passed; painting ornament, one passed; practical plane and solid geometry, five passed; machine construction and drawing (elementary), six passed; machine construction and drawing (advanced), three passed; building construction (elementary), six passed; building construction (advanced), one passed. Seven works were accepted for the art-class teacher's certificate.

I have to thank the members of the staff for the zeal and assiduity with which they performed their respective duties.

The following occupations are represented by the students of the evening classes: Architects, 3; brass-finishers, 2; boilermakers, 5; bricklayers, 3; blacksmiths, 7; carpenters, 31; clerks, 2; cabinetmakers, 2; carriage builder, 1; clicker, 1; cutter, 1; draughtsmen, 5; dairyman, 1; dressmakers, 3; engineers, 30; engraver, 1; fitters, 17; factory-hand, 1; farmer, 1; home duties, 4; iron-turner, 1; joiners, 8; japanner, 1; jeweller, 1; labourer, 1; mill-hand, 1; music teacher, 1; machinist, 1; plumbers, 2; photographer, 1; painters, 6; patternmakers, 5; retouchers, 2; students, 16; sign-writers, 2; starch manufacturer, 1; teachers, 3; tailor, 1; tailoress, 1; telephonist, 1; traveller, 1; telegraphist, 1; woodworkers, 2; watchmaker, 1; warehouseman, 1; wool classer, 1; total, 184.

The following are the results of the London Science and Art Examinations and the City and Guilds of London Technological Examinations held in Dunedin in the months of May and July, 1900:—

London Science and Art Examinations.

Science Subjects.—Practical plane and solid geometry (elementary)—one first class, two second class. Machine construction and drawing (elementary)—four first class; (advanced)—one second class. Building construction (elementary)—three first class, three second class; (advanced)—one second class.

Art Subjects.—Geometrical drawing (art)—nine passed. Perspective drawing—three first class, four second class. Freehand drawing of ornament—fifteen first class, twenty-six second class. Model-drawing—three first class, sixteen second class. Drawing in light and shade—eight first class, eight second class. Drawing from the antique—two second class. Principles of ornament—one first class, two second class. Painting ornament—one second class.

Works accepted for the Art-class Teacher's Certificate.—William H. Allen: Group of models shaded. Lesa P. Bridger: Geometrical problems. Ida M. F. Burton: Geometrical problems, drawing of ornament from the cast, and group of models shaded. Mary McKegg: Geometrical problems. Oswald Trochon: Group of models shaded.

City and Guilds of London Institute.

Woodwork (first year)—one passed. Plumbers' work (preliminary)—four passed. Principles of plumbing (ordinary grade)—two first class, three second class; (honours grade)—one first class. Bookbinding, finishing (ordinary grade)—one first class. Metal-plate work (honours grade)—one first class. Mechanical engineering (ordinary grade)—Part I., two passed; Part II., one first class; (honours grade)—one first class.

DAVID C. HUTTON, Principal.

DUNEDIN TECHNICAL CLASSES ASSOCIATION.

Your Committee have much pleasure in presenting the twelfth annual report of the Dunedin Technical Classes Association.

Full particulars of the past session's work at Dunedin and Port Chalmers are given in the Superintendent's report. Altogether twenty-nine paid teachers were employed by the association for the carrying-on of forty separate classes, in twenty-six different subjects. Seven hundred and eighty-one students were enrolled during the session.

During the year the question of procuring funds for the development and expansion of the work of the classes was given long, careful, and serious consideration. On the definite promise of the Premier that the Government would grant the funds for the erection of the buildings required for carrying on classes in practical electricity, your Committee expended all their surplus in providing the necessary apparatus and machinery. But, as the Government have not yet given any assistance, this valuable plant, costing some hundreds of pounds, is still in the cases. In the event of the Government not at once granting sufficient funds for the erection of these buildings, your Committee recommend that the electrical plant and gas-engine be disposed of to the best advantage.

The reports of the examinations held in 1900 by the City and Guilds of London Institute show that one student passed the first year's examination in woodwork; four passed the preliminary grade in plumbers' work; in the principles of plumbing two obtained a first-class pass in the ordinary grade, and three a second-class pass. In the honours grade of the same subject one student obtained a first-class pass. One gained first class in honours grade for metal-plate work. Two passed the examination in mechanical engineering, Part I., one obtained a first-class pass in Part II.; and one obtained a first-class pass and honours in the honours grade. These results speak for themselves, and show that former excellence is still maintained.

A draft of the proposed Technical Bill was submitted to your Committee, and, after careful consideration of each clause, they wired to the Premier, Minister of Education, and city and suburban members, approving of the general principles of the Bill, and the Bill passed practically without amendment so far as this association is concerned. However, the regulations under the Bill have just recently come to hand, and, these not appearing satisfactory, a sub-committee was appointed to carefully consider and report their probable effect upon the work of the association.

In order to fully satisfy the requirements of the new Technical Bill, and the regulations in connection therewith, some of the classes require a fuller and more thorough equipment. Extra appliances and material to the amount of £130 have already been ordered for the classes in chemistry and physics. Models and extra material will be required for the classes in plumbing and carpentry. The classes in engineering and machine-drawing require a supply of models and actual work-parts necessary to show the connection between principles and the application of the

principles. An expenditure of about £160 for new typewriters will also have to be faced by the incoming Committee. This can be accomplished only if our claim for subsidy, already sent to the Government, and amounting to £406, be met.

The balance-sheet, giving particulars of receipts and expenditure, is herewith appended, and shows a balance of £3 5s. 1d. on the wrong side of the ledger. There are also accounts amounting to a few pounds outstanding.

Notwithstanding the closeness of our funds, the association continued its former policy of remitting the fees of those students not in a position to pay, and fifteen students were granted remission of fees. In this connection the Committee wish to make known the fact that one member, in addition to his regular subscription, annually donates a special sum to partly cover the cost of the classes these students attend.

STATEMENT of RECEIPTS and EXPENDITURE for the Year ended 31st January, 1901.

<i>Receipts.</i>			£	s.	d.	<i>Expenditure.</i>			£	s.	d.
Balance 31st January, 1900	..	..	236	5	5	Salaries	..	..	648	19	9
Class fees	..	..	535	1	9	Printing, stationery, and advertising	..	..	53	0	9
Subscriptions	..	..	86	4	0	Rent, taxes, and insurance	..	..	104	11	11
Interest	..	..	2	11	5	Gas and coal	..	..	31	12	1
Government subsidy	..	..	78	1	3	Incidental expenses	..	..	7	1	0
Education Board	..	..	75	0	0	Apparatus and material for practical classes	..	..	19	6	1
Unpresented cheques	..	£16	3	10		Improvements and repairs	..	..	51	17	4
Less bank balance	..	12	18	9		Gas-engine	..	..	100	0	0
					3	5	1				
					£1,016	8	11				
									£1,016	8	11

Examined and found correct.—C. GRATER, Auditor.

SUPERINTENDENT'S REPORT.

The following is the report of the classes carried on at Dunedin and Port Chalmers during the session just ended:—

The total number of students enrolled for the year was 781, an increase of fourteen on last year's enrolment. The magnitude of the work of the association is shown by the fact that forty separate classes were carried on in twenty-six different subjects by a staff of twenty-nine teachers.

The following new classes were carried on by the association: Eleven apprentices signifying their desire to join, the projected class in painters' and decorators' art was opened, the work done being principally graining and marbling. Several tailors' workmen asked the association to undertake the teaching of cutting, and a class was formed during the second quarter. Twelve students joined and attended regularly, but, the class having been in operation such a short time, no examination has been held. To meet the requirements of builders' workmen desirous of learning rope fastening and knotting, Mr. Wall gave a course of lessons, ropes, pulleys, and beams being fixed and individual practice given.

Two additional classes were opened at Port Chalmers—arithmetic and wood-carving. Although the attendance at these two classes during the first quarter was satisfactory, only five attended the former and eight the latter during the second quarter.

A change of teacher during the session always interrupts the work of a class; but the examiners' report shows that the work of the senior English class has not suffered, while the certificates awarded for speed in shorthand are evidence that the standard of former years has been maintained. The junior division of the latter class was rather large and unwieldy, and will probably be subdivided next year, our present junior teacher being well qualified to take charge of a division. The other commercial classes were also large, the highest number attending in book-keeping being ninety-eight, in penmanship forty-four, and in typewriting forty-eight (in four classes of twelve each). Many of the machines require a thorough overhaul, and at least six additional ones are urgently required.

During the second quarter many students inquired for the projected class in practical electricity, and yet the number of students attending physics fell to eight. To the best student of our class in this subject Professor Shand again offers free tuition at the University. Professor Black also has again offered free tuition to the best student in the chemistry class.

Compared with previous years, the number attending practical plumbing shows a great falling-off, but students of the theory of the same subject maintain great interest in their work, and I therefore direct attention to the examiners' report of this class, as well as to that of the carpentry class, which is taught by the same teacher.

To meet the requirements of the examinations of the City and Guilds of London Institute, special classes in plumbing and mechanical engineering were held throughout the summer. Mrs. Collet-Dobson also continued her elocution classes, so that, including botany, there were four classes at work during the summer.

The cookery class grows larger year by year, and during the second quarter the number in attendance reached seventy. The enrolment forms show that all classes of society take advantage of the teaching given in this subject. The cookery-room is now well fitted up, and students before being granted certificates have to undergo a strict and thorough practical examination.

In wood-carving the work is now relief and scroll, of a kind which earns the commendation of the examiners, but most of the students are amateurs. In order to call attention to the class of

work done in the Technical School, it is intended to have on exhibition during the distribution of certificates a few of the unfinished carvings done by our students.

The attendance in photography and in Latin has fallen off considerably, and that in chemistry and mathematics slightly. The French class is again becoming popular, and very good work is being done in junior English, arithmetic, and commercial law.

Along with the new classes mentioned as having been undertaken at Port Chalmers were continued those in drawing and mechanical engineering. The attendance thereat was satisfactory, and the examination results, which will appear separately, distinctly good.

The collection of fees still involves a considerable amount of labour. Students sometimes attend a few weeks and then leave when the demand for fees is likely to be made. On the other hand, several students this year paid fees for classes which they did not attend. Remission of fees was granted to fifteen students.

In conclusion, I have to report that the teachers have been punctual and diligent, have worked in harmony, and have rendered me a hearty co-operation.

ANGUS MARSHALL,
Secretary and Superintendent.

TOKOMAIRIRO MANUAL AND TECHNICAL CLASSES.

In agricultural chemistry a study was made of the value of phosphorus as plant-food, its sources and compounds; and an analysis of a superphosphate was conducted by the class working in four groups.

A large amount of work was done during the winter months in woodwork—jointing, turnery, and fretwork—each by making some article for his own or parent's use. The sum of £6 6s. 7d. was obtained from the Government, and expended as follows: Chemicals and chemical appliances, £2 19s. 11d.; spirit-lamp and kerosene, 14s. 6d.; tools and appliances for workshop, £1 12s. 10d.; typewriting material, 19s. 4d.

JAMES REID.

SOUTHLAND TECHNICAL CLASSES ASSOCIATION.

ANNUAL REPORT FOR THE YEAR ENDED 28TH FEBRUARY, 1901.

YOUR Committee begs to report as follows on the work of the association during the fifth year of its existence:—

Fourteen classes were placed on the syllabus, and the best teachers available in all the subjects were induced to place their services at the disposal of the Committee. Four of the classes—viz., mathematics, applied mechanics, chemistry, and cookery—did not receive sufficient encouragement in the number of students who enrolled to justify their being proceeded with. The other ten classes began work, and continued right through the session, with very gratifying results. During the session the teachers of the freehand-drawing and mechanical-drawing classes found that they were unable to carry on their duties, and, with the consent of the Education Department, Miss Neill and Mr. J. C. Imlay were appointed as their successors. These teachers entered upon and discharged their duties with great energy and enthusiasm, and fully maintained the reputation to which these classes had already attained. The Committee has every reason to be gratified at the interest taken by the teachers in their various classes, and at the earnest and conscientious manner in which they strove to advance the interests of the association.

The number of students enrolled, and the average attendance in each class, are given in the following table:—

Class.	Roll-number, First Term.	Average Attendance.	Roll-number, Second Term.	Average Attendance.
English	7	6.6	9	8.0
Book-keeping	15	14.1	11	10.0
Electricity	9	7.5	8	6.8
Architectural drawing	12	9.7	12	9.6
Mechanical drawing	15	13.0	17	16.4
Freehand and model drawing	7	6.1	7	6.0
Dressmaking	11	9.6	14	11.5
Wood-carving	27	24.7	23	21.0
Carpentry	7	6.6	8	8.0
Shorthand	6	3.5	3	2.4
Totals	116	101.4	112	99.7

The salary paid to the teachers was on the same basis as previous years—viz., three guineas and a half for each term, with an added bonus of 6s. for each student in excess of six in any class.

An exhibition of work performed by the students in the wood-carving, the carpentry, and the various drawing classes was held in the Education Board's room at the close of the session, with the result that the townspeople are now most favourably impressed with the efforts of the association to provide means whereby our young people may advance their interests in life.

On behalf of the Committee,
WM. R. RIDDELL, President.
WILLIAM A. McCaw, Secretary.

Invercargill, 8th March, 1901.

<i>Receipts.</i>		£	s.	d.	<i>Expenditure.</i>		£	s.	d.
Balance in Bank of New South Wales	..	18	7	11	Teachers' salaries		97	3	0
Special grant from Government	..	30	0	0	Advertising and printing		11	7	0
Government capitation	..	24	5	6	Gas and janitor		9	15	6
" on boys' classes	..	4	9	3	Students' materials		0	19	8
Students' fees	..	70	10	0	Appliances		0	17	9
Students' material refunded	..	1	6	0	Secretary		7	17	6
					Refund Education Board (capitation)	..	4	9	3
					Stamps and stationery		0	3	6
					Bank charge for account	..	0	10	0
					Balance in Bank of New South Wales	..	15	15	6
		£148	18	8			£148	18	8

Examined and found correct.—R. J. CUMMING, Auditor. 8th March, 1901.

Price 9d.]

By Authority: JOHN MACKAY, Government Printer, Wellington.—1901.

