1899.
NEW ZEALAND.

EDUCATION:

MANUAL TRAINING AND TECHNICAL INSTRUCTION.

[In continuation of E.–5, 1898.]

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

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

Manual Training and Technical Instruction.

The past year has been marked by a largely increased degree of interest in the question of manual and technical education, and, apart from the direct benefits derived from the aid rendered to classes for manual training and technical instruction, the Act of 1895 is bearing fruit by educating public opinion, and by preparing the way for larger and more comprehensive measures. What has been done in Great Britain, in America, and on the Continent of Europe has become more widely known through the medium of public journals and magazines, and the recent publication of Mr. A. D. Riley's report on "Manual and Technical Instruction" (E.–5B, 1898) has undoubtedly stimulated the minds of people throughout the colony, and tended to remove misconceptions as to the aims and methods of the new movement in education.

In many primary schools in different parts of the colony an increasing amount of attention is being paid to kindergarten occupations in the infant classes, and to manual exercises intended as a continuation of them in some of the standard classes. Several of the secondary schools provide a certain amount of manual instruction; but it is doubtful how far either this work or the work done in the primary schools has been co-ordinated with the other subjects of instruction, or has become an organic part of the education given in the schools. We are, perhaps, in danger of forgetting that manual training—the specific training of the hand and eye in conjunction with the brain—involves not so much the introduction of a new subject as a change of method in the treatment of nearly all the subjects included in the school course; that it not only develops powers that would often otherwise remain dormant, but provides, amidst the complexity of the demands of modern educational systems, the key to a true co-ordination so long sought for by Herbart and other earnest teachers. If our pupils are taught by direct observation of things, and if at the same time their constructive and creative activities are called into play, the different parts of their education are truly co-ordinated, because the various subjects of instruction are all, in a real sense, co-ordinated with nature. All other co-ordinations are more or less artificial. The principle of natural co-ordination is in reality an extension of the ideas of Froebel as exemplified in the best kindergartens. The same principle can be applied throughout all education—not only in the infant classes, but also in the higher stages of primary education, in secondary, and even in university education. Some of our best teachers already recognise this fact, and herein consists our best hope not merely for manual and technical education, but for a general advance in the intellectual training of the nation.

We must come to realise the fact that, unless we assign to eye and hand and ear their proper place in each subject, the path of progress is closed to us. This is quite obvious in regard to skill in the industries, technical or agricultural, and, on careful thought, in regard also to commercial or professional knowledge; hence the demand for technical education, which is a projecting, out of the realm of general education into that of special education, of the principles already enunciated.

It has been said that "manual training includes all processes that train the muscles and the mind to work in harmony." At the same time that the hand is being practised in movements of dexterity, there are stimulated in the mind the observation of form and the appreciation of beauty, which are the elements of artistic taste. The first step towards actually realising this would be the improvement of drawing in the schools, so that it might become truly a mode of expression rather than a mere slavish imitation of drawing-book copies. This, on the side of the arts, would give rise to original design; while the constructive instinct would concentrate the ideas of measurement, the perception of the relations of form, and of the properties of matter, into creative effort.

One of the healthiest effects of manual training, and a sufficient justification for its inclusion in a scheme of general education, is that it trains the judgment to deal with practical life; it thus fosters the constructive instinct, and counteracts the tendency of a too exclusively bookish school system towards sedentary occupations and town-life; while, by opening out new avenues for the natural activities, it enables the teacher or the parent to discover more easily the natural bent of a boy or girl. The same ideas that prompt manual training will lead to making concrete teaching the basis of all mathematical instruction; to the greater use of open-air teaching in geography and the natural sciences in preference to the use of books; to work in physical and chemical science that is experimental and based on individual effort; to teaching in history that does not separate it from the political and social life of the present; possibly also to methods of language-teaching in which emphasis is laid not on the dry bones of grammar, but on the actual use of a language for speaking, reading, and writing. Fallacies die hard; were it not so, it would never be contended that these new methods give an intellectual training inferior to that given by the old bookish methods. On the contrary, we have lost the full value even of books, because they deal so much with what are to us abstractions; if the things they treat of were actually known to us, how many books would live that now are nothing but *words!* Slavery to formal examination tests has perhaps been one of the greatest obstacles to progress, and should accordingly be guarded against in the future.

In short, in order that the introduction of manual training into our primary and secondary schools may have its full beneficial effect, this training should be an organic part of the education of the schools; and, that being so, it should be given within the school-hours, and as far as possible by the ordinary teacher, who should be trained for that purpose. Unless co-ordinated naturally with the other "subjects," and therefore inevitably influencing the methods generally throughout the school, manual instruction must more or less fail. Technical education, which is specialisation in the direction of a trade after a certain stage in intellectual development has been reached,—probably even technical education will partially fail if altogether dissociated from a continued advance in general education, although the want of that has very little influence on mere manual dexterity.

The larger and more comprehensive measures referred to above should therefore include provision for manual instruction in primary and secondary schools; for domestic instruction; for the better teaching of drawing and science; for technical education in special classes, industrial, mechanical, or agricultural in character; for continuation classes; for workshops and art schools; for commercial education; for technology in university colleges; for the training of teachers; with further provision for scholarships, and for the proper direction and inspection of the whole system. Moreover, the plea for manual training and technical instruction, and, in general, for the greater use of concrete

methods in teaching, has a peculiar force in reference to our Native schools, and they should therefore have a share in the benefits of any scheme that may be inaugurated. Due attention should be given also to local needs, and to the effective use of existing agencies. Altogether, the problem is not a simple one, and it would not be difficult to waste large sums of public money in attempting its solution. But, if we proceed with care, the experience of Great Britain and other countries ought to show us how to avoid many of the mistakes into which they have fallen. It seems, at all events, impossible to go back now; and the time appears to have come for a decided advance.

The figures given in the table below speak for themselves: they show the administration of the resources afforded by the Act of 1895; the capitation paid to Education Boards, technical classes associations, and private adventure classes for certain subjects or groups of subjects; and the amounts of special grants in certain cases.

MANUAL AND TECHNICAL INSTRUCTION, 1898.

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.
														£ s. d.	£ s. d.
Technical Classes Association, Auckland	12	17	6	5	..	10	..	..	16	7	16	7	..	54 1 2	100 0 0
"Elam" School of Art, Auckland ..	18	..	..	54	..	..	..	..	..	..	..	..	..	58 6 9	..
Robinson, Mr. W. I., Auckland ..	..	..	149	..	..	..	..	..	..	..	..	..	..	42 8 7	..
Education Board, Auckland—															
Devonport Public School	..	..	..	..	..	..	..	..	22	..	..	..	..	10 19 7	..
Remuera Public School	..	..	..	..	..	..	..	..	9	..	..	..	..	5 19 7	..
Education Board, Wanganui—															
Technical School, Wanganui ..	45	60	13	19	10	5	..	17	12	..	8	12	..	110 8 1	100 0 0
Technical classes, Palmerston North..	13	..	..	27	..	..	..	..	..	..	..	..	..	23 7 9	..
Education Board, Wellington—															
Technical School, Wellington ..	150	111	53	108	20	24	33	..	23	34	..	21	71	370 17 9	1,500 0 0
Paraparaumu Public School ..	..	..	..	..	..	..	..	..	13	..	..	..	..	2 6 4	..
Cross Creek Public School	..	..	..	..	..	..	..	..	12	..	..	..	..	2 6 6	..
Mauriceville Public School	..	..	..	..	..	..	..	..	13	..	..	..	..	9 18 3	..
Technical School, Masterton	19	..	..	..	..	..	..	9	..	..	218	36	..	108 5 8	..
Philosophical Institute, Napier ..	..	..	..	..	..	..	..	28	..	..	..	..	..	1 15 0	..
Hardie and Manning, Misses, Napier ..	..	..	..	..	..	..	..	..	..	..	..	18	..	29 7 5	..
Technical Classes Association, Gisborne	..	..	..	..	..	..	..	..	..	..	..	22	..	8 3 1	..
Education Board, Marlborough—															
Blenheim Public School	..	..	..	..	..	..	..	..	..	..	..	40	..	15 4 8	..
Renwick Public School	..	..	..	..	..	..	..	..	..	..	..	19	..	7 4 2	..
Technical Classes Association, Westport	..	..	4	..	..	..	..	..	..	..	..	..	..	1 7 0	..
Education Board, Grey—															
Greymouth Public School	..	..	..	..	..	..	..	..	19	..	..	..	..	16 18 5	..
Education Board, Westland—															
Kumara Public School	..	..	..	..	..	..	..	..	10	..	..	..	..	23 1 10	..
Canterbury School of Art, Christchurch	192	199	..	86	101	10	..	..	..	..	..	..	..	166 9 0	..
School of Domestic Instruction, Christ'ch	..	..	..	..	..	..	..	..	..	..	99	..	..	72 4 5	70 0 0
Education Board, North Canterbury—															
Normal School	..	..	..	..	..	..	..	..	96	..	..	..	..	47 15 0	..
Amberley Public School	..	..	..	..	..	..	..	..	..	..	38	..	..	7 3 3	..
Leeston Public School	..	..	..	..	..	..	..	..	8	..	..	..	..	4 6 3	..
Young Men's Christian Assn., Christ'ch	..	..	..	..	..	..	..	..	..	..	..	12	..	29 0 4	..
Carr, Miss A. M., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	93	..	158 0 0	..
Digby, Mr. H. W. L., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	84	..	56 5 0	..
Gilby, Mr. C. H., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	48	..	126 18 5	..
Technical Classes Association, Ashburton	..	..	..	..	..	..	..	26	..	..	..	..	..	14 7 11	7 0 0
" " Dunedin	..	..	19	..	..	..	..	45	11	36	56	134	..	66 3 0	910 13 7
" " Balclutha	..	..	..	..	..	..	..	..	3	..	3	16	..	2 15 4	..
" " Warepa	..	..	..	..	..	..	11	..	..	..	66	5	..	4 19 4	..
" " Waiwera S.	..	..	..	..	..	..	..	..	8	..	..	..	..	2 10 0	..
" " Romahapa	..	..	..	..	..	..	..	..	..	..	7	12	..	3 11 3	..
" " Invercargill	..	..	..	..	..	..	..	9	36	..	9	12	..	11 17 6	30 0 0
" " Te Oneroa	..	..	..	..	..	..	3	..	..	..	..	..	..	12 16 9	..
Education Board, Otago—															
School of Art, Dunedin	150	18	13	118	9	43	..	..	..	..	..	..	..	198 13 7	..
Balclutha Public School	..	..	..	..	..	..	..	..	26	..	..	..	..	9 12 4	..
Tokomairiro Public School	..	..	..	..	..	..	..	15	17	..	..	..	..	8 18 10	..
Kidson Hunter, Mr. A. G., Dunedin ..	..	..	..	..	..	..	..	24	..	..	..	..	..	11 17 0	..
	599	405	257	417	140	92	47	173	354	77	520	591	71	1,918 12 1	2,717 13 7

The incidental expenditure is as follows:—

	£	s.	d.
Examinations of Science and Art Department	57	12	8
Examinations of City and Guilds of London Institute	20	2	2
Railway fares of students	76	11	8
Railway fares of instructors	51	1	6
Freight on loan collection of works from South Kensington	2	11	10
Publications	0	16	8
Total	£208	16	6

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, 1898.

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

Subjects of Examination.	Auckland.		Wanganui.		Wellington.		Wellington Sub-centres.*		Nelson.		Christchurch.		Timaru.		Dunedin.		Invercargill.	
	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.	C.	P.
Science and Art Department.																		
Art—																		
Drawing in light and shade (elementary)	9	5	12	9	27	22	1	..	..	..	6	6	4	3	23	16	..	..
Drawing in light and shade (advanced)	7	3	6	6	14	12	..	..	4	4	7	7	..	..	12	10	..	..
Perspective (elementary)	..	..	1	1	11	10	1	..	1	..	11	11	1	1	17	14	..	..
Model drawing (elementary)	10	9	11	11	52	50	11	9	..	..	21	19	8	5	47	42	..	..
" (advanced)	8	5	3	2	11	9	..	..	4	3	8	7	..	..	13	12	..	..
Freehand drawing of ornament (elementary)	16	13	34	28	46	41	10	6	..	..	26	21	9	8	65	52	..	..
Freehand drawing of ornament (advanced)	12	11	13	11	15	14	..	..	4	3	8	8	..	..	13	13	..	..
Geometrical drawing (art)	3	3	..	..	1	1	..	..	4	3	..	..	2	2	14	12	..	..
Design (elementary)	..	..	..	..	4	3	..	..	..	..	7	5	..	..	..	..	..	..
" (advanced)	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Painting from still life	..	..	6	4	4	4	..	..	..	..	6	5	..	..	5	3	..	..
Drawing from the life	..	..	..	..	7	4	..	..	..	..	2	1	..	..	2	..	..	..
" " antique	..	..	..	..	2	..	..	..	..	..	5	5	..	..	3	1	..	..
Painting ornament in monochrome	3	3	3	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Principles of ornament (elementary)	..	..	1	1	1	1	..	..	..	..	1	1	..	..	..	..	..	..
Students' works	..	..	11	3	37	19†	..	..	16	..	..	..	..	..	28	14	..	..
Science—																		
Practical plane and solid geometry	..	..	3	3	5	4	..	..	1	1	5	5	..	..	13	10	..	..
Mathematics, stages 1, 2, 3	3	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
Magnetism and electricity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Machine construction and drawing	17	8	..	..	9	5	..	..	..	..	..	..	..	..	13	6	..	..
Building construction	9	7	1	1	10	8	..	..	..	..	6	6	..	..	11	10	..	..
Steam	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Human physiology	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Inorganic chemistry (theory)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Agriculture	..	..	..	..	..	..	5	5	..	..	..	..	..	..	..	..	..	..
Applied mechanics	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	..
City and Guilds of London Institute.																		
Telegraphy and telephony	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Electric lighting (preliminary)	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" (ordinary)	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Metal-plate work	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Carpentry and joinery (preliminary)	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Carpentry and joinery (ordinary)	1	1	..	..	6	6	..	..	..	..	..	..	..	..	2	2	..	..
Woodwork	..	..	..	..	..	..	..	..	..	..	20	17	..	..	..	..	4	4
Bookbinding	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..
Photography	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Cookery	..	..	..	..	..	..	..	..	..	..	13	12	..	..	..	..	..	..
Mechanical engineering	7	3	..	..	1	..	..	..	..	..	..	..	..	..	4	2	..	..
Plumbing (preliminary)	8	2	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
" (written)	5	2	..	..	14	5	..	..	..	..	..	..	..	..	4	4	..	..
" (practical)	4	..	..	..	11	3	..	..	..	..	..	..	..	..	..	..	..	..
Totals	123	78	105	82	296	227	28	20	34	14	152	136	24	19	301	232	4	4

Total of papers, 1,067; total of passes, 812.

* Pahiatua, Masterton, Otaki, and Westport. † Wellington also obtained three prizes for works.

EXTRACTS FROM REPORTS OF EDUCATION BOARDS.

Auckland.

Classes in manual instruction are held at Devonport and Remuera Schools. Until adequate funds shall be voted for the purpose it is not likely that there will be any extension of the means of technical instruction. Application was made by the Board for a special grant towards the erection of a technical and training college upon a suitable site in the City of Auckland, but no provision was made by the Legislature last session for such a purpose.

Wanganui.

There has been a very fair attendance at some of the classes in the Technical School, especially those conducted by the science master, and the Board hopes that the public may ere long appreciate the value of the art classes which are now open to them. For the work done at the school the Board refers to the director's report. The inhabitants of Palmerston North collected and remitted to the Board the sum of £200 towards the cost of a technical school for that town. The Board promised £1 for £1 on this sum, and they understood that the Minister of Education would have subsidised this £400 by a grant of £1 for £1. That such has not been done is a great disappointment to the Palmerston people. The art classes are still conducted at Palmerston North by one of the assistant masters from the Wanganui Technical School, and it is now contemplated to establish classes upon the same basis at Hawera. In connection with the Technical School, cooking classes have been held at the Wanganui Girls' School during the year.

Wellington.

The director of the Technical School deals fully with the year's work in his annual report. Instruction in cookery is now given in the town and country schools. The classes throughout have been well attended, and the central school has maintained its reputation by obtaining the principal awards in connection with the science and art examinations of South Kensington.

Hawke's Bay.

In the matter of technical education the Board has not been able to take any action. However anxious the members may be to assist in such work, the providing of school accommodation for the many outlying districts which are constantly pressed upon their attention puts consideration of it out of their reach, the claims of new districts also being a constantly increasing charge upon the school fund. The Board are of opinion that some special and more adequate provision must be made by the Government to enable Education Boards to properly organize the conduct of technical classes.

Marlborough.

Classes for instruction in shorthand were established, under the provisions of the Manual and Technical Elementary Instruction Act, at Blenheim and Renwick, and have been highly appreciated. The number of scholars on the rolls for the year, at the two centres, was seventy-one, and the average attendance was 59·8; and it was with the greatest regret that the Board received a circular from the department notifying the discontinuance of the grant for this subject at the end of the year. Much as the Board would like to avail itself of the provisions of the Act in other directions, the expense attending the establishment of almost any other class is quite beyond its means, which are already insufficient for the ordinary requirements of the district. At the time of writing the Board is in receipt of a report from two independent "experts," who were asked to examine these classes with the object of ascertaining the amount of progress made by the scholars, and the report was of so encouraging a nature that the regret of the Board at the cessation of the grant (without which the subject must be dropped) has been greatly increased. Several of the Board's teachers have been students in these classes, with the intention of qualifying themselves to teach the subject, if required, in the schools.

Westland.

The class for manual instruction connected with the Kumara School has been conducted efficiently during the year, as a separate report by the Inspector will show. In the last annual report the following sentence occurs: "As the feasibility of initiating such instruction has thus been amply demonstrated, it is the hope of the Board that, in connection with other schools, advantage will be taken of the opportunity provided by the Act recently passed to bring this important branch of education within the reach of the scholars attending." The Board regrets that in no other school district have steps been taken to secure the benefits of manual training.

North Canterbury.

The manual-training classes at the Normal School have been continued throughout the year. The work of both teachers and boys has been good; but, compared with the previous year, there has been a large decrease in the numbers attending, pointing to the conclusion that, whatever interest the novelty of the instruction aroused on the initiation of the classes, the advantages to be derived from the instruction are not so generally appreciated as was anticipated. It must be

remembered, however, that the classes have not yet been brought into close touch with the bulk of the Board's teachers, or in reach of the majority of the schools in this district.

At Leeston, in addition to instruction in woodwork, cookery classes have been established, which promise good results, as also do those started with the same object at Amberley by local effort. So far the Board's applications to the Government for the means to establish technical schools at the several centres have failed to obtain that favourable consideration which was expected to result from the action of the House of Representatives when, at the close of the 1897 session, it passed such a substantial vote for the purposes of technical instruction.

The following table shows the number of teachers and boys that attended at the Normal School for manual instruction during each quarter, with the number of classes :—

Quarter or Term commencing	Number of Classes.	Number of Teachers.	Number of Boys.	Total.
February	8	40	78	118
May	8	25	87	112
July	5	...	92	92
October	7	17	84	101

The Principal of the Normal School reports as follows :—

"We have attempted this year to carry on further our endeavours to give the students some practical training in the so-called 'varied occupations' which are considered as belonging to kindergarten work, but there is still much to be desired in this direction. As I pointed out last year, the difficulty is to find time for these new subjects. But I feel there is a strong probability that some kindergarten work will be demanded for our schools in the near future, and I cannot but think that we ought at least to give our students opportunities to make a beginning in the practical part of the work. Mrs. Bullock, head-mistress of the Infants' Department, who has had charge of this part of the work with the students, has taken very great interest in the subject, and it was especially gratifying to me to find that at the end of the year she was to some extent rewarded for her trouble by the success that attended her exhibition of kindergarten work done in her department.

"In the Girls' School a noteworthy feature has been the attendance for the last six months of about forty girls at a weekly class in cookery at the School of Domestic Instruction. The usual fate of classes in subjects outside of the school course is for them to dwindle down and cease. This particular class has, however, so far escaped this fate, owing largely to the interest the girls feel in the subject. But another contributory cause has been the fact that the time for this class has been taken from the ordinary school day. The time that has been thus given up could ill be spared from the preparation for the work of the standard syllabus, but the subject is one of such immense practical value that the opportunity of sending the girls to these classes could not be lost. In cases like this, where facilities exist for attendance at valuable classes of any kind, I cannot but think it would encourage teachers and children alike to take advantage of them if in the assessment of the work done in the standard subjects some allowance could be made for this diminution in the time available for those subjects."

Otago.

The total number of students who attended the School of Art and Design during the past session was 402. This total includes ninety-four teachers and pupil-teachers, forty-one Training College students, 105 students who attended the day classes, and 162 who attended the evening classes. The Board desires to direct your special attention to the good work done at the School of Art and Design. The number of students is now larger than it has ever been, and the proportion of certificates gained at the examinations in connection with the South Kensington Science and Art Department is noteworthy. The cost of the school for the year was—Salaries, £708 6s. 8d.; incidental expenses, £59 18s. 7d.: total, £768 5s. 3d. Less fees (three quarters only), £258 15s. 9d.; Government grant under Manual and Technical Elementary Instruction Act, £198 13s. 7d.—£457 9s. 4d. Net cost, £310 15s. 11d.

The Board thinks it desirable to lay stress on the good work done by the Dunedin Technical School, the rent of which is partly paid by the Board. The following is a summary of the passes of Dunedin candidates at the examination of the City and Guilds of London Institute, held in 1898: Plumber's work (ordinary)—First class, 3; plumber's work (honours)—First class, 1; carpentry and joinery (ordinary)—First class, 1; carpentry and joinery (honours)—First class, 1; photography (ordinary)—Second class, 1; metal-plate work (ordinary)—First class, 1; bookbinding (ordinary)—First class, 2; mechanical engineering (ordinary)—First class, 1, marked as deserving of a prize; second class, 1. Last year 731 students attended the classes of the Technical School, and 402 attended the School of Art. Deducting those who attended both institutions—viz., twenty-nine—we have the large number of 1,104 attending technical classes in the City of Dunedin, a state of affairs which speaks well for the primary system of education, for those who are teaching in the continuation schools, and specially well for the young men and women who are devoting their leisure hours to self-improvement.

With regard to the Normal School, the report of the Principal contains the following: "The course in science includes—(1) Lectures on mechanics, physics, chemistry, and physiology, as prescribed by the department, and (2) practical laboratory work in these subjects. In the laboratory students perform experiments, and make their own notes of the method in which they are conducted and of the results. Seventy-six experiments were carried out in this way last year. In some instances, besides actually working the experiment, the students have to make, fit up, and get ready the necessary apparatus. In this way practice is obtained not only in working experiments, but also in preparing such apparatus as is required in the class-teaching of the subjects in the course of science required by the Board."

Southland.

The Saturday carpentry classes for teachers and pupils established in the year 1895 have been successfully carried on for three consecutive sessions, commencing on the 7th May and ending on the 26th November. The attendance was a most decided improvement on that of the previous year, and much intelligent interest in the work was manifested by the students, old and young alike. The roll-number ranged from five to seven for teachers, and from twenty to twenty-two for boys; while the mean average attendance for the three sessions was 5·2 and 19·2 for the senior and junior classes respectively. In the month of May last the following public-school teachers—viz., Messrs. C. W. G. Selby, A. H. Hiddleston, H. P. Young, and T. Gazzard—succeeded in passing the first year's practical woodwork examination under the City and Guilds of London Institute. These classes have prosecuted their studies under the superintendence of the Board's architect, assisted this year by Mr. W. L. McLean.

EXTRACTS FROM REPORTS OF SECONDARY SCHOOLS.

Wanganui Girls' College.

A cooking class has been held during the last term of the year. Sewing classes are held thrice weekly. Most pupils receive instruction in drawing. Owing to the construction of a new class-room specially lighted to serve as an art-room, a decided advance has been made during the year in this department.

Wanganui Collegiate School.

There is a large carpenter's shop and laboratory, in which regular instruction is given to the boys by the staff.

Wellington College.

There is a well-fitted carpenter's shop with six benches, accommodating four boys each. Building lighted from both sides, and supplied with a number of gas-jets. Lessons are given twice a week by Mr. W. H. Barrett, instructor to the Technical School (one hour on Mondays, two hours on Fridays). The boys all work to scale, making their own drawings of the work before it is undertaken. Some of them are working at wood-carving.

Napier High Schools.

With a view to the furtherance of technical education, the Board has sanctioned the erection of a new workshop for the Boys' School, and has engaged the services of a specially qualified instructor.

At the Girls' School during the winter term classes in physical drill and dancing were held, with great advantage to the girls; and a series of lessons in cookery were given to the upper school.

Christchurch Boys' High School.

There is a suitable workshop, fitted with excellent lathes, joiner's benches, and tools, in which instruction is given in carpentry, the use of tools, &c., out of school-hours. The fee is 2s. 6d. per term, and covers instruction for two hours per week. During part of the time boys do work that the instructor may require; during the rest of the time they are allowed to make articles for themselves, which may, with the approval of the instructor, be taken home. The cost of timber where appreciable must be paid, and any work may be reserved for exhibition. Boys must purchase certain necessary tools, or hire them at 1s. per term. Mr. S. H. Seager supervises the workshop, and carries out a regular course of instruction. In addition to this there is a modern form, where boys, instead of Latin, learn sloyd and shorthand. Sloyd comprises the making of models in cardboard, wood, iron, &c., of drawings previously made to scale. Apart from this, in the general school boys were taught drawing, seventy-five learning geometrical drawing; 148 boys learnt chemistry, and eighty-nine boys physics and elementary science.

It will thus be seen that, with complete arrangements for drawing and science, boys obtain instruction in the main principles of technical education, and they have the essential elements of manual work in carpentry and sloyd. Elementary sloyd is taught to the youngest boys in place of French. For science teaching the school possesses two well-equipped laboratories, with sinks, sets of reagents, furnace, &c. There is also a lecture-room with properly equipped lecturing-table, containing sinks, gas, water-taps, &c. The room has raised benches, and can accommodate about sixty to write, and over a hundred for oral instruction. For model drawing boys go to the School of Art.

Christchurch Girls' High School.

The arrangements for manual and technical instruction are as follows: Three cooking classes are held, each affording instruction for two hours a week. The lessons are mainly practical, but four demonstration lessons are given each term by the teacher. Two classes in dress-cutting are held, each affording instruction for two hours a week. Plain sewing is taught in the school for an hour and a half a week. Drawing classes: Instruction is given on two afternoons a week, including freehand, model, light and shade, and elementary design, to all pupils desirous of attending these classes.

Ashburton High School.

The Board has under its consideration the necessity of providing greater facilities for the teaching of science, and for providing manual and technical training, but, with the funds at its disposal, has not yet been able to see its way to make any great change in the school curriculum in this direction. The necessity, however, is thoroughly appreciated, and whenever the means are forthcoming this provision will be made.

TIMARU HIGH SCHOOL (BOYS).

Direct manual instruction is given in the woodwork and sloyd (cardboard modelling) classes. There is a well-furnished carpenter's workshop; the tools used are the ordinary carpenter's tools, smaller ones being used in the junior class. The work embraces the chief joints and other set exercises. The articles made are intended (1) to illustrate the practical applications of the principles involved in the exercises; (2) to be used in experimental work in the science classes, or as models in the drawing classes. All work is done from pupils' own drawing. The cardboard modelling last year had special reference (*a*) to an introduction to Euclid and mensuration; (*b*) to the lessons on mathematical geography.

About two-thirds of the boys do either woodwork or cardboard modelling. In other classes similar methods are used where possible, pupils making concrete illustrations in cardboard, &c.

All science-work is experimental, and each boy makes his own apparatus, as far as possible.

In upper geography classes each boy has to determine the altitude of the sun, its declination, the latitude and longitude of Timaru, to draw plans of the school-grounds and neighbourhood, and to prove the cause of the seasons and the movements of the earth from his own (rough) observations.

The object aimed at is the training of the faculties involved in the co-ordination of hand and eye and brain, and the teaching of the abstract science by means of the concrete.

NOTE BY THE SECRETARY FOR EDUCATION.

According to the reports for 1897, the Auckland Grammar School, the Nelson Colleges, and Christ's College Grammar School provide more or less for work of this description, but the subject is not specifically mentioned in their reports for last year.

REPORTS OF TECHNICAL SCHOOLS AND CLASSES.

THE ELAM SCHOOL OF ART.

SIR,— Elam School of Art, Auckland, 10th January, 1899.

I have the honour to enclose a report of the work done at this school during the past year.

The general character of the work has not changed much since my last report, and the arrangement of the classes remains the same—viz., eight separate classes being held each week. The number of individual students attending the school during the year was seventy-four, while the average attendance at each of the eight classes has been about twenty-one.

As usual, a considerable number of teachers and pupil-teachers under the Board of Education have attended the school on Saturdays, the school being always kept open both morning and afternoon on Saturdays for their benefit. I regret that there has been very little inclination among these teachers to enter for the examinations of the Science and Art Department, which are now held in Auckland every year. This I attribute to the fact that no inducement has been offered by the local Board of Education to its teachers to compete for the certificates of the Science and Art Department. Now that the secretary of the Auckland Board of Education has been appointed agent for the examinations, I am in hopes that more attention will be paid to the advantages to be had from holding the English Government certificates, and that teachers and pupil-teachers will be encouraged to enter for the examinations.

Every year the good done by the late Dr. Elam's bequest is becoming more evident, and a large number of former students of the school are now earning their living in various ways intimately connected with the art education they have received at the Elam Free School of Art; while not a few have themselves become successful teachers in various art and science subjects.

The year 1899 will start under conditions more favourable to this school than heretofore, and the trustees are in hopes of being able to admit a larger number of students than they have been able to in past years. A valuable collection of casts and models has also recently been added to those already in possession of the school, and these will be a most welcome addition to the properties of the school.

On the whole, I have every reason to be satisfied with the quality of the work which has been done at the school during the past year.

I have, &c.,

The Hon. the Minister of Education, Wellington. E. W. PAYTON, Director.

TECHNICAL AND ENGINEERING CLASSES, AUCKLAND AND SUBURBS.

SIR,— 17th January, 1899.

I have the honour of submitting the following report of the work of these classes for 1898, which is the fourteenth year of their operation:—

The class arrangements and number of terms have been the same as in the previous year. The subjects of instruction have also been the same—viz., practical plane and solid geometry, mechanical drawing and machine construction, building construction, applied mechanics, steam and steam-engine, and mechanical engineering.

At Wellesley Street School, where the chief class is held, there were four terms, the number of pupils attending being respectively thirty-four, thirty-four, thirty-five, and thirty-six.

Branch classes have also been held at the Onehunga, Ponsonby, and Remuera public schools. These classes met one evening per week, and had four terms during the year.

At the Onehunga class the number of pupils attending in the four terms of the year was respectively ten, ten, nine, and nine, the subjects of instruction being mechanical drawing and machine construction, applied mechanics, and marine engineering.

At the Ponsonby School the number of pupils attending during the four terms was respectively eleven, seventeen, sixteen, and fifteen. The subjects of instruction were mechanical drawing, carriage-drafting, and marine engineering.

At the Remuera School the number of pupils attending during the four terms was respectively seven, six, nine, and eight. The subjects of instruction were mechanical drawing and marine engineering.

The Saturday-afternoon class was open the four terms at the Wellesley Street School, the attendance being respectively fourteen, twenty-five, fifteen, thirteen, and the subjects of instruction practical plane and solid geometry and perspective, chiefly for teachers; also marine engineering for engineers preparing for examinations.

The total number of individual students who have attended all the classes during the year is ninety-seven, which is an advance upon the corresponding number of last year.

An exhibition of technical drawings was held last September in the large room of the Wellesley Street School. It consisted chiefly of class-work finished off for the occasion—engines, boilers, hydraulic work, and shop tools.

Four pupils during the year prepared in mechanical engineering, and sat at the examination held by the City and Guilds of London Institute. The results, however, are not yet returned. At the South Kensington Science Examination of 1897 the following certificates were obtained in machine construction and drawing: Advanced (second class), three; elementary, five; fair, one. The results of the South Kensington Science Examination of 1898 are now also to hand, and the certificates obtained by these classes in machine construction and drawing are: First class (advanced), one; second class (advanced), one; first class (elementary), five; second class (elementary), one.

During the year pupils in connection with these classes obtained certificates from the New Zealand Government in marine engineering, traction and locomotive and winding, &c., as follows: Chief engineers' certificates, three; second-class marine engineers' certificates, two; third-class marine engineers' certificates, nine; locomotive and traction certificates, two; river engineer and drivers' certificates, six.

The above returns, compared with those of the previous year (1897), show that applied mechanics, steam and steam-engine, and the various branches of marine engineering have received far more attention, especially as referred to the examinations of the New Zealand Board of Trade.

The pupils of the Wellesley Street classes contributed a set of fourteen finished drawings to the Auckland Industrial and Mining Exhibition, which are exhibited in home-industries section.

I have, &c.,

WALTER I. ROBINSON,
Technical Instructor.

The Hon. the Minister of Education.

REMUERA SCHOOL TECHNICAL CLASSES.

DURING the year 1898 about twelve pupils attended these classes. The work done by them was satisfactory, and in the case of two or three of the pupils very creditable. The work consisted principally of mortising, tenoning, scarfing, and making model roofs and gates, and of trestle- and bridge-work. Three of the pupils sent to the Industrial Exhibition the frame-work of a cottage of four rooms, with verandah, and the work was highly commended by the judges.

13th March, 1899. GEORGE HERON, Instructor.

STATEMENT of the INCOME and EXPENDITURE for the Year 1898.

Income.	£ s. d.	*Expenditure.*	£ s. d.
Capitation grant	5 19 7	Instructor's salary to 17th May, 1898 ..	6 0 0
Fees from pupils	2 14 0	Balance	2 13 7
	£8 13 7		£8 13 7

16th March, 1899. WM. J. DINNISON, Secretary.

WANGANUI TECHNICAL SCHOOL.

SIR,— Technical School, Wanganui, 6th April, 1899.

I have the honour to submit the following report of the work carried on at this school during the past year:—

The classes have increased largely since my last annual report. The average enrolment for the three terms of 1897 was 64·3, while that for the four quarters of the year just ended was 264·25, being an increase of 200 students. In order to increase the revenue of the school, I suggested that the annual session should be divided into four quarters instead of three terms. This was adopted by the Board, and, as I anticipated, the attendance has been more than maintained.

Average enrolment for 1898: Day classes for drawing and painting, 11; evening classes for drawing and painting, 26; building construction, 6; machine construction, 4; teachers' Saturday class, 22·5; botany, 3; wood-carving, 19; clay-modelling, 2; bench woodwork, 15·5; needlework, 5; dressmaking, 6; experimental science, 19·75; Latin and English, 30·3; mathematics, 20·75; history, 6; shorthand, 5; cooking, 57; lettering, 5: total, 264·25.

South Kensington Examinations.—The results of these examinations are considerably higher than those of last year, which were 69·64. The results just to hand show 84·27, as follows: Elementary freehand—28 passed, 6 failed; advanced freehand—11 passed, 2 failed; elementary model—11 passed, 0 failed; advanced model—2 passed, 1 failed; elementary light and shade—9 passed, 3 failed; advanced light and shade—6 passed, 0 failed; perspective—1 passed, 0 failed; principles of ornament—1 passed, 0 failed; painting in monochrome—2 passed, 1 failed; painting from still life—4 passed, 1 failed. In addition to the above art subjects four science papers were sent in, all of which passed. It is to be regretted that these results do not reach us till so long after the examinations are held. Nine months having elapsed, it leaves little time for preparation for next examination.

Literature, Mathematics, and Experimental Science.—Of the new work undertaken during the past year these subjects show the largest attendance. Mr. Cresswell, M.A. with honours, was appointed instructor by the Board. These classes aim at preparing students for Teachers' D and E certificates, Civil Service, Matriculation, &c. The English and Latin work is divided into elementary, intermediate, and advanced, the average enrolments for the year being 13, 9·5, and 8·25 for the three classes. Mathematics—elementary and advanced classes show averages of 17·75 and 3 respectively. The experimental science lecture is delivered on Friday evening as well as Saturday afternoon, the respective attendances being 9·75 and 10. A course of lectures on history were attended by six students. The total average enrolment for the four quarters was 77·25. A few pupils were also taken by correspondence. Students in this district are much handicapped through inability to attend a University College. It is hoped that these classes, therefore, will be found a valuable assistance, particularly to those desirous of taking a University course. This work is being extended during the present year. More time will be devoted to advanced mathematics, and a new class is to be started in history and political economy. The correspondence work is also now a special feature: regular notes are issued of all University lectures, and it is hoped that they will be helpful to students who by reason of distance are prevented from attending at the school.

Needlework and Dressmaking.—It was found advisable to discontinue these classes during the last quarter of the year, as the hours at which the instructress could attend were unsuitable. Dressmaking has, however, been resumed this quarter by Miss Murphy, who holds a South Kensington diploma for this subject. Two classes are held—one for junior students (two afternoons), with an attendance of twenty, and an evening class for senior students attended by four.

Cooking.—This very important subject was commenced during the last quarter of the year. A junior class for demonstration only was attended by forty-six students, while eleven students attended the senior class for practical work. For this work the Board obtained the services of Miss Murphy, who holds a South Kensington diploma for this subject. As there is no room in this school suitable for cookery, these classes were held in one of the rooms of the girls' school. This arrangement cannot be considered satisfactory, and till the Board can provide a special room with the necessary appliances this work will not meet with that success its importance demands.

Wood-carving and Bench-work.—These classes are now fairly established, the students turning out some excellent work. The attendance of nineteen for carving and 15·5 for bench-work during the four quarters of the year must, when compared with similar classes in the large centres, be considered satisfactory. In fact, taking the numbers that received instruction in the eighteen subjects above referred to as compared with the total attendance at the technical schools elsewhere in New Zealand, the progress made during the year shows that the school is appreciated by the public.

Palmerston Branch.—At the request of the Board I inspected Mr. Watkin's work as instructor of these classes, and found a marked improvement in the methods employed. The difficulty as regards accommodation continues to exist, but this I expect in the near future will be removed by the erection of a special building.

Hawera Branch.—Branch classes for drawing and painting have been commenced this term at Hawera. Mr. Babbage, assistant in this school, arrives there every Friday and returns on Tuesday to Wanganui. A good start has been made, nineteen teachers and eight general students having joined.

I have, &c.,

The Chairman, Wanganui Education Board. DAVID BLAIR, Director.

WELLINGTON TECHNICAL SCHOOL.

SIR,— Wellington, 10th April, 1899.

I have the honour to submit my report upon primary drawing and manual and technical instruction under my direction:—

Primary Work.

During the earlier part of the year, my absence on leave prevented my paying the usual visits to the primary schools. I took advantage of my visit to England to make myself acquainted with the methods of work in the schools there, and return impressed with the necessity of important changes in some of our methods of instruction. Changes naturally take time, but I hope to see a gradual introduction of hand- and eye-training in the lower standards.

In drawing, more advanced instruction is given to the standard scholars in plane and solid geometry, light and shade from the cast, and in clay modelling, whilst in many schools brushwork forms an important lesson in conjunction with drawing. Shoulder-work—that is, drawing at arm's-length—is a marked feature in drawing exercises, and one I strongly urge teachers to adopt. Hand and eye exercises, in paper-folding, brick-laying, wire-work, cardboard-work, &c., are also

freely introduced into standard work in English schools, in many places compulsorily so, and the benefits derived from this instruction lead me to again urge its adoption in our own schools.

It is undoubted that changes in the syllabus are requisite to enable this instruction to be given, and I earnestly hope that such changes may be made. In no case is the instruction of such a nature as to require much effort upon the part of the teacher in attaining the necessary proficiency. There is no desire upon my part to increase the burden of teachers with regard to the number of subjects taught, as I have already stated a change in the syllabus is necessary if time is to be devoted to hand- and eye-training exercises. Nor do I suggest that all the exercises named should be introduced; freedom of choice and the gradual introduction of this work is all that I ask.

The text-books mostly in use were Ricks or Bevis, both containing excellent examples and full instruction in relation to the various subjects. Fuller details regarding drawing, hand and eye and manual instruction in wood and iron, will be found in my report issued by the Education Department.

First Grade Drawing Examination.—In this examination the following were the results: Freehand—1,957 papers worked, 1,126 passed; geometry—2,088 papers worked, 1,673 passed; scale—1,463 papers worked, 972 passed; model—894 papers worked, 548 passed: total—6,402 papers worked, 4,319 passed. Number of papers "excellent," 813; number of papers "good," 776; individual candidates, 4,503; individual passes, 3,474; schools presenting candidates, 133. The total number of papers worked shows a slight increase upon that of last year in regard to the number of papers taken. A higher percentage of passes has also been obtained. The total number of certificates issued in connection with this examination since its inauguration in 1884 is 31,050.

The number of papers applied for outside the Wellington district was 912, of which number 632 passed. This is an increase of 120 papers upon last year; the number of schools represented is thirty-five, an increase of two upon last year. The following are the schools represented: Marlborough District—Blenheim Boys', Blenheim Girls', Spring Creek and Deep Creek. Westland District—Arahura Road, Hokitika District High School, Jackson, Kumara. Greymouth District—Greymouth District High School, Hatters, Taylorville, Stillwater, Granville, Greenstone, Dobson. Nelson District—Appleby. Schools not under Education Boards—Convent of Mercy, Lyttelton; St. Mary's, Nelson; St. Mary's Convent, Christchurch; St. Joseph's, Lower Hutt; St. Columbkill's, Hokitika; St. Patrick's College, Wellington; St. Mary's, Boulcott Street, and St. Joseph's Orphanage, Wellington; St. Patrick's, Masterton; St. Joseph's, Kanieri; St. Patrick's, Ross; St. Patrick's, Kumara; Convent, Greymouth; Wanganui Collegiate School, Auckland Technical School, Napier High School, Miss Haase (Lower Hutt), Miss Freeman (Wellington).

Manual Instruction.—Little can be done in the direction of manual instruction in wood until the conditions are so altered as to permit of classes being held in ordinary school hours. This is the condition under which success has been obtained in England, where the work has developed enormously, and with very beneficial results to all concerned. Scholars and teachers alike derive benefits from this system of instruction, the great object being to inspire a love of work, and the importance of order, accuracy, and application as well as dexterity in the use of the hands. These are important points and of use to every person, in no matter what grade of life. Manual training must be a training which places intellectual and moral results before mechanical skill. While the eye is being trained to accuracy, and the hand to dexterity and manipulative skill, the mind is being trained to observation, attention, comparison, reflection, and judgment. In manual instruction, it is impossible to predict the immense advantages to be gained by the colony, and the methods of instruction I have recently seen have impressed me with its importance from an educational standpoint. I sincerely hope that strong efforts will be made to obtain a re-adjustment of the primary syllabus, in order that the more modern methods of instruction may at least have a fair trial in this country.

A few teachers have attended for instruction on Saturday morning at the Wellington centre. The Mauriceville class for scholars has been continued, under Mr. Joplin, with satisfactory results, and at Paraparaumu under Mr. Smith. The class-room at Cross Creek was unfortunately completely destroyed by flood, and has not since been re-established.

Domestic Economy.—Cookery classes for the primary scholars were established in connection with the city schools during May, under the instruction of Miss Ivey, late of the London School of Cookery, and in the Pahiatua centre in October under Miss Millington, late of the Liverpool School of Cookery. The main difficulties of establishing a new subject under special circumstances having been overcome, good results are likely to ensue, the course of work being a systematic one of twenty lessons. In the Wellington centre the numbers upon the roll were as follows: Second quarter, 374; third quarter, 310; fourth quarter, 304. Teachers' class in the fourth quarter, 19. In the Pahiatua centre the numbers instructed in the fourth quarter was 112. Boys desirous of attending the lessons were admitted to the class, and were found to take a keen interest in the study, and to do excellent work. To many boys in the bush settlements the training will be of considerable value. The time of the instructor in the country districts will be equally divided between the Wairarapa and the Forty-mile Bush Schools.

As in the case of manual instruction, a change in the general syllabus is necessary to enable the work to be accomplished without undue pressure upon the teachers of the primary schools. Domestic instruction in England is worked upon similar lines to manual instruction, both subjects being taught at specially organized centres, to which the scholars are sent during ordinary school hours; thus each centre is kept fully occupied. In no case have I found upon the part of English teachers dissatisfaction at the arrangements for this instruction. Perfect freedom of classification and a wider range of optional subjects have undoubtedly enabled this work to be done. Would it not, therefore, be possible to have similar conditions in this colony?

Scholarships (Primary).—The work of the sixty-two scholars holding scholarships has been satisfactory, the course including model, freehand, and elementary light and shade, and manual instruction in woodwork for boys, and clay-modelling for girls. In the latter subject some very excellent examples in ordinary modelling from the cast were produced. The amount of time available for freehand and elementary light and shade was, owing to the wood- and clay-work, considerably curtailed. The scholarships are enabling very useful work to be done, and act as a connecting-link between the primary and technical school. That they are appreciated is evident from the fact that again over 165 competed for the fifty first-year vacancies. The competition produced work equal to second-grade by a considerable number of scholars, and in such cases certificates were awarded.

Instruction to Teachers and Pupil-teachers has been continued as usual, and I am glad to report that considerable interest is manifest in most branches of work. In the geometrical and perspective classes the work of the junior pupil-teachers was unsatisfactory. Appreciation is shown of the advantage offered to teachers of attending the classes after they have completed their full second-grade certificate. The efficiency of such teachers will thereby be increased, and should benefit the schools largely. The correspondence class work has improved. The work has been defined in the various sections for each month, with beneficial results. The revision takes place the last Friday in each month, and the work is returned, with remarks and corrections, together with the requirements for the next month's work.

In connection with the singing-classes conducted by Mr. Parker, twenty-five teachers presented themselves for examination, and eighteen obtained certificates, eleven of whom passed with distinction. The Examiner, Mr. A. J. Merton, of Christ's College, Christchurch, reported very satisfactorily of the work done, particularly in practice.

The following classes are held on Saturday, and are free to all teachers in the Board's service: Drawing in all branches, cardboard work, brushwork, manual instruction in wood and clay, singing, and cookery. For the teachers' class in wood-carving a fee of 10s. a quarter is charged.

Technical School.

Day classes were held in design, drawing and painting (whole-day and half-day), geometry and perspective, drawing and manual instruction (separate classes for primary-school scholars, secondary-school scholars, teachers, and pupil-teachers), wood-carving, advanced geometry, clay-modelling, singing (Saturday and Wednesday), cookery. Evening classes were held in architectural and building construction, mechanical drawing, drawing, drawing from life, practical plumbing, theory of plumbing, wood-carving and modelling, mathematics, joinery and carpentry, shorthand, design, geometry, perspective.

The number of students was: First quarter, 777; second quarter, 817; third quarter, 794; fourth quarter, 734.

The following occupations are represented amongst the students of the evening classes: Saleswoman, 1; office boy, 1; blacksmiths, 2; law students, 3; cutter, 1; mechanic, 1; watchmaker, 1; draper, 1; engineers, 51; milliner, 1; carver, 1; coachbuilder, 1; optician, 1; stereotypist, 1; joiners, 4; carpenters, 23; plumbers, 36; clerks, 22; dairyman, 1; signwriter, 1; electrician, 1; architects, 2; architects' assistants, 2; teachers, 20; warehousemen, 2; jappaners, 2; bricklayers, 3; scholars, 8; Civil servants, 2; masons, 3; printer, 1; tailors, 2; cadet surveyor, 1; coaldealer, 1; brickmaker, 1; dressmakers, 2; wood-carvers, 3; surveyors, 2; fitters, 3; grocer, 1; telegraph messenger, 1; draughtsman, 1.

Drawing, Painting, and Elementary Modelling.—Mr. H. S. Wardell examined these sections and expressed satisfaction with the results obtained and the progress of the school during the past year. The day classes in design have received every encouragement and done good work, and I am hopeful that the evening classes will be equally successful. The want of good illustrations is a serious drawback, but this I hope to overcome by selections of designs from various illustrated art papers, and from purchased examples. I trust my recommendations to the Government upon this subject, contained in my report, will be favourably considered, for by this means the value of art instruction will be more than doubled. Memory drawing, monthly competitions, and occasional set subjects have been continued as hitherto. There is, as is always the case, a difficulty in persuading students to practice memory-drawing away from the school. The mere making of an accurate copy of a cast, model, or object is in itself of little importance. The questions of reflected light, shade, shadow, direction of light, and, most important of all, the actual forms requiring to be expressed, should receive very careful consideration. A student should be able to model from memory a cast or model after once drawing the same; this alone is the real test of knowledge. If a mere copy is made, it is hardly worth the paper it is drawn upon, from a knowledge point of view. Clay-modelling has been continued more as a part of the general instruction.

There is still considerable objection on the part of many evening students to take up the subjects of practical geometry and model-drawing as a groundwork upon which to base their future study, applicable to trade purposes. All constructive trades require this knowledge. It means a great saving of time, money, and labour to those who have that grounding. It has now been made compulsory that all trade students under eighteen years of age who have not gone through such a course, or its equivalent, shall be required to do so, for without it a considerable waste of the instructors' time takes place, and it is of the highest importance to the student himself.

Machine-construction and Drawing.—This class has increased in number. The work was examined by Mr. Fulton, C.E., theoretically and practically, who reports the results as exceedingly satisfactory. As a knowledge of mechanical drawing is essential in up-to-date machine-shop practice, the value of the work that is being done in the class cannot be overestimated. An excellent set of machine models have been provided for class use, considerably reducing the difficulty hitherto experienced in explaining different parts, movements, principles and construction.

Architectural Drawing and Building-construction.—This class has made considerable progress. The passes in the local, South Kensington, and Technological examinations for trade purposes have been much above the average. New examples and diagrams have been added during the year, and proved valuable aids to the class instructor. The attendances have been so good as to make more accommodation necessary. The examiner, Mr. Crichton, speaks highly of the work done.

Carpentry and Joinery.—This class has been well attended throughout, and the examiner, Mr. Graham, reports very satisfactorily of the year's work. He, however, condemns the conditions under which the instructor of this class is compelled to work, and expresses surprise that such good results have been obtained. It is absolutely necessary that better provision be made for the accommodation of students, and this, I hope, will be satisfactorily done when possession is obtained of our new premises.

Plumbing, Theory and Practice.—The attendances in both sections have continued to increase. In the theoretical class less time was taken up in purely sanitary work, as the improved methods of drainage are now more general in Wellington. The work undertaken has been of a more advanced character, such work as is not obtainable in the shop or by text-books. A number of students joined the class apparently with the object of scraping through the theoretical examination with the least amount of knowledge or trouble to themselves; these met with deserved defeat. Several of the students worked excellent papers. In the practical work, steady progress has been made by a large number of young plumbers. It is pleasing to note students returning to the classes for the purpose of continuing their study after the necessary trade-examinations have been passed. The effect of these classes upon the general well-being of the community cannot be overestimated.

Mathematics.—This class has also increased in number, and, in order to meet the requirements of the students, two evenings have been devoted instead of one as formerly, the class being arranged in sections in accordance with the nature of their studies in geometry, algebra, Euclid, or trigonometry.

Wood Carving and Modelling.—The accommodation provided for these classes is anything but satisfactory, and has seriously affected the attendances. Provision will be made for these sections in the new wing of the school. Good work has been done by those in attendance in both the classical and Gothic styles and in natural ornament. In modelling also several specimens of advanced work were highly creditable productions. The examiner states that the work shows considerable advance upon last year.

Shorthand.—The class in this subject has increased more than threefold. A number of students have been successful in obtaining Sir Isaac Pitman's certificates, and others are presenting themselves for speed certificates. The general progress is undoubtedly satisfactory.

Plane and Solid Geometry and Perspective.—A fair number of students have attended regularly in these subjects. Want of effort is apparently one of the troubles connected with this section of work, and want of appreciation of the value of these subjects is another. Arrangements have now been made whereby geometrical and model drawing may be taken by trade students upon the same evening, and as it is a compulsory subject for certain trade students under the age of eighteen, I am hopeful of better results. It is useless trade students attempting to shirk this work; it is an absolute necessity to success, and a great saving of valuable time in after-study.

Design.—This study has progressed steadily and surely in the right direction, and is appreciated by the students. The difficulties of attending the evening class will, I hope, be gradually surmounted by those to whom this work is of importance. Brush-work and development of plant-form, as well as historic and geometric construction, have formed the basis of the year's work. Several prize competitions have been secured by students during the past year.

New Classes.—It has been decided to establish classes in iron- and brass-moulding and in brickwork and masonry at the commencement of the second quarter of 1899 in the new wing of the Technical School.

Wellington College Classes.—Drawing and manual instruction have been continued as formerly. These subjects are, however, classed under the unfortunate term of "extras," and are found inconvenient studies to associate with the ordinary curriculum; thus few in comparison take advantage of them; although fairly satisfactory work is done under great disadvantages, no real solid work is obtained. Drawing, in particular, requires to be taught as an ordinary school subject, and in ordinary school hours, and to every boy in the school, and until this is so no real satisfaction can be expected. English secondary schools make special and thorough provision for this subject, and it is one of the main subjects of instruction, as in the primary schools. Under present conditions the great majority of boys leaving the primary school cease the study at a time when its continuance is of importance, for fully two-thirds will find a necessity for it in their future occupations. I sincerely trust arrangements may be made for instruction in drawing throughout the Wellington College and the Girls' High School.

Examinations.—Local.

Examinations held in connection with the majority of our classes are of a practical nature, therefore "cram" is an impossibility. I am anxious, as far as possible, to reduce the examination evil, and have therefore advised students not to present themselves unless they require certificates as teachers or for trade purposes. As far as results go and percentages, I in no wise recognise these as the criterion of the school's position, for the value of the school's work is as much if not more in the groundwork as in anything else. Owing to modern requirements, trades-workers are required to possess certain qualifications which can only be obtained by some sort of examination, and there can be no doubt of the incentive to advance which this method gives, but where the examination is of the text-book order the results may be altogether useless for practical purposes. I shall endeavour to make all examinations under the heading of "Technical Instruction" as thoroughly practical as possible.

There is an impression abroad that it is of no use attending the Technical School unless students are prepared to submit themselves for examination. This statement is injurious to the school. It is entirely at the students' option whether they present themselves or not. The first grade is for primary schools only. The second and higher grade examinations, and those of South Kensington and the City and Guilds of London Institute, are held solely on behalf of teachers and trade students, who require to hold certificates. It is a great advantage to be enabled to hold examinations under the two latter bodies, for their certificates are recognised and accepted by any body or society throughout the world.

The number of papers examined during the year was 7,748. The number of certificates issued was 4,964. The number of certificates issued in all grades since the school was established in 1886 is 38,065, subdivided as follows: Primary or first grade, 31,050; intermediate or second grade, 3,670; higher or third grade, 1,320; South Kensington, 1,923; and City and Guilds of London, 102.

The second grade (local) examinations resulted as follows: Freehand (203 candidates), 124 passed; geometry (78 candidates), 23 passed; perspective (47 candidates), 20 passed; model (159 candidates), 120 passed; memory, blackboard (49 candidates), 26 passed (13 excellent, 17 good). Outside districts, 189 papers: 100 passes. Number of individual candidates examined, 348; passed, 231.

Examinations.—Science and Art Department, South Kensington.

In connection with the National Competition, Florence Broome obtained a National bronze medal for still life and two National book prizes for design. These were the highest colonial awards.

Art Class Teachers' Certificates.—The following have this year completed this certificate: Elsie Napier-Bell, Mary E. Young.

Elementary Drawing Certificate, First Class.—Mary Sladden has obtained the full certificate.

Second Grade Art (Freehand, Model, Perspective, Light and Shade, Geometry).—Number of papers taken, 157; passed, 137.

Third Grade Art (Outline from Cast, Light and Shade from Cast, Drawing from Models, Design, Still Life, Antique, Principles of Ornament, Drawing from Life).—Number of papers submitted, 59; passed, 47.

Science (Plane and solid geometry, machine construction, building construction, steam, human physiology).—Number of papers submitted, 26; passed, 19.

Examinations.—City and Guilds of London Institute.

The examinations under this department have been conducted as usual. The number of papers examined was 37; passed, 18. The subjects taken were plumbing (theory, practice and preliminary), mechanical engineering (ordinary), telegraphy and telephony, electric lighting (preliminary, ordinary, and honours), carpentry and joinery (ordinary and honours).

Free Studentships.

In accordance with the arrangement entered into with the Wellington Industrial Association, free studentships were given in plumbing, machine construction, building construction, carpentry, and art. They are tenable for a period of two years, subject to the usual conditions of regular attendance and satisfactory progress. The following six free studentships offered by the Board of Education were also awarded after competition: Wood carving, art (evening), art (day), art (afternoon), machine construction, building construction. The studentships were keenly contested, and I anticipate very beneficial results from all sections of the work. Every possible advantage will be afforded to free students in all sections of study applicable to their particular work.

Prize List.

Prizes were given in the various classes as follows: Day classes, for the best progress (Dr. Martin); evening drawing class, for the best progress (Technical School); students in connection with the building trade, for the best general progress, advanced and elementary sections; mechanical students, for the best progress in first year's work; also, in the advanced section (Technical School); for the best set of subject sketches (Messrs. Windsor and Newton); the best set of still-life studies (Messrs. Windsor and Newton); the best set of designs, advanced (A. de B. Brandon, Esq.); the best set of designs, elementary (Messrs. McGregor Wright and Co.); the best set of memory-drawings (Technical School); teachers' classes, for the best progress (Messrs. Whitcombe and Tombs, Limited); primary scholarship holders, for the best progress, two (Technical School); wood carving, evening classes, best progress (Technical School); boys' manual instruction classes, best progress (Technical School); shorthand, best progress (Technical School); best series plant-form studies (Technical School); competition work, two (Student's prize); mathematical class, best progress (Technical School); carpentry class, best progress (Technical School).

Library.

The library now consists of 534 volumes upon technical, science, and art subjects. Over 114 volumes have been circulated amongst the students in connection with their special requirements and trades.

Additions to the Technical School.

During the latter portion of 1897, I made a suggestion to the Wellington Industrial Association, that the surplus of the Exhibition to the extent of £1,500 should be devoted towards an

extension of the Wellington Technical School and an Industrial Museum combined. This suggestion, after considerable delay, was adopted by the joint committees of the Industrial Association and the Education Board, with the result that a new extension containing six class-rooms, library, exhibition hall, and room for the Board's clerk of works will shortly be available. This much-needed accommodation will be utilised by classes now working under great disadvantages and by two new sections.

General.

Prize Designs.—The Post Office authorities offered a prize of £2 for a Christmas card. The prize was awarded to Florence Broome.

In June the Petone Woollen Company offered a prize of £1 1s. for a design for a show-card. The prize was awarded to M. Igglesden.

Finance.—The total cost for the year is £2,488 7s. 3d. The total receipts amount to £1,541 7s. Against the difference, £947 0s. 3d., the following items are chargeable: Instruction to 106 teachers at 15s. per quarter, £318; instruction to 62 scholarship-holders at 10s. per quarter, £124; instruction to 20 teachers in evening classes at 7s. 6d. per quarter, £30; cost of primary examinations, £115; inspection of schools and correspondence class work, £60; cost of cookery-classes for the year, £280; vote of City Council (due), £60; capitation due for fourth quarter, £88 1s. 2d.: total, £1,075 1s. 2d.

The sum of £789 10s. 5d. was expended upon buildings, leaving a credit balance on the building account of £2,217 9s. 7d.

My thanks are due to all those whom I have named, and who have so generously contributed to the successful year's working, either by loans or contributions of prizes, books, periodicals, and appliances; to Messrs. J. Fulton, C.E., A. Graham, W. Crichton, and H. S. Wardell, who acted as honorary examiners; to the supervisors and to my staff, of whom, for their energy and very sincere interest in the welfare of the school, particularly during my absence in England, I cannot speak too highly.

I have, &c.,

The Chairman, Education Board. ARTHUR D. RILEY.

MANUAL-INSTRUCTION CLASS, MAURICEVILLE WEST SCHOOL.

DEAR SIR,— The School, Mauriceville West, 19th December, 1898.

I have the honour to submit the following report on the manual-instruction class held in connection with this school for year ending 1898:—

At the beginning of the year there were sixteen pupils on the roll; at the end, ten, three of whom are in Standard III. The falling-off is not due to lack of interest in the work by the boys, but to their parents refusing their permission to attend the class. The boys are required to work on their return from school, and, as their parents are not able to pay for labour, their boys must naturally assist to bring "grist to the mill."

In reference to holding the class during school-hours, I am afraid I shall be unable to do so: (*a*) My pupil-teacher is too young to be left in charge of the school whilst I am instructing the boys; (*b*) she could not manage, say, sixty pupils during my absence; (*c*) the School Committee might object to the pupils being left in the care of such an inexperienced teacher; (*d*) inadequate teaching staff.

I am convinced that manual instruction is conducive to the education of our boys, and, if it could be introduced into our schools during school-hours, in a very short time the State would appreciate its benefits. I know there are difficulties in the way, but they are more apparent than real.

I think I am the only primary teacher in this district that has given manual instruction a fair trial, and, during the two years and a quarter I have been in charge of this special work, must say that it has greatly benefited the boys who have attended regularly. I have endeavoured to manage the school on the lines I saw in England and on the Continent. My kindergarten work in the lower division of the school, including, as it does, paper cutting and folding and tinting, is preparatory to manual instruction in the upper classes. To reach the mental faculties the hand and eye must be trained to work harmoniously together; that has been my aim, but I find that "a prophet is not without honour, except in his own country."

Capitation to the amount of £5 10s. 9d. was received, and £4 7s. 4d. is due. The School Committee hand the capitation to me as payment for my services as instructor, with the understanding that I find necessary tools and timber for the use of the class. The amount received has been expended. The following is a list of the tools, and the sources from which I obtained them:—Purchased through first capitation and public subscription: One half-rip saw, eight chisels, one tenon-saw, one draw-knife, two mallets, two screwdrivers, one spokeshave, two set squares, one pair wing-compasses, one 2 ft. rule, one claw-hammer, one bevel-square, one dozen lead-pencils, four bits, one oilstone, one punch, one wood-rimer, two German bits, one jack-plane, one smoothing-plane, three gauges, one screwdriver bit. From Education Board: Three squares, six gauges, eight chisels, fourteen bench-stops, four new mallets. In addition to the above, I lend the pupils my private tools, including brace, bits, saws, planes, grindstone, iron-block plane, iron bench-screws, &c.

Yours, &c.,

Mr. A. D. Riley, Director, Technical School, Wellington. CHAS. R. JOPLIN.

MANUAL-TRAINING CLASS, PARAPARAUMU SCHOOL.

SIR,— Paraparaumu, 19th December, 1898.

I have the honour to report on the Paraparaumu School Carpentry Class for the year 1898.

First quarter: Number on roll, 10; average age, eleven; average attendance, 7. Second quarter: Class held thirteen times; number on roll, 11; average age, eleven; average attendance, 6. Third quarter: Class held eight times, as two school holidays occurred in the term, also the drawing examination; number on roll, 8; average attendance, 7; average age, ten. In the last quarter the class was held five times.

The boys are taught to draw the exercises, and make the objects with the tools. The boys who attend are young, and not strong enough to use the tools properly.

The capitation grant was £2 6s., and the expenditure *nil*.

I have, &c.,

A. D. Riley, Esq., Education Board, Wellington. J. A. Smith, Teacher.

MASTERTON TECHNICAL SCHOOL.

The Committee of the Masterton Technical School have pleasure in submitting the following report on the working of the technical classes for the past year:—

They desire to thank the trust for its grant of £100 towards the maintenance of the classes for the year. The Committee has pleasure in reporting that it is able to refund the trust the sum of £15, being the saving effected on the working of the classes during the year.

The Committee also desire to specially thank the trust for its generous offer of a site for a new technical school. In connection with this offer, a deputation waited on the Premier on the occasion of his visit to Masterton on the 3rd May last, and requested him to support the Committee's application for a grant for a building. The Premier promised to give the matter his heartiest support. On the day following a deputation waited on the Minister of Education and urged him to support the Committee's application. After viewing the site offered, and inspecting the Drill Hall, the unsuitability of which for a technical school was pointed out to him, he promised to give the application his warmest support.

At a later date a deputation consisting of members of the Technical School Committee waited on the Minister in Wellington, and he assured the deputation that a sum would be voted out of the first money available. The Committee has subsequently pressed the matter several times, but without satisfactory result. The Committee is thoroughly disappointed, especially so when other technical schools have met with different treatment.

During the year three sessions were held, and classes were established in the following subjects: Cookery, dressmaking, drawing required in trades, agricultural chemistry, shorthand, bookkeeping, general knowledge.

The Cookery Classes.—These classes were an unqualified success. Six classes were formed, with a total of 189 pupils. Two classes met in afternoons, three in evenings, and one—a children's class—on Saturday mornings. Plain cookery was taught in five of the classes, and advanced cookery in the remaining one. Keen interest was manifested by the pupils in their lessons, and a good attendance was maintained. A cookery exhibition was held in connection with the classes on the 20th May. The exhibits were highly creditable, particularly the ones prepared and cooked by the members of the children's class. In connection with the latter class, a written examination was held. The questions were made to cover the work done during the session. Prizes, which were given by members of the Technical School Committee, were awarded to the scholars who stood highest in each division of the class. The thanks of the Committee are due to the Borough Council for its grant of a gas-stove for the use of these classes.

The Dressmaking Classes.—Six classes were formed, the total number of pupils being sixty-two. The pupils showed great interest in the lessons, and attended with the greatest regularity, the average attendance being sixty out of a total of sixty-two. As all the classes were practical classes, the number of pupils in a class was limited, in order to ensure that every pupil obtained a satisfactory amount of individual attention from the teacher. Of the six classes, four took the first course and two the advanced course.

The Drawing Classes.—Instruction was given in the following branches: Model, scale, free-hand, perspective, and mechanical. The average number of pupils on the roll was twenty-seven. This class is taught under great disadvantage. The room is altogether too small, the lighting is far from satisfactory, and the available appliances are too limited. The Committee hope to remedy this latter defect during the coming year. A fairly large number of the pupils presented themselves for the second grade art examinations.

The Agricultural Chemistry Class.—This class has again done an excellent year's work. It is a small class, but its members are earnest students. The average number on the roll was twelve. Five of the students presented themselves for the examination held in the subject by the Science and Art Department of South Kensington, London. All of the candidates passed in the elementary stage, four of them obtaining first-class certificates and the fifth a second-class certificate. The Committee is very pleased with these results. In no other technical school in the colony—except in Lincoln College—is this subject taught, and the above passes are believed to be the first obtained in the colony. It is the intention of the Committee to place this class on a good footing by providing an additional supply of apparatus, so that students may not only see the experiments performed, but also have the opportunity of doing practical work themselves. The Committee congratulate the teacher and class on the year's work.

The Shorthand Class.—This class has proved a very popular one. The average roll was twenty-one. The attendance has been highly satisfactory. It is to be regretted that the Education Department has decided to make no grants for this subject in the future. The grant for the class has amounted to over £10 a year. A number of the pupils have made excellent progress, one having attained a speed of 140 words a minute after two quarters' tuition.

The Book-keeping Class.—This class had an average roll during the year of thirteen. The class has proved a very useful one, and the attendance has been well maintained. Considering

the great importance of this subject, especially to young men seeking to fit themselves for business pursuits, this should be one of our largest and most popular classes.

The General Knowledge Class.—This class was formed for the benefit of those desiring to improve their education. It included youths and men, all of whom were earnest in their work, and whose regularity of attendance showed their desire to take the fullest advantage of the opportunity afforded them. The class was not a technical class, and no grant was obtained in regard to it.

The Committee greatly regret they were unable to inaugurate wood-working classes last year. Many applications were made for enrolment of intending students. A request was therefore made to the trustees to allow wood-working classes in the technical school. This, owing to the effect on the insurances of the Town Hall and Drill Hall, the trustees were unable to comply with.

In concluding this report of a very successful year's work, the Committee desire to again thank the trust for its assistance, and they respectfully ask that a grant of £100 be made for the continuance of the classes during the current year.

J. P. Elliot, Secretary.
C. E. Daniell, Chairman.

BALANCE-SHEET.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Balance	0	16	8	By Salaries	234	8	7
Fees	79	10	0	Advertising	11	15	9
Capitation	108	5	8	Furniture	1	15	0
Town Lands Trust, grant	75	0	0	Books, stationery, &c.	1	19	0
				Rent Town Hall	1	0	0
				Cleaning	4	0	0
				Sundries	4	17	11
				Balance	4	1	1
	£263	12	4		£263	12	4

9th March, 1899. Edwin Feist, Treasurer.

KUMARA SCHOOL.—CLASS FOR MANUAL INSTRUCTION.

This class is composed of twenty-four pupils of the Kumara School, two teachers, and two students not connected with the school; total, twenty-eight. Of the school pupils attending only one is below eleven years of age, and, with the exception of five, all belong to standards above the fourth. During the past year good progress has been made. The more advanced pupils have completed the course of exercises in woodwork set by the Education Department, and have constructed such articles as wheelbarrows, steps, towel-rails, and cupboards. The attention bestowed on the class by the Instructor is very commendable, and the result encouraging, in spite of an insufficiency of tools, a defect that, it is hoped, is only temporary.

A. J. Morton, Inspector.

Education Office, Hokitika, 10th January, 1899.

RECEIPTS AND EXPENDITURE.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Balance	1	12	10	By Salary of instructor	31	8	6
Fees of pupils	8	14	6	Timber, &c.	1	18	0
Sale of goods	1	7	0	Exchange on cheques	0	1	6
Capitation grants	23	1	10	Balance	1	8	2
	£34	16	2		£34	16	2

MANUAL-TRAINING CLASSES, CHRISTCHURCH AND LEESTON.

All the manual training classes have completed the specified number of hours necessary to obtain the capitation-grant.

The boys' classes have been well attended, and the interest in the work well sustained. The average attendance is somewhat spoiled by boys leaving to go to work. I have had several applications for letters to state that the applicant has been at work in the shop; and I think that the public are beginning to understand the training given. The discipline has been good; the boys reflect great credit on their schools.

The teachers' classes have not been so well attended during the third term; but the work has been good. Seventeen teachers have passed the first year's examination for the London and City Guilds Teacher's certificate. Several teachers are working for the second year's examination, and about six are preparing for the first year.

The Leeston class is in a good condition, but is handicapped by want of room. The attendance is remarkably good. Considerable interest is shown by the residents in the class, and there is no doubt that it is having a good effect in the district.

Normal School, 27th December, 1898. F. W. Sandford, Instructor.

RECEIPTS AND EXPENDITURE.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Balance	13	0	8	By Instructor's salary	75	10	0
Fees	55	17	6	Tools	5	15	7
Capitation allowance, Normal School class	47	15	0	Materials	8	13	0
Capitation, Leeston class	10	1	3	Gas	5	3	1
Capitation, Amberley class	10	6	7	Stationery	0	19	4
				Payments to Leeston School	10	1	3
				Payments to Amberley School	10	6	7
				Balance	20	12	2
	£137	1	0		£137	1	0

CANTERBURY SCHOOL OF ART.

[Extract from Report of the Board of Governor of Canterbury College.]

Attendance.—As compared with 1897 the numbers have been as follows:—

1897: Morning—First term, 32; second term, 39; third term, 31. Evening—First term, 101; second term, 89; third term, 93. Saturday—First term, 97; second term, 88; third term, 93. Friday afternoon (wood-carving)—First and second terms, nil; third term, 6.

1898: Morning—First term, 34; second term, 35; third term, 33. Evening—First term, 98; second term, 103; third term, 102. Saturday—First term, 84; second term, 86; third term, 93. Friday afternoon (wood-carving)—First term, 3; second term, 8; third term, 6.

Work.—Life classes have been held as follows: Draped—Monday and Friday, 10 to 1 (morning); 7 to 9 (evening). Nude—Monday and Thursday, 2 to 5 and 10 to 1 (morning); Wednesday, 7 to 9 (evening). The students have drawn and painted from the bust and full figure in various mediums. The drawings from the full figure have again been particularly good, being executed in red and black chalk. A class for the lady students for the study of the full figure was established last year, and so far the attendance has justified it, though it is difficult to get satisfactory models.

Elementary Drawing and Painting.—Second-grade work, comprising freehand, model, geometry, and perspective, and in addition drawing and painting from the cast of ornament and antique and from still life have been taught in the morning, evening, and Saturday classes.

Landscape.—This class is restricted to morning students, who have gone out to study from nature once a week. No work from copies is allowed, the preparatory study being drawing from models and still-life work. The average attendance has been larger than in 1897.

Modelling, Casting, and Moulding.—Classes have been held as follows: Morning—Wednesday, 11.30 to 1: average attendance for last term, 12·77. Evening—Monday, 7 to 9: average attendance, 16. The students have modelled in clay from casts of ornament and antique; others a little more advanced have worked from flat copies, and have modelled foliage from nature, adapting it to decorative purposes. The few most advanced have modelled busts from the antique and from life, and one has done a full figure from life. Different kinds of moulding have been practised, such as chip, gelatine, piece, and paraffin, and a large number of casts in plaster have been taken.

Wood-carving.—Classes have been held on Friday afternoon from 3 to 5, and on Saturday morning from 9.30 to 11. The majority have been doing chip and incised carving, and a small number have now started work in relief. It is to be regretted that such a small number attend these classes, and the few who come do not pursue it far enough to produce good and original work, but seem to be satisfied when they have learnt a little of the use of the tool, and are then content to adapt and copy other people's designs. Until students can be induced to carry it further, and combine with it the study of drawing, modelling, and design, the class will not be entirely satisfactory.

Geometry and Perspective Classes have been held for elementary geometry (first and second grades) on Wednesday morning from 10 to 11.30, and on Wednesday and Friday evenings from 7 to 9 for elementary (second grade) and advanced. An elementary perspective class has been held on Monday from 10 to 11.30 a.m., and on Wednesday from 7 to 9 p.m. The students in these classes are mostly preparing for the South Kensington examinations. No advanced perspective was taken last year, as additional time was required for geometry.

Decorative Design and Architecture.—These subjects have been studied on Thursday and Friday evenings from 7 to 9. Lectures, illustrated by limelight views, on the history of architecture and decorative design have been given throughout the year each Thursday. A course of lectures has also been given dealing with design for different art industries, as pottery, wrought iron, metal work, fabrics, &c. It is a pity that more advantage is not taken of these lectures, as their merit deserves a far better attendance. The numbers for last term were—Decorative design, 21; architecture, 11.

Ornamental Lettering and Painting.—This class was started last year for decorators, coach-painters, and sign-writers, and has been held once a week for two hours. The number attending last term, all being young tradesmen, was nine. The instruction is intended to give freedom and power in drawing out and painting to a large scale ornamental forms and lettering for trade purposes, and also to give those in the decorative design class an opportunity to carry their designs out in a practical manner. The work includes sketching floral forms in outline with chalk, brush, or charcoal on boards and canvases, plain and ornamental lettering, setting out and executing in tempera and oil-colour geometrical and other ornament, and also decorative painting in grisaille. The class has decidedly met a want, and the work has been very encouraging.

Industrial Association Scholarships.—Arrangements were completed last year in connection with the scholarships offered by the Canterbury Industrial Association. Four are to be offered in one year and three the next (alternately). The value of each scholarship is £5 (or £2 10s. per annum, this sum being the yearly fee for three nights per week). Apprentices and young tradesmen not over twenty-one years of age are eligible to compete. The first competition under this scheme was held last March, when nineteen competed. P. Goodsall, T. W. Owen, H. Bradley, and B. A. Frostick won two-year scholarships, and H. H. Green, H. E. Green, and E. J. Dalziel and F. Morgan (equal) won one-year scholarships. As there were only three of these latter, the president of the association, Mr. J. A. Frostick, very kindly provided an extra one. The holders of these scholarships have done very satisfactory work, and by their diligence and regular attendance have shown their evident desire to take every advantage of the privilege provided by the association. Judging by the first year's work, the success of these scholarships is assured. In order that the successful competitors may have some tangible evidence of having won the scholarships, the association have decided to give a framed certificate to the winners, and to this end offered a prize of £3 for the best design for such certificate, to be competed for by students of the school. G. R. Hart gained the prize by a very pleasing and appropriate design, with Miss A. E. Abbott as *proxime accessit.*

Boys' High School.—This work has been similar in character to last year. Model-drawing has been taught to a junior division on Mondays from 3.20 to 4, and to a senior one on Thursdays for the same period.

Additions to Collection of Examples.—The following have been added: Casts of full figure, Dancing Faun. Busts—Heroic head, Laocoon, and Diomede. Bas-relief—St. Cecilia. Animal—Bull, by Rosa Bonheur. Wood-carving—Three panels, by Goujon. The following books have also been purchased: Manual of Wood-carving, W. Bemrose; Historic Ornament, J. Ward; Figure Drawing and Composition, R. G. Hatton; Painting in Water Colours, Hume Nisbet; Model Drawing, W. Mann; Principles of Ornament, J. Ward; Anatomy for Art Students, A. Thomson. The following have also been added by private presentation: Four fibrous plaster panels of ceiling ornament, by C. J. Mountfort, Esq., and a red-chalk drawing of a figure from life (H. Le Jeune, date 1746), by H. Fisher and Son.

Examinations (Local).—The annual local examinations were held last December, with results as follows:—First Grade: Geometry (20 candidates)—Pass excellent, 3; pass good, 7; pass, 4; fail, 6. Second Grade: Freehand (94 candidates)—Pass excellent, 35; pass good, 20; pass, 21; fail, 12. Unattached—Excellent, 3; good, 4. Model (91 candidates): Excellent, 34; good, 20; pass, 18; fail, 18. Unattached—Excellent, 1. Geometry (19 candidates): Excellent, 3; good, 2; pass, 3. Unattached—Excellent, 2; good, 2; fail, 7. Perspective (12 candidates): Excellent, 1; good, 1; pass, 2; fail, 7. Unattached—Good, 1. Memory drawing on the blackboard (12 candidates): Excellent, 2; good, 6; pass, 0; fail, 1. Unattached—Excellent, 1; good, 1; fail, 1. Full second-grade certificates, 8. Wood-carving: Theory and practice—Elementary stage, chip-carving—Excellent, 3; pass, 1. Modelling in clay (from ornament): Elementary stage (from the cast)—Excellent, 9; good, 5; pass, 4: number of candidates, 19; failure, 1. Advanced stage (from drawings or photographs)—Pass, good, 5; number of candidates, 5. Art-class teachers' certificate: Class-teaching—Good, 1.

South Kensington Science and Art Department.—The first examination under this department was held in 1897, when the percentages from the main centres resulted as follows: Christchurch, 76·7; Dunedin, 76; Auckland, 71; Wellington, 71; Wanganui, 69; Nelson, 68; Wellington (suburbs), 54. The results of the examinations held in July, 1898, are as follows: Elementary perspective—Pass, first class, 10; pass, second class, 1: 11 candidates, no failures. Elementary freehand drawing—Pass, first class, 11; pass, second class, 10: 26 candidates, 5 failures. Elementary model drawing—Pass, first class, 15; pass, second class, 4: 21 candidates, 2 failures. Elementary drawing in light and shade—Pass, first class, 5; pass, second class, 1: 6 candidates, no failures. Elementary principles of ornament—Pass, first class, 1: only 1 candidate. Elementary design—Pass, first class, 1; pass, second class, 4: 7 candidates, 2 failures. Advanced freehand drawing—Pass, first class, 8: 8 candidates, no failures. Advanced model drawing—Pass, first class, 3; pass, second class, 4: 8 candidates, 1 failure. Advanced drawing in light and shade—Pass, first class, 6; pass, second class, 1: 7 candidates, no failures. Painting from still life—Pass, first class, 4; pass, second class, 1: 6 candidates, 1 failure. Drawing from the antique—Pass, second class, 5: 5 candidates, no failures. Drawing from the life—Pass, second class, 1: 2 candidates, 1 failure. Practical plane and solid geometry—Pass, first class, 5: 5 candidates, no failures. Building construction—Pass, first class, 5; pass, second class, 1: 6 candidates, no failures. A series of works was sent to London last February for the art-class teachers' and the art masters' certificates. The following were accepted: Art-class teachers'—Light and shade from the cast, E. Thompson; light and shade from models, E. Thompson and A. H. Allen; geometry, E. Thompson. Art masters' certificate—Outline from foliage, C. Kidson; outline from the antique figure, C. Kidson.

State School Scholarships.—The annual competition for the free studentships offered by the Board to the head boy in drawing in each of ten district schools was held in February.

Free Studentships.—Six free studentships are offered annually on the work performed during the year.

Prizes were given for modelling in clay from ornament; drawing from life; landscape from nature; design in wrought iron, for basket, grate, fender and fire-irons. The thanks of the Board are due to Messrs. J. Gibb and C. J. Mountfort for their kindness in acting as judges and examiners.

Annual Exhibition.—The annual exhibition of students' works was held at the beginning of the year, and was largely attended. All classes of work were represented, and showed the thorough course of training given, and its application to industry.

SCHOOL OF ART ACCOUNT.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Students' fees	542	5	0	By Balance, 1st January, 1893	156	11	1
Grant from Museum, Library, and School of Technical Science Endowment Fund	600	0	0	Salaries	950	0	0
Grant from Boys' High School for instruction in drawing	50	0	0	Subsidies to life classes	50	10	0
Grant from Government under Manual and Technical Instruction Act ..	166	9	0	Insurance	10	0	8
Examination-fees	3	15	0	Gas	41	8	11
Examination-fees, South Kensington examination	12	3	0	Contribution towards expenses of Registrar's office	40	0	0
Sale of clay models	0	13	0	Repairs	12	1	6
Interest	0	17	5	Advertising	20	6	4
Balance	20	8	4	Printing, stationery, &c.	15	10	7
				Fuel	8	16	5
				Sundry expenses	42	8	0
				Lantern slides	6	0	0
				Casts	11	0	5
				Lantern, tank, &c.	13	8	0
				Expenses of South Kensington Examination	18	8	10
	£1,396	10	9		£1,396	10	9

CHRISTCHURCH SCHOOL OF DOMESTIC INSTRUCTION.

THE year now closing has been quietly prosperous. The work of the school has been continued on much the same lines as before, with similar success, and, as far as the means at the disposal of the Committee of Management permitted, its scope has been extended to embrace a wider utility. The chief developments have been in the direction of making special provision for the instruction of large classes of children from public elementary schools in the city or suburbs, and in the extension of our country connection by providing a visiting teacher for additional centres.

For the four calendar quarters into which, for the purpose of complying with the terms of "The Manual and Technical (Elementary) Instruction Act, 1895," the year is divided, the following are the number and character of the classes, and the total enrolment and average attendance :—

First quarter—Twelve classes (eight cooking, four dressmaking), 181 pupils enrolled ; average attendance, 153·3. Second quarter—Eleven classes (eight cooking, three dressmaking), 165 pupils enrolled ; average attendance, 139·5. Third quarter—Sixteen classes (thirteen cooking, two dressmaking, one laundrywork), 313 enrolled ; average attendance, 284·98. Fourth quarter—Thirteen classes), eleven cooking, two dressmaking), pupils enrolled, 281 ; average attendance, 249·8. Of the courses of lessons given (each consisting, it may be noted, of a set of ten weekly lessons) the greater proportion, as shown, has been in cooking, the number of persons desiring instruction in dressmaking and laundrywork being for various reasons very much smaller.

For the great increase of attendance in the third and fourth quarters the elementary school classes account. One such class has been in attendance throughout the year, and three others have been regularly taken during the last two quarters. Each class consists of a number of Sixth Standard or Fifth and Sixth Standard pupils, furnishing approximately an average of forty in each case. For these classes no fee is charged to individual members, but an arrangement is made with the District School Committee concerned for the payment of a small total sum annually to cover part of the expense.

Apart from these elementary school classes the attendance at the several courses of lessons given by our teachers has been satisfactorily maintained—pupils from private schools, those who have just passed through the elementary school course, domestic servants, shop-assistants, married ladies and young people without special occupation making up the number in fairly even proportions, and furnishing a fairly steady supply of aspirants to increased knowledge or skill in domestic duties.

A specially gratifying feature of the year is the substantial increase in the number of attendants seeking to qualify themselves for certificates of competence in cooking. The certificate examination has been conducted, as in former years, by Mrs. R. D. Harman. An examination for teaching-certificates has also been held, with the result that one young lady, Miss N. Wright, has the honour of receiving the first teaching-certificate given by the school. The tests in the latter case included not only practical work in cooking under a time restriction, but demonstration lessons before the examiner and a committee of ladies on the board of management.

As a further indication of the work done by the school, it may be noted that during the year an examination was held under the auspices of the City and Guilds of London Institute, the theoretical part in July, and the practical part, as required by the rules, at a later date. Of the thirteen candidates examined information has been received that twelve have satisfied the examiners in the former section ; for the result in the latter we have yet some time to wait.

As regards our country connection, an arrangement previously made with the residents of Ashburton for supplying a teacher was renewed early in the year, and later on a similar undertaking was agreed upon with the residents of Leeston and Amberley, where classes have been conducted by one of our teachers for the past two quarters. At Leeston and Amberley a good attendance has been secured, especially at Amberley, though to some extent at the expense of our own classes, and the interest taken locally in the enterprise in both places is very gratifying.

With our slender staff provision made for classes at a distance, depriving the school, as it does, of the services of a valuable assistant for three days weekly, has made a material addition to the work and responsibility of our principal teacher—an addition for which the Committee has sought to make some compensation by such an increase of salary as its resources afforded. Of the services

rendered during the year both by Mrs. Gard'ner, and by Miss O'Brien, her chief assistant, who in addition to her work in Christchurch, has conducted the classes at the country centres, the Committee has pleasure in expressing the highest appreciation, and its thanks are also due to those, who, either gratuitously or for a very small wage, have in various ways acted as permanent or temporary helpers. Were it not for the aid freely and without pecuniary reward given by those seeking to qualify for certificates it would not have been possible without considerable additional expense to carry out the work attempted.

The large size of some of the classes recently undertaken has brought prominently before the Committee the limited character of our accommodation. We have been compelled to secure additional space at, of course, an additional cost, and there is yet much to be desired in the facilities afforded. The Department of Education has so far been good enough to supplement the somewhat meagre capitation receivable under the Technical Instruction Act by a sum substantially equivalent to our rental, and we may be fairly content for the time being if it continues the favour; but we feel strongly that a pressing need exists of a special building for technical education purposes, and that our claim is a good one to a substantial share in the advantages such a building would provide.

CHARLOTTE W. TURRELL,
Vice-President.

Christchurch, 20th December, 1898.

BALANCE-SHEET for the Year ending 7th December, 1898.

Receipts.

	£	s.	d.
To Balance	71	6	1
Petty cash	8	17	1
From Government, special	70	0	0
From Government, subsidy	86	17	11
From subscribers (Christchurch)	15	1	0
School fees	178	13	6
Sundry receipts	6	16	6
	£437	12	1

Expenditure.

	£	s.	d.	£	s.	d.
By Salaries				158	4	6
Cooking materials, cost	165	9	11			
Less for sales	87	4	5			
				78	5	6
General expenses—Rent, gas, advertising, coals, sundries				130	6	11
Preliminary expenses—Cost of utensils, &c.				6	12	3
Petty cash				8	9	3
Balance				55	13	8
				£437	12	1

Christchurch, 7th December, 1898.

W. CHRYSTALL, Treasurer.

SCALE OF FEES PER QUARTER.

Cooking.—School-children, domestic servants, and girls in business, 5s.; school-teachers, 7s. 6d.; other persons, 10s. 6d.; advanced classes, 10s. 6d.; high-class, special classes, £1 1s. Materials provided by the school. Dishes cooked may be purchased by the pupils.

Dressmaking.—School-children, domestic servants, and girls in business, 5s.; other persons, 10s. 6d.

Ironing and Clear-starching.—School-children, domestic servants, and girls in business, 5s.; other persons, 10s. 6d.

DUNEDIN SCHOOL OF ART AND DESIGN.

SIR,—

I have the honour to submit my report on the School of Art and Design for the year 1898.

The total number of students who attended the school during the past session was 402. This includes ninety-four teachers and pupil-teachers, forty-one students in training, 105 students who attended the day classes, and 162 students who attended the evening classes. The classes for general drawing do not need much comment, as the work was the same as in former years. I may mention, however, the following classes, and the work accomplished during the year:—

Students in Training.—Forty-one students attended the course of lectures and class instruction. Of these, twenty completed their full drawing certificate, which includes freehand drawing, model-drawing, practical geometry, perspective, shading from casts, and drawing on the blackboard. Three students require to pass in shading from casts to complete their certificates; and twelve students, not previously employed as pupil-teachers, passed in freehand drawing and practical geometry. Classes for country school-teachers met every Saturday morning from 10 to 12. Thirty-one teachers availed themselves of these classes, and received instruction in freehand and model drawing, geometry, perspective, and drawing from casts. The general quality of the work showed considerable improvement on that of the previous year.

Pupil-teachers.—The courses of instruction for pupil-teachers in freehand drawing, model-drawing, practical geometry, and perspective were attended by sixty-three students. At the July examinations twenty-three entered for examination in model-drawing, of whom ten obtained the mark excellent, ten good, and three pass (the same students passed in freehand drawing the previous December); fourteen entered for geometrical drawing—ten obtained excellent, and four good; thirteen entered for perspective—four obtained excellent, five good, and four pass.

A special course of lectures and class instruction for students of the School of Mines, comprising model-drawing, practical geometry, solid geometry, and machine construction and drawing, was attended by thirty-three students. At the end of the session examinations were held in the subjects of study, the results of which were as follows: Students of the first year: Fourteen entered for model-drawing—eight obtained first-class, six second-class; fourteen entered for geometrical drawing—eleven obtained first-class and three second-class. Students of the second

year: Fifteen entered for solid geometry—eight obtained first-class and seven second-class; nineteen entered for machine construction and drawing—eleven obtained first-class and six second-class.

Design.—The students were chiefly occupied in sketching, analysing plant-forms from nature, and elementary designing to fill given spaces, such as a square, oblong, polygon, circle, &c., with given foliage. This course enabled the students not only to more fully appreciate the beauties of plant-forms and the forms most suitable for design, but also to acquire some technical ability. A few very fair designs of ornamental treatment to fill given spaces were exhibited at the close of the session.

Modelling.—Students of this class practised modelling from casts of ornaments and sections of the figure. Several very creditable models, including ornament, masks, and a bust of Augustus Cæsar, were exhibited.

Drawing from Life.—The work done in this class was in advance of the previous year. About the beginning of the session an evening class for ladies was opened, and it has, I am pleased to report, proved highly successful.

Evening Classes.—The evening classes were divided into two sections—science and art. The science section met on Tuesday and Thursday evenings. The courses of instruction were very similar to those of last year, and included practical plane and solid geometry, machine construction and drawing, and building construction. The following are the results of the science examinations: Subject I., practical plane and solid geometry—Six obtained first-class, four second-class, two failed. Subject II., machine construction and drawing—Three obtained first-class, three second-class, six failed. Subject III., building construction—Six obtained first-class, four second-class, one failed. The art section met on Monday, Wednesday, and Friday evenings for various subjects, including freehand and model drawing, shading from casts, perspective, and drawing from the antique and from life.

The following are the results of the London Science and Art Department's examinations, held in the month of July last:—

Science Subjects.—Practical plane and solid geometry, elementary stage—Examined, 11: passed, first class 6, second class 4; failed, 1. Practical plane and solid geometry, advanced stage—Examined, 1: failed, 1. Building construction, elementary stage—Examined, 7: passed, first class 3, second class 3; failed, 1. Building construction, advanced stage—Examined, 3: passed, first class 2, second class 1. Machine drawing, elementary stage—Examined, 11: passed, first class 2, second class 3; failed, 6. Machine drawing, advanced stage—Examined, 1: passed, first class 1.

Art Subjects.—Geometrical drawing, elementary stage—Examined, 14: passed, 12; failed, 2. Perspective drawing, elementary stage—Examined, 17: passed, 10, second class 4; failed, 3. Freehand drawing, elementary stage—Examined, 65: passed, first class 22, second class 30; failed, 13. Model drawing, elementary stage—Examined, 47: passed, first class 23, second class 19; failed, 5. Drawing in light and shade, elementary stage—Examined, 23: passed, first class 3, second class 13; failed, 7. Freehand drawing, advanced stage—Examined, 13: passed, first class 12, second class 1. Model drawing, advanced stage—Examined, 12: passed first class 4, second class 7; failed, 1. Drawing in light and shade, advanced stage—Examined, 11: passed, first class 5, second class 4; failed, 2. Drawing from the antique (the figure)—Examined, 3: passed, second class 1; failed, 2. Painting from still life—Examined, 2: passed, first class 1, second class 1. Painting in monochrome—Examined, 1: passed, second class 1. Drawing from life—Examined, 2: failed, 2.

The works accepted for the art-class teachers' certificate were: Model drawing, 2; shading from the cast, 3; geometrical drawing, 4. One student obtained the art-class teachers' certificate. The works accepted for the art-master's certificate were: Perspective, 1; drawing outline from nature, 1; classic orders of architecture, 1; design in colour, 1; design in outline, 1.

In the national competition one prize was awarded to the school, and four students obtained sufficient marks to entitle them, under the Science and Art Department's regulations, to free studentships for one year.

It is to be regretted that the Builders' Association did not see their way to award their scholarship.

In the month of March thirty-six framed specimens of the students' work were exhibited at the Jubilee Industrial Exhibition in Dunedin. The usual exhibition of the students' work was held at the close of the session, and was largely attended.

I have, &c.,

The Chairman, Otago Education Board. DAVID C. HUTTON.

The following shows the occupations of the students who attended the evening classes: architect, 1; blacksmiths, 5; butchers, 2; baker, 1; boilermaker, 1; brass-finisher, 1; carpenters, 26; clerks, 10; chemist, 1; cabinetmaker, 1; carver, 1; draughtsmen, 3; drapers, 2; dressmakers, 2; engineers, 39; fitters, 2; grocer, 1; home duties, 2; iron-moulders, 3; ironmonger, 1; joiners, 8; lithographers, 2; milliner, 1; nurseryman, 1; plasterers, 2; plumber, 1; painters, 11; retouchers, 8; students, 9; shop-assistants, 3; surveyors, saleswomen, 2; tailors, 4; turners, 2; teacher, 1: total, 162.

DUNEDIN TECHNICAL CLASSES ASSOCIATION.

YOUR Committee has much pleasure in presenting to the members and subscribers the tenth annual report of the Dunedin Technical Classes Association.

At the commencement of the session the Committee was obliged to incur a very large expenditure for the fittings absolutely necessary for the class-rooms, with the result that the reserve funds of the association were more than absorbed. The Hon. the Minister of Education having undertaken to endeavour to get the sum of £1,000 placed on the estimates as a contribution to the funds of the association, your Committee represented the urgency of their needs to him early in the session. After full consideration, the Government agreed to make a special grant of £1 for £1 on all expenses incurred prior to the 1st April in alteration and fitting-up of the new school. In accordance with this decision, the Treasury paid to the association the sum of £910.

During the course of the year Mr. J. P. Smith, who had charge of the Mining Court at the recently held Industrial Exhibition, brought under the notice of your Committee the desirability of establishing a technological museum in connection with the school. He undertook to secure for the purpose a large number of mining and other exhibits from this and the other Australasian Colonies, and, in the event of the museum being established, consented to act as the first Honorary Curator. Your Committee entered into Mr. Smith's scheme, and has made various efforts to secure a site for such a museum, but hitherto without success. Several exhibits from South Australia and New South Wales have already come to hand, and are stored, pending suitable arrangements for their housing. It is quite clear that already the class-room accommodation of the new school is inadequate, and there is urgent necessity for adding to the building. When this is done, your Committee thinks that provision should be made for a museum. Another departure this year was the commencement of a library. It is hoped that this institution will grow to useful dimensions ere long.

The teaching staff of the association has expanded considerably during the year. Including the botany class, which is held in the spring and autumn months, and two classes held at the close of the session, a total of twenty-three classes were held. The number of students enrolled during the session, but exclusive of the two last-named classes, was 731. Of these, thirteen received either partial or total remission of their fees. Four students gained the senior diploma of the association, twelve the junior, and 239 gained certificates qualifying for diplomas in various subjects. The association employed during the past session twenty-five paid teachers and assistants.

The reports of the examinations of the City and Guilds of London Institute show that Mr. David Sheriff obtained first-class honours in plumbing and carpentry, and a first-class ordinary pass in mechanical engineering; three candidates won first-classes in plumbing; one a first-class in carpentry; and one a second-class in mechanical engineering. In the examinations of the London Science and Art Department one candidate won a first-class certificate in magnetism and electricity; one a first-class in chemistry; one a first-class in applied mechanics; and one a second-class in the same.

Your Committee notes with satisfaction that employers of labour in the city now frequently inquire for students of the association's classes.

Since the close of the session several classes have been carried on through the summer months, and your Committee has made arrangements for fitting up the long-promised electrical workshops. An extensive order for the necessary plant has been put in hand, so that it is expected that the teaching of electricity in its practical bearings will be commenced during the coming session.

The balance-sheet shows a balance to the credit of the association of £530 18s. 10d. Against this must be placed the cost of the apparatus now on order from England, and the fittings and alterations necessary for its utilisation.

In conclusion, your Committee desires to return its thanks to those ladies and gentlemen who gave their services in the last examination of students, to the Otago Education Board for the annual grant voted by it, and to the Board's officers for the assistance so readily given by them. In closing the work of the tenth year of these classes, the Committee thinks that the time has come when the local Education Board should assume the direct responsibility of carrying it on. It has now passed entirely from the experimental stage, and has become an extensive factor among the educational agencies in the city and neighbourhood. As such, its position and capabilities would be strengthened if the Board, with all its resources, were to bring it into line with the other establishments under its control.

STATEMENT of RECEIPTS and EXPENDITURE for the Year ending 31st January, 1899.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Balance	132	2	6	By Salaries	513	10	6
Class fees	472	1	3	Printing, stationery, and advertising	66	17	9
Subscriptions	68	9	6	Rent, insurance, and rates	98	2	0
Hire of typewriters	5	0	0	Gas and coal	34	14	1
Interest	3	10	0	Incidental expenses	5	12	0
Government subsidy	976	16	7	Materials for practical classes	43	1	5
Education Board	75	0	0	Premises, furniture, and fittings	462	7	8
Proceeds of conversazione	35	16	8	Expenses of conversazione	13	12	3
				Balance	530	18	10
	£1,768	16	6		£1,768	16	6

Dunedin, 28th February, 1899. Examined and found correct.—C. GRATER, Auditor.

SUPERINTENDENT'S REPORT FOR 1898.

I BEG to present the following report of the work done in the session now closed:—

The classes have now been carried on for ten years, and it is gratifying, after struggling along with more or less makeshift arrangements for nine of these years, to have the school settled in a

suitable centrally placed building. The new technical school, considering that it was not built with any reference to its present use, is well suited to our work. At the same time the class-room accommodation is barely sufficient, and it would be advisable, as soon as the state of the funds justify it, to erect additional class-rooms on the back portion of the section. The large front room of the main building was intended to be set apart as a reading-room, and is much needed for the purpose. At present it has to do duty for class purposes, and meanwhile there is no room of sufficient size in which students can sit while waiting for classes, or for trains, &c.

The total number of students enrolled this session was 731, an increase of thirty on last year's figures. Of these, 607, or 83 per cent., only attended one class. An analysis of the figures is appended to this report.

The work of the session commenced, as usual, with the spring class for botany in October last, the autumn class resuming in February. The winter's work commenced on the 4th April with twenty classes, and was carried on to the 30th September.

No class has suffered so much from change of teachers as that for physics, and the past session has been no exception to the rule. I think a strong effort should be made to popularise this class. The work is essential for all metal-workers and mechanics who desire to acquire any true knowledge of their craft. In connection with this class, I have much pleasure in reporting that Professor Shand, in addition to acting as assessor in the annual examinations, offers free tuition for a session in the physics laboratory of the University to the student who gains the highest marks.

There is room for considerable extension of the chemical work of the school by carrying on senior classes in practical chemistry, but it is useless to attempt such work except with students who are well grounded in the theory and principles of the science.

Mr. Morrison, Government Inspector of Machinery, who examined the class for mechanical engineering, says, "I am pleased to report that there is a great improvement, especially in the steam class, no doubt through its being a more interesting class for boys apprenticed to engineering; but I am confident the interest will come in applied mechanics afterwards. I would recommend that separate certificates be granted for each class, instead of one for both as before." This recommendation cannot be carried into effect this session, but can be provided for in future.

The class in wood-carving has increased in numbers, and good work has been done. Mr. R. Chisholm, in reporting on it, awards high praise to several of the pupils for clear and bold work. He adds: "Chip-carving is undoubtedly very good as a pleasant pastime, but requires neither taste nor skill in execution, and can never be regarded as of the same merit as model, scroll, or floral carving. . . . I cannot help expressing the opinion that it would be in the best interests of this class if much less attention were given to chip-carving, and some good models and patterns of bold relief carving provided, so that pupils might aim at something more artistic than cutting geometrical lines with a carving-knife."

An attempt was made to open a class in modelling, but sufficient entries were not received. It is hoped to make this a special feature next session.

A new class this session was that for photography, in which very good work was done. In future this class should be developed more and more on technical lines, so that the teaching of the applications of photography to printing, process-blocks, &c., may become part of the recognised course of tuition.

The cookery classes this year have been larger than in previous years, and the attendance has been most regular. In addition to the Wednesday classes, others have been held on Saturday, chiefly attended in the morning by school-girls, and in the afternoon and evening by teachers, tailoresses, and others occupied during the week. In the final examination no less than fourteen candidates gained the C and five the B certificates. The candidates are engaged from about 10 a.m. to 6 p.m. in preparing and cooking, without any outside assistance, a number of dishes selected from the syllabus by a most critical committee of ladies, who are in attendance the whole day, and who, in addition, subject them individually to an oral examination. I emphasized the fact in last year's report that these certificates were of very tangible value, and I can only repeat again that if heads of households would satisfy themselves on this question they would soon insist upon the possession of one or both as a *sine qua non* in engaging a servant. Mrs. Miller informs me that about twenty of her pupils intend to sit for the certificate of the City and Guilds of London Institute next June. Mrs. Reynolds and Mrs. Denniston, on behalf of the ladies who conducted the examinations, report that the cookery-room requires a great deal of fitting up, and a much more complete set of utensils to complete it than it at present possesses, and they have kindly offered, with the assistance of the pupils themselves, to raise sufficient funds for this work. I trust that this generous offer will be accepted by the Committee, and every assistance given to carry it out.

I have not specified particularly the other classes carried on this session, but have to report that in all of them the work and attention were well sustained throughout, and the general attendances were very good. The book-keeping classes have the record for numbers, followed closely by the shorthand classes. I have also again to thank those ladies and gentlemen who kindly undertook the work of co-examination. A glance at their names in our honours list is sufficient assurance that the association desires to secure the best supervision possible of the work done by its classes.

In accordance with Article 3 of our prospectus, thirteen students applied for and received either partial or total remission of their fees. I regret to say that while some of these took full advantage of the concessions, others were extremely erratic in their attendance and interest, showing that what cost them little or nothing was not valued.

Now that the association is settled in its own home, I desire to call the attention of the public generally, and of those interested in technical education especially, to the fact that one of our rooms has been set aside and fitted up as a technical library, and that, on behalf of the Committee,

I shall be glad to receive, and will publicly acknowledge, all books sent to me as donations. In conclusion, I desire to express my thanks to the teaching staff for the zeal and regularity they have shown in their work during the past session.

GEORGE M. THOMSON, Honorary Secretary and Superintendent.

11th October, 1898.

Total number of students enrolled, 731; new students, 532; former students, 199; male students, 480; female students, 251. Number entered—for one class only, 607; two classes, 105; three classes, 8; four classes, 10; five classes, 1.

BALCLUTHA TECHNICAL CLASSES ASSOCIATION.

THE classes carried on by this association were shorthand, bookkeeping, dressmaking, carpentry, and others not recognised by the Education Department.

Not so many pupils enrolled as during former years, but sound work was done, and many who, their school-life over, felt the need of further mental and manual training, were afforded suitable opportunity for it.

Altogether some thirty-two pupils took advantage of the classes, most of them enrolling under the shorthand, the bookkeeping, and the carpentry teachers. The majority of the pupils acquitted themselves to the satisfaction of their teachers. J. A. VALENTINE, Hon. Secretary.

20th February, 1899.

BALCLUTHA DISTRICT HIGH SCHOOL TECHNICAL CLASSES.

CLASSES in woodwork were held in the workshop of the Technical Classes Association for the quarters ending 30th June and 30th September, 1898. For the first term the average attendance was twenty-seven, for the second twenty-four. Mr. Burley was again instructor, and the work of the pupils included such articles as stool, salt-box, small table, writing-desk, music-cabinet, go-cart, small wash-stand. In most cases the pupils made drawings of their work.

Pupils supplied their own material, and the Balclutha Technical Classes Association gave the use of their tools.

The Government capitation for the two quarters was £9 12s. 4d., and this was handed over to the instructor. WM. MCELREA, Head Teacher.

TOKOMARIRO DISTRICT HIGH SCHOOL TECHNICAL CLASSES.

As usual the classes were held during the second and third quarters of the year. Eighteen boys, with an average attendance of fifteen, were occupied with the analysis of soils. Twenty-three, with an average attendance of sixteen, made various articles in woodwork for themselves, such as bookcases, tables, steps, boxes, cheffoniers, and various pieces of fretwork, for the material of which they paid £13 17s. 5d. The subsidy from the Government, amounting to £8 18s. 10d., was spent as under: Chemicals, £2 1s. 9d.; carpenter's tools, £1 9s.; microscope for examination of plants, £5 6s. 9d.: total, £8 17s. 6d. JAMES REID, Head Teacher.

SOUTHLAND TECHNICAL CLASSES ASSOCIATION.

YOUR Committee has much pleasure in presenting to members the third annual report.

The subjects placed on the syllabus were as follows: English, arithmetic, wood-carving, dressmaking (theoretical and practical), including cutting, fitting, and making up, with demonstrations by means of model; practical plane and solid geometry and building construction, chemistry or botany, freehand and model drawing, carpentry, photography, mechanical drawing, cookery, sign-writing, and graining. Of these classes, six failed to proceed owing to lack of students —viz., arithmetic, geometry, photography, cookery, graining, and sign-writing. The others, with the addition of a bookkeeping class, were successfully carried on during the two terms. The average attendance in each class for each term is as follows:—English, 6, 5·9; bookkeeping, 5·5, 8·3; wood-carving, 7·4, 10·3; dressmaking, 8·7, 11; chemistry, 8·6, 7·3; carpentry, 9·9, 11·5; mechanical drawing, 12·4, 14·8; freehand drawing, 10·3, 10: totals, 68·8, 79·1. From these figures it will be seen that the classes grew in numbers and in interest, the second term showing a decided advance on the first. Altogether the results of the session were very encouraging to those interested in the work.

The teachers received the same salary as they did last year—viz., 3½ guineas for each term. In addition a bonus was paid to the teachers for each student in excess of six in any class—the bonus this year being increased from 5s. to 10s. This was felt to be only fair to the teachers who had taken a lively interest in the success of their classes.

The Government very generously came to the assistance of the association by granting a special subsidy of £30. Whether or not we shall receive anything this year is doubtful, owing to the condition in which the question of technical education was left by the Legislature last session. The Education Department replied to our application on the subject, "That the Government have reluctantly had to determine to make no payments on this account other than the capitation allowances required by the Act." We hope, however, better counsels may yet prevail.

At the close of the session an exhibition of pupils' work performed in the wood-carving, carpentry, and drawing classes was held in the Education Board's room, and created a very considerable amount of interest. The building was crowded almost up to the closing-hour, and the opinion was freely expressed by the visitors that they had no idea such good work was being done. The interest then created points to an even more successful session this year, if only ways and means can be assured.

WILLIAM A. McCAW, Secretary.

BALANCE-SHEET.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
By Balance	32	5	3	To Teachers' salaries	85	6	0
Special subsidy from Government	30	0	0	Advertising and printing	8	9	3
Students' fees	48	17	6	Gas and janitor	9	5	0
Members' subscriptions	0	10	0	Secretary	7	17	6
Students' material refunded	2	7	9	Students' material	2	14	2
Government capitation	26	8	6	Refund to Education Board (capitation)	9	3	9
Interest	0	8	4	Balance	18	1	8
	£140	17	4		£140	17	4

W. A. McCAW, Treasurer.

Examined and found correct.—R. J. CUMMING, Auditor.

WAIWERA SOUTH MANUAL AND TECHNICAL ASSOCIATION.

IN submitting a report of the work done during the year 1898 the Committee regret being unable to speak in such glowing terms as on a former occasion. Owing to the exceeding late harvest, the classes could not be started till well on in the winter, and when started the attendance was very irregular, owing to the extremely rough weather prevailing, which prevented numbers living at a distance taking full advantage of the classes. A bookkeeping class was carried on for eight nights, with eleven members; the average attendance was 5¾. A painting class was carried on for two quarters, with an average attendance of 6.

The thanks of the Committee are due to the School Committee for granting the use of the school at a nominal charge, sufficient only to cover the cost of firing, lighting, and cleaning.

BALANCE-SHEET.

1898. *Receipts.*	£	s.	d.	1899. *Expenditure.*	£	s.	d.
To Balance	6	19	1	By School Committee	1	0	0
Fees	7	15	0	Instructors	14	3	0
Capitation	4	5	1	Sundries	0	5	0
				Balance	3	11	2
	£18	19	2		£18	19	2

J. A. ANDERSON, President.

31st March, 1899. M. G. TAIT, Hon. Sec. and Treasurer.

ARRANGEMENTS FOR TECHNICAL INSTRUCTION NOT COVERED BY THE FOREGOING REPORTS.

In the reports of the Otago University (E.–7), Canterbury College (E.–8), and Canterbury Agricultural College (E.–11), will be found statements of the instruction provided by those institutions in medicine and surgery, and in mining (at Dunedin), in engineering and technical science (at Christchurch), and in agricultural science (Lincoln). The annual report (C.–3) on the Goldfields of New Zealand contains information respecting the mining schools under the direction of the Department of Mines, and the annual report of the Department of Agriculture gives particulars of the work of that department in connection with agricultural experimental stations, fruit growing, dairy farming, and the poultry industry.

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