

1920.
NEW ZEALAND.

EDUCATION:
TECHNICAL EDUCATION.

[In continuance of E.-5, 1919.]

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

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No. 1.

EXTRACT FROM THE REPORT OF THE MINISTER OF EDUCATION.

TECHNICAL EDUCATION.

GENERAL.

The work of the technical schools and classes has proceeded on the same general lines as in previous years. There are some signs of a recovery from the effects of the extraordinary conditions of the five preceding years. It is satisfactory to note that there was an increase of over 700 in the number of males over seventeen years of age attending classes, as well as an increase of over 300 in the number of boys of seventeen years and under.

The reports of the technical Inspectors in regard to the quality of the work done, and the attendance and industry of the students show that a good standard is maintained in spite of the difficulties which are inherent in a system that involves mainly evening instruction of students who are at work during the daytime.

The general dearth of apprentices in skilled trades, and the urgent necessity for training the youth of the country so as to fit them for filling the gaps in these trades are matters that demand serious consideration, and in this connection the question of introducing generally a system of part-time day instruction in the technical schools is one that merits the attention in this Dominion which it is receiving in Great Britain. Part-time day classes for apprentices have been arranged through the co-operation of employers and employees in one instance in the Dominion, but the results so far appear to indicate that some form of compulsion is necessary to ensure the regular attendance of the apprentices. In any case, however, the hearty co-operation of employers and employees is essential to the complete success of such classes.

The total number of students receiving instruction in all technical classes was 20,876, as compared with 19,657 for the previous year. Of this total 2,754 held free places at technical high schools, 4,488 held free places at other classes, and 1,372 were attending continuation and technical classes held under the regulations for compulsory attendance.

Voluntary contributions in money to the funds of technical schools and classes amounted to £2,975, and subsidies were paid during the year 1919 to the amount of £4,640. The subsidies paid included limited subsidies on account of gifts of land made by local effort during the year, as well as amounts paid on account of contributions received by the controlling authorities during the previous year. Although voluntary contributions in money amount to less than 4 per cent. of the total income of the schools, they indicate a healthy general interest in technical education, and the amount would be considerably increased if the cost of land provided locally for technical school purposes were included.

CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS.

Classes were held at 110 centres. In the previous year the number of centres was 131, and the drop in number is accounted for by the discontinuance of farmers' classes in the Taranaki District held at a large number of centres, but each course occupying a very short period in the year.

The number of classes and the number of individual students were as follows:—

Description of Class.	Number of Classes.		Number of Students.	
	1918.	1919.	1918.	1919.
Conducted by Education or High School Boards ..	1,111	959	9,176	8,232
Conducted by Technical School Boards or by Managers ..	672	879	6,949	8,664
Conducted by University Colleges	182	176	785	1,054
Totals	1,965	2,014	16,910	17,950

The following are some particulars of the age, sex, and occupations of students :—

	Seventeen Years of Age and under.		Over Seventeen Years of Age.		Totals.	
	1918.	1919.	1918.	1919.	1918.	1919.
Males	4,657	4,984	3,573	4,305	8,230	9,289
Females	4,009	4,074	4,671	4,587	8,680	8,661
Totals	8,666	9,058	8,244	8,892	16,910	17,950

SUMMARY OF OCCUPATIONS OF STUDENTS.

	Number of Students.	Percentage of Totals.
Clerical pursuits	1,911	10·65
Professional pursuits	2,754	15·34
Students	3,548	19·76
Domestic pursuits	2,911	16·22
Agricultural pursuits	753	4·20
Various trades and industries	5,071	28·25
Other occupations not stated	1,002	5·58
Totals	17,950	100·0

NUMBER OF CLASSES IN CERTAIN SUBJECTS OF TECHNICAL INSTRUCTION HELD IN 1918 AND 1919.

	1918.	1919.
Arts and arcrafts	235	232
Mechanical and electrical engineering, theoretical and practical	220	238
Building-construction, carpentry, and plumbing, and other trades	204	201
Experimental and natural science, mathematics, &c.	135	120
Agriculture, wool-sorting, dairy-work, &c.	98	95
Domestic subjects	367	371
Commercial subjects	369	380
Subjects of general education	337	377
Totals	1,965	2,014

It is to be noted, as a sign of recovery from war conditions, that whereas in 1917 the females attending classes outnumbered the males by over a thousand, and in 1918 by some four hundred and fifty, in 1919 the males outnumber the females by about three hundred and fifty. The number of students engaged in agriculture and trades and industries is approximately one-third of the total.

The total number of classes held shows an increase over that for 1918, though in some subjects there is a slight falling-off.

The engineering classes have more than recovered the drop in number reported last year, the total number being fourteen in excess of that for 1917. In almost all cases these classes have been conducted with vigour and success.

There is again a slight decrease in the number of classes in agricultural subjects, but there has been no diminution of interest in the instruction, and in certain cases notable work has been done in short courses for farmers, conducted with the co-operation of the Department of Agriculture. In general, however, the instruction has been mainly directed towards the more scientific aspects of agriculture, and not so much towards purely vocational training.

An increase has again to be recorded in the number of classes in subjects related to the home. The principal object of the training provided in these subjects is that of equipping the girl-student for her future duties in her own home.

The more professional course of the School of Domestic Science in Otago University, designed mainly with the object of providing specially qualified teachers of domestic science for the technical schools, girls' high schools, and manual-training centres, continues to grow in popularity. The number of students in attendance during the year at this special course was sixty-three, of whom forty-three were holders of Government bursaries, and may be regarded as prospective teachers of domestic subjects. Seven degree and nine diploma students completed their course during 1919, and were immediately offered good positions. Payments totalling £2,766 were made in respect of forty-three bursars, an average of about £64 per bursar.

The difficulties in the way of providing skilled instructors in the various branches of technical work have not markedly diminished in recent years, and in 1919, particularly, the demand of industry for competent men has been a serious obstacle in the way of securing the best teachers for the schools. This competition has been largely responsible for the increase of £22,664 in the payments made on

account of staff salaries, an increase of more than 38 per cent. on the staff salaries paid in the previous year.

An additional difficulty lies in the fact that the number of skilled tradesmen who have also been trained as teachers is very small in every branch of industry. In the larger schools some valuable work has been done in the direction of training young people in various trades with a view to their subsequent appointment as teachers. The efforts made in this direction are worthy of every encouragement, since the success of the whole system of technical instruction depends as much on the skill, knowledge, and enthusiasm of the teachers as on the industry and capacity of the students.

In this connection it is hoped that regulations recently issued providing for the appointment of student teachers in technical classes in certain approved conditions will help towards the solution of a very pressing and difficult question.

NUMBER OF STUDENTS RECEIVING FREE EDUCATION UNDER THE REGULATIONS FOR FREE PLACES.

		1918.			1919.		
		Males.	Females.	Totals.	Males.	Females.	Totals.
Junior free pupils	First year ..	854	695	1,549	982	739	1,721
	Second year ..	522	409	931	543	463	1,006
Senior free pupils	First year ..	422	396	818	424	461	885
	Second year ..	276	314	590	253	323	576
	Third year ..	135	188	323	124	176	300
Totals		2,209	2,002	4,211	2,326	2,162	4,488

Twenty-five per cent. of the total number of students in attendance at classes held free places under the Government regulations. The total number of junior free pupils shows an increase of 247, as compared with the number for 1918, and the total number of senior free pupils shows an increase of thirty. 380 students held scholarships or free places provided locally. Included in the return of junior free pupils there is a number of young persons not otherwise qualified for a free place who have been recommended by an Inspector of Schools for free places in industrial classes.

In certain districts the regulations for compulsory attendance at continuation classes were in operation during the year, the number of students in attendance being as follows :—

Auckland Education District	501 students in 11 school districts.
Taranaki Education District	183 „ 4 „
Wanganui Education District	519 „ 5 „
Hawke's Bay Education District	121 „ 1 „
Canterbury Education District	48 „ 1 „
Totals	1,372 „ 22 „

During the year 1,021 returned soldiers attended as free students at technical classes in thirty-one centres. Instruction was provided in the following subjects: Electrical, motor, and mechanical engineering; carpentry and joinery; and commercial subjects. The Repatriation Board, as in 1918, provided the funds for additional instructors and equipment wherever necessary.

The following technical schools had a roll of more than 500, exclusive of the technical high schools carried on in connection with some of them :—

School.	Number on Roll.	
	1918.	1919.
Dunedin Technical School	1,147	1,377
Christchurch Technical School	1,276	1,368
Auckland Technical School	1,047	1,285
Wellington Technical School	1,139	1,202
Invercargill Technical School	550	630
Wanganui Technical School	578	619
Palmerston North Technical School	560	580

Capitation earnings for the year amounted to approximately £42,802, as against £34,917 earned in 1918.

Technological examinations were conducted by the Department on behalf of the City and Guilds of London Institute at fifteen centres in the Dominion. The total number of entries was 168, a decrease on the number for the previous year, and the number of passes was seventy-seven.

TECHNICAL HIGH SCHOOLS.

The number of technical high schools was increased by one during the year 1919. The statistics for this school are, however, included in those for technical classes, as the establishment did not take place at the beginning of the year.

The steady growth of these institutions and the constant demand for new schools of this type afford some evidence that they serve a useful purpose in the Dominion, and so long as their aims remain primarily educational, and the material content of their courses is used to train the intelligence and develop the aptitudes of the pupils, and to prepare them in every respect for their future duties as good and useful citizens, there is little doubt that their close connection with the occupations of the people possesses considerable advantages.

Not the least of these advantages is that the technical-high-school pupil on leaving the day classes to take up employment usually continues his studies for some years in the evening classes of the same institution, and thus receives a continuous training closely correlated with his occupation, and often under the same instructors, extending over the whole period of adolescence.

The number of students in attendance at technical high schools during the year was as follows:—

Technical High School.	Number of Students.	
	1918.	1919.
Christchurch	532	596
Auckland	595	587
Dunedin	422	435
Wellington	414	405
Invercargill	297	300
Wanganui	258	300
Napier	203	275
Westport	26	28
	2,747	2,926

The enrolment for the year shows an increase of 179 pupils over the number for the previous year. The increase in attendance for the five years ending December, 1919, was 59 per cent. for the technical high schools. The increase for 1919 was below the average, and less than half the gain in 1918, which was abnormally high. Of the total number in attendance 786, or nearly 55 per cent. of the boys received training preparatory to entering the mechanical and electrical engineering and allied trades, while 1,635 boys and girls took the commercial or the general course.

The numbers of pupils taking up the various courses provided were as follows:—

Course.	Number of Pupils.		
	Boys.	Girls.	Total.
Industrial	786	..	786
Commercial and general	448	1,187	1,635
Domestic .. .. .	..	297	297
Agriculture	203	..	203
Art	1	4	5
Totals	1,438	1,488	2,926

It is interesting to note that the numbers of boys taking commercial (or general) courses and of those taking industrial courses are in approximately the same proportion as the numbers of breadwinners in the Dominion in these two classes, 66·3 per cent. of the total number of male breadwinners in the industrial and commercial classes of the community belong to the industrial class, and 63·6 per cent. of the boys attending in the commercial (including general) courses and the industrial course took the latter course. In the case of agriculture, however, the number of boys attending is much less than the importance of the occupation and the number of breadwinners engaged would warrant. It is, however, to be remembered in this connection that the number of boys taking agricultural science in district high schools is not included in this return. The establishment of technical high schools in country centres should tend to correct this anomaly, and it is hoped that in time the present apparent bias towards town occupations will disappear, and that the boys will be distributed in the various courses in the same relative proportions as the breadwinners in their corresponding classes.

In the case of the girls the proportion taking the commercial and general courses is much greater, being nearly 80 per cent. of the total number of girls attending. Most of the girls who take up commercial occupations do not continue in employment for many years. For this reason the courses for girls all include

a substantial proportion of training in subjects relating to the home. Commercial training and business experience are necessarily of value to the housewife, and, if the training in home occupations included with the commercial course is sufficiently good, there does not appear to be any reason for discouraging girls from taking this course, which enables them to maintain themselves until such time as they are called upon to manage a home of their own, and if the course is well balanced, will also make them more efficient and capable housewives.

Capitation amounting to £41,113 was earned in respect of 2,926 pupils (of whom 2,754 were free pupils), as compared with £32,474 in 1918 in respect of 2,747 pupils.

NUMBER OF PUPILS RECEIVING FREE EDUCATION AT TECHNICAL HIGH SCHOOLS UNDER THE REGULATIONS FOR FREE PLACES.

	1918.			1919.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Junior free pupils	700	711	1,411	821	710	1,531
{ First year ..	353	449	802	411	462	873
{ Second year ..	84	152	236	106	182	288
Senior free pupils	22	27	49	9	44	53
{ First year ..	3	3	6	4	5	9
{ Second year ..						
{ Third year ..						
Totals	1,162	1,342	2,504	1,351	1,403	2,754

FINANCIAL.

The total capitation earnings of all classes, including technical high schools, amounted approximately to £83,915, as compared with £67,391 for the previous year.

The amount of capitation earnings shows an average rate of £4.02 per student, compared with £3.4 for the previous year. A far better comparison, however, is made when the rates for technical-high-school pupils and technical-class pupils are compared separately. Thus in 1919 the average rate of capitation per pupil in technical high schools was £14.05, as compared with £11.8 in the previous year. As regards capitation in technical classes, the average rate per pupil was £2.85, as compared with £2.46 in 1918. In the case of technical classes the revised rates of capitation provided under regulations issued in 1919 were intended to produce an average increase of 16 per cent., and this appears to have been fairly accurately realized, though there were considerable variations in particular cases.

The following table shows the receipts and payments for 1919 in respect of classes conducted by Education Boards or by High School Boards, and by Technical School Boards or Managers (including in each case technical high schools) :—

	Classes conducted by		Totals.
	Education or High School Boards.	Technical School Boards or Managers.	
	£	£	£
<i>Receipts.</i>			
Capitation	26,654	54,643	81,297
Class fees	2,528	5,221	7,749
Voluntary contributions and subsidies ..	2,136	5,479	7,615
Grants for buildings, &c.	6,292	4,523	10,815
Other receipts	4,920	11,196	16,116
Totals for 1919	42,530	81,062	123,592
Totals for 1918	41,986	54,680	96,666
Total for the two years .. ..	..	..	220,258
<i>Payments.</i>			
Staff salaries	24,437	46,488	70,925
Working-expenses	8,861	17,660	26,521
Buildings, &c.	5,834	10,564	16,398
Other payments	420	2,694	3,114
Totals for 1919	39,552	77,406	116,958
Totals for 1918	51,629	60,221	111,850
Total for the two years .. ..	..	..	228,808

In the case of classes conducted by Education Boards or by High School Boards the working-expenses represented 24·4 per cent. of the total receipts, exclusive of grants for buildings, rent, and equipment, and 36·3 per cent. of the payments on staff salaries, while the payment on staff salaries represented 91·6 per cent. of the capitation receipts for the year. The corresponding percentages in the case of classes conducted by Technical School Boards or Managers were 23·1, 38·0, and 85·1 respectively.

The total payments on account of salaries, £70,925, represented 84·5 per cent. of the total capitation earnings of all classes, which amounted to £83,915.

Payments by the Government by way of capitation, grants for buildings, rents, equipment and material, and subsidies on voluntary contributions represented 82·6 per cent. of the total receipts for the year in the case of classes conducted by Education Boards and High School Boards, and 80·2 per cent. in the case of classes conducted by Technical School Boards and Managers.

The total receipts for 1919 exceeded the total payments by £6,634, notwithstanding the fact that the expenditure on buildings, &c., was £5,583 in excess of the grants made for these purposes. In the two years 1918 and 1919 taken together, however, the excess of payments is £8,550.

The following is a statement of monetary assets and liabilities as at the 31st December, 1919, shown in the Technical Instruction Accounts of Education Boards as controlling authorities of technical schools, and in the statements of Technical School Boards and Managers :—

—	Education Boards.	Technical School Boards and Managers.	Totals.
<i>Monetary Assets.</i>			
Cash balances	£ 4,625	£ 10,993	£ 15,618
Other assets	8,178	19,416	27,594
Total assets	12,803	30,409	43,212
<i>Liabilities.</i>			
Cash deficits	4,317	125	4,442
Other liabilities	3,392	4,284	7,676
Total liabilities	7,709	4,409	12,118

Transfers from the General Fund were necessary to extinguish deficits on the Technical Instruction Account in the case of three Boards, the total sum so transferred being £835.

Of the Technical School Boards or Managers (twenty in number) nineteen had net credit balances at the 31st December, 1919, totalling £26,000. The statements of accounts for one school—viz., the "Elam" School of Art, Auckland—had not been submitted when the above table was prepared.

The following is a summary of the expenditure by the Government on technical instruction during the financial year ending the 31st March, 1920 :—

Capitation	£ 95,201
Subsidies on voluntary contributions	6,934
Scholarships and bursaries	2,985
Grants in aid of material for class use	5,844
Grants for buildings and equipment	13,319
Grants for rents of buildings	1,293
Conveyance of—	
Instructors	615
Free pupils	3,852
	4,467
Examinations	152
Inspectors' salaries and travelling-expenses	1,976
Grant for removal of Wellington Technical School classes	123
	132,294
Less recoveries (examination fees, &c.)	49
	<u>£132,245</u>

No. 2.

REPORT OF THE INSPECTOR OF TECHNICAL SCHOOLS.

SIR,—

Wellington, 31st August, 1920.

I have the honour to submit the following report on technical instruction in the Dominion during the year ending 31st December, 1919.

For obvious reasons the inspection of technical schools during the year under review could not be carried out with the same thoroughness as in previous years, but with the assistance of the Inspectors of Secondary Schools the work of technical high schools received the necessary attention, and a sufficiently close general survey was made of the technical-school work as a whole to enable a fair estimate of its value to be assessed. The conclusions arrived at are that, in view of the abnormal conditions under which the schools have been working for some years, the readjustment of staffs, and the difficulties incident to the supplies of material and equipment, the quality of the work has in no way suffered, nor have the earnestness and diligence of the students deteriorated.

With reference to evening classes, the conviction is established that technical instruction under present conditions has long since reached the limit of its usefulness, and that if our young prospective craftsmen are to be given opportunities of acquiring a substantial foundational knowledge of the principles of their trade the instruction will have to be given at a time and under conditions that will enable them to derive the full benefit, and not, as at present, when they are tired, having expended their best energies on their daily work. The main objections to daytime instruction for apprentices appear to be based on the assumption that what served the purpose of past generations ought to serve the purposes of the present. Night schools must, however, be associated with sailing-ships and stage coaches; and, as a progressive nation demands a more rapid method of transport, so if we as a nation are to take our place among progressive peoples a system of technical training adapted to present-day ideals and needs will have to be adopted. In this connection it appears desirable again to stress the necessity of one of our Government Departments taking the initial step toward this phase of educational reconstruction. Other countries have already taken the step. The Queensland Railway Department makes it compulsory for all apprentices to attend the Ipswich Technical School, and is so assured of the value of the training given in the preliminary trade course that all apprentices are selected from students who have passed through it; and, further, the Department has selected thirty apprentices who have not had the advantages of the preliminary course to take a course of special training. Wages are paid during the hours of attendance, and additional wages on passing certain examinations. It may be objected that the conditions in Queensland are dissimilar from those obtaining in this country; that both the railways and the technical schools are under the direct control of the Government, and that the latter is therefore able to control more directly the instruction given in the schools than is possible in New Zealand. Granting that the conditions are not the same, it should still be possible for any Department to familiarize itself with the type of training given in our leading technical schools, and should it be satisfactorily shown that youths after taking a three-years course at these schools are better fitted to enter upon workshop training than those entering as apprentices direct from the primary schools, preference in the selection of apprentices should be given to the former. A further objection may be advanced that the type of training given in the schools is unsuitable for apprentices entering a given Department. To this it may be replied that the courses of instruction, generally speaking, aim at quickening the interests of the pupils in mechanical work, training their intelligence, and giving a sound knowledge of the elementary principles of craftsmanship, including mathematics, geometry, elementary mechanics, science, and drawing, with sufficient workshop practice to illustrate the principles, and at the same time to co-ordinate theory and practice. It is contended that such a course provides an admirable foundation on which to erect the superstructure of trade training; but if in the opinion of a Department the course is unsuitable, desirable changes could readily be made. The goal in view is the best possible training for the all-round efficiency of our future citizens, and its attainment is possible only when the employers and those in control of technical schools are in accord as to the most effective means of reaching it.

TECHNICAL HIGH SCHOOLS.

The following table shows in a graphic manner the progress of technical high schools in recent years:—

Progress of Technical High Schools.

Year.	Total Roll.	Percentage Increases over Previous Year.	Percentage Increase over Year 1912.	Total Boys.	Total Girls.	Number taking the various Courses.					
						Industrial and Art.		Agriculture.	Commercial and General.		Domestic.
						Boys.	Girls.		Boys.	Girls.	
1912 ..	1,526	..	..	684	842	379	11	58	247	575	256
1913 ..	1,664	9.1	9.1	739	925	409	7	77	253	611	307
1914 ..	1,839	10.5	20.6	860	979	471	3	91	298	663	313
1915 ..	1,955	6.3	28.1	937	1,018	489	3	115	333	688	327
1916 ..	2,105	7.6	38.0	973	1,132	482	..	153	338	831	301
1917 ..	2,347	11.5	53.8	1,110	1,237	592	2	158	360	944	291
1918 ..	2,747	17.0	80.1	1,265	1,482	698	5	177	390	1,092	385
1919 ..	2,926	6.5	91.7	1,438	1,488	787	4	203	448	1,187	297

The percentage increases since 1912 in the various courses, eliminating temporary changes as far as possible where necessary, are as follows: Industrial (boys), 130 per cent.; agriculture (boys), 250 per cent.; commercial and general (boys), 81·4 per cent.; commercial and general (girls), 106·4 per cent.; domestic (girls), 36·7 per cent. These increases appear to indicate a growing appreciation of the value of this type of secondary school, a type which will, however, only receive full recognition in the educational and industrial life of the Dominion when the trades recognize its value. This will not come to pass until the trades are assured that the instructors have more than an academic knowledge of trade requirements, and that the courses of instruction are adapted to trade needs. The sources from which teachers can be drawn are at present very limited, as so many positions far more lucrative than those offering in technical schools are open to men having the necessary training and experience. It is hoped that the scheme for the training of technical-school teachers now under consideration will, when in operation, help to solve the staffing difficulties with which many controlling authorities are contending.

The courses provided at the technical high schools are related to commercial, domestic, industrial, and agricultural pursuits, and the following brief comment on each course will sufficiently indicate what is being done:—

Commercial Course.—This course is attended by 1,635 pupils, of which 1,187 are girls, and while objections may be raised against the large number of girls who are receiving a training to fit them for office-work, the fact that they appear to be specially fitted for this type of occupation must not be overlooked. It is contended that woman's sphere is the home—on what grounds is not quite apparent, except that custom appears to have established it; but where the demands of the home require that every adolescent and adult member of a family must contribute towards its maintenance, an office offers a not unsatisfactory means of livelihood for intelligent girls who may have a quite natural repugnance to the menial drudgery that cannot possibly be eliminated from some phases of housework. Should the office girl desire and have the good fortune to fulfil her function as wife and mother, the systematic training acquired in an office cannot be regarded as other than a fair preparation for the systematic management of the home over which she is to preside. In this connection it is to be noted that the commercial course for girls in all schools includes satisfactory instruction in subjects related to the home. The course of instruction in commercial work aims at a business training which qualifies the students for positions of junior office assistants, and the continual demand of business houses on the schools for assistants (a demand much greater than the supply) appears to indicate that a satisfactory system of instruction is provided. The instructors in most of the schools have an intimate personal knowledge of modern business methods, and this combined with teaching ability enables them to provide a sound elementary theoretical and practical training.

Domestic Course.—It is pleasing to note the gradual increase in the number of girls attending the domestic course. This may, however, be largely due to the increasing demand for teachers of domestic subjects; and the sound practical training combined with a more or less satisfactory basis of elementary science that is provided at the schools prepares a student for entrance on the domestic-science course at the Otago University, or for assistantships at a manual-training centre.

Industrial Course.—This course provides a sound elementary training for boys desiring to enter the engineering professions, and to some extent for those who propose to make one or other of the branches of woodworking their life-work. Students taking the former course far outnumber those entering for the latter, probably due to the fact that the various branches of engineering are more attractive, the work more interesting, and the opportunities for advancement more definite than in the woodworking trades. The workshops are for the most part equipped with the best types of modern machine tools, which are, however, limited in number, as it is considered advisable in the elementary stages to afford ample practice in the use of the fundamental hand-tools. The preliminary practical exercises are, generally speaking, satisfactory from the stand-points of both utility and constructional details. The exercises in woodwork are almost entirely confined to handwork, and afford excellent practice in setting out, from drawings previously made by the students, and in carrying to completion, simple examples of joinery and cabinetmaking. A thorough training in mathematics, mechanics, elementary science, and drawing is also provided, and the results of the public examinations in metal-work, workshop practice, and machine drawing appear to indicate that sound work is in progress. Evidences are, however, given of weakness in the use of the file. The difficulties incident to the use of this tool are acknowledged, but it is contended that these can be overcome by the average boy in a few lessons, provided that he clearly understands the principles of the muscular action and of the mechanical movements involved in the production of a plane surface with the file. It is also contended that a lad in his second year should be able to file to a standard gauge within the ordinary limits of workshop tolerances.

Agricultural Course.—It is from some points of view gratifying to record a steady growth in the number of boys taking this course. In 1912 only fifty-eight were in attendance; the numbers for the year under review show an increase of 250 per cent. It is an open question whether it is the function of a technical high school to provide theoretical and practical instruction in subjects related to the primary industries, inasmuch as in most cases a suitable area of land for experimental purposes, and an instructor well versed in the theory and practice of farming combined with a sound knowledge of the scientific principles underlying it, are not always available, and if they were the number of students in attendance at any one school, being comparatively small, would not permit of the appointment of a competent staff to carry out a really satisfactory course in agriculture. The proper course appears to lie in the direction of the technical high schools providing a two or three years' elementary, general, and scientific training for the prospective farmer, and of the Agricultural Department establishing farm schools with the facilities for giving a course in practical farming and the necessary related scientific training. Lads destined for farm life and work would pass to these schools at the end of the technical-school course, and it is hoped that a scheme on some such lines may be evolved. It must be remembered that according to present-day educational ideas it is no part of the function of a technical school to teach a trade; this can only be "learned in the workshop of those who earn their bread by it." And the same may be said of farming: it is a trade. No school, except the farm, exists that can teach it satisfactorily in all its bearings, and to attempt to do so in a technical school, even with a fifty-acre farm attached thereto, is to court failure.

DAY AND EVENING CLASSES.

Art.—In spite of many conditions which may be regarded as subversive, the attendances at art classes show a slight increase over those of the previous year, and for the most part satisfactory results have been achieved. The effect of the introduction of modern methods of instruction is producing excellent results in both drawing and painting, and the standard of the average student's work is gradually being raised. The work of the students at local exhibitions appears to show that an advance has generally been made during the past few years in both spontaneity and originality, and in some instances exceptional skill is shown in working in a variety of media. Further progress has been made in the teaching of design, instruction in which is for the most part given concurrently with the instruction in drawing. Students are afforded opportunities of applying the designs to useful purposes, a general revival of interest in craft-work is noted, and it is considered that some of the specimens of leather-embossing, metal-work, enamelling, modelling, wood-carving, &c., compare favourably with similar work produced under more favourable conditions in older countries. It must be remembered that our art students are working at a considerable disadvantage, as in the absence of a national museum and the circulation among the schools of a few of the best specimens of the work of modern and old-time workers there are few opportunities of comparing their completed works with other than those of their fellow-students. This is insufficient if a high standard of design and construction is to be attained, and it is hoped that an effort will be made to secure a few first-class specimens of students' craft studies, including silversmithing and jewellery, from British art schools for circulation among our applied art classes.

In the death of the Director of the Dunedin School of Art the Dominion has lost one of its most gifted and earnest workers. Mr. Hawcridge was a skilful teacher. His wide experience combined with intellectual gifts, high ideals, and sterling character specially fitted him for the work to which he devoted himself wholeheartedly.

Building Trades.—The depression in the building trades is still affecting the attendances at classes in subjects related to these trades, but a substantial increase is noted over those of the past few years, and, speaking generally, the work of the classes is characterized by thoroughness and earnestness. For the most part the work in building-construction and drawing is carried out on lines suggested by modern English and American text-books, and these do not afford a wholly satisfactory basis for the colonial builder. In some schools this is recognized, and a course of study more in conformity with local and domestic needs is arranged. The study of the principles underlying the construction of public and private structures is, however, not neglected. As previously stated, the building trades at present offer few attractions to lads: this is reflected in the classes, and it is quite exceptional to find a preponderance of young apprentices on the roll of practical classes. The advantages to be derived from the preparation of a set of drawings and the carrying to completion of a piece of work not likely to be given to an apprentice in the ordinary course of his daily work is not sufficiently appreciated by those already in the trade, but some exceptionally good specimens of woodcraft are occasionally seen in course of construction. Similar remarks apply with equal force to classes in cabinetmaking.

It is to be regretted that the provision made by a master painters' association at one of the schools for the special training of painter, decorator, and signwriting apprentices has not proved the success anticipated. The dearth of lads entering the painting trades, the lack of ambition, and desire to excel in their work, and the general disorganization of the trade are factors which have no doubt contributed to this, and the matter will probably have to await the settlement of the larger question involving the training of all learners in all trades.

A large increase is noted in attendances at classes in the theory and practice of plumbing, which are now approaching what they were previous to 1914. The opinion is expressed that much more could be done to stimulate both attendance at and interest in the plumbing classes if the New Zealand Plumbers' Board were to arrange for its examination to be taken in two parts—an elementary grade, and a final examination for the full certificate. This would enable the pass standard to be gradually raised, and would encourage apprentices to extend their course of study over two or three years, instead of attempting, as is too often done, to cram the preparation for the examination into the last year of their apprenticeship. The practical work at most schools is on sound lines, but the high cost of material has made it almost impossible to carry out schemes of work similar to those of previous years.

Domestic Subjects.—The general attention that is perforce directed to all matters related to the home has had a most stimulating effect on the teachers and students of classes in all domestic subjects. As an illustration it may be pointed out that the high cost of living has vitalized the questions of food values and economy in the use of materials, with the result that the real value of foodstuffs, hitherto neglected because of their commonness and low cost, is being realized and forced into consideration when the housewife is dealing with the preparation of the home dietary, and thus economic cookery and the preparation of palatable dishes of simpler foods have received the attention they deserve. It is, however, noted that the attendance of adults at cookery classes is steadily declining, the main reason for which is undoubtedly the completeness of the instruction in cookery that a large percentage of our girls are receiving in the primary and secondary schools. A few years ago the knowledge of cookery and the elements of sound housewifery was limited in the case of children leaving the primary school. To-day it is not so, and the mothers of "the race that is to be" will be better fitted to do for the children in their homes than which the State, for obvious reasons, is unable to do—teach cookery under home conditions. Thanks to the disinterested pioneer work of Mrs. Miller, Mrs. Gard'ner, Mrs. Turner, and others, the foundation of a sound system of training in practical domestic subjects has been laid in this Dominion, and the generosity and sterling work of others have now made it possible to give a course of instruction in the underlying principles of the domestic arts that will ensure a supply of teachers having the necessary basic scientific knowledge. In the near future when the demand for teachers is not so persistent, with the present available facilities, the complete training of domestic-science teachers in both theory and practice will be within reasonable reach of accomplishment.

It is gratifying to note the increasing use that Hospital Boards are making of the technical school cookery classes for the instruction of probationary nurses in invalid cookery, which is a compulsory subject in the nurses' qualifying examinations. The course is usually confined to ten

or, at most, twelve lessons, which, unless the students have had a preliminary training, as is the case in many instances, is considered too short if other than a somewhat superficial knowledge of this important branch of cookery is to be gained.

Dressmaking and millinery classes still maintain their popularity, and the instruction given and work done appear to meet home requirements.

Engineering.—It can probably be said without exaggeration that some of the best work in our technical schools is done in the several branches of engineering and cognate subjects. The courses of instruction are fairly complete, and as far as facilities are provided, and within technical-school limits, a student can obtain a substantial foundational knowledge of his chosen profession. Should he essay to take advantage of the full course offered the demands on his time are such as considerably to diminish his opportunities for home work and private study, both of which are necessary if he is to gain the benefits of the course; but in spite of the disadvantages and the restrictions imposed by fatigue after a day's work, the attendances at the classes and the work done prove that a large proportion of our youth engaged in the engineering trades have a strong desire for self-improvement, which should receive substantial recognition by employers. As the workshops of most of the principal schools are fairly well equipped with machine tools, it appears desirable to give attention to the equipment of elementary mechanics and engineering laboratories with the necessary testing and other machines. So far the study of this side of the principles of engineering has been hampered, but as conditions improve, and the training of our young mechanics is more thoroughly systematized, the trade element in technical-school teaching will give place to a more extensive experimental study of principles.

General.—In view of the difficulties under which the instruction has been given during the past few years, it is gratifying to note that earnest and purposeful work has been done, and that the tone and discipline of the classes are maintained at a high standard. Students who have passed through our schools have under difficult and trying conditions shown initiative and inventive resources, and have abundantly proved that the training received compares favourably with that given in older countries, and, further, that the country is obtaining good value for the monetary expenditure thereon.

The Director of Education, Wellington.

I have, &c.,

E. C. ISAAC, Inspector.

No. 3.

TECHNICAL INSTRUCTION IN THE SEVERAL EDUCATION DISTRICTS.

EXTRACTS FROM VARIOUS REPORTS.

AUCKLAND DISTRICT.

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

Technical High School.—The total number of students in attendance at the Technical High School during the year was 587, of which 321 were boys and 266 girls. This was a decrease of eight students on the total for the previous year. The following table gives the number of students enrolled in the various departments:—

	Agriculture.	Business Training.	Domestic Science.	Engineering.	Science and Technology.	Totals.
Boys—						
First year	40	41	..	..	106	187
Second year	15	21	..	..	64	100
Third year	6	5	..	23	..	34
Girls—						
First year .. ..	..	97	40	..	..	137
Second year .. ..	..	81	17	..	..	98
Third year .. ..	..	22	4	..	..	26
Fourth year .. ..	..	2	3	..	..	5
Totals	61	269	64	23	170	587

It will be noted that more than two-fifths of the students took up the business-training course. This is undoubtedly accounted for by the fact that both girls and boys are in great demand in commercial houses, the former more particularly as shorthand-typists, and the latter as book-keepers and general clerks. Considering that such a small percentage of the students taking business training attend the High School for more than two years, it is gratifying to know that our trainees are so well thought of by the business firms; in fact, the demand is much greater than the supply.

Agriculture, being such an important national industry, it is to be regretted that a larger number of boys do not take up the agricultural course. This, to some extent, is due to the fact that, on account of lack of facilities, we are unable to give a great deal of practical farm training in the course, as the small area of 3 acres of land at Otahuhu, whilst serving admirably for experimental purposes, gives very little scope for the practical study of the ordinary farm operations. If the Government could see its way to provide, in connection with the Technical High School, a small farm of from 50 to 100 acres for experimental purposes, I am quite sure that a very much larger number of students would avail themselves of the agricultural course, and that the benefit which would accrue to the country would greatly outweigh the initial expenditure.

Although very much handicapped through want of class-room and other accommodation, the work done in the Technical High School during the year was, generally speaking, quite up to the standard of that of previous sessions.

During the year several unsuccessful applications were made to the Minister of Education for a grant for new workshops. These are greatly needed, particularly in connection with the Technical High School.

The swimming-bath, the erection of which was begun some years ago, is still uncompleted through lack of funds. If it is ever finished it will be a great boon to the institution, and give a fillip to the teaching of swimming. Everything that is possible is being done in this direction at present, but a great deal of time is lost on account of the students having to travel to and from the city tepid baths. Last year every boy in the school, unless exempt by medical certificate, passed the 100 yards swimming test, whilst forty-nine obtained silver medals for swimming a distance of three miles, and fifteen obtained bronze medals for swimming two miles. The girls, though not so successful as the boys, made a very good showing, twenty obtaining silver medals for swimming a distance of two miles, and fourteen bronze medals for swimming one mile. The school championship for boys was won by the engineering class, the average being 3,746 yards per pupil. The first-year championship for boys was carried off by first-year agriculture class, with an average distance of 2,614 yards. The school average for boys was 2,220 yards. The school championship for girls was won by second-year business training "A" class, with an average of 816 yards; the first-year championship being won by first-year business training "A" class, with an average of 501 yards. The school average for girls was 524 yards.

As I mentioned in my report last year, one of the greatest necessities in connection with the Technical High School is the provision of hostels for boys and girls respectively. On account of their being unable to find, at a reasonable price, suitable boarding accommodation where the boys and girls would be under supervision, many parents in the country prefer to keep their children at home, whereas if hostels were provided they would be quite willing to send them to the city to secure the advantages of technical education.

External Examinations.—Twenty-one students of the High School passed the Public Service Entrance Examination; 156 were awarded senior free places by the Education Department; one obtained a Senior National Scholarship; two passed the Matriculation Examination of the New Zealand University; three the special examination for shorthand-writers and typists held by the Public Service Commissioner; one obtained a book-keeper's diploma; fifteen passed Grade 1, Division 2, in Mechanical Engineering, City and Guilds of London Institute; two students passed in one group of teachers' D examination.

Evening and Special Day Classes.—The total number of individual students in attendance at evening and special day classes of the school is 1,285, as against 1,177 for the previous year. This increase was largely due to the enrolment of returned soldiers, of whom there were 170 in attendance during the year. The bulk of these attended classes in motor engineering and in business training, many of them doing excellent work, and finding no difficulty in obtaining suitable positions at the expiration of their course of training. Speaking generally, the work of last year in the evening classes seemed to suffer to some extent from the compulsory shortening of the session during the previous year on account of the influenza epidemic. In the absence of examinations at the end of 1918, students who had done satisfactory work during the year were credited with a pass. It would appear that the examination test is also necessary, as several students who were passed into higher classes on account of this "credit pass" showed themselves quite unfit to take up the more advanced work. Had the examinations been held the weaker ones would have been weeded out. Thirty-two nurses from the Auckland Hospital attended courses of instruction in invalid cookery at the College, and twelve boys from the Blind Institute received instruction in woodwork.

There were 131 students attending continuation classes, which were provided for those who, through backwardness or lack of opportunity, had been unable to pass the Sixth Standard; of these, twenty-five obtained certificates of proficiency and seventeen certificates of competency.

External Examinations.—Students attending the evening and special day classes of the school were successful in passing external examinations as follows: Public Service Entrance, 3; Intermediate Examination, 2; Matriculation Examination of New Zealand University, 15; partial pass in Matriculation Examination, 4; Examination A of Pharmacy Board, 4; Examination B of Pharmacy Board, 5; Book-keepers' Diploma, New Zealand University, 6. Fifty-eight students attending evening classes were awarded senior free places by the Education Department.

Teachers' Classes.—As in previous years, the students from the Auckland Training College attended classes under our instructors in art, domestic science, and manual training (woodwork). The total number of individual students in attendance was 169.

Pupil-teachers and probationers from the city and suburban schools attended special classes at the College in botany, hygiene, drawing, vocal music, &c., in preparation for the D examinations. Classes in physiology, botany, English, &c., were also provided for candidates for the C examination.

At the Education Department's examination thirty-six students obtained the full D certificate, and thirty-nine a partial pass; six passed in four groups, thirty in three, twenty-nine in two, and eleven in one. In the C examination one student obtained a full certificate, two passed in four subjects, eleven in three, and seven in two.

Technical-school Teachers.—No class of teachers has been harder hit by the increase in the cost of living than those on the staffs of technical schools and colleges. Whilst it is generally acknow-

ledged that the increased cost of living is at least 60 per cent. higher than it was in 1915, very little has been done in the way of increasing the salaries of technical-school teachers. On account of the low rate of capitation it has been quite impossible for Boards of Managers of Technical Schools to make anything like satisfactory increases to their staffs. It is true that last year the capitation was raised from £13 10s. to £15 per pupil, and the fixed grant from £100 to £500; but on a school of 400 pupils this would mean an increase of less than 10 per cent. It is to be hoped that the Department will soon adopt a colonial scale of salaries for technical-school teachers, based on the present cost of living, and of sufficient liberality to encourage the best class of men and women to take up this important national work.

Day Continuation Classes.—As I have repeatedly pointed out in previous reports, evening classes for young people between the ages of fourteen and eighteen years are in every way unsatisfactory. We cannot expect boys and girls who are working in the daytime to attend evening classes without suffering physically. It is to be hoped that one of the educational reforms in the near future will be the provision of compulsory continuation classes in the daytime for boys and girls up to the age of eighteen years.

Completion of the School Buildings.—The completion of the school buildings seems as far off as ever. Notification has recently been received from the Department that a grant of £20,000 has been provided for additional workshops, but this sum of money is quite inadequate even to provide for the necessary accommodation. To complete the building as was originally intended would, at the present time, probably cost the sum of £50,000 or £60,000.

GEORGE GEORGE, Director.

EXTRACT FROM THE REPORT OF THE SUPERVISOR OF MANUAL AND TECHNICAL INSTRUCTION.

Technical and Continuation Classes.—Classes were held at Dargaville, Te Kopuru, Whangarei, Devonport, Otahuhu, Pukekohe, Hamilton, Te Kuiti, Rotorua, Te Aroha, Thames, Waihi, and Ngaruawahia, and the numbers of students who attended were Dargaville, 55; Devonport, 95; Hamilton, 160; Ngaruawahia, 27; Otahuhu, 59; Pukekohe, 58; Rotorua, 120; Te Aroha, 43; Te Kopuru, 36; Thames, 141; Waihi, 104; Whangarei, 170. Wool-classing classes, 143; teachers' classes, 249; private schools, 792. In addition to the classes held at the above centres, special dressmaking classes for adults were held at Waihou, Puriri, Turua, Matamata, Te Awamutu, Morrinsville, Onehunga, and Royal Oak (near Epsom).

The new Technical School buildings at Hamilton are in course of erection, and it is expected that they will be ready for use early in 1920. It is the intention of the Board to establish there day technical classes as well as evening technical and continuation classes.

The Department has approved of the establishing of a technical high school at Pukekohe, where the people have provided a fine site for the purpose.

An engineering and metal-work room has been built at Whangarei, and it will be equipped for class-work in 1920.

Annual Examinations.—These were held at the end of November, and certificates were issued to those satisfying the requirements. To secure more uniformity of attainment during the coming year, definite courses of work in several subjects (*e.g.*, English, arithmetic, book-keeping, shorthand, typewriting, and dressmaking) are being arranged for all the technical and continuation schools. Senior free places were awarded to thirty-nine students at the end of the year.

Teachers' Classes.—Classes for practical science work for certificate requirements were held in the following subjects: D certificate—agriculture, botany, hygiene, dairy science; C certificate—agriculture, dairy science, physiology. Cardboard-modelling classes were also held. Correspondence classes for uncertificated teachers were taken in the following subjects: English, mathematics, geography, agriculture, botany, hygiene, French, Latin, methods of teaching. Special classes for teachers were held for instruction in the methods to be adopted in teaching elementary agriculture and dairy science.

The teachers' farm school held at Ruakura in January was again very successful. These classes have proved very valuable in stimulating the interest of teachers in agricultural education. Only selected teachers—those who have shown by their school elementary agriculture work that they would appreciate the course—are invited to attend.

Farmers' Classes.—The Board engaged an expert to take special wool-classing classes for farmers at the following places: Maungakaramea, Opotiki, Waiotahi, and Whangarei; and similar classes for returned soldiers at Kamo and at Rotorua.

A very important gathering, the first farmers' farm school in New Zealand, was held at Ruakura for a week in July. Eighty farmers from all parts of the province attended the course of instruction, which was given by the officials of the Department of Agriculture and by the agriculture instructors of the Education Board. So pronounced was the success of the gathering that the Director of Agriculture has approved of similar courses for 1920. This farmers' school showed that there exists among the farmers of the province a keen desire to secure information on agricultural and pastoral work.

The Board's instructors delivered lectures on various subjects of interest to farmers at a number of country centres during the year.

The experimental work at Dargaville has been continued under the joint direction of this branch and the Department of Agriculture.

J. P. KALAUGHER, Supervisor.

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

The attendance during the year has been very satisfactory. The total number of hour-attendances registered was 32,587, which does not include 5,108 hour-attendances made by younger students on Saturdays, these not being recognized by the Education Department.

The work has been to a large extent on the usual lines, the chief change being in the direction of commercial art, which has received much more attention than usual. Students are beginning to appreciate the fact that various forms of commercial art can be made to pay, even from the commencement, if the work is good, and as a large number of our students are interested in the immediate question of earning money this naturally appeals to them. Under the auspices of the Repatriation Board a number of returned soldiers have taken up various forms of commercial

and applied art with the idea of adopting the work as a means of living. The work of some of these men has been excellent, and, so far as their health has permitted, they have been very industrious. The number of returned soldiers attending during the year was twenty-three, and 2,727 hour-attendances have been registered for them. In a number of instances the health of wounded men broke down, and they were ordered away to Rotorua, Hammer, &c., just when their work was getting interesting and useful.

Miss I. G. Eise, an old and successful student of the school, who had been in charge of the art classes at the New Plymouth Technical School for some years, joined the staff of the school at the beginning of the year, and has been doing excellent work.

As in the case of other schools of this kind, the curtailment of the railway services had a marked effect on the attendances, for a considerable number of students live at a distance; the reinstatement of the usual time-table came too late in the year to be of much use to country students.

The number of students attending the applied art classes was considerably greater than in 1918, and some of the best work ever done in Auckland has been produced by these classes during the year under review. The exhibit of applied art at the school exhibition in December was much appreciated by the public, many of whom expressed their astonishment at the discovery that such high-class work in metal, leather, enamelling, &c., could be done in New Zealand. The instructor is to be congratulated on the excellent display made.

It is a matter for regret that the Education Department still refuses to recognize the special classes for school-children. These young students, who freely give up their Saturdays to attend the school, are amongst the keenest students we have, and are most regular in their attendance. They have a very obvious liking for art work, and are willing to devote their leisure time to the practice of it. When their school days are over they will probably be amongst the best and most serious students on the roll of the school, and they will certainly have been much benefited by their early training here, which the Education Department does nothing to encourage.

An exhibition of students' work held early in December attracted large numbers of visitors, who expressed their gratification at the quality of the work displayed.

E. W. PAYTON, Director.

TARANAKI DISTRICT.

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

During the year classes were held at New Plymouth (399 students), Hawera (150 students), Stratford (123 students), and Eltham (fifty-six students).

New Plymouth Technical School.—Full-time day classes were conducted in engineering, commercial, domestic, agriculture, and general high school subjects. Seventy-one pupils and seven discharged soldiers took the engineering course. Mr. Kirkpatrick returned from active service, and Mr. Skelton from camp at the commencement of the year, and despite certain adverse conditions good work has been done. In the City and Guilds of London examination three passes were obtained in electrical engineering and seven passes in motor-car engineering. In the commercial course the students numbered eighty-three, including three discharged soldiers. Good work was done, and the following successes at outside examinations were obtained: Nineteen Pitman's speed certificates, twelve Pitman's theory certificates, and fourteen Pitman's elementary certificates; and in the competitive book-keeping examination held by the Society of Accountants for the whole of the Taranaki District one of our pupils obtained first prize, and another second equal. Nineteen pupils took the general course, in which a thorough training is given, especially for those who intend entering the teaching profession. Examination results were: Four passes at the Intermediate Examination, four partial passes for teachers' D certificate, four passes in hand work for the D certificate. Although the number (ten students) entering for the domestic course was small, a sound course was carried out. One pupil secured a second-class pass for dressmaking at the City and Guilds examination. Only five students enrolled for the agriculture course. It cannot be hoped that the number will show any decided increase until such time as the Board can provide full facilities for practical and observation work on a suitable experimental area of our own. All day-class pupils are encouraged to take an art or an art-craft subject, and the ultimate benefit to be derived will fully justify the work of this course.

Work generally has been very much disorganized by the railway-train curtailments, and also by staff-changes following upon the influenza epidemic of the previous year.

Of the day-class students thirty-four were awarded senior free places.

Evening classes: Classes were conducted in typewriting, book-keeping, shorthand, woodwork, engineering workshop practice, electrical engineering, motor engineering, steam, gas, and oil; mechanical drawing; mathematics, English, and arithmetic. These are mainly attended by compulsory students, and the results are not wholly satisfactory. It is practically useless to send a tired boy to evening classes, and the sooner this is realized by the authorities and all others interested the sooner will the money thus spent be put to better use, and a more satisfactory return obtained for the outlay.

Hawera Technical High School.—On the 1st May the status of the Hawera Technical School was changed to that of a technical high school. The lack of suitable accommodation was severely felt, but the best possible was done in the circumstances. It will be a great boon to us all when the new building is erected. One pupil gained a Senior National Scholarship.

Evening classes: The majority of these students entered under the compulsory clause, and, generally speaking, good work was done. The discipline certainly improved very much on that of previous years.

Stratford Technical Classes.—Technical and continuation classes were held in the following subjects: English, arithmetic, typewriting, shorthand, book-keeping, and dressmaking. The evening classes were attended by compulsory and free-place students with fairly satisfactory results.

Eltham Technical Classes.—At this centre classes were conducted in English, arithmetic, engineering, woodwork, shorthand, and typewriting, which were mainly attended by compulsory pupils. The remarks made *re* compulsory students attending New Plymouth apply here also.

A. L. MOORE, Director.

WANGANUI DISTRICT.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF MANUAL AND TECHNICAL INSTRUCTION.

There were on the staff at the close of the year, apart from instructors of evening classes, twenty-five permanent Supervisors, Directors, and instructors, and three part-time instructors. Two members of the permanent staff who had been on active service had not resumed duty.

Classes were held at Ashhurst, Bull's, Feilding, Marton, Ohakune, Pohangina, Rongotea, Taihape, and Wanganui. The enrolments totalled 3,005, and the individual students 1,448.

Feilding Technical School.—The enrolments were 1,023, and the number of individual students 345. Eighty-four were free-place pupils, eighty-one compulsory students, and six were discharged soldiers. The purchase of an additional 10 acres for the proposed technical high school was completed, and the title to the 20 acres handed over to the Board by the Technical School Committee. Plans for the building have been prepared, and it is expected that a commencement will be made with the erection shortly. As soon as this matter is settled, plans of the proposed hostel will be gone on with. It is hoped that both buildings will be ready for occupation within twelve months from date. The site is an excellent one. The new school will relieve the present unsatisfactory conditions under which the Technical School pupils and the pupils of the secondary department of the District High School are taught.

Marton Technical School.—This school made considerable progress, the enrolments exceeding those of the previous year by almost one hundred. Thirteen were free-place pupils, fifty were compulsory students, and five were returned soldiers. Application has been made for a grant for the erection of a workshop for classes in plumbing and motor engineering.

A movement is on foot at this centre to secure a site for a technical high school. The time is perhaps not quite ripe for the establishment of such an institution, but it would nevertheless be a wise policy to obtain sufficient land for the purpose now, as it will probably be more difficult and costly to do so in a few years.

Taihape Technical School.—At Taihape there was a decrease in the numbers. Fifty-three were compulsory students and one held a free place. Successful work at this centre is hampered by the difficulty of obtaining suitable instructors in some subjects.

Other Centres.—Classes in five subjects were held at Ohakune for the first half of the year, and were then discontinued owing to the small attendance. Classes in dressmaking only were held at Ashhurst, Bull's, Pohangina, and Rongotea.

Wanganui Technical School.—The numbers in attendance at the day school were 300, and exceeded those of any previous year, having almost doubled in the last five years. The increase is due partly to the rapid growth of the town and partly to the establishment of boys' and girls' hostels in connection with the school.

The steady growth in the roll numbers has made possible the employment of a full-time highly qualified staff; and the five courses of instruction—General High School, commercial, engineering, domestic, and agricultural—are all taken by a sufficient number of pupils to make the courses sound ones. It has been the policy of the day school to provide in all courses a sound secondary education, giving, in the technical courses such vocational bias as will tend to stimulate the real interest of the pupils in the elementary principles lying at the foundation of their future callings. In each course except the domestic the pupils are encouraged to take the Public Service Entrance and higher examinations, and the syllabus of instruction is arranged with that object in view.

The epidemic affected considerably the results at public examinations. Nevertheless, as compared with other years, we have reason to be satisfied with last year's achievements, amongst the best of which were—(a) Pass in four subjects of the Bachelor of Commerce course; (b) Public Service Entrance—third and fifth for New Zealand; (c) pass in shorthand at 120 words a minute, and in typewriting at fifty words a minute.

The interest of both boys and girls in their school sports has been fully maintained. The boys' cricket team won the junior grade in last season's Cricket Association competitions, and their football team was well up in the football contests. The interest in house matches has been exceptionally keen throughout the year, and this has done much to raise the standard of achievement, which has been higher than at any time during the past five years.

An endeavour has been made this year by the establishment of a school council to promote some measure of self-government among our boys and girls. The members of the council have taken up their disciplinary duties in class-room and playground in the proper spirit, and I believe the school as a whole recognizes their authority with becoming loyalty. If the council has done good it is largely due to the head girl and the head boy. It is expected that the council will promote interest in public speaking, will focus attention on desirable improvements, and will provide a recruiting-ground for prefects; but above all it is hoped that it will create a wholesome public opinion which will resent dishonourable conduct, and by this means raise the general tone of the school.

Under the will of the late Miss Alexander the school is endowed with an income of £150 per annum for the provision of scholarships. The value of the scholarship is £50 each per annum, payable to pupils selected for training for positions as teachers in commercial, engineering, domestic, and agricultural courses. This scheme will make it possible for our best students to remain at school long enough to enable them to qualify for bursaries in domestic science, engineering, and agriculture at Otago University, Canterbury College, and Lincoln College. The scholarships will be beneficial not only to the pupils, but to the College and to the cause of technical education in general. They should also be the means of bringing matriculated students into our technical courses and so strengthening them. The students are not obliged to take up teaching, but the object of the scholarships is to encourage them to do so.

An important side of the school, the Boys' Hostel, continues to develop, the enrolments for 1920 being over forty. Provision will be made by the Government for more extensive premises, and steps are now being taken to find a suitable site.

The inauguration of a Past Students' Association during this year has been successfully accomplished. This association has taken an active part in the campaign to provide the school with a Memorial Hall. School traditions are slow in developing, but as the number of our old boys and girls increase there is a steady growth of that love of school and desire to help it on to a

higher and nobler plane which is so marked a feature of the older secondary schools. In course of time this feeling of pride in their school will be even stronger in the minds of Technical School students, for the reason that their school-work is, in general, closely related to their life-work; and thus there should be established a closer bond of fellowship between pupil and school than is usually to be found in secondary schools. I am glad to announce that the Past Students' Association has been given representation on the Technical College Committee.

In the evening classes the enrolments were not so numerous as in the previous year, the total individual students being 557. Most of these pupils attend by virtue of the compulsory clauses of the Education Act, which have been in force in this district for eight years. The progress made by compulsory students varies with the student, but on the whole a great amount of good results from their attendance at the classes. The behaviour of the students is remarkably satisfactory, and very few prosecutions were necessary for bad attendance. Compulsion is objected to by some parents, but there are many others who welcome it. It falls heavily upon boys of delicate constitution, for they have to be at their classes on two evenings per week and at military drill on one evening; the late night at business takes them out for another evening, and the customary evening at the pictures or some other form of entertainment brings their evenings spent out of the home to five in each week. Few of such boys can be home before 9.30 on these evenings, and as the compulsory age, fourteen years to seventeen years, is the most impressionable age, when habits are formed that endure often for life, it would seem that it would be to the interest of the Dominion as a whole if both physical and mental training were taken in the daytime rather than at night.

Voluntary Contributions.—Voluntary contributions totalling £188 16s. 3d. were received during the year. A further sum of £130 was promised. The thanks of the Board are due to the New Zealand Farmers' Union; the Feilding Chamber of Commerce; the Wanganui Builders' Association; the Marton, Feilding, and Wanganui Borough Councils; the Rangitikei, Waitotara, Wanganui, Manawatu, Oroua, Kiwitea, and Pohangia County Councils, as well as to many private subscribers, for their continued support. In addition to the above the following donations were made by local bodies towards the purchase of a site for the Feilding Technical High School: Feilding Borough Council, £500; Oroua County Council, £400; Manawatu County Council, £400; Kiwitea County Council, £300.

W. H. SWANGER, Director.

EXTRACT FROM THE REPORT OF THE PALMERSTON NORTH TECHNICAL SCHOOL.

The school opened this year with a roll number of 384 individual students attending fifty-two classes in which there was a total of 1,045 enrolments. During the course of the year the number of classes increased to fifty-eight, with an enrolment of approximately 1,150. The total number of pupils admitted during the year was 580, made up of 208 free pupils and 372 paying pupils. The classes on the whole have been well attended, and the average was better than that of last year.

The commercial classes are still among those mostly in demand, but in point of numbers in attendance the dressmaking classes headed the list. An increase in the number of boys taking engineering and electrical work is recorded. Satisfactory work in this branch of education, however, cannot be expected until day classes are established.

Attendance at millinery classes was almost the same as for last year, while the cookery section was almost deserted. It appears that the present-day girls wish to learn everything except the one thing most essential to successful homemaking, and it is to be hoped now that there are fewer possibilities for girls in clerical work they will turn their attention more to the development of a good domestic training.

The art department has kept up its efficiency in every way, and some excellent work received first prizes at the recent spring show.

About fourteen discharged soldiers have attended classes, with varying success.

The work of the book-keeping classes has been of such a high standard that the local branch of the New Zealand Society of Accountants has awarded a prize to the best pupil in each class.

Five students were successful in gaining Pitman's shorthand speed certificates this year.

Successful wool-classing and sheep-shearing classes have also been carried on.

The school year on the whole has been a good one, the teaching efficient, and the general behaviour and tone of the pupils good.

Donations from the following public bodies are acknowledged: Borough Council, Kairanga County Council, Working-men's Club, New Zealand Farmers' Executive, and from the Technical School Cadets.

F. D. OPIE, Director.

HAWKE'S BAY.

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

The roll number of the Technical High School has again been a record one, being 293, an increase of 82 over that of last year, and of 164 over that of 1917. The pupils were distributed over the various courses as follows: Agricultural—first year 20, second year 4, total 24; engineering—first year 32, second year 17, third year 9, total 58; commercial (boys)—first year 24, second year 8, third year 2, total 34; commercial (girls)—first year 71, second year 48, third year 14, fourth year 11, total 144; home science—first year 25, second year 8, total 33: grand total, 293. The number of paying pupils was 20.

It is gratifying to note that greater interest is being taken in the agricultural and the home-science courses, both of which have been established for only two years. However, it would appear that far too many girls are still taking the commercial course. An unsatisfactory feature about a proportion of these latter is that they are content with only one year, in some cases even less, at the day school, and then they consider themselves quite fit for commercial positions. They appear to be over-anxious to commence work, very often in positions that offer no promise of advancement, quite forgetful of the fact that we never have any difficulty in finding for our senior pupils good positions in offices of standing. It is a shortsighted policy to put boys and girls to work before their school training is complete.

The day school staff consisted of nine full-time assistants and four part-time instructors.

Much interest has been taken in outdoor games, due in the first place to the fact that the institution of the house system has stimulated competition, and in the second place to the contests with Wanganui Technical School. In March the Wanganui eleven visited Napier, and in October we sent a football team to Wanganui. It is hoped that similar contests will be arranged next year. The school entered a team in the Saturday fourth-grade Rugby football competition, and were runners-up for the cup. For the first time two teams were entered in the Saturday third-grade cricket competitions. Two girls' hockey teams entered for the Saturday competitions. The athletic sports on the 31st October were a great success, there being a good attendance of parents and friends. The annual swimming sports were successfully held on the 13th March at the municipal baths.

A display of work was again made at the Agricultural and Pastoral Society's Show in October. All departments were represented, special features being a model five-roomed bungalow and a $3\frac{1}{2}$ horse-power Max motor. The exhibit of millinery, dressmaking, and cookery attracted considerable attention. The whole display reflected great credit on the staff and the students concerned. All the prizes in the wool-classing competition at the show were won by students of the school. Most of the exhibits were again shown in the windows of Blythes Limited for a week in November, and later the engine and the bungalow were on view in the window of Limbrick and Co. These two firms deserve our best thanks for their generous co-operation in making our work better known to the public.

One of the most important events of the year was the granting of a site for a new school by the Napier Borough Council. The site, about $4\frac{1}{2}$ acres in area, is at the corner of Jull and Thackeray Streets, and is intersected by Faulkner Street. Part of the land is borough freehold, and part is Harbour Board leasehold. The Napier Borough Council has offered to buy out the interests of the lessees of the leasehold sections, and has obtained legislative authority to grant to the Education Board its own freehold portion and to close part of Faulkner Street. An endeavour is to be made to secure the freehold of the Harbour Board sections. There is every reason to believe that a start with the new buildings will not be long delayed. The action of the Council in providing the site is a very generous one, and will ensure the development of technical education for many years to come.

Examinations for Pitman's certificates were held in March. For the elementary certificate one entered and one passed; for the theory certificate eight entered and eight passed; for speed certificate two entered and one passed. In December a second examination was held, entries being as follows: Elementary, six (all passed); theory, eighteen (all passed); speed, eighty words a minute, seven (five passed); speed, 100 words a minute, one. In January four girls entered for the Public Service Commissioner's Shorthand and Typing Examination, and three passed. Again in December three entered for the same examination and two passed. Four boys and three girls have entered for the Public Service Entrance Examination.

Technical high schools as well as district high schools are very much hampered in their work on account of pupils leaving before they have received the maximum amount of benefit from the schools. Only about 13 per cent. of pupils in these schools are senior pupils (*i.e.*, past their second year). In secondary schools the percentage is about 30 per cent. Too many parents fail to realize the advantage of a third- or fourth-year course.

The number of individual students enrolled in the evening school was 281, including fifty-six free students, 121 compulsory students, thirty-eight returned soldiers, and sixty-six paying students. In addition there were teachers' Saturday classes in drawing, science, and physical drill, bringing the total up to 301 students. Of the evening students, 178 were males and 103 females; 185 were between the ages of fourteen and seventeen, and ninety-six were over seventeen. The occupations chiefly represented were clerical, engineering, shop-assistant, and nursing. Of the first year compulsory students forty-three had not passed Standard VI. The classes in plumbing, advanced engineering, speed shorthand, engines, French, dressmaking, cookery, and science were all small classes earning insufficient capitation to pay expenses. It is gratifying to know that the Department has decided to grant increased capitation to small classes doing advanced or special work, so that such classes need not in the future be carried on at a financial loss.

We are pleased to be able to report that this year a sufficient number of candidates offered to justify the New Zealand Plumbers' Board in holding examinations in Napier. Nine students, eight of them returned soldiers, sat from the school. The examination was to have been held on the 12th and 13th December, but owing to the difficulty in obtaining material it did not take place until the 23rd and 24th January.

The school again received considerable financial assistance from the Napier Borough Council, the Hawke's Bay Agricultural and Pastoral Society, the Napier Chamber of Commerce, and the Hawke's Bay County Council. The Hawke's Bay Builders' Union withdrew its support, as it was not satisfied with the method of representation on the Board. The Working-men's Club on being informed by the Education Department that it was not entitled to representation under the Act also withdrew its financial support. However, the representatives of these non-contributing bodies were elected to the Board by other bodies. For the first time the Board contained two members elected by the parents of the pupils of the Technical High School. The school is greatly indebted to the various contributing bodies, and also to the Education Board, for their valuable efforts on behalf of the technical education during the year.

I. E. NEWTON, Director.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF MANUAL AND TECHNICAL INSTRUCTION.

The manual and technical department dealt with the following branches of work: (a) Primary-school work, including elementary handwork, woodwork, cookery, and dressmaking, elementary science, agriculture and dairy science; (b) district-high-school work—rural course, including elementary agriculture, home science, dairy science, domestic science and cookery, dressmaking, and woodwork; (c) evening classes, including continuation and technical classes; and (d) teachers' classes.

Teachers' Classes.—As in past years, the instruction provided by the Board for teachers consisted of (a) correspondence classes for uncertificated teachers, (b) Saturday training classes for pupil-teachers, probationers, and uncertificated teachers, (c) short courses for certificated teachers, and (d) summer classes to enable teachers to obtain their practical certificates in science subjects.

Correspondence Classes.—Instruction was offered in English, arithmetic, mathematics, history, geography, methods of teaching, elementary hygiene, elementary agriculture, and dairy science. Two progress examinations were conducted by the Board during the year, and some excellent papers were submitted. The total number of classes held during the year and of the teachers who received instructions are as under: Correspondence class, 36; Saturday training classes (three drawing, three science), 47; Gisborne science class, 24; Dannevirke vocal music class, 26; Hastings "C" agriculture, 10; Hastings summer school, 18.

Evening Technical Classes.—Evening classes were conducted during the year at Gisborne centre. Classes in wool-classing were held for returned soldiers, and a class in invalid cookery for the hospital nurses. These were the only two technical classes held during the year. A number of continuation classes were held. The subjects taken, with the average attendance, were as follows: English (three classes), 46; arithmetic (three classes), 44; mathematics (one class), 10; Latin (one class), 5; book-keeping (two classes), 38; typewriting (one class), 21; shorthand (one class), 24; wool-classing (two classes), 15; invalid cookery (one class), 8: total, 211.

ERNEST G. LOTEN, Director.

EXTRACT FROM THE REPORT OF THE WAIPAWA TECHNICAL SCHOOL BOARD.

During the year four classes were carried on with success. Of these, two were classes in wood-working and cabinetmaking, one a class in shorthand, and one a class in invalid cookery. The woodworking students, both men and women, showed a keen interest in their work throughout the the year and attended well. Free places were found for six returned soldiers. The fact that our instructor manages to combine a maximum of practical with a minimum of theoretic work would seem to be an important factor in holding the interest of students. Some very good work was turned out by individual members of the men's class, which was held during four twelve-week terms. The women's class, though less strong in numbers, carried on during three terms and produced some very creditable specimens of work. The shorthand class—a small one—was in capable hands. This class consists of students of two grades—first-year students learning the elementary sections of the work, and second-year students striving for speed. Wherever attendance is good students are found to be making steady progress. The class in invalid cookery, for nurses from the Waipawa Hospital at Waipukurau, had a chequered career. The railway strike caused a break for some weeks, yet despite this the programme of work was carried out with success. We are indebted to the Hawke's Bay Education Board for its courtesy in allowing us to make use of the services of its domestic-science instructress to carry on the work of this class.

Three local bodies—the Waipawa Borough Council, the Waipawa County Council, and the Patangata County Council—were voluntary contributors to the funds of the association during the year.

GILBERT MCKAY, Chairman.

WELLINGTON DISTRICT.

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

The opening of the session was marked by one of the most important changes in the history of the institution. Mr. La Trobe, who for fourteen years guided the fortunes of the school from the days of small things until it came to rank as one of the largest educational institutions in the country, accepted the important post in the Education Department of Superintendent of Technical Instruction for the Dominion. Mr. La Trobe's period of office was marked by great developments, in particular by the establishment of the Technical High School, which is now the largest and most important department of the institution. Its foundation and growth, in spite of the extraordinary disadvantages under which it has laboured, is a great testimony alike to the courage and patience of the Director and the staff, and to the demand for such a school to meet present-day needs.

Before he resigned Mr. La Trobe had the satisfaction of knowing that the long-continued struggle to secure a worthy site for the new school was at least brought to a successful issue by the grant from the Government of 4 acres on Mount Cook. Mr. La Trobe was succeeded by the undersigned, who was Director of Christchurch Technical School; in the interregnum, which was unduly prolonged through the serious illness of the new Director, the position of Acting-Director was ably filled by Mr. Bolton, head of the commercial department.

It is very regrettable that the year has passed without any actual work being done on the site. The delay has been due partly to the changes in administration, partly to the need for special legislation, but mainly to the long discussion between the Board, the architects, and the Department over the general lay-out of the new buildings. It is believed that the time and thought given to the matter will be thoroughly justified, and will result in a school of which Wellington may well be proud.

The Board has decided to close the special day classes in shorthand and typewriting which had been carried on for many years as a separate part of the institution. In future all girls wishing instruction in these subjects during the day will be required to take the Technical High School course which includes sound training in English and in home science.

In order that facilities may be provided for instruction in engineering science, the Board has suspended the classes in needlework and dressmaking until the new buildings are available, the large room in use for these subjects being adapted as a laboratory for mechanics, physics, electricity and magnetism, electric light and power.

The average attendances at the various classes are in many cases disappointing, but it is hoped that the arrangement of fees on an annual basis, which the Board has decided to adopt for next year, will result in the encouragement of students to take longer courses, and thus do better work than is possible for those who enrol only for a short period.

Classes for returned soldiers have been conducted on behalf of the Repatriation Department in motor engineering, commercial training, and in preparation for the Public Service Entrance Examination. Twenty-four soldiers attended the motor class with excellent results. Most of these qualified and are now following the trade, while others are continuing their training this session. Nineteen attended for commercial training; some of these are already in business, and some are preparing for the University book-keepers' certificate. The Public Service Examination classes had a large entry, but a considerable proportion found that the classes on four evenings at the end of their

day's work were too exacting, and the numbers rapidly declined. More than twenty of the students, however, are preparing to sit for the examination in June next, while about an equal number will be sitting at the end of the year. In addition to the above a large number of returned soldiers who were in occupations during the day have been admitted to our evening classes; more than 300 class entries have been made by them.

The classes in connection with the Training College, the Wellington Girls' College, the Wellington Boys' College, and the "Amokura" have been continued under our instructors as in former years.

JOHN H. HOWELL, Director.

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

In my last annual report I noted that some alterations in the method of granting capitation were desirable. Some changes have now been made, and the new system is certainly a very great advance on the old methods of computing capitation. The Department deserves the thanks of the Directors of the various schools for simplifying the returns.

The report on work of the school given by the Department's Inspector was of a very satisfactory nature. It indicated, however, that we will need to improve matters if we are to go any further ahead with regard to our electricity classes. I think that the time has come when the present woodwork room should be fitted up for electricity classes and another room built for carpentry. The room at present in use is quite unsuitable, and as the Education Board is proposing to build a new room it might be possible to have it planned to suit both day and night pupils.

The commercial classes are very well attended. Most of the pupils are doing excellent work, and from time to time our students secure good positions in many of the best commercial houses.

With regard to the domestic classes, dressmaking and cookery, we have had no success. The girls attending the commercial classes seem to have no inclination to take up these subjects. It is a pity the young ladies do not take more advantage of the opportunity of securing the best education in what are really essential subjects in connection with the home.

The physical-science class was started again, and excellent work was done by the pupils. It is pleasing to see the initiative shown by these young students in fitting up their apparatus for experiments.

Wool-classing was again a very popular class, many returned soldiers attending the class, which was held on four nights a week. The returned soldiers were very regular, and seemed to appreciate the instruction that was being provided.

The work done by the students in the carpentry, drawing, and plumbing classes was of a very high order, and shows that the instruction given is on practical and scientific lines.

The examination results have been of a highly satisfactory nature, seeing that in some of the subjects we do not pretend to have the examinations in view. Pupils have passed the Accountancy Examination in such subjects as book-keeping, economics, bankruptcy, and mercantile law, while others have passed in all the subjects of the Matriculation, Solicitors' and General Knowledge Examination, Medical Preliminary and Chemists' Examination.

Successes have also been recorded in the Plumbing Examinations. In a small school such as this I think it speaks volumes for the efficiency of the staff. Parents are very lax in seeing that their children attend school. There is no doubt that the pictures attract a great number of the pupils.

The following donations were received during the year: Wellington Woollen Company, £5 5s.; Petone Working-men's Club, £8; Hutt County Council, £10; Mr. Wainwright, £2; Gear Meat Freezing and Export Company, £25; Lower Hutt Borough Council, £30; Petone Borough Council, £30; Wellington Meat Export Company, £10: total, £120 5s. These contributions are of very great assistance in carrying on the work, and it is not difficult to see what will happen if we fail to get the help of these various institutions. Our fees are fast becoming a thing of the past, and I trust that the new method of capitation will help us along.

Classes at Lower Hutt were not so successful as in past years, but I have no doubt that, with energetic management, their future success is assured. When the new buildings are erected for technical education at the Lower Hutt things will improve a great deal. These classes have now been carried on for five years.

J. H. LYNKEY, Director.

EXTRACT FROM THE REPORT OF THE MANAGER OF THE MASTERTON TECHNICAL SCHOOL.

Under the new departmental regulations issued August, 1918, the Board of Managers must consist of five members elected by the contributing bodies, in addition to the manager representing the Wellington Education Board, raising the number to six instead of five managers, as in former years.

The school opened for the session on Monday, 10th March, and continued for three terms of twelve weeks each, with a week's holiday between the terms, the majority of the classes finishing up during the week ending 5th December.

The total number of individual students attending the school during the session was 424—400 on the roll, and 24 public-school pupils. Of the 400, 183 were males and 217 females, made up of 195 free-place pupils and 205 paying pupils. Of the 195 free-place pupils, 118 (54 males and 64 females) held junior free places; 63 (23 males and 40 females) senior free places; and 14 were returned soldiers. The enrolments in all classes totalled 1,009. These figures constitute a record for the school, the next highest being in 1917, when the individual attendance was 423, including 142 free-place pupils, and the class enrolments 818. Taken throughout the year, the attendance, conduct, and diligence of the students were highly satisfactory.

During the year forty-three classes were held in twenty-two subjects, as follows: English; arithmetic; Standard VI proficiency subjects; elocution; Public Service and Matriculation subjects; French; shorthand (Gregg's and Pitman's); typewriting; book-keeping; accountancy; plumbing (theory and practice); carpentry and joinery and cabinetmaking; building and machine construction; magnetism and electricity; wool-classing; motor engineering; freehand, model, and geometrical drawing; shading; painting; art needlework; cookery; dressmaking. Early in the year the English and arithmetic class, which had outgrown the capacity of one teacher, was divided into junior and senior divisions. To accommodate the extra class it was found necessary to divide the art-room into two by a movable partition.

As several of the students of the accountancy class signified their intention of studying for the University examination in accountancy, a special class for that purpose was inaugurated, the twelve students who joined this class doing excellent work, eight taking the examination. The evening book-keeping class, which had an average attendance of thirty-four throughout the year—four over the number allowed by the Department under one teacher—will probably have to be divided up next year.

A feature of the work of the 1919 session was the acquiring and equipping of the new engineering workshop in Dixon Street, close by the present school buildings. The building, which was erected for the purpose of a gymnasium, is large and airy, and, with the addition of a few windows and skylights, is eminently suited for both day and evening classes in engineering. Included in the equipment of the workshop are—One 10 horse-power Crossley gas-engine, dynamo with fittings for electric light, three power lathes, one back-gear drill, one emery grinder, one power hack-saw, brazing and blacksmith's forge and fittings, eighteen vices, bench tools, and equipment. The building is lighted by electricity generated within the workshop. The classes commenced at the beginning of the third term with an enrolment of thirty-six students, in two classes, each class taking one evening theory in the class-room and one evening workshop practice. At the close of the term the instructors reported excellent progress in both classes. During the term a motor-driver's class was formed, and the eleven students who enrolled received useful instruction in the mechanism and management of motor vehicles.

Examinations were held in all subjects at the end of the session, and first- and second-class certificates awarded to students obtaining 75 per cent. and 60 per cent. of marks respectively. Forty-eight second-year junior-free-place pupils were specially examined in their various subjects with a view to their being recommended for senior free places, and on the result of the examinations, combined with their attendance, progress, and diligence, forty pupils have been selected for such promotion, subject to confirmation by the Department.

In the shorthand classes two pupils entered for Pitman's speed certificate and eight for the Gregg's certificate. An examination of the Standard VI proficiency class was conducted by the Department's Inspector, and eight pupils were awarded certificates of proficiency. As a result of the examination in wool-classing, two students obtained full wool-classer's certificates, two gained second-year certificates, and seven were awarded first-year certificates. In January, 1920, the Plumbers' Board of Examiners conducted its examination in plumbing, Masterton being a centre, when eight students of the plumbing class sat for the practical examination, and four for the theory.

The Board desires to place on record its appreciation of the valuable services rendered to the school by Mr. Leslie, the late Director, during his period of office, and the excellent progress the school has made under his capable management.

The statement of receipts and expenditure shows the receipts from all sources (including a credit balance of £182 4s. 10d. at the beginning of the year, and £350 withdrawn from fixed deposit) to have been £2,949 17s. 9d. Of this amount £1,113 3s. 6d. was received from the Department in capitation, and £550 in subsidies on voluntary contributions, £205 15s. 6d. in class fees, and £375 in voluntary contributions. The disbursements amounted to £2,729 9d. 6d., the principal items of expenditure being—Salaries, £1,285 10s. 2d.; furniture, fittings, and apparatus, £922 15s. 3d.; material for class use, £96 16s. 8d.; lighting and heating, £70 8s. 10d.; caretaker, £63 4s. 2d.; repairs, £51 12s. 8d. In October the sum of £500 was placed at fixed deposit for the year in the Bank of New South Wales. The year ended with a credit balance in current account of £212 8s. 3d.

The Board again desires to acknowledge the financial assistance rendered to the school by the Trust Lands Trust and the Borough Council, their contributions being £300 and £25 respectively; also to the Masterton Press and officers of the Department for their unfailing courtesy and co-operation:

To take full advantage of the fairly large sum of money expended in the equipment of the engineering workshop, as well as to keep abreast of the educational needs of this growing town and district, the Managers recognize that an extension of the present school building is imperative in the near future, and with this end in view negotiations are on foot to acquire the corner site adjacent to the school on which to erect a completely equipped set of rooms adapted to the present needs and future requirements. Most of the rooms in the building are overcrowded. The art-room had to be subdivided, and is now used as two class-rooms, in addition to its legitimate use for art subjects. The wool-classing has been conducted in the plumbing workshop, this arrangement militating considerably against the smooth working and efficiency of both classes. It is proposed to partition off a portion of the engineering-room for the wool classes. A fully equipped science-room is also required to comply with necessary regulations, and to enable students to receive tuition in the natural and physical science subjects required for their examinations.

J. M. CORADINE, Chairman.
D. GRANT, Director.

NELSON DISTRICT.

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

The number of students enrolled during the year was 394. Of these, eighty-one were junior free pupils, fifty-two were senior free pupils, twenty-two were returned soldiers, and there were 239 other students.

The number of classes conducted was sixty-five. The commercial classes still attract large numbers, and most of them were quite full. Of the students who sat for outside examinations in commercial subjects, the majority were successful in passing. The domestic classes show a slight falling-off, but some very good work was done. The art needlework class was well attended. The art and art-craft classes showed a slightly increased attendance as compared with the previous year. The outdoor sketching class, although small, did some very good work, and promises well for the future. The engineering classes held during the day were well and regularly attended, and good work was done. The evening class in this branch was also well attended. The instructor has been handicapped by the necessity of having two or more classes going on simultaneously. The equipment has not yet been completed, the ever-rising prices of machinery being an important factor in causing the delay. The woodwork and cabinetmaking classes have done good work,

but the evening classes was not so well attended as might have been expected. The plumbing class was small at the beginning of the session, but showed a slight increase towards the end. The great need of this class at present is better workshop accommodation. The telegraphy class fell away very considerably in numbers, largely due to the Post and Telegraph Department having ceased to employ girls as telegraphists, and also as, I understand, having discontinued making promotions from the messengers.

A number of returned soldiers were enrolled during the year for various subjects, but, with a few exceptions, the attendance left much to be desired.

The usual classes for teachers were conducted in botany, hygiene, chemistry, drawing, and cardboard-modelling, and all except the last were fairly well attended. The work would be more successful if the teachers fully realized the need for supplementing the class-work with private study and practice. Too many, however, think this extra work quite unnecessary.

Probably the most important event in the history of the school was the appointment of a Board of Managers. The first official meeting of the Board took place on the 21st November, 1919.

The usual annual exhibition of students' work, which, owing to the epidemic, was not held during the previous year, was opened on the 12th December. The exhibits, whilst perhaps not so numerous as in former years, were representative, and the quality of the work was admitted by all to be of a much higher standard than that of previous exhibitions.

F. C. J. COCKBURN, Director.

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

The work of the session just closed has in most respects been quite as successful as could be expected in existing circumstances. The total number of enrolments in all classes for the year consists of 269 technical and 454 manual pupils, making a grand total of 723.

The commercial classes were again large and well attended, and under capable tuition did good work. An accountancy class was formed in May last, and was attended by nine pupils, one of whom sat for the University examination for the book-keeper's diploma. The carpentry class, consisting mainly of adults, was a mixed class, and did some very good work of a cabinetmaking nature. As a result of stagnation in all building operations here, due to war causes, apprentice-carpenters are at the present time non-existent, necessitating the catering for those who would rank as amateurs only. The art classes produced some excellent work. The dressmaking class was not so successful as during previous years. A millinery class was also held, but called forth only poor response. It is to be regretted that the domestic-science department was unable to add one item to the display at the exhibition, in connection with which, upon all previous occasions, it had taken a prominent part. The engineering classes, both day and evening, were numerically similar to those of last year, and were well attended. The exhibition of work from this department was, as in the past, an exceedingly interesting one, and is being kept intact so far as possible to form an addition to the agricultural and pastoral show in February next, which always takes place during the opening week of the Technical School. The prospects for the day engineering class for next year appear very bright, as four new enrolments are already in hand.

A. G. TOMKINS, Director.

EXTRACT FROM THE REPORT OF THE LOCAL SUPERVISOR OF MANUAL AND TECHNICAL CLASSES AT REEFTON.

I regret to state that no adult continuation or technical classes were held. There was no demand for the book-keeping classes which had been a feature of former years, or for any other continuation classes. The fact that instructors in dressmaking and woodwork were not available accounts for the absence of dressmaking classes and manual-training classes in woodwork.

W. A. RUMBOLD, Local Supervisor.

CANTERBURY DISTRICT.

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

It is pleasing to report a continuance of the steady increase in the attendance at the Technical School. The numbers for the past four years were as follows: 1916, 1,601; 1917, 1,702; 1918, 1,808; 1919, 1,964. The number for 1919 does not include the soldiers who attended at the Technical School for special classes whilst under treatment at the Hospital, otherwise it would have been greater than 2,000. The increases have been largely due to the growth of the Technical High School, which last year had 596 pupils for whom capitation was claimed, and which thus came into place as one of the largest secondary schools in the South Island. The evening classes, moreover, have also shown a considerable development, as ninety-two more students entered in the past year than in 1918.

The year brought many changes in the staffing of the school, the most notable being the transfer of the Director, Mr. J. H. Howell, to Wellington. As he took control of the classes in 1906, when technical education was in its infancy and in a very uncertain position in Christchurch, he was responsible for a remarkable development, which brought the school to the forefront of educational institutions in New Zealand. The Girls' Training Hostel, to the building and development of which he devoted much thought and energy, may still claim to be unique in the Dominion. Among other changes were those caused by the appointment of Mr. W. G. Aldridge, the senior master, to the position of Director of the Southland Technical College, and of Miss C. B. Mills to the position of Principal of the Palmerston North Girls' High School.

As usual, the school was very successful in the preparation of students for examination, the successes recorded including—Matriculation and Accountancy Preliminary, eighteen passes and partial passes; Public Service Entrance, sixteen; shorthand-writers and typists, seven; senior free places, 161; New Zealand University Scholarships, two; Junior National Scholarships, two; Senior National Scholarship, one; New Zealand University book-keepers' certificate, one, and about ten passes in the Trade Examinations conducted by the City and Guilds of London Institute.

Technical High School.—The 596 students in the Technical High School were taking courses as follows: Commercial, 200; industrial, 151; agricultural, 55; home science, 83; Public Service and Matriculation, 107.

The formation of classes for instruction in the subjects of the Public Service Entrance Examination mentioned in the report for 1918 has proved very satisfactory, and as a natural sequence senior students are continuing in attendance in order to prepare for the Matriculation Examination. These examinations are now regarded as qualification for entrance to the higher branches of engineering, domestic science, agriculture, and accountancy, so that provisions must be made in technical high schools for tuition to at least Matriculation standard in the required subjects. This standard of work is expected of students who desire to qualify for the bursaries now granted for instruction in engineering and home science at the New Zealand University, and in agriculture at Lincoln College.

It will be noticed that our agricultural course, as in other technical high schools in New Zealand, attracts fewer students than any one of the other sources, and this is all the more surprising in view of the large number of country boys under instruction. Special attention is being paid, however, to subjects of importance to young farmers, and arrangements have been made for the appointment in Britain of a highly qualified instructor to take up his duties in 1920.

In order to make the course as useful as possible for boys in their third and fourth years, the purchase of an instructional farm has been under consideration, and may, it is hoped, become an accomplished fact before the end of the year now entered upon. There can be no doubt that it is an absolute necessity if a graded course is to be carried on satisfactorily for even three years. At the end of the year two of our former students secured bursaries by which they will be able to carry on advanced studies in agriculture at Canterbury College and Lincoln College.

The engineering course continues to be the most popular among the boys, and large numbers of ex-students are now engaged in the trade in Christchurch and other towns in Canterbury. Only one mechanical-engineering workshop has been provided, and it is inadequate for the 176 boys who spend part of each week in it; but the grant of £5,000 recently made towards extensions will enable this defect to be remedied. The bursaries in engineering, tenable at Canterbury College for students who have taken the course in a technical high school, are unlikely to be in demand among our students until a maintenance allowance is made for those resident here as well as for those whose homes are in other parts of New Zealand.

The value of the work done in all grades of the home-science course is emphasized by the fact that in the past six years at least twenty-five of our students have secured good positions as teachers of home science in various parts of New Zealand and Australia. Many of the most intelligent students taking this course in the Technical High School are encouraged to qualify for the teachers' diploma granted by the College by following up the advanced work in which instruction is given; and the facilities available in our classes, at the Training Hostel, and at Canterbury University College are ample for the training of good teachers. In view of the expense involved it is hoped that home-science bursaries for students in training in Christchurch will be provided before long by the Education Department, instead of by the College, since the work is of such great importance to the Dominion as a whole.

The College has not yet been able to board boys from the country, and a hostel for this purpose is very necessary. The Girls' Hostel is also quite inadequate for the accommodation of all the students who apply for admission, and as the number of pupils of both sexes attending from the country is considerable, the provision of additional accommodation is in need of early consideration.

Evening Classes.—As mentioned earlier, the attendance at the evening classes showed a considerable increase over that of the previous year. An analysis of the records of students shows that about a third were interested in commercial and general education and about one-sixth in domestic classes, so that about one-half were mainly in the trade classes. This is a very satisfactory indication that the school is serving a useful purpose in forwarding trade and industrial education in the town. All the trade classes were well attended, except that the typography class was suspended about the middle of the year owing to an insufficient number of students. Mechanical engineering subjects have always been popular, and the electrical-engineering classes showed increased enrolments. The plumbing classes have made a marked recovery since the termination of the war, and were attended by many discharged soldiers, but young apprentices were few in number. The classes for cabinetmaking and carpentry were also very satisfactory.

Classes for shearing and wool-classing were well attended, sixty-nine men taking the former, in which upwards of eight thousand sheep were shorn. For wool-classing it has been found necessary on account of the large classes, to rent a room at some distance from the College.

Courses in general subjects to qualify students for such examinations as Standard VI, Public Service Entrance, and Matriculation have all been well filled, and undoubtedly there is at present a growing interest in subjects that promote general education and mental development apart from those which make for technical efficiency.

A total of 168 returned soldiers enrolled for the ordinary classes in the College, whilst a large number attended besides at classes specially arranged by the Defence and Repatriation Departments respectively. The spirit evinced by these men is a source of pleasure, for many of them have sat side by side with some of the youngest pupils in the school, and carried out unaccustomed work with a determination and an interest demanding admiration. One full-time day class in motor engineering was arranged for discharged men in the third term, and though most of the students had had no previous trade experience, they are making very good progress.

General.—Much dissatisfaction was caused among contributing bodies by the decision of the Minister of Education to reduce their representation on the Board of Managers. The contributions, and the interest and support that they carried with them, have done much to bring the school to its present position, and the hope is expressed that something may be done immediately to give better representation to those bodies whose support is so vital to its well-being. At the same time the Board has to express its gratitude to the contributors for their continued assistance.

The ex-students have continued to show a keen interest in the College, and all their clubs and societies have been well supported during the year. They have also been active in connection with the raising of funds for the Old Boys' Memorial, and about £200 was added to the fund through the activities of past and present students during the year.

D. E. HANSEN, Director.

EXTRACT FROM THE REPORT OF THE SUPERVISOR OF MANUAL AND TECHNICAL INSTRUCTION.

Although there has been an increased interest in technical and continuation classes during the year, this branch of education does not receive the support it deserves, and the reason of this is not far to seek. Technical associations in all parts of the district are suffering from lack of funds

to carry on the work, and lack of funds means lack of instructors; the increased value of boy-labour is also an important factor against attendance. However, new regulations have been gazetted under the Act by which increased capitation grants are to be paid for technical and continuation classes. This should give a great fillip to the work, for if the funds are available the instructors can be found. Courses of instruction were carried on at Waimate, Timaru, Temuka, Geraldine, Ashburton, Rangiora, and Greymouth, whilst individual technical and continuation classes were taught at Fairlie, Akaroa, Doyleston, Leeston, Lakeside, and Kaiapoi. The compulsory clause of the Act was put into force at Ashburton at the beginning of the year. Generally it worked smoothly enough; it certainly had the desired effect of increasing the numbers of pupils, and of making the attendance of others more regular. No new technical-school buildings were erected during the year, but valuable grants of land were given by the Timaru and Greymouth Borough Councils as sites for technical schools. The matter of dealing with the Timaru site is still held in abeyance, but a substantial amount has been approved for the erection of a technical building at Greymouth, for which plans are in progress now, and it is expected that the erection of the building will be proceeded with immediately. It is pleasing to note that there is an increased demand for technical education in Greymouth. The commercial work done there during the year was of a very high order, and it is extremely unfortunate that the Board is losing the services of the instructress who is responsible for putting the work at that centre on a good footing.

The requirements of pupil-teachers, probationers, and uncertificated teachers have not been lost sight of, as classes for instruction of such students have been conducted at Timaru for agriculture, drawing, and hygiene; at Christchurch for agriculture, drawing, ambulance-work, and hygiene; and at Greymouth for agriculture, mathematics, English, drawing, ambulance-work, hygiene, and singing. These classes have been well attended, and the instruction given has been helpful to the younger teachers both in their actual teaching and in their examination work. For teachers in remote parts of the district correspondence classes were carried on.

It is now over three years since the Canterbury Education Board took over this important branch of education for this large district. A retrospect of the work done during that time shows steady and solid progress. There is evidence to show that more classes are carried on all round, that better facilities are provided, and that there is greater interest in the work as regards elementary handwork, advanced handwork, agriculture, teachers' classes, and technical and continuation classes.

RITCHINGS GRANT, Supervisor.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE BANKS PENINSULA TECHNICAL CLASSES ASSOCIATION.

Only one technical class was carried on during the year—namely, a class in dressmaking. Thirteen pupils attended this class, and good work was done during the term.

VIOLET CHEYNE FARNIE, Director.

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

The year has been a period of many changes. In August Mr. Moore, who had guided the destinies of the school since 1912 received well-deserved promotion to a similar position in New Plymouth. Other changes in staff and the curtailment of the railway service made it difficult to carry on some of the classes. However, the loyal assistance of the staff enabled the Director to make a wholesale reorganization of classes in which Saturday became the chief school-day. The reinstatement of the original railway time-table in October allowed the classes to resume the normal time-table, but the school ran shorthanded until the end of the session.

Satisfactory progress in the work of the school was made, and the attendance kept up remarkably well throughout a trying year.

Every department in the school showed an increase in numbers over those of the previous year, the increase in the commercial and trade classes being most pronounced. The number of individual students at technical classes was 499, as compared with 435 for 1918.

Full-term dressmaking and millinery classes were held at Methven and Staveley, while a short course of six weeks was all that could be managed at Mayfield. The instructress deserves special mention for her successful management of these classes under very trying transport difficulties.

Twenty-six students, twenty-one of whom were returned soldiers, took the sheep-shearing course, and the instructor is to be congratulated on the excellent work done. The wool-classing class also proved a signal success.

Forty-one pupils were granted senior-free places, and fifteen were granted an extension of their junior free places for another year; two gained Pitman's speed certificates, and three sat for the London City and Guilds Examination in Electricity.

The growth of the school forced the Board to hire a room in the town for the home-nursing classes.

Plans have been prepared for new engineering and woodwork shops. The equipment of the new engineering-shop will add a much-needed branch of the activities of the school, and the removal of the woodwork classes to their new room will relieve the congestion in the main building.

A display of woodwork, metal-work, cookery, and needlework from both primary and technical classes was exhibited at the annual agricultural and pastoral show, prizes being given by members of the association and other gentlemen.

At the end of the year a most successful exhibition of work was held, many parents and other visitors remarking on the fine quality and wide range of work carried out at the school.

A question which is beginning to become acute is the need for suitable playing-grounds for students. The lack of these, and the need for a hostel where teachers and students could obtain suitable board and lodging, are having a marked detrimental effect on the efficiency of the school. The Board is greatly indebted to the late Mr. Charles Baker, who bequeathed to the school a legacy (subject to a life interest) of £1,000. Such large-hearted generosity is what is badly needed to enable the school to fulfil its functions, and to make it more worthy of the rich district of which it is the educational centre.

Thanks are due to the Mayor, Mr. Galbraith, for the loan of a piano to the school; to Messrs. Madden and Kissane for the use of grounds for basketball; and to the following for generous contributions throughout the year: County Council, Agricultural and Pastoral Association, Canterbury Sheepowners' Union, Borough Council, High School Board of Governors, and numerous private subscribers.

R. J. THOMPSON, Director.

EXTRACT FROM THE REPORT OF THE KAIAPOI TECHNICAL SCHOOL BOARD.

During the year classes were held in dressmaking, woodwork, cookery, and wool-classing. There were fifty-nine students in attendance. Miss E. Pitts had to give up the dressmaking class through increase of business. She has done splendid work here for a number of years, and her loss is greatly regretted. An up-to-date cookery plant has been installed, and should there be a coal shortage this may be used in the day-school classes.

THOS. DOUDS, Secretary.

EXTRACT FROM THE REPORT OF THE TIMARU TECHNICAL SCHOOL BOARD.

A very satisfactory year's work has been done in all the classes. The work has been organized as a day school for full-time pupils, special classes for high-school pupils in typing and wool-classing, classes for soldiers from the Orthopædic Hospital in wool-classing, and a course of evening classes for pupils who are engaged during the day.

The day-school work is divided into three courses—engineering, commercial, and domestic science; and each pupil attended for a full course. The subjects of the day school were English, arithmetic, practical mathematics, practical geometry, applied mechanics, machine drawing, electricity and magnetism, practical engineering, commercial correspondence, shorthand, typewriting, book-keeping, first aid and home nursing, cookery, dressmaking, and physical drill. Eighty pupils enrolled in the day school, eighteen for engineering, and sixty-two for commercial and domestic science. Of this number eleven left during the year, and a number transferred to evening classes on account of their having obtained situations in the town. Twenty-two of these pupils were from country districts, including Fairlie and Upper Waitohi. The break in the train services, however, affected the attendances considerably except in one or two cases, but apart from this the attendance and general conduct has been very good indeed.

The evening classes were divided into regular courses of work for commercial, domestic, trade (engineering especially), agricultural, and art. Classes were carried on as under: Book-keeping (two), shorthand (three), typewriting (four), English (two), arithmetic (two), commercial correspondence and economics (one), motor-car engineering (one), machine drawing (one), electricity and mathematics (one), dressmaking (two), cookery (one), pharmacy (one), ticket-writing (one), art (one), wool-classing (five), and in addition two classes in wool-classing for boys and two for typewriting for girls from the high schools. These classes were attended by 390 pupils, and, including the eighty pupils in the day school, 470 have been in regular attendance throughout the year. A special class in sheep-shearing was carried on at Smithfield Freezing-works, at which fifteen pupils attended, all of whom qualified at the end of the three-weeks course as shearers. Some 2,400 sheep were shorn, yielding about forty-five bales of wool.

It was not found possible to carry on a practical class in engineering for evening-class pupils on account of the lack of machinery; but fortunately a grant of nearly £500 has been made by the Department, and this has made possible the purchase of two lathes, two drilling-machines, grinding-apparatus, power hack-saw, shafting, belting, &c. All of this is on the way at the present time, and delivery will be complete by February, 1920, so that an engineering course will be available for both day and evening classes.

The annual exhibition of students' work, by the courtesy of Messrs. J. Ballantyne and Co., was held in the firm's premises in Stafford Street, when examples of the practical work done by the pupils were shown.

Six pupils have been successful in passing the examination in theory of shorthand held by Sir Isaac Pitman and Sons.

Thirty-six pupils were awarded senior free places by the Education Department.

Very little has been done in the way of sports on account of lack of space, but, fortunately, owing to the consideration of the Borough Council, an area of nearly 4 acres, on the southern side of Anzac Square, has been offered to the Board for the erection of an up-to-date technical college. This it is to be hoped will meet the needs of the whole of South Canterbury for day-time technical training, games, physical training, and social recreation, the need of which is felt very much at the present time. Owing to the large increase in numbers attending the classes, the existing buildings are totally inadequate to meet the needs of the present day, and obviously this difficulty will be greater in 1920. The day-school pupils were forty-three in number in 1918; in 1919, eighty were in attendance. The evening class attendance increased from 300 in 1918 to 390 in 1919; the increase in the weekly attendances at the day classes was about 430 over the attendance of 1918, so that the work of the College increased some 80 per cent. on the work of 1918, and the need for practically trained pupils for all branches of industry being very great indeed it can only be expected to increase rapidly as time goes on.

In April, 1919, a conference was held, when the Department's Superintendent was present, and the matter of insufficient accommodation at the College was discussed fully. Mr. La Trobe expressed the opinion that the buildings were inadequate for even present requirements, and suggested that a new site be obtained if possible. Further conferences were held with the Education Board, and ultimately the Borough Council was approached with reference to a site of 4 acres attached to swimming-baths, and a further playing-area of 10 acres. After consideration the Council decided to make a grant of the area of 4 acres—which is surrounded with trees and half laid out as a croquet-lawn—to the Board for the purpose of the erection of an up-to-date technical college for South Canterbury. The offer holds good only for 1920 and 1921, and it is confidently hoped that the Government will accept the grant and provide funds for the erection of at least a nucleus of a modern technical college.

During the year two social evenings were held for the evening-class pupils, and two afternoons for the day-school pupils. Basketball and other games, in addition to physical drill, were carried on also.

W. FOSSEY, Director.

EXTRACT FROM THE REPORT OF THE TEMUKA TECHNICAL SCHOOL BOARD.

Throughout the year classes were conducted in wool-classing, dairy-farming, carpentry and cabinetwork, dressmaking (two), commercial work, and sheep-shearing.

There were eighty-five individual students, including twelve returned soldiers admitted free, besides six non-capitation evening school pupils to whom the association were pleased to give assistance. Of the eighty-five pupils, sixty-one were males and twenty-four were females, the preponderance of males over females being due to the fact that classes in connection with agricultural and pastoral pursuits were well attended by an enthusiastic body of farmers.

The teaching staff were energetic and painstaking. Some of them have served this Board faithfully and well for a number of years, and are now widely known and worthy of confidence. The other instructors also did excellent class work, and no doubt will quickly win the esteem of the Board, the students, and the residents of Temuka. It is hoped this coming year to add other well-qualified instructors to the teaching staff.

In the shearing class there was a larger roll of students than in any previous year in the history of the school, and 2,780 sheep were shorn in a most satisfactory manner. Pupils attended the class from the Fairlie, Geraldine, Ashburton, Pleasant Point, Seadown, and Temuka districts. Nine students gained first-class shearing certificates, and nearly every member secured a "stand" in a good shed, some going as far as the Mackenzie country and doing very creditable work in merino flocks. It may be interesting to state in passing that some of our last year's students went this year to the North Island, and had a good run and earned high wages. In connection with the shearing class the Managers desire to thank Mr. S. McCully for providing shed accommodation and sheep, Mrs. S. McCully for supplying tea and lunches to the students and instructors, and the farmers generally for keeping the men going with sheep, sometimes at considerable inconvenience and at no small expense to themselves. The public day arranged by Mr. McCully was a complete success, and over a hundred visitors interested in the shearing class gathered to see the pupils shearing, classing, and pressing. The wool for the wool-classing class was kindly supplied by the Imperial Supplies Department, Wellington, at the instance of the Minister of Lands; and at the close of the session it was sent to Mr. Rooney's wool-scouring works, Temuka, whence it was forwarded to Timaru. The Board appreciate very much the assistance given by the Minister to obtain the wool for instructional purposes. The wool for next session is being similarly arranged for. Eleven students gained first-class certificates in wool-classing. A member of the wool class competed successfully at the Timaru Agricultural and Pastoral Association's wool-classing competition held in October.

The dairying class was a very useful one, and the practical work done during the term interested the farmers a great deal. A cow was brought to the school on three different occasions; milk-testing was done; the making of calf-meal was explained and samples analysed; diseases and ailments in horses, cows, and pigs were demonstrated; work with the lactometer and hydrometer was carried out, and other practical work received full attention. At the close of the course pupils felt that they had not had enough, and hoped that the course would be continued during the next year.

The classes in dressmaking are now so well known that comment on the instruction therein is not necessary. It is hoped that during 1920 there will be larger classes in carpentry and book-keeping respectively. It is intended during the next season to launch classes in bee-keeping, poultry-farming, boot-mending, and motor-engineering in addition to those already mentioned, and perhaps there will be cookery and millinery classes as well.

We cannot close this report without expressing the thanks of the Board to the Geraldine County Council for their practical recognition of the work done in our classes, and also to the Canterbury Sheepowners' Union for increasing their grant. To local bodies generally and to private individuals the Board also wish to extend their thanks for continued support, which has encouraged them to persevere in the good work of extending the opportunities to gain knowledge. Before concluding the Board wish to point out that, by new regulations, the representation of local bodies and subscribers was considerably narrowed, and gentlemen who for many years were members of the management, and who took a lively interest in the school, lost their seats. A motion expressing appreciation of their work in the interests of the Temuka technical classes, and therefore of the Town of Temuka and its people, has been recorded in the books of the association, and a letter of thanks for their services sent to each.

GEO. B. CARTWRIGHT, Chairman.

J. T. SMART, Director.

EXTRACT FROM THE REPORT OF THE PLEASANT POINT TECHNICAL SCHOOL BOARD.

Owing to the unsettled condition of the labour-market, occasioned by the war unrest, technical education has not made much progress during the year 1919, and the restricted train service added further difficulties.

The thanks of the members of the association are due to the several bodies which gave financial support. These grants, with the Government subsidy, enabled a sound financial position to be maintained.

It is the intention of the association to establish continuation classes during the year 1920, and a decided forward policy is contemplated in addition to the ordinary technical classes.

J. MAZE, Chairman.

ARTHUR J. WICKES, Director.

EXTRACT FROM THE REPORT OF THE WAIMATE TECHNICAL SCHOOL BOARD.

The following classes were successfully conducted at Waimate during the 1919 session: English and arithmetic, painting, book-keeping, wool-classing (two classes), and dressmaking (three classes), the total number of students being 129.

Wool-classing continues to be the most popular subject, and was taken by no fewer than forty-nine students, dressmaking coming next with thirty-seven.

A new departure was in the direction of establishing classes in English and arithmetic, thus making provision for free students. In all nine free students and five returned soldiers availed themselves of the special facilities provided.

All the classes were well attended, and the students, under the tuition of competent and painstaking instructors, displayed commendable keenness in their work.

From a financial point of view the session proved very satisfactory, the capitation earned amounting to £183 13s. 3d. The total receipts amounted to £310 18s. 6d. and the expenditure to £282 11s. 8d., the balance to credit at the Bank of New Zealand being £113 12s. 4d.

J. MENZIES, Secretary.

EXTRACT FROM THE REPORT OF THE FAIRLIE TECHNICAL SCHOOL BOARD.

As was expected, the conclusion of the war brought a revival in the work of the Fairlie Technical Classes Association. The Director was successful in forming three classes—namely, wool-classing, dressmaking, and motor engineering. A total of fifty-two pupils attended these

classes, not including four soldiers, who held free places. The class in motor engineering drew the largest number of pupils, and the best thanks of the Managers are due to the instructor and also to Mr. Bray for the use of his garage and workshop for the practical portion of the work.

The buildings and furniture are in good order and repair, and reflect credit upon the caretaker. The Director, Mr. F. Piper, is to be commended for the very able and careful manner in which he carried out his duties. Unfortunately, he removed from the district early in the year. His resignation was received and accepted with genuine regret.

CHAS. J. TALBOT, Chairman.

EXTRACT FROM THE REPORT OF THE CONTROLLING AUTHORITY OF THE RANGIORA TECHNICAL CLASSES.

The attendance at all classes conducted in 1919 was good, practically double what it was two years ago. Dress-cutting continues to be a very popular class, and in 1919 there were more pupils offering than could be accommodated. Full advantage is taken of the woodwork evening classes, and excellent work continues to be done by the students in attendance.

The chief demand in the district is, however, for classes in agricultural subjects, and since the whole machinery for the conduct of these classes exists in the Rangiora High School it is to be regretted that classes in agriculture cannot be established. A considerable number of youths holding technical free places apply for admission each year, but in accordance with the Department's wishes these applications are now being discouraged. At the same time the Board hopes that the Department will see its way to modify regulations with a view to providing more facilities for vocational training in agricultural subjects. The Board is prepared to conduct classes in agricultural science, dairy science, farmers' costing accounts and book-keeping generally, levelling and farm surveying, wool-classing, &c., as soon as departmental restrictions are removed.

W. A. BANKS,

Chairman, Rangiora High School Board

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

School of Engineering.—The revenue for the year in this department of the College was £5,565, an increase of £918 over that for 1918. Government grants, including capitation, amounted to £3,111, and contributions from endowments £1,725. The total of students' fees reached £911, exceeding that of the previous year by £357. The expenditure for the year was £6,052, or £1,689 more than for 1918, and of the total amount £3,457 was expended in salaries. The overdraft on the Buildings Loan Account was reduced from £1,360 to £248.

The total number of students on the books, including those attending evening classes, was 214, as against 180 in 1918. The number of matriculated students is increasing rapidly.

To show that the school is fulfilling its work as a national school it is only necessary to ask a few of the students for their home address: it is then found that they come from every part of the Dominion. A list of some of the ex-students of the school was prepared during the course of last year. This showed that men trained at Canterbury College were filling positions of importance not only in the Dominion, but all over the world. Successive Ministers of Education have agreed that the Engineering School at Canterbury College is in a similar position to the Medical School at Dunedin, and should therefore be recognized as a national school and have national support.

It is proposed to erect additional buildings between the existing Engineering School buildings and the Boys' High School, and also to take over the newer portion of the Boys' High School buildings for the School of Engineering purposes; but the school is likely to be greatly hampered for space during the next two years, as it is clear that until the new Boys' High School is erected the existing buildings cannot be vacated by the High School.

School of Art.—The School of Art accounts show a total revenue of £3,111, and a total outgo of £2,735. The revenue is £1,079 more than for the preceding year, and the payments increased by £143. The contribution from endowments was £500. Fees amounted to £653, and Government grants to £1,650. The Government grants included capitation for free places, £442; capitation for technical classes, £1,063; and apparatus and material, £145. The payments include £2,143 for salaries.

The number of individual students attending the School of Art increased from 345 in 1918 to 481 in 1919. Numbers are not necessarily a sure indication of success, yet they clearly show a growing demand for the kind of work the school stands for.

It is to be wished that residents of Christchurch would take the trouble to visit the School of Art and see for themselves the work that has been carried out. It has certainly produced a sculptor of more than ordinary attainments. The classes for apprentices in signwriting and decorating have not been quite the success it was hoped they would be at the beginning of the year. This is due to the laxity of attendance at the evening classes, and possibly to the fact that youth is attracted more to the picture-shows than to art. Compulsory attendance appears to be the only remedy.

The Board has recently appointed Mr. A. F. Nicoll to the position of Director, and he takes up his duty at the beginning of April. Mr. Nicoll is a former student of the school, and well known as a painter in New Zealand. He has also had experience in Edinburgh, and saw active service during the European war. I wish to record the Board's recognition of the very excellent services rendered by Mr. Gurnsey during the time he has filled the position as Acting-Director.

The numbers attending are such that very soon the whole question of remodelling the school will have to receive the earnest consideration of the Board.

EXTRACT FROM THE REPORT OF THE PROFESSOR IN CHARGE, CANTERBURY COLLEGE SCHOOL OF ENGINEERING.

Following on the conclusion of the war there has been a marked increase in the number of students. Many returned from the front, and it is satisfactory to find that all who had entered in courses here decided to return and complete in preference to doing so at an English university.

The number of matriculated men studying for the University degree, the College Associateship, and the Surveyor's Examination was seventy-three, an increase of forty-eight on the number of 1918. The number of evening students was 141, a slight falling-off as compared with 1918. The total number of names on the books was thus 214, as against 180 of the previous year.

Thirty-one lectures and 109 hours' teaching in laboratory-work, drawing, problems, field-work and plotting, making in all 140 hours' instruction, were given each week. The hour-attendances of students were 1,679 per week, or nearly double those of 1918.

As forecasted in my previous report, 1919 proved a record year as far as the attendance of matriculation students was concerned, and there is every indication that the limit of our present capacity will be reached in 1920.

Examination results: At the University examinations for 1918 eight students passed the Engineering Entrance Examination, two students passed the First Professional Examination, two students passed the Second Professional Examination, and two students passed the Final Examination for the degree of B.E. (Civil). The results for 1919 are not yet to hand.

At the College and Associateship Examinations of 1919 the following passes were secured: Pure mathematics (Engineering Entrance), 12; pure mathematics (Associateship), 5; mathematics C2, 3; mathematics C4 (spherical trigonometry), 4; applied mathematics (Engineering Entrance), 16; applied mathematics (Associateship), 6; physics, 18; chemistry (Engineering Entrance), 13; chemistry (Associateship), 3; geology, 7; freehand mechanical drawing, 8; descriptive geometry, advanced, 11; mechanical drawing and design (first year), 11; mechanical drawing and design (second year), 1; steam-engine, elementary, 15; steam-engine, intermediate, 3; applied mechanics, 9; strength of materials, elementary, 10; strength of materials, intermediate, 3; strength of materials, advanced, 2; surveying, elementary, 2; building-construction, 1; principles of civil engineering, 1; applied electricity, 10.

Extra-mural students: 213 passes were secured by extra-mural students, who were awarded certificates in the following subjects: Freehand mechanical drawing, Section I, 26; freehand mechanical drawing, Section II, 30; descriptive geometry, elementary, 21; descriptive geometry and setting out work, 26; mechanical drawing, Section I, 19; mechanical drawing, Section II, 12; steam-engine, elementary, 30; applied mechanics, elementary, 10; strength of materials, elementary, 6; theory of workshop practice, 2; surveying, elementary, 3; electrical engineering, preliminary, 8; electrical engineering, elementary, C.C., 8; electrical engineering, A.C., 6; elementary engineering, mathematics, 6; total passes, 213.

Testing: During the year many important tests were carried out for various Government Departments and private firms on winding-ropes, suspension-bridge cables, telegraph insulator brackets, electrically welded joints, transmission-cable joints, crane chains, lubricating-oils, dumping-bands, wire, steel bars, bolts, samples of New Zealand timbers used in harbour-works, cement, motor-spirits, manila ropes, marbles, and building-stones.

Apparatus and plant: Owing to war conditions only a few additions were made to the plant. These included a set of timber-beam-testing apparatus to meet the conditions laid down by the Royal Aircraft Department, an ammeter and a voltmeter for A.C. currents (the above were all designed at the school and manufactured locally), three carbon rheostats, a 5 in. and 10 in. Troughton and Sims theodolite, a 10 in. Watt's level.

ROBERT J. SCOTT, Professor in Charge.

EXTRACT FROM THE REPORT OF THE ACTING-DIRECTOR OF THE CANTERBURY COLLEGE SCHOOL OF ART.

The past year has been a record one from the point of view of numbers attending the school, there having been 481 individual students, as against 345 in 1918, an increase of 136.

There is a growing demand for our students in the industrial world, and much to our regret sometimes our most promising ones are taken away to earn money, who, if left with us long enough, would probably gain a reputation of which New Zealand would be proud. At the present time we have, especially among the younger students, some who show promise of doing great things in the art world if they continue at the pace they have started.

The classes this year have reached a high standard; especially is this the case with the drawing, some really excellent work having been done. Composition and anatomy were taken in conjunction with these classes. Some of the work done in the landscape classes shows great improvement on past years. To give an opportunity for students attending evening classes to work in colour and further their studies, the Saturday afternoon class was restarted after a lapse of several years. This promises to be a very useful class, and might be extended through the winter by classes held in the school when weather is unfavourable for outdoor work. The standard of work in the classes for drawing from the antique has been well maintained, several of the junior students doing work showing great promise. Classes in design have received an impetus, chiefly owing to a greater efficiency in draughtmanship, the result of giving more attention to the elementary side of drawing than was formerly the case. Although perhaps less attractive than some other subjects, the study of still life proved itself to be of use in giving students a groundwork for painting technique. Some very good studies were done during the year. Architectural-drawing classes are recovering rapidly from the slump that set in during war-time. Towards the end of the year several students who had been on active service returned, classes filled up, and the prospects for this section are undoubtedly brilliant.

Although suffering from disadvantages from the point of view of light, and inconvenience owing to the room having to be used for craft work, some work of merit was done in the advanced class for modelling, and among the junior students there is a promise that, given better working-conditions, some good modellers would result therefrom.

It was found necessary, owing to the large number of students attending, to form two extra classes for applied art. Some good work was done in both the advanced and the junior sections, the examiner in his report pointing out that some of the work was equal to that turned out by professional jewellers.

In needlework much more ambitious work was attempted in this section this year in consequence of the attendance of more advanced students. The report of the examiner especially mentioned the art needlework which is designed by the students in the school, and pointed out the advantage the school has in being able to carry the work through from the designing to the finished article.

Hopes regarding the success of the classes for painters' apprentices have not been fully realized. The numbers in attendance slowly fell off owing to the increasing scarcity of apprentices, and even those attached to the daytime trade classes became lax in their attendance at the necessary additional evening classes. At the request of the Master Painters' Association it was decided to continue the classes for another year, but it would appear that some form of compulsion is needed to remedy the present unsatisfactory state of affairs.

The Saturday classes for teachers were well maintained in numbers, and the discipline was excellent throughout the year. The Education Board's Supervisor of Manual Instruction expressed

himself highly satisfied with the work done. The same applies to the work of the Normal Training College students' classes. The departmental examinations held at the end of the year showed that the instruction given was of the right order.

Thanks are due to those who gave special prizes—namely, W. H. Montgomery, Esq., W. Reece, Esq., Canterbury Branch of the Institute of Architects, Mrs. Lousdale, J. W. Gibb, Esq., W. Sey, Esq., H. Hammond and Co., J. Ballantyne and Co., Whitcombe and Tombs, and Colonel Snow. F. G. GURNSEY, Acting-Director.

OTAGO DISTRICT.

EXTRACT FROM THE REPORT OF THE DUNEDIN TECHNICAL SCHOOL BOARD.

During the year 1919 435 pupils entered the Technical High School, 130 returned soldiers attended special day classes, and 1,377 students enrolled in the technical or evening classes. There were fifty-one transfers from one department to the other during the year, so that the number of individual students entered upon the books in 1919 totalled 1,891.

Returned Soldiers.—Special full-time classes for discharged soldiers seeking instruction in commercial work, mechanical engineering, motor engineering, and wool-classing were, under an arrangement with the Repatriation Department, carried on during the day. After the classes had been in operation for some months it was deemed advisable to close the class for wool-sorting, and appoint an additional instructor for motor engineering. All the classes were well attended by men who entered upon the courses of instruction with energy and enthusiasm, applied themselves diligently, and maintained a keen interest in their own training. As soon as they had acquired sufficient knowledge and experience these men, almost without exception, were, through the agency of the District Repatriation Board, placed in suitable civic employment. The success that has attended this scheme is a gratifying compensation for the slight disorganization of school-work and the inconvenience occasioned by the special provision for these practical classes. A large number of returned soldiers also attended evening classes, and proved themselves to be steady, attentive, reliable, and keen to learn. It is an interesting fact that practically all the discharged men who so far have availed themselves of the educational advantages offered have been of a particularly steady type.

The Farm.—Part of the overgrowth on the Kempthorne Farm has been cleared during the year, and the ground brought under cultivation. When account is taken of the season and also of the previous neglected state of the ground, the crops of oats, turnips, and potatoes produced may be regarded as very satisfactory. The residence and farm buildings, which were in a sad state of disrepair when the property was purchased, have been put into good order, and it is anticipated that these buildings will, with a little attention from time to time, serve their purpose for many years to come. The cost of the repairs, together with the purchase of implements and stock, involved the Board in an expenditure of £1,200. This amount was taken from the Technical School Board's ordinary funds, thus considerably reducing the working balance at the disposal of the school authorities.

Hutments for Boys.—The farm residence contains a large kitchen, a dining-room, and sitting-room suitable for the use of boys, so that with the erection of proper sleeping-quarters, now being erected, accommodation will be provided for at least twenty boys. Plans and specifications for detached hutments to serve the purpose were submitted to the Education Department, and in view of the heavy outlay already incurred by the Technical School a grant equal to the estimated cost of these buildings was at once promised. Having failed to obtain satisfactory offers by tender for the erection of the buildings thus sanctioned, the work has been undertaken by day labour, and present indications are that this method will prove satisfactory and at the same time less costly.

Hostels for Girls.—The Board has in previous reports referred to the unsatisfactory nature of daily long-distance travelling for girls, and has stressed the necessity for the erection of hostels. Plans showing the proposed buildings and arrangements were submitted to the Department, and in the reply received approval of the designs as well as of the project was expressed, with the suggestion that a suitable piece of ground, containing several acres, should be secured, upon which to erect such a hostel. Efforts have been made to obtain the necessary land, but up to the present time nothing definite has been done with regard to the purchase of a site.

Improvements and Extensions.—The motor-garage, erected during the year at a cost of £760, is a very important addition to the general equipment, and has been in full-time regular use since its completion. With the accommodation and facilities now at our disposal for the training of motor mechanics it is difficult to understand how we were previously able successfully to conduct classes for instruction in this branch of engineering.

The Board's policy of gradually improving the school yards and grounds has been continued, and as a result the courts, paths, and fence on the York Place frontage are gradually assuming a much more presentable appearance. Since the end of the year several friends of the school, noting this improved appearance, have, without any direct appeal being made to them, forwarded contributions sufficient to render nearly £100 available for the further prosecution of this work.

It is becoming increasingly evident that the completion of the main-school building, by the erection of the west wing, cannot be much longer delayed. The policy of small classes adopted by the school authorities, and the setting-aside of rooms for soldiers' classes, has somewhat taxed the class-room accommodation, while at the same time the school science-rooms have been in such constant demand that it has not been an easy matter to arrange for the routine of the work in the chemical and physical departments. The completion of the west wing would provide six additional rooms, one of which could be fitted up as a laboratory, while a second could be arranged as a lecture-room and, if required, used on occasions as a class-room.

Amended Regulations.—The regulations issued towards the end of the year provided a much-needed increase in the capitation payable on account of pupils in attendance at technical high schools, and the funds thus provided enabled the Board to pay members of the staff salaries more in keeping with their work and responsibilities. But the new method of computing the capitation for technical or evening classes can hardly be regarded as satisfactory. The increase in the amount receivable is practically nil. Although it was well known that a substantial increase was necessary, the practical result of the regulation is that the payments will average about the same *per capita* as formerly—and, indeed, perhaps even less. Further, we wish it to be noted that the fact that no increase for technical classes is forthcoming under the amended regulations is rendered the more regrettable by the omission of any addition to the rate of payment for free places. The

present rate of payment—3d. per hour-attendance—is that which was given when free places were granted at the beginning of 1903, and notwithstanding considerable increases in the cost of conducting classes the free-place capitation has remained at the original rate. We therefore call attention to the matter in the hope that some improvement in the scale of free-place capitation may be made.

Finance.—The year opened with a credit balance of £699 16s. 4d., and closed with a debit of £125 2s. 2d. The apparent deficiency resulted from the payment of increased allowances to teachers in anticipation of the receipt of advances from the Education Department. If allowance be made for this it will be found that the financial position is now much the same as at the beginning of last year.

Conclusion.—The work of the year has been conducted with the usual smoothness and harmony, the connection with the Otago University has been maintained, successes in public examinations have been repeated, and local bodies as well as the general public have continued their support of the College. In the opinion of the Managers the Education Department is also entitled to credit for the ever-ready consideration extended to all applications made on behalf of the Dunedin Technical School.

THOS. SCOTT, Chairman.

EXTRACT FROM THE REPORT OF THE CONTROLLING AUTHORITY OF THE DUNEDIN SCHOOL OF ART.

The School of Art staff provided as in previous years a full course in art and art crafts. The instruction was availed of by 520 students, comprising 91 day students, 140 evening students, 171 teachers, pupil-teachers, and probationers, and 118 Training College students.

The Board regrets having to record the recent death of Mr. Robert Haweridge, the esteemed Director of the School. Highly endowed with artistic qualities, a gifted teacher of art subjects, and a man of the finest character, his loss will be greatly felt in the community.

For many years past the revenue of the school has been quite inadequate for its maintenance, and at this juncture, when the appointment of a successor to Mr. Haweridge must be faced, the Board is seriously considering the question of the continuance of the school on its present lines. While deeply sensible of the necessity of providing facilities for the systematic study of art in the community, and recognizing its own responsibilities for the training in drawing of its own teachers, the Board fails to see that the tuition of the general public in art subjects is comprised within its functions—at any rate, it does not think that it should carry the whole financial liability. It is at present conferring with other organizations interested in art, and possibly some satisfactory solution of the difficulty may shortly be found.

S. M. PARK, Secretary.

EXTRACT FROM THE REPORT OF THE OAMARU TECHNICAL SCHOOL BOARD.

The Managers beg to report an uneventful year, the attendance of pupils being about the average number. Although returned soldiers were offered every inducement to attend classes, the response was not encouraging, and only in isolated cases was the attendance as regular as might have been expected.

The thanks of the Managers are due to those public bodies and individuals who contributed to the funds of the school.

C. H. CHURCH, Chairman.

EXTRACT FROM THE REPORT OF THE MILTON TECHNICAL SCHOOL BOARD.

Classes in painting and beaten copper work were held for one term only, and were attended by sixteen students, a number that can be considered satisfactory. The classes are not receiving the support of the young people of the district.

The total income from classes, including credit balance from the previous year, was £79 1s. 2d., and the expenditure was £17 9s., leaving a credit balance of £61 12s. 2d.

WM. ROY, Secretary.

EXTRACT FROM THE REPORT OF THE DEAN OF THE FACULTY OF HOME SCIENCE AT THE OTAGO UNIVERSITY COLLEGE.

I am glad to be able to report another satisfactory year in the development of the Home Science School. The total number of students on the roll was sixty-three; of these, fifty-nine took the course for either the full degree or the diploma, while the remaining four took special short-grouped courses. Seven students took the final year's work for the degree, and nine the final year for the diploma, a general increase on any previous record. Not all of these passed the examinations, but of those who did all were offered posts with thoroughly satisfactory salaries before the New Year. Indeed, we could have filled many more such positions, for there is still a great shortage of trained and certificated home-science teachers.

The alterations and additions to Studholme House were completed just before Easter. The house is now very commodious and convenient, but the number of new students has been so great that already I have had to take outside bedrooms for some of them. The kitchen and dining-room accommodation is still ample, and all can come to Studholme House for meals and enjoy the life in the common room, open-air study, and so forth.

The Home Science buildings are nearing completion, and it is hoped that the formal opening will take place soon after Easter of 1920, when those interested will be able to see the beautiful rooms and the satisfactory fittings which the generosity of some of the citizens of Dunedin and the Education Department has provided in order that the school may be adequately housed and allowed room for expansion and development.

W. L. BOYS-SMITH.

SOUTHLAND DISTRICT.

EXTRACT FROM THE REPORT OF THE INVERCARGILL TECHNICAL SCHOOL BOARD.

Technical High School.—At the close of the eighth year of the existence of the Southland Technical High School it is fitting that mention be made of the honour paid to this school by the appointment of its late Director, Dr. D. E. Hansen, as head of the Christchurch Technical School, the largest technical institution in the Dominion. The history of our technical school is a striking tribute to his foresight and devotion to the work of technical education. Many will recall that at the inception few anticipated a higher enrolment than fifty, rare optimists doubtfully expecting seventy-five; yet the school began the year with a roll of 140, which during the seven years of Dr. Hansen's administration rose to double that number. The esteem in which Dr. Hansen was universally held throughout Southland, his personal charm, and his unwearied devotion to the interests of this school, make his successor's path no easy one to tread.

The total enrolment for 1919 was 289, an increase of nine over the previous year. Of this number 169 were girls and 120 boys. The enrolment in the domestic course increased from thirty-two to fifty-four, in agriculture from twelve to seventeen, remained stationary in the trades course, and decreased slightly in the commercial. The total number decreased by forty-one during the second term, at least one-half of these being permanently withdrawn on account of the restricted train service. A much greater decrease would have been recorded but for the prompt action of the Board of Governors in offering a boarding-allowance up to 11s. per week to the parents of such pupils who could not travel daily to school during the period of train restrictions. By the end of the year the number decreased to 221. This notable falling-off in numbers, however regrettable from the point of view of the school, proved fortunate in another way, for the school was able to give a full-day course of instruction to no fewer than sixty-two returned soldiers, forty of them in commercial subjects and twenty-two in engineering. The latter course was not as complete as one could have wished, as we do not possess any facilities for the teaching of electrical or motor engineering.

The long-delayed additions to the engineering wing have been in progress of erection for the last six months, and it is expected that the new rooms will be ready in February next. The changes comprise an extended engineering workshop, a smithy for five forges, an electrical and mechanical laboratory, and the separation of the woodworking shop from the drawing class-room. The school will now be able to teach efficiently a larger number of trades students. Another manual-training workshop has now been vacated by the Education Board and placed at the disposal of this school. It is intended to fit up this as a chemical and physical laboratory, as the room previously in use was much too small for the purpose, besides being unsatisfactory in other respects.

The agricultural course is still lacking in the support that it deserves. It has now been separated completely from the trades course in regard to its curriculum, and no less than two-thirds of the whole week has been given to purely agricultural and practical subjects. This much-needed improvement was only made possible through the appointment of an extra teacher upon the staff, and the Board of Governors expectantly awaits the time when the enrolment in the course will be sufficient to justify the acquisition of an instructional farm for the benefit of the agricultural pupils.

It is still rather common for students to leave before the completion of their second year. All pupils should enrol with the clear aim of securing their senior free places before leaving, both on account of the much greater difficulty of qualifying in the evening school, and on account of the irksomeness of attending classes for three evenings weekly, a condition imposed upon practically every junior free student in evening classes.

Our school year has commonly been extended to forty-two weeks, a total of over a thousand hours, and yet out of 280 free pupils during the last year seventy-seven have failed to complete eight hundred hours' attendance, with the result that the average capitation earned has been only £11 15s. for pupils of this school, against £12 10s. 6d. for the rest of New Zealand. This lessened average is no doubt partly due to widespread illness and continuous bad weather, but it places the Board of Governors under a distinct disadvantage as compared with other centres. It is to be hoped that 1920 will see a much higher average attendance in proportion to enrolment.

With Dr. Hansen's resignation the boys' hostel was closed, and there seems no immediate reason to regret this step, for although the hostel would have been filled during the time of train restrictions, it does not appear as yet that the venture is justified by the number of country parents who would make use of it for their boys.

Evening Classes.—The total number enrolled in the evening classes during 1919 was 630, grouped as follows: Junior free students, 95; senior free students, 118; soldier free students, 96; paying students, 321. There is a slight increase over 1918, after allowing for a deduction of sixty-two soldiers who took a full course in the day school. The increase in students has been most marked in the engineering section, the numbers in the other classes remaining fairly uniform.

It was not found desirable to proceed with further classes in motor-car driving, particularly owing to the difficulty of securing an instructor, but mostly through our lack of proper instructional facilities.

The new classes held during the year were: (1.) A most successful class in home nursing and invalid cookery, the strength of whose appeal lay in the lessons of the 1918 epidemic. (2.) A practical and theoretical class in electrical wiring, inaugurated and continued in the face of formidable difficulties. This class has to its credit the wiring of the cookery-room and of the corridor in the main building. It is regrettable that the College cannot at present supply other electrical instruction, as a number of these students are very keen to continue the work. With the arrival of the complete equipment now on order, classes in the more advanced stages of electrical practice will be established. (3.) A special course for business men in book-keeping and accountancy, conducted on the lines of similar successful classes at Dunedin. It is hoped to include this class permanently in our syllabus.

The compulsory classes for free-place students were extremely well attended, and I feel that some meed of praise is due to those young people who, throughout a very severe winter, came regularly, even if a little unwillingly, to classes in English and arithmetic. I hope during this year to lessen the irksomeness of these compulsory classes by dividing them and making the subject-matter of the course more directly applicable to the daily needs of the students. This project, however, depends for its fulfilment on the greater enrolment of junior free students. The classes in commercial subjects and needlework attracted quite as many students as formerly; indeed, the roll in some commercial subjects has been at times too great for one teacher. In no case, however, has the class exceeded an average attendance of thirty, the maximum allowed by the Education Department for the purpose of the capitation claim.

It is hoped to commence a class in shearing next year.

At the close of the year there was sent down from Wellington a series of new regulations for the grouping of evening classes; the capitation forms based upon these have proved of immense benefit to the office staff, reducing by two-thirds the time necessary for compiling the claim. The scale of payment has been altered mostly to the advantage of the trade classes, but even on the whole the rate of payment is slightly better than before.

In a previous report attention was called to the percentage of primary-school pupils who made no further progress with their education. The position seems to have altered for the better as far

as concerns pupils who reached the Sixth Standard; about 15 per cent. of the Standard VI pupils in the Invercargill town schools in 1918 failed to proceed to further day or evening education. Experience in other centres tends to show that the application of compulsion to evening continuation classes does not always produce an increase in the total number of students attending, whereas, on the other hand, our own classes continue to show a satisfactory increase.

W. R. RIDDELL, Chairman.

W. S. ALDRIDGE, Director.

EXTRACT FROM THE REPORT OF THE SUPERVISOR OF MANUAL AND TECHNICAL INSTRUCTION.

Technical Classes.—Wool-sorting: After having been discontinued for a year, classes in this subject were resumed in the district at three centres—Gore, Waikaka, and Willowbank. The number of students in attendance at each centre was as follows: Gore, 22; Waikaka, 9; Willowbank, 23. The value of the course of instruction given in this subject is becoming the better realized the more fully the fact is grasped that upon the skill displayed in grading his wool depends the subsequent return the grower will receive, in that the more intelligently the classing has been done the easier it is for the buyer to place his limit with certainty.

Sheep-shearing: Recognizing that, owing to the dearth of capable shearers, there was need for having classes in sheep-shearing established in the district, and that there was every possibility of such classes being a success if competent instructors could be secured, the Board decided to hold classes wherever satisfactory arrangements could be made. Accordingly classes were held at four centres—Mandeville, Roslyn Bush, Woodlands, and Knapdale. In all cases the keenest interest in their work was displayed by students, and though the length of the course did not permit of students becoming experts in the time available, yet the careful grounding they received in correct methods made the matter of becoming an expert merely a question of continued practice. To the Farmers' Union the thanks of the Board are due for the interest displayed and the help given in getting the classes established. Voluntary contributions in aid of the classes were received to the amount of £18, £13 of this being raised in the Mandeville district, where the largest class was held and the keenest interest manifested. The total number of students in attendance at the various centres was twenty-seven.

Cookery: A successful class in this subject was carried on at Riverton for a period of ten weeks, there being eleven students in attendance.

R. BROWNLIE, Supervisor.

EXTRACT FROM THE REPORT OF THE CONTROLLING AUTHORITY OF THE GORE TECHNICAL SCHOOL.

Evening Classes.—From the point of view of enrolments the 1919 session was a record one in our experience, no fewer than seventy-five students taking one or other of the various classes. Of these seventy-five only ten were males; the remaining sixty-five were mainly girls and young women seeking instruction in commercial subjects. It is to be regretted that of the youths in our community only ten sought to take advantage of the instruction given in the classes undertaken.

During the session instruction was given to ten junior free pupils, four senior free pupils, and two returned soldiers, while the remaining fifty-nine paid fees. Instruction was given in English, arithmetic, shorthand, book-keeping, dressmaking, cabinetmaking, and ladies' woodwork. Each class was taken for two hours a week for a session of twenty weeks. The attendance at the classes was regular, and keen interest was displayed by the students. Of these, six attended classes for four subjects, five for three subjects, eight for two subjects, while the remaining fifty-six took only one subject. This means that during the session there was an individual attendance of 111 at the various classes. Altogether the session was a very successful one, the only regrettable feature being that the lads and young men of the town disregard the opportunities extended to them for making themselves more efficient.

ANDREW MARTIN, Secretary.

No. 4.

DETAILED TABLES RELATING TO TECHNICAL INSTRUCTION.

TABLE JI.—SOME PARTICULARS RELATING TO TECHNICAL EDUCATION FOR THE YEARS 1914–1919 INCLUSIVE.

	1914.	1915.	1916.	1917.	1918.	1919.
Number of centres at which classes were held..	138	168	151	154	131	110
Number of technical high schools	8	8	8	8	8	8
Number of other classes	1,731	1,817	1,915	1,962	1,965	2,014
Number of students—						
(a.) Technical high schools	1,839	1,955	2,105	2,347	2,747	2,926
(b.) Other classes	16,602	18,247	17,586	18,400	16,910	17,950
Number of free pupils at (a) and (b) above ..	5,258	5,660	5,975	6,127	6,715	7,242
Number of students attending under compulsory regulations	436	858	1,219	1,334	1,324	1,372
Total expenditure by Government for financial year	£ 80,210	£ 72,089	£ 84,931	£ 100,199	£ 85,335	£ 132,245
Including—						
Capitation—(a.) Technical high schools ..	18,854	19,309	25,934	35,795	33,150	47,343
(b.) Other classes	26,209	30,729	38,922	44,021	33,119	47,858
Grants for buildings and equipment	20,572	7,877	6,614	6,898	5,773	13,319
Subsidies on voluntary contributions	5,427	5,323	4,206	2,154	1,673	6,934
Conveyance of (a) Instructors	2,023	1,018	790	261	464	615
(b) Students	2,457	2,659	2,596	2,982	3,312	3,852

TABLE J2.—CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS HELD DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Controlling Authorities, Technical School Boards, and Managers.	Number of Students.					Subjects and Number of Classes.									
	Free Pupils.	Compulsory Pupils.	Discharged Soldiers.	Other Pupils.	Totals.	Art and Art-crafts.	Mechanical and Electrical Engineering (Theoretical and Practical).	Building Construction, Carpentry, Plumbing, and other Trades.	Experimental and Natural Science and Practical Mathematics.	Agriculture, Wool-sorting, Dairymaking, &c.	Domestic Subjects.	Commercial Subjects.	Subjects of General Education.	Total Number of Classes.	
Auckland Education Board—															
Auckland Technical School†	514	..	170	601	1,285	9	12	9	37	2	9	17	35	130	
Other classes, Auckland District Managers, "Elam" School of Art—	154	501	8	1,827	2,490	3	2	54	3	13	77	40	52	244	
"Elam" School of Art*	..	..	23	386	409	20	..	..	..	..	..	..	..	20
Auckland University College Council—															
School of Mines ..	..	..	..	66	66	..	14	..	1	..	..	..	..	15
Taranaki Education Board—															
New Plymouth Technical School ..	187	86	16	110	399	15	33	1	6	7	15	21	35	133	
Hawera Technical School ..	168	41	2	124	335	3	11	2	..	5	3	13	9	46	
Stratford Technical School ..	78	21	..	24	123	2	..	..	2	..	1	4	3	12
Other classes, Taranaki District ..	..	35	..	30	65	..	1	2	..	..	1	2	2	8
Wanganui Education Board—															
Wanganui Technical School ..	78	342	30	169	619	10	7	9	5	6	14	17	9	77	
Feilding Technical School ..	84	81	6	174	345	1	2	4	2	2	12	8	7	38	
Other classes, Wanganui District ..	25	96	11	182	314	..	1	8	..	..	14	6	9	38
Palmerston North High School Board—															
Palmerston North Technical School	208	..	13	359	580	8	4	3	..	..	17	14	6	52
Hawke's Bay Education Board—															
Napier Technical School† ..	56	121	38	66	281	3	4	2	2	1	8	6	7	33	
Waipawa Technical School† ..	..	..	6	44	50	..	..	2	..	..	1	1	..	4
Other classes, Hawke's Bay District ..	37	..	32	293	362	3	..	2	3	7	3	4	8	30	
Wellington Education Board—															
Wellington Technical School† ..	438	..	142	622	1,202	20	17	9	6	..	7	10	27	96	
Petone Technical School and sub-centres†	176	..	26	82	284	..	3	3	1	2	3	6	11	29	
Other classes, Wellington District ..	..	..	..	186	186	3	..	2	6	1	3	6	11	32
Managers, Masterton Technical School—															
Masterton Technical School*	181	..	14	205	400	4	1	5	..	1	10	10	9	40	
Nelson Education Board—															
Nelson Technical School ..	133	..	22	239	394	11	12	4	3	..	13	8	12	63	
Westport and sub-centres ..	50	..	2	165	217	3	1	3	1	..	7	3	2	20	
Reefton technical classes ..	..	..	..	7	7	..	..	..	..	..	1	..	..	1
Canterbury College Board of Governors—															
School of Art ..	82	..	7	399	488	58	..	..	..	..	..	..	..	58
School of Engineering ..	..	..	..	235	235	..	62	..	..	..	..	..	..	62
School of Commerce ..	..	..	..	121	121	..	..	..	..	..	..	13	..	13
Canterbury Education Board—															
Christchurch Technical School† ..	374	..	168	826	1,368	..	7	26	5	10	27	40	10	125	
Ashburton Technical School and sub-centres†	219	48	30	202	499	3	3	10	4	7	28	25	20	100	
Greytown and sub-centres ..	204	..	1	33	238	1	..	5	1	1	12	5	8	33	
Timaru Technical School† ..	213	..	42	121	376	5	8	1	1	5	8	20	6	54	
Akaroa technical classes† ..	..	..	..	12	12	..	..	..	..	..	1	..	..	1
Kaiaoi technical classes† ..	..	..	2	57	59	..	..	1	..	1	2	..	..	4
Fairlie technical classes† ..	4	..	..	48	52	..	1	..	..	1	1	..	..	3
Pleasant Point technical classes† ..	..	..	..	16	16	..	..	..	..	..	1	..	..	1
Tomuka technical classes† ..	..	..	..	85	85	..	..	1	..	3	2	1	..	7
Waimate and Morven technical classes†	9	..	5	89	103	..	..	..	..	2	4	1	2	9
Other classes, Canterbury District ..	..	..	1	422	423	..	..	4	..	..	15	8	1	28
Rangiora High School Board—															
Rangiora Technical School ..	55	..	..	61	116	1	2	3	1	2	6	3	5	23
Otago University College Council—															
Home-science classes ..	..	..	..	59	59	..	..	..	11	..	6	2	2	21
Commerce classes ..	..	..	..	85	85	..	..	..	..	..	..	7	..	7
Otago Education Board—															
Dunedin Technical School† ..	503	..	85	789	1,377	..	20	10	11	3	13	24	30	111	
Dunedin School of Art ..	2	..	13	387	402	32	..	..	..	..	..	..	..	32
Oamaru Technical School† ..	29	..	8	127	164	..	1	1	..	1	5	4	2	14	
Milton Technical School† ..	..	..	..	12	12	2	..	..	..	..	..	..	..	2
Other classes, Otago District ..	..	..	..	212	212	..	..	..	..	2	1	..	4	7
Southland Education Board—															
Invercargill Technical School† ..	213	..	96	321	630	8	9	9	4	1	11	28	26	96	
Other classes, Southland District ..	..	..	..	330	330	4	..	4	2	10	8	..	5	33
Gore High School Board—															
Gore Technical School ..	14	..	2	59	75	..	..	2	..	..	2	3	2	9
Totals for 1919 ..	4,488	1,372	1,021	11,069	17,950	232	238	201	120	95	371	380	377	2,014	
Totals for 1918 ..	..	5,888	..	11,022	16,910	235	220	204	135	98	367	369	337	1,965

* Technical schools, the Managers of which are the controlling authorities.

† Schools or classes under the immediate control of Managers.

TABLE J3.—RECEIPTS OF EDUCATION BOARDS AND HIGH SCHOOL BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES AND OF MANAGERS (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1919.

	Capitation, Grants, and Subsidies from Government.					Other Receipts.					Total Receipts.
	Capitation.	Buildings and Equipment, and Rent.	Material for Class Use.	Subsidies on Voluntary Contributions.	Total Capitation, Grants, and Subsidies.	Class Fees.	Voluntary Contributions.	For Services rendered to other Schools.	Miscellaneous.	Total of other Receipts.	
A. EDUCATION BOARDS AND HIGH SCHOOL BOARDS.											
Auckland Education Board—	£	£	£	£	£	£	£	£	£	£	£
(a.) Auckland Technical School (1st Jan. to 31st May)	5,529	..	..	..	5,529	341	..	..	141	482	6,011
(b.) Other technical schools and classes	3,752	2,259	..	81	6,092	339	9	..	44	392	6,484
Taranaki Education Board—											
(a.) New Plymouth Technical School	2,360	2,040	59	45	4,504	71	27	..	16	114	4,618
(b.) Other technical schools and classes	2,197	46	6	326	2,575	88	20	140	152	400	2,975
Wanganui Education Board—											
(a.) Wanganui Technical School	6,046	417	249	361	7,073	330	95	..	656	1,081	8,154
(b.) Other technical schools and classes	1,050	154	20	224	1,448	114	69	..	507	690	2,138
Palmerston North High School Board	1,150	122	58	142	1,472	286	179	70	63	598	2,070
Hawke's Bay Education Board	308	..	36	20	364	65	20	..	541	626	990
Wellington Education Board ..	146	..	..	30	176	3	15	..	278	296	472
Nelson Education Board—											
(a.) Nelson Technical School ..	1,180	680	191	56	2,107	128	55	148	126	457	2,564
(b.) Other technical schools and classes	1,092	136	..	150	1,378	99	75	..	117	291	1,669
Canterbury Education Board ..	829	438	61	56	1,384	85	13	..	393	491	1,875
Rangiora High School Board ..	272	..	..	..	272	69	..	206	2	277	549
Otago Education Board ..	553	..	..	..	553	365	..	75	275	715	1,268
Southland Education Board ..	144	..	..	..	144	97	18	..	290	405	549
Gore High School Board ..	46	..	..	25	71	48	25	..	..	73	144
Totals	26,654	6,292	680	1,516	35,142	2,528	620	639	3,601	7,388	42,530
B. TECHNICAL SCHOOL BOARDS AND MANAGERS.											
Auckland Technical School (1st June to 31st December)	7,500	400	767	2	8,669	326	..	..	675	1,001	9,670
"Elam" School of Art*	..	..	..	..	..	..	..	..	..	..	..
Napier Technical School ..	5,126	14	..	..	5,140	203	155	23	581	962	6,102
Waipawa Technical School ..	65	..	..	16	81	68	5	..	..	73	154
Wellington Technical School ..	9,397	509	622	640	11,168	904	310	347	1,622	3,183	14,351
Petone Technical School ..	922	17	12	99	1,050	56	120	47	15	238	1,288
Masterton Technical School ..	1,113	37	47	550	1,747	206	325	33	98	662	2,409
Christchurch Technical School ..	11,278	739	500	735	13,252	1,267	432	818	1,467	3,984	17,236
Katapoi Technical School ..	34	..	..	46	80	25	45	115	56	241	321
Akaroa Technical School ..	37	..	..	25	62	5	25	..	4	34	96
Ashburton Technical School ..	2,371	..	155	191	2,717	168	202	340	347	1,057	3,774
Timaru Technical School ..	1,553	..	52	99	1,704	166	100	159	106	531	2,235
Temuka Technical School ..	128	..	6	43	177	56	58	15	4	133	310
Waimate Technical School ..	147	..	28	25	200	82	29	..	1	112	312
Pleasant Point Technical School	17	2	..	6	25	9	3	3	2	17	42
Fairlie Technical School ..	9	..	3	15	27	40	18	..	1	59	86
Dunedin Technical School ..	8,573	924	211	372	10,080	1,055	372	12	1,107	2,546	12,626
Oamaru Technical School ..	184	..	..	40	224	108	38	..	..	146	370
Milton Technical School ..	7	..	..	4	11	14	..	..	..	14	25
Invercargill Technical School ..	6,182	1,881	295	216	8,574	463	118	90	410	1,081	9,655
Totals	54,643	4,523	2,698	3,124	64,988	5,221	2,355	2,002	6,496	16,074	81,062
Grand totals ..	81,297	10,815	3,378	4,640	100,130	7,749	2,975	2,641	10,097	23,462	123,592

* Not received in time for publication.

TABLE J4.—PAYMENTS BY EDUCATION BOARDS AND HIGH SCHOOL BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES, AND OF MANAGERS (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1919.

Controlling Authorities.	Salaries of Directors and Teaching Staffs.	Working-expenses.								Buildings and Equipment, Sites, Rent.	Other Expenditure.	Total Expenditure.
		Salaries of Registrars and Clerical Staffs.	Office Expenses.	Material for Class Use.	Caretaker, Cleaning, &c.	Repairs.	Lighting and Heating.	Miscellaneous Working-expenses.	Total Working-expenses.			
A. EDUCATION BOARDS AND HIGH SCHOOL BOARDS.												
Auckland Education Board—	£	£	£	£	£	£	£	£	£	£	£	£
(a.) Auckland Technical School (1st Jan. to 31st May)	3,303	270	119	285	115	265	99	493	1,646	790	*420	6,159
(b.) Other technical schools and classes	1,992	300	8	37	..	307	132	245	1,029	2,175	..	5,196
Taranaki Education Board—												
(a.) New Plymouth Technical School	2,344	101	14	79	80	43	13	161	491	263	..	3,098
(b.) Other technical schools and classes	2,151	15	9	48	53	27	17	221	390	368	..	2,909
Wanganui Education Board—												
(a.) Wanganui Technical School	4,388	214	37	493	201	62	7	717	1,731	903	..	7,022
(b.) Other technical schools and classes	1,297	35	11	35	87	25	26	387	606	65	..	1,968
Palmerston North High School Board	1,542	43	21	71	60	18	122	117	452	101	..	2,095
Hawke's Bay Education Board..	560	17	15	72	43	..	13	103	263	14	..	837
Wellington Education Board ..	430	..	3	70	5	..	4	100	182	24	..	636
Nelson Education Board—												
(a.) Nelson Technical School..	1,611	104	56	128	62	16	52	91	509	443	..	2,563
(b.) Other technical schools and classes	1,020	52	29	257	31	1	64	81	515	148	..	1,683
Canterbury Education Board ..	1,425	..	26	112	76	3	25	117	359	478	..	2,262
Rangiora High School Board ..	389	20	12	42	15	5	6	..	100	1	..	490
Otago Education Board ..	1,291	56	56	54	116	7	74	96	459	61	..	1,811
Southland Education Board ..	564	..	23	62	10	..	..	17	112	..	..	676
Gore High School Board ..	130	..	..	..	..	..	8	9	17	..	..	147
Totals ..	24,437	1,227	439	1,845	954	779	662	2,955	8,861	5,834	420	39,552
B. TECHNICAL SCHOOL BOARDS AND MANAGERS.												
Auckland Technical School (1st June to 31st Dec.)	6,041	405	252	461	418	136	162	461	2,295	1,094	482	9,912
"Elam" School of Art†	..	..	..	..	..	..	..	..	..	..	..	..
Napier Technical School ..	3,549	92	32	331	111	136	71	305	1,078	653	..	5,280
Waipawa Technical School ..	113	..	1	1	..	..	1	6	9	..	..	122
Wellington Technical School ..	9,038	617	55	821	365	111	162	649	2,780	1,288	50	13,156
Petone Technical School ..	973	..	10	36	98	..	97	61	302	..	..	1,275
Masterton Technical School ..	1,286	..	14	97	63	51	71	217	513	930	..	2,729
Christchurch Technical School ..	9,155	804	141	1,283	600	94	377	1,023	4,322	1,402	1,419	16,298
Kaipoi Technical School ..	157	..	3	28	15	..	6	51	103	1	..	261
Akaroa Technical School ..	37	..	1	11	6	..	3	17	38	..	..	75
Ashburton Technical School ..	1,850	216	37	356	171	41	59	317	1,197	159	..	3,206
Timaru Technical School ..	1,178	..	51	103	100	5	69	71	399	157	..	1,734
Temuka Technical School ..	167	..	8	..	31	..	7	17	63	..	..	230
Waimate Technical School ..	176	20	10	20	14	2	5	33	104	2	..	282
Pleasant Point Technical School	21	..	1	..	9	..	..	5	15	..	35	71
Fairlie Technical School ..	39	..	5	5	8	2	2	8	30	..	..	69
Dunedin Technical School ..	7,860	407	95	1,173	264	41	146	499	2,625	2,358	608	13,451
Oamaru Technical School ..	334	..	2	7	25	..	7	16	57	1	..	392
Milton Technical School ..	6	8	..	..	1	..	1	2	12	..	..	18
Invercargill Technical School ..	4,508	249	133	376	213	28	155	564	1,718	2,519	100	8,845
Totals ..	46,488	2,818	851	5,109	2,512	647	1,401	4,322	17,660	10,564	2,694	77,406
Grand totals ..	70,925	4,045	1,290	6,954	3,466	1,426	2,063	7,277	26,521	16,398	3,114	116,958

* Transferred from Education Board as controlling authority of technical school accounts to the Board of Managers.

† Not received in time for publication.

TABLE J5.—MONETARY ASSETS AND LIABILITIES OF (a) THE TECHNICAL INSTRUCTION ACCOUNTS OF EDUCATION BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES, AND (b) TECHNICAL SCHOOL BOARDS AND MANAGERS, AS AT 31ST DECEMBER, 1919.

	Monetary Assets.			Liabilities.			Net Balances.	
	Cash Balances and Investments.	Other Assets.	Total.	Cash Deficits.	Other Liabilities.	Total.	Cr.	Dr.
(a.) EDUCATION BOARDS.	£	£	£	£	£	£	£.	£
Auckland	2,965	359	3,324	..	1,141	1,141	2,183	..
Taranaki .. .. .	..	2,324	2,324	534	..	534	1,790	..
Wanganui .. .. .	..	3,509	3,509	1,798	469	2,267	1,242	..
Hawke's Bay	232	383	615	..	204	204	411	..
Wellington .. .. .	..	135	135	97	38	135	..	..
Nelson .. .. .	..	685	685	1,472	..	1,472	..	787
Canterbury .. .. .	..	416	416	416	..	416	..	..
Otago	1,428	112	1,540	..	1,540	1,540	..	..
Southland .. .. .	..	255	255	..	..	..	255	..
Totals	4,625	8,178	12,803	4,317	3,392	7,709	5,881	787
(b.) TECHNICAL SCHOOL BOARDS AND MANAGERS.								
Auckland Technical School	218	1,096	1,314	..	678	678	636	..
"Elam" School of Art* .. .. .	..	..	..	..	..	..	..	..
Napier Technical School	1,664	1,868	3,532	..	171	171	3,361	..
Waipawa Technical School	60	95	155	..	4	4	151	..
Wellington Technical School	2,571	1,934	4,505	..	1,344	1,344	3,161	..
Petone Technical School	198	..	198	..	15	15	183	..
Masterton Technical School	712	811	1,523	..	472	472	1,051	..
Christchurch Technical School	3,027	3,260	6,287	..	367	367	5,920	..
Kaipoi Technical School	69	261	330	..	..	..	330	..
Akaroa Technical School	123	16	139	..	..	..	139	..
Ashburton Technical School	1,070	616	1,686	..	455	455	1,231	..
Timaru Technical School	476	1,015	1,491	..	424	424	1,067	..
Temuka Technical School	139	144	283	..	14	14	269	..
Waimate Technical School	114	139	253	..	..	..	253	..
Pleasant Point Technical School	31	10	41	..	..	..	41	..
Fairlie Technical School	27	52	79	..	..	..	79	..
Dunedin Technical School .. .. .	..	4,744	4,744	125	231	356	4,388	..
Oamaru Technical School	41	..	41	..	26	26	15	..
Milton Technical School	62	..	62	..	..	..	62	..
Invercargill Technical School	391	3,355	3,746	..	83	83	3,663	..
Totals	10,993	19,416	30,409	125	4,284	4,409	26,000	..
Grand totals	15,618	27,594	43,212	4,442	7,676	12,118	31,881	787

* Statement not received in time for inclusion of figures.

TABLE J6.—NUMBER OF STUDENTS ACCORDING TO AGES ADMITTED TO CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Education District.	Under 13 Years.		13-15 Years.		15-17 Years.		Over 17 Years.		Totals.		Students admitted during 1919 who left a Public School during 1918 (included in Foregoing Totals).	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Auckland	146	184	484	426	654	341	957	1,058	2,241	2,009	419	150
Taranaki	14	8	175	130	162	137	71	225	422	500	218	95
Wanganui	53	50	191	195	331	316	289	433	864	994	193	156
Hawke's Bay	21	18	120	93	58	66	163	154	362	331	77	43
Wellington	9	2	213	113	389	290	577	479	1,188	884	174	101
Nelson	26	45	68	78	60	86	79	176	233	385	41	50
Canterbury	110	146	355	280	568	546	1,126	1,060	2,159	2,032	233	245
Otago	14	1	261	112	323	204	728	668	1,326	985	194	72
Southland	20	33	64	61	95	113	315	334	494	541	32	24
Totals, 1919	413	487	1,931	1,488	2,640	2,099	4,305	4,587	9,289	8,661	1,581	936
Totals, 1918	386	423	1,812	1,526	2,459	2,060	3,573	4,671	8,230	8,680	1,302	910

TABLE J7.—OCCUPATIONS OF STUDENTS IN ATTENDANCE AT TECHNICAL CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Domestic pursuits	2,911	Painters, plasterers, &c.	109
Professional pursuits	2,754	Printers, &c.	130
Clerical pursuits	1,911	Skilled labourers	159
Agricultural pursuits	753	Labourers	393
Students	3,548	Seamen	74
Employed in shops or warehouses	1,295	Engaged in various other trades and industries	287
Dressmakers, milliners, &c.	227	Engaged in various public services	348
Tailors and tailoresses	102	Occupations not stated	1,002
Engineers and mechanics	961		
Electricians	278		
Plumbers, metal-workers, &c.	362	Total	17,950
Woodworkers	346		

TABLE J8.—NUMBER OF PUPILS RECEIVING FREE EDUCATION UNDER REGULATIONS FOR FREE PLACES AT TECHNICAL CLASSES DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Education District.	At Technical High Schools.			At other Classes.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Auckland	312	264	576	393	275	668
Taranaki .. .. .	..	..	..	169	264	433
Wanganui	175	111	286	144	251	395
Hawke's Bay	107	146	253	45	48	93
Wellington	176	218	394	471	324	795
Nelson	27	..	27	79	104	183
Canterbury	283	260	543	585	575	1,160
Otago	157	235	392	332	202	534
Southland	114	169	283	108	119	227
Totals for 1919	1,351	1,403	2,754	2,326	2,162	4,488
Totals for 1918	1,162	1,342	2,504	2,209	2,002	4,211

TABLE J9.—TECHNICAL HIGH SCHOOLS.—COURSES TAKEN BY STUDENTS DURING THE YEAR 1919.

School.	Courses of Instruction, and Number and Sex of Students.												Capitation earned during Year ended 31st December, 1919.
	Industrial.		Agricultural.		Domestic.		Commercial and General.		Art.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	£
Auckland	193	61	..	..	64	67	202	..	..	321	266	8,552
Wanganui	41	29	..	..	18	115	97	..	..	185	115	4,529
Napier	53	21	..	..	22	40	139	..	..	114	161	3,969
Wellington	139	..	..	..	13	46	202	1	4	186	219	5,465
Westport	28	..	..	..	..	..	..	..	..	28	..	539
Christchurch	189	55	..	..	83	61	208	..	..	305	291	8,132
Dunedin	91	20	..	..	44	67	213	..	..	178	257	5,766
Invercargill	52	17	..	..	53	52	126	..	..	121	179	4,161
Totals, 1919	786	203	..	..	297	448	1,187	1	4	1,438	1,488	41,113
Totals, 1918	698	177	..	..	385	390	1,092	..	5	1,265	1,482	32,474

TABLE J10.—NUMBER OF CANDIDATES WHO PASSED THE TECHNOLOGICAL EXAMINATIONS OF THE CITY AND GUILDS OF LONDON INSTITUTE, 1919.

Subjects of Examination.	Number of Entries.	Number of Passes.
Electrical engineering—Grade I	33	11
Electrical engineering—Grade II (first paper)	15	3
Electrical engineering—Grade II (second paper)	10	3
Plumbers' work—Grade I	4	3
Principles of leadwork—Grade II	1	1
Principles of leadwork—Final	10	4
Mechanical engineering—Division I, Grade I	20	6
Mechanical engineering—Division I, Grade II	3	2
Mechanical engineering—Division I, Final ..	1	..
Mechanical engineering—Division II, Grade I	26	19
Mechanical engineering—Division II, Grade II	1	1
Mechanical engineering—Division II, Final	1	..
Motor-car engineering—Grade I	8	8
Motor-car engineering—Final	1	..
Carpentry and joinery—Grade I	7	3
Carpentry and joinery—Grade II	2	2
Cabinetmaking—Grade I	1	1
Telegraphy—Grade I	1	..
Telephony—Grade I	1	..
Metalwork—First year	1	1
Woodwork—Scheme A (first year)	1	..
Woodwork—Scheme B (first year)	4	1
Woodwork—A or B, Final	4	1
Millinery	2	1
Dressmaking	8	6
Plain needlework	2	..
Totals for 1919	168	77
Totals for 1918	252	129

Approximate Cost of Paper.—Preparation, not given; printing (900 copies), £50.