1927.

NEW ZEALAND.

EDUCATION:
TECHNICAL EDUCATION.

[In continuation of E.–5, 1926.]

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

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1. EXTRACT FROM THE FIFTIETH ANNUAL REPORT OF THE MINISTER OF EDUCATION.

TECHNICAL EDUCATION.

General.

Number of Schools.—The number of technical high schools open during 1926 was fifteen, in addition to which there were eight organized technical or art schools offering day courses. Technical classes were also conducted in twenty-seven manual-training or other centres, the total number of centres being fifty. It is to be noted, however, that from the 1st May, 1926, the Hastings Technical High School was constituted a high school.

Attendance.—The total number of students receiving instruction in all technical classes was 19,740, as compared with 18,098 in 1925. The attendance at technical high schools increased from 5,132 in 1925 to 5,963 in 1926, an increase of 831, or over 16 per cent.

Of the total number of 19,740 students, 5,758 held free places at technical high schools, 1,015 at day technical schools, and 5,157 at other technical classes, making a total of 11,930 free pupils, an increase of over 16 per cent.

Staffing.—At the end of 1926 there were 277 full-time assistant teachers on the staffs of technical schools, besides a large number of part-time teachers. The teachers employed full time were classified as follows, Class VII being the highest:—

Class.	Division I.		Division II.		Totals.
	Men.	Women.	Men.	Women.	
VII	..	1	..	5	6
VI	5	3	4	7	19
V	21	8	16	20	65
IV	30	8	13	20	71
III	24	12	18	5	59
II	11	7	6	7	31
I	11	9	1	5	26
Totals for 1926 ..	102	48	58	69	277
Totals for 1925 ..	94	45	63	72	274

The number of Division I men (graduates) has increased from eighty-seven in 1924 to one hundred and two in 1926, while the number of women in Division I has increased from forty-five to forty-eight.

Classes other than Classes at Technical High Schools or Technical Day Schools.

(Note: The following figures exclude those relating to technical day schools, which are now included with technical high schools.)

Classes were held at forty-eight centres, as compared with forty-three in the previous year. The number of individual students was as follows:—

In classes conducted by Technical School Boards	10,361
In classes conducted by secondary Education Boards	311
In classes conducted by Education Boards	702
In classes conducted by High School Boards	827
In classes conducted by University College (Christchurch School of Art) ..	480
Total	12,681

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

—	Under 13 Years.	13–15 Years.	15–17 Years.	Over 17 Years.	Totals.
Males	170	937	2,685	3,979	7,771
Females	205	728	1,375	2,602	4,910
Totals	375	1,665	4,060	6,581	12,681

SUMMARY OF OCCUPATIONS OF STUDENTS.

	Number of Students.	Percentage of Total.
Various trades and industries	5,412	42·68
Agricultural pursuits	146	1·15
Professional pursuits	800	6·31
Clerical pursuits	2,513	19·82
Domestic pursuits	1,597	12·59
Students	1,584	12·49
Other occupations not stated	629	4·96
Total	12,681	100·00

NUMBER OF STUDENTS RECEIVING FREE EDUCATION AT TECHNICAL SCHOOLS OTHER THAN TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS.

—		Males.	Females.	Totals.
Junior free pupils	First year	896	474	1,370
	Second year	836	368	1,204
Senior free pupils	First year	722	420	1,142
	Second year	570	300	870
	Third year	396	175	571
Totals		3,420	1,737	5,157

TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS.

The number of students in attendance at technical high schools in 1926 was 5,963, compared with 5,132 in the previous year, and at technical day schools in 1926 was 1,096, making a total of 7,059.

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

Course.	Technical High Schools: Number of Pupils.			Technical Day Schools: Number of Pupils.			Comparison with 1925 Technical High Schools only.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	
Industrial	1,656	..	1,656	287	..	287	+325
Agricultural	323	..	323	32	..	32	+ 43
Domestic	..	749	749	..	158	158	+ 5
Commercial	590	1,575	2,165	46	313	359	+363
General	645	361	1,006	18	25	43	+ 77
Art	37	27	64	33	184	217	+ 18
Totals	3,251	2,712	5,963	416	680	1,096	+831

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

		Technical High Schools.			Technical Day Schools.			Comparison with 1925 Technical High Schools only.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.	
Junior free pupils	First year ..	1,717	1,298	3,015	239	333	572	+411
	Second year ..	917	839	1,756	108	206	314	+230
Senior free pupils	First year ..	329	291	620	34	55	89	+ 62
	Second year ..	134	118	252	9	24	33	+104
	Third year ..	54	61	115	2	5	7	+ 60
Totals		3,151	2,607	5,758	392	623	1,015	+867

FINANCIAL.

The total amount due by the Department to the controlling authorities for the salaries and incidental expenses of all technical classes, including technical high schools, for the year 1926 was approximately £167,085, made up as follows: —

	£	£
Salaries—		
Full-time Principals and assistants	107,201	
Full-time student teachers	1,583	
Overtime for full-time teachers	6,944	
Capitation for part-time teachers	20,539	
Capitation for part-time student teachers	920	
		137,187
Incidentals		40,621
		177,808
Less recoveries from tuition fees		10,723
		£167,085

It is to be noted that from 1st February, 1926, the allowances for incidentals were increased from 26 per cent. to 30 per cent. of salaries, and that special grants for material were abolished. The above figures also include salaries and incidentals payable in respect of manual-training classes conducted by Technical School Boards (£5,930, approximately).

2. REPORTS OF THE SUPERINTENDENT OF TECHNICAL EDUCATION, OF THE INSPECTOR OF DOMESTIC SUBJECTS, AND OF THE INSPECTORS OF TECHNICAL SCHOOLS AND MANUAL TRAINING CENTRES.

SIR,— Education Department, Wellington, 11th July, 1927.

I have the honour to present herewith my report on certain aspects of technical education and manual training during the year 1926, together with extracts from the annual reports of the Inspectors concerned.

I have, &c.,
W. S. LA TROBE,
Superintendent of Technical Education.

The Director of Education, Wellington.

I. TECHNICAL EDUCATION IN NEW ZEALAND, 1926.

(W. S. LA TROBE, Superintendent of Technical Education.)

Attendance.—The numbers attending in technical schools and classes during the year 1926 were considerably larger than those for the previous year. The apparent increase was abnormal, being partly due to the fact that the normal increase of the previous year was masked by the effect of the epidemic of infantile paralysis in the early part of the year, both day and evening classes being adversely affected.

Staffing.—I have again to record a general improvement in the staffing of technical schools, the proportion of teachers with qualifications for classification in Division I being greater than for the previous year. When in 1920 the Department took over the payment of salaries of teachers in technical schools and of classes for manual training 36 per cent. of the men and 23 per cent. of the women were qualified for Division I classification, as having had the benefit of a training equivalent to that required for a university degree or diploma, whereas in the published list of classified teachers in December, 1926, 50 per cent. of the men and 41 per cent. of the women were so qualified. The proportion of Division I teachers in the technical high schools and technical day schools is somewhat higher, being about 64 per cent. for men and 41 per cent. for women.

Buildings and Equipment.—In regard to buildings, the schools are not, on the whole, well served. In some cases the accommodation is old, unsuitable, and inconvenient, and in most cases it is inadequate. In this respect the technical schools are no better off than the primary schools, and it is hardly possible to avoid overcrowding, since the schools are growing rapidly (in ten years the rolls of the technical high schools have increased from 2,347 to 5,963), and the moneys available for new buildings, and especially for rebuilding, are necessarily limited.

The same is to a great extent true of equipment, though the conditions are somewhat different, as it is rather in proportion to the attainments and needs of the students, and not solely in proportion to numbers, that provision must be made.

Under the Apprentices Act, 1923, there has been some development of classes for trade training, in which specialized machinery and other equipment is necessary if the instruction is to be closely enough correlated with actual trade conditions. In few trades is it possible to provide such close correlation without having to face problems of material and output which are not found easy of solution even in the manufacturing centres of countries like Great Britain and the United States of America, and are practically insoluble in the Dominion. In one trade, that of linotype operating, the conditions are simplified by the absence of waste in material, and further by the ease with which schools have been able to secure on loan the free use of suitable machines. In certain other trades—as, for instance, that of motor-mechanics—the conditions for providing trade training in the technical schools are not impossible. In trades such as bootmaking, machine joinery and cabinetmaking, &c., while the cost of equipment is high, the cost of material and the disposal of output are more serious factors which have hitherto prevented any considerable development of what is, after all, the business of a specialized trade school rather than of a technical school.

In regard to the general laboratory and workshop equipment of technical schools, the present provision is for the most part suitable only for students taking what corresponds to a minor course as given in the British technical schools, and even at that the equipment provided is not always fully utilized. On the other hand, it may be doubted whether the more advanced technical-school students can be induced to continue their studies if the necessary equipment is lacking. Certainly there is great difficulty in obtaining the services of competent instructors in subjects for which apparatus for practical work is either totally lacking or inadequate and out-of-date. Where competent instructors are found, they are greatly hampered in their teaching if the necessary equipment is not available, and their services in certain aspects of the more advanced work may be lost altogether.

Character and Quality of Instruction.—In the last ten years the distribution of evening students over the various courses offering in the technical schools has changed very considerably. This is clearly seen by comparing the percentages of students in different occupations. The following table gives a comparison between the years 1914 and 1926:—

Occupations of Pupils at Technical Classes other than Classes at Technical High Schools or Technical Day Schools, Years 1914 and 1926, by Percentages.

Occupation.	Percentage of Total Enrolment.			
	1914.		1926.	
Domestic pursuits	20·0		12·6	
Dressmakers, milliners, tailoresses, &c.	2·3		1·5	
		22·3		14·1
Professional	17·0		6·3	
Clerical	12·3		19·8	
Employed in shops and offices	7·1		8·0	
		36·4		34·1
Students		13·2		12·5
Engineers and mechanics	3·9		6·4	
Electricians	1·4		3·9	
Plumbers, sheet-metal workers, &c.	3·7		6·4	
Woodworkers	3·1		7·2	
Painters, plasterers, &c.	0·8		1·5	
		12·9		25·4
Agricultural pursuits		9·3		1·2
Labourers		1·7		0·8
Printers, &c.	1·0		1·2	
Other trades and industries	1·8		5·8	
		2·8		7·0
Occupations not returned		1·4		4·9
		100·0		100·0

The large diminution in the percentage following domestic and agricultural pursuits is due mainly to the cessation of classes in small country centres, which were sedulously fostered before the war but were largely discontinued in consequence of the slump of 1920, and have not since recovered. The number of centres at which classes were held in 1914 was 138; in 1926 it was 50. On the other hand, students from the engineering and building trades have increased from 12·9 per cent. to 25·4 per cent. of the total, and other trades have also increased. The wide range of occupations represented indicates also the varied demands made on the schools for instruction.

The courses necessarily include subjects of general education, such as English, science, mathematics, history, geography, civics, economics, &c., since these are all important subjects in the vocational training of the students. For their evening work, therefore, the schools must possess the staff, buildings, and equipment required not only for specific trade subjects, but also for subjects of general education, which, however, must usually be treated in co-ordination with technological subjects. It is to be remembered that a large proportion of the evening students in technical schools attend as free pupils with qualifications that would have entitled them, had they not gone to work, to full-time day tuition in a post-primary school. In the year 1926 41 per cent. of all the students in evening classes held free places. It is, therefore, necessary that a technical school should possess facilities for training in general and commercial subjects as well as for industrial and domestic pursuits. This involves the provision of adequate class-rooms, laboratories, and workshops, with a competent teaching staff and a specially developed administration for maintaining the evening work at an efficient level, besides keeping the school as closely correlated as possible with the needs of commerce and industry.

The evening school can be run at, the most, for twelve hours weekly, and therefore is unable to arrange full-time occupation for the teachers unless it provides day instruction. Moreover, it is not economical to maintain buildings, sites, and administration for evening work only, when they can just as easily be run full time both day and evening, thus reducing overhead charges on the evening work by nearly two-thirds. There are also great advantages from the educational point of view in establishing day classes in technical schools. It is found that old day pupils are among the best evening students, especially as they generally bring into the evening classes a school spirit and loyalty which are most valuable factors in the evening work.

The development of the technical high school, which has been very rapid during the last ten years, is, therefore, based on sound economic and educational principles—on sound economic principles since it ensures the full use of buildings, sites, equipment, teaching-power, and administration, and on sound educational principles since it promotes the continuous development of the pupil as a loyal member of an institution whose honour and reputation it is his privilege to maintain and increase from the time of his leaving the primary school to that at which as a trained citizen he has completed

his preparation for service in the larger sphere of the State. The fact that an institution of this character is forced by its circumstances to maintain close contact with primary education on the one hand, and with the needs of industry and commerce on the other, ensures that the courses provided for its students shall be designed not so much in accordance with custom and tradition as with actual conditions of life and employment in the Dominion.

In 1914 there were some 16,602 evening and part-time day pupils in technical classes, and 1,839 full-time day pupils in technical day schools; in 1926 there were 12,681 evening and part-time day pupils in technical classes, and 7,059 full-time day pupils in technical day schools. In the four large centres, where the numbers available permit of the free development of more than one type of secondary school, it is obvious that there is no possibility of harmful overlapping between post-primary schools, any more than between primary schools. In the smaller centres, on the other hand, where there is not room for more than one post-primary school, it is evident that such a school should discharge as far as it may the functions of all the types of post-primary school to be found in the large centres, and to this end technical high schools, with an academic course in addition to the ordinary pre-vocational courses of the town technical high school, have been established in some cases. In towns of intermediate size, where there is room for two post-primary schools of reasonable size, the choice may lie between having two co-educational schools—one of the academic, the other of the technical-high-school type—and separate schools for boys and girls, each leaning towards either the academic or the technical-high-school type.

Legislative provision was made in 1924 for the amalgamation of secondary and technical schools for the purpose of control by a single governing body in cases recommended by the Minister with the approval of the governing bodies or controlling authorities of the schools affected, but, so far, the Boards have been amalgamated in only one case, that of Masterton, where, however, the schools are separately managed by Principals each responsible directly to the Board. Recently absorption of the technical day school by the boys' and girls' high schools has been completed at New Plymouth, the courses of the high schools being rearranged to provide pre-vocational training for a considerable proportion of the pupils attending. How far it will be possible to obtain in the amalgamated schools such equality of status between the several courses as usually exists in technical high schools is a serious question, since on the relative status of a course depends to a large extent the quality of the pupils taking that course, and therefore in some measure the quality of the entrants to a particular trade or profession. The course which attracts the largest proportion of the pupils and keeps them longest is the academic course, and it must on this account alone be regarded by all concerned as the most important. When as is usually the case, it includes most of the brighter children preparing for Matriculation and all those reading for University Entrance Scholarships, its status is still further enhanced, and all the other courses are in danger of being regarded merely as dumps for "duds." Not only so, but the very methods of teaching and the viewpoints of the teachers tend to be adjusted rather to the intricacies of competitive examinations than to the needs of the average pupils in the trade or commercial courses. If, therefore, the demands of the Matriculation and University Entrance Scholarship Examinations govern to any appreciable extent the work of a post-primary school, it is thereby largely unfitted for assuming the functions of a technical high school.

In one or two of the large towns the technical schools, especially the day schools, have grown too large for their buildings and sites, and various proposals have been made for relieving the pressure. It has been suggested that the commercial students should be accommodated elsewhere; but, as the commercial work in both day and evening classes is closely associated with the work of other courses, it would probably be a mistake to transfer it to a separate school, especially as regards day classes. Owing to the considerable cost of the elaborate equipment of a senior technical school, it would not be wise to establish a second fully equipped technical school in any town in the Dominion. Probably the difficulty could best be overcome by adopting the practice of large towns in Great Britain and America, and establishing junior technical schools under the same authority as the senior school, which should take junior evening pupils in all branches, and junior free-place pupils in the day classes, the senior pupils being accommodated in the more elaborately equipped central institution. If pupils were admitted at an earlier age than they now enter the technical high school, the junior technical school would serve all the purposes contemplated for the junior high school, besides utilizing its resources for the more elementary evening work.

Regulations, &c.—The authorities concerned have, with few minor exceptions, faithfully observed the provisions of the Act and regulations during the year 1926.

II. HOME SCIENCE.

(Extracts from the report of Miss M. Dyer, Inspector of Domestic Subjects.)

Teachers.—On the staffs of technical schools and Education Boards there were 105 full-time teachers of domestic subjects, besides a number of part-time teachers. Thirty-three (31 per cent.) teachers had university qualifications; fifteen (14 per cent.) teachers had certificates in domestic subjects from the educational authorities of Britain or Australia; seventeen (16 per cent.) teachers had had experience in dressmaking and the allied trades; three (2·8 per cent.) fully-trained teachers had specialized in domestic work for a short time; and most of the remainder of the teachers had served as student-teachers and afterwards been appointed with little or no further training. Thirty-two (30·4 per cent.) are itinerant instructors, each having charge of from two to six centres.

Included in the above return is one Supervisor of Needlework, whose work has been most successful.

Courses.—Under the general heading of "Domestic subjects" are included courses in cookery, laundry-work, and housewifery for primary-school children taken at manual-training centres, as well as courses for these subjects, plus dressmaking, millinery, needlework, hygiene, first aid, home nursing, and science applied to the home (generally termed "home science"), taken at technical schools and technical high schools. In addition, there are evening classes in these subjects; and special classes in invalid cookery are held for hospital probationers.

Primary.—In the manual-training centres the aim has been to make the courses more sensible and practical—to teach the children by practice rather than by "lessons" how to choose and cook wisely and well the foods required for normal nutrition, following, where possible, the dietary principles laid down by the Health Department. The introduction of recipe-books has been encouraged. The mistresses of the Auckland District prepared a collection of recipes, which, by the courtesy and kindness of the local gas company, will be printed and issued free of charge to the pupils. The mistresses of the Christchurch manual-training centres have revised a recipe-book published locally, and this will, it is hoped, be increasingly used.

Needlework up to Standard VI is now entirely confined to the teaching given by members of the primary-school staffs, and there are no specialist teachers taking classes in Standards V and VI. There is, however, one specialist Supervisor of Needlework employed in advising teachers in primary schools. She did excellent work in 1925–26 in the district about Christchurch, and has latterly been engaged in similar work in the Hawke's Bay District.

The technical schools and technical high schools offer special courses in domestic subjects, as well as giving instruction in domestic subjects to girls taking other courses. The number of girls taking the special course in domestic subjects has not increased as rapidly as the numbers taking, for example, the commercial course. During the period under review the secondary schools have been increasing their equipment and offering courses with a larger proportion of domestic work than was formerly the case, and this has probably somewhat affected the numbers taking up the course at the technical schools in towns where both kinds of secondary institutions exist.

Domestic Subjects Courses:—

——	1922.	1923.	1924.	1925.	1926.
Number of technical high schools (all offering courses in domestic subjects)	10	12	13	14	14
Number of students selecting course	611	663	778	744	749

It is probable, too, that economic pressure accounts in some measure for the relatively small rate of increase in the numbers enrolling in the domestic-subjects course, because it is less strictly vocational than the commercial course, and, in addition, the chief openings for domestic-subjects students are in the clothing trades, which are strongly affected by present conditions.

The extent of the courses offered varies very much from school to school; and, again, the time devoted to the different subjects is very variable. The practical work is better developed in the larger towns, where there is more opening in trades and where a more specialized staff is possible. In the smaller places the course often comprises a wider range of subjects, and frequently differs but little from the secondary-school courses. A typical curriculum includes English, history, with civics; arithmetic, including book-keeping or household accounts; science and hygiene; housecraft, including one or more of the following—cookery, laundry, and housewifery; needlecraft, including one or more of the following—embroidery, dressmaking, millinery, and needlework; drawing, including design and such applied arts as stencilling, leather or metal work; singing; games and physical exercises.

Analyses of some Actual Courses:—

——	A.	B.	C.
English I	$4\frac{1}{2}$ (1)	4	$3\frac{1}{4}$
English II	$4\frac{1}{2}$	4	$3\frac{1}{4}$
History and civics I	$1\frac{1}{2}$	1	2
History and civics II	$1\frac{1}{2}$	1	..
Arithmetic I	3	$4\frac{1}{2}$	$5\frac{3}{4}$
Arithmetic II	3	$4\frac{1}{2}$	3
Science I	$1\frac{1}{2}$	2	$3\frac{1}{4}$ (3)
Science II	$1\frac{1}{2}$	2	6
Housecraft I	3	$5\frac{1}{2}$	$5\frac{1}{3}$ (3)
Housecraft II	3	3	$5\frac{1}{4}$
Needlecraft I	$4\frac{1}{2}$	$5\frac{1}{2}$ (2)	3
Needlecraft II	$4\frac{1}{2}$	8	$5\frac{1}{4}$
Drawing I	$4\frac{1}{2}$	$2\frac{1}{2}$	$\frac{3}{4}$
Drawing II	$4\frac{1}{2}$	$2\frac{1}{2}$	2
Games I	$3\frac{3}{4}$	$3\frac{1}{2}$	3
Games II	$3\frac{3}{4}$	$3\frac{1}{2}$	3

NOTES.—The figures denote the number of hours given weekly throughout the first and second years to the various subjects.

A and B are large schools with full classes, whilst C is a small school where there are not sufficient girls to form a separate class.

(1) This includes elocution, not given at other schools.

(2) Pupils wishing to take French (three hours) do so at the expense of needlecraft.

(3) Short courses in laundry, furnishing, first aid, &c., are given, so that it is not very easy to estimate exact hours given these subjects.

The syllabuses used for these various courses have hitherto been prescribed by each school. In 1926 it was decided to add (*a*) housecraft and (*b*) needlework and dressmaking to the subjects for Intermediate, Public Service Entrance, and Senior National Scholarships Examinations. Fresh syllabuses were accordingly prepared for these subjects, and are being used as a basis on which to build the detailed schemes of work which each school requires to suit its own particular needs.

Buildings and Equipment.—The older buildings are, generally speaking, but poorly equipped. A large number of ranges, now no longer fully serviceable, should be replaced. The gas companies have been very generous, in some cases giving and in others quoting special terms for new stoves of an up-to-date pattern and greatly improved construction. The Department has thus been able to improve the equipment at a low cost where gas is available. In a similar manner the Electric-power Boards have assisted the various controlling authorities, and many centres are now equipped with electrical cookers.

The different Boards, in some cases by the aid of special grants from the Department, are endeavouring to improve and increase the smaller equipment. The quality of the equipment supplied is, however, frequently found to be poor and unsuitable. As the expenditure of the money is in the hands of the Boards, the Department has little opportunity to advise in this matter before the equipment is purchased.

III. TECHNICAL EDUCATION IN ENGLAND.

(F. C. Renyard, Inspector of Technical Schools.)

In consequence of my absence from New Zealand during the greater part of 1926, I am not in a position to report at length on the conditions of technical education in the Dominion during that year.

During my stay in England I was able to investigate a good many educational problems, and to visit schools and institutions of very varied aims and types. I was also able to interview employers of labour, chiefly in the engineering and instrument-making trades, and to find out to some extent what views were held as to the kind and amount of education considered desirable for apprentices, operatives, foremen and overseers, and executive officers. The times were hardly propitious for taking stock of a form of education which necessarily makes heavy demands for expenditure on buildings, special rooms, and apparatus and appliances, for the country was in the grip of industrial strife during the whole period of my stay, and this following on some years of acute trade depression, naturally had had its effect on all educational and on almost all industrial activities.

Though, however, for the time being, any great increase in expenditure for the purposes of technical education cannot be made, yet the problem of the right education of the adolescent boy and girl, of whatever social grade and for whatever niche in the organization of the country he or she is destined ultimately to fill, is being grappled as never before. The very valuable report of the consultative committee set up to consider the education of the adolescent (commonly known as the Hadow report), which necessarily deals with conditions and complexities of industrial organization and social structure not altogether paralleled by the conditions in New Zealand, could nevertheless be studied with advantage by every person interested in the education of the young in this country.

The main principle which emerges from that report seems to be that, though post-primary education for every child up to the age of at least fifteen years is a vital necessity if British democracy, now at the parting of the ways, is to progress, such post-primary education facilities as are provided must be on the very broadest possible lines, and must make the fullest use of the child's environment, his special aptitudes, and his constructive no less than his reflective abilities. All avenues of culture must be explored—of the hand and the heart as well as of the head.

With more particular reference to the present conditions of technical education in Great Britain, the most notable tendency is the revival of interest in technical-school work of associations of employers and of workers, and for this revival to be the result of pressure not so much from the employers and industry from above as from the individual below.

A recent inquiry shows that in one way or another not less than 4,400 firms in England and Wales now support attendance at technical schools, and that not less than 68,000 young persons come under arrangements for encouraging it. These range from such active measures as taking part in "sandwich" schemes, under which the young person is alternately full time at school and full time in the works, or allowing time off each week for attendance at school during working-hours, to comparatively passive arrangements for the consideration of periodical reports upon the progress of the individual employees who attend evening classes. The particulars collected in the schools show that 57 firms (including 37 engineering, 6 shipbuilding, and 4 vehicle and rail-carriage building) take part in "sandwich" schemes, and 1,756 (including 438 engineering, 328 printing, 277 building trades and plumbing, and 58 vehicle and rail-carriage building) grant time off during ordinary working-hours. In some occupations the tradition that the youth who wants to make his own way to a position of responsibility must begin by going to the technical school is so well established as to make the intervention of the employer or manager quite unnecessary.

Joint Industrial Councils have been established for many industries—notably those for flour-milling; heating and ventilating; engineering; pottery, printing, and silk—and these give consideration to the interests, educational and otherwise, of young workers.

There is a general feeling in Great Britain that the national aim must be to give the greatest possible amount of education—cultural and practical—to every child capable of profiting by it in the long run, not only for the sake of economic progress, and, indeed, of the very existence of industry in fiercely competitive markets, but more particularly in order to give or to restore to the worker that self-respect and self-reliance which comes from the consciousness of skill in a craft or process the scientific principles underlying which are also to some extent apprehended.

The attempt to restore the dignity of labour to the high place it held in popular esteem in the Middle Ages in Europe, and to give it again its lost social prestige, is being made on all sides, and recent speeches of the President of the Board of Education have put forward this point of view with no uncertain voice.

The technical-school teachers, of whom there are some three thousand in full-time employment are now included for salary and superannuation purposes in the terms of the Burnham award, the range of the salary scale probably being somewhat more generous to the teachers than is the scale in operation in New Zealand, having regard to the relative costs of living. The matter of training of teachers of handicraft and technology is proving, however, to be a very difficult one, and, with the exception of one institution in London which is definitely engaged in the training of teachers of handicraft and trade subjects, no general solution of the difficulty has yet been found.

So far as I could gather, the teachers are recruited from much the same sources and in very similar ways to those which are found suitable in New Zealand, and most of them, bringing knowledge and enthusiasm to their work, rapidly improve in the technique of instruction and become admirable teachers in every way.

IV.—MANUAL TRAINING.

(Extracts from the annual report of W. S. Austin, Inspector of Schools.)

Manual training in woodwork, metal-work, and cookery is provided for such pupils in the two higher-standard classes of primary schools, the secondary classes of district high schools, and the various forms of junior high schools as may be within convenient reach of buildings which have been fitted up for the purpose and known as manual-training centres. At the end of the year 1926 there were 117 such centres, in which there were in all 116 rooms for woodwork, six for metal-work, and 117 for cookery. Two of the centres are double, each containing two separate sets of rooms; eight are sufficiently large for the accommodation of either double classes or classes much above the normal size, in which cases assistant instructors are employed; five are attached to junior high schools; and eleven serve for both manual-training and day technical schools or technical high schools. At two small centres (Owaka and Methven) provision is made for cookery, but not for woodwork.

With a few outstanding exceptions, the manual-training centres are suitable in construction and arrangement. Some of the older ones, but particularly the woodwork sections of these, are buildings which have been more or less appropriately adapted for the purpose; but in the planning of modern structures consideration has been given to the fact that manual-training woodwork is not mere carpentry, and in consequence the woodwork-rooms of these later buildings in arrangement and finish more nearly approximate the class-room than the carpenter's shed. On the whole, the equipment of the woodwork and metal-work rooms throughout the Dominion is satisfactory, and greater attention is now being given to the replacement of worn-out furniture, fittings, and tools, for which purpose the incidental allowances provided annually by the Department appear to be amply sufficient. There have been some instances where the new tools supplied are of inferior quality, but false economy of this kind is not general. Certain defects in the equipment of the rooms in which cookery is taught are discussed in the report of the Inspector of Domestic Instruction.

During the year there were in operation 914 recognized classes for woodwork, with 19,625 pupils in attendance; 41 classes, with 479 pupils, for metal-work; and 950 classes, with 19,143 pupils, for cookery: making in all 1,905 classes, with 39,247 pupils. In some of the larger centres laundry-work takes the place of cookery for a short period each year. Instruction in dressmaking, as well as in cookery, is provided at the centres that can be attended by classes from post-primary schools, including those from the secondary departments of district high schools, and there is a growing demand from certain high schools for instruction in woodwork. Wherever possible, provision is made at the centres for classes from private schools.

The staff of full-time manual-training teachers for classes taken at the centres numbered 118, comprising 60 for woodwork or metal-work and 58 for cookery. In addition, 16 men teachers and 14 women teachers on the staffs of technical day schools and technical high schools were engaged for a part of each week in taking manual-training classes at centres attached to those schools; on the other hand, a few day technical classes were taken by manual instructors. At one isolated centre the woodwork classes were successfully conducted by the headmaster of the school, and the cookery classes by a part-time teacher secured locally; and at three other centres similarly situated local part-time teachers for one or both subjects were employed. In the cities and most of the larger towns the centres are fully occupied throughout the week; but in localities where the population is so widely scattered as to render the cost of the transport of pupils to a large extent prohibitive the centres, less fully used, are served by itinerant instructors.

For the training of specialist teachers for service in manual schools it has not been possible in this country to make the most satisfactory arrangements. On the domestic side the position is partly met by the training provided at the Otago University, where students may secure either an appropriate degree or a diploma; but these students do not, as a rule, get the same definite training in teaching as is provided for ordinary students who attend the teachers' training colleges. The men teachers have not any facilities of this kind. Many of the older woodwork instructors are of that number brought out from England at various times in the course of the earlier stages of the development of manual training in this country, and were already experienced teachers as well as skilful tradesmen. With two or three exceptions, all the others have come over directly from the trade, generally at some financial disadvantage to themselves, and the success which has marked their service in the new phere of activity is for the most part due to a general adapt ability established in the course of their

trade training, reinforced by a strong feeling that they have a call to the work of the teacher. Where they are able to commence their teaching as assistants to instructors in charge of large centres, such as those in Auckland and Christchurch, they are at some advantage, but, in any case the new work at its commencement is of the nature of an uphill fight. Practically all of the men teachers have, in addition to their trade qualifications, certain attainments indicated by the possession of such certificates as those awarded to successful candidates at examinations conducted by the City and Guilds of London Institute, but because of the nature of the new regulations of the Home authorities New Zealand candidates can no longer fulfil the requirements for the handicrafts certificate which now takes the place of the former woodwork (or metal-work) teachers' certificate. To meet the situation the Department instituted a Handicraft Teachers' Certificate Examination for candidates in this country. The prescription was as far as possible modelled on that for the Home examination, but in certain particulars the requirements were made somewhat more exacting, with the result that the attainments of the candidate who succeeds in passing the three yearly examinations will be at least equal to those of a primary-school teacher who holds a Class D certificate. The first examination was held in 1925, when two candidates secured a full pass in the first section, and four others a partial pass in this section. At the 1926 examination one candidate passed Section II in full, while, of those who sat for the first section, two secured full passes, one completed the section, and three gained a partial pass. Other instructors, who already hold South Kensington and City and Guilds certificates, are improving their status by taking examinations for the ordinary teachers' D, C, and B certificates. The student-teachership system, whereby young people who propose to take up the work of instruction serve a kind of apprenticeship, devoting part of their time to practical training in the art of teaching at a centre, and part to the prosecution of their studies in the theory of education, as well as continuing at technical classes practical work in connection with their special subject, is not being availed of to any great extent. There were not in 1926 any student teachers for woodwork or metal-work, and only seven were serving under domestic teachers at manual-training centres. The professional and academic standing of the itinerant agricultural instructors may be gauged from the fact that 72 per cent. of their number have either university degrees or such other qualifications as entitle them to be classified in Division I, and that most of the remainder were already experienced in science-teaching at the schools before taking up the special work which now engages their attention.

The issue of the permissive regulation whereby Education Boards, if they so desire, are enabled to hand over to Principals of technical schools and technical high schools the immediate control of manual instruction in their school districts, has not resulted in any noteworthy development in the unification of primary and secondary work in practical subjects; in only three localities has there been a transfer involving centres not directly connected with or immediately adjacent to the technical school concerned. There can be little doubt that the principle underlying the regulation is sound and that if the idea were put into practice universally there would be a distinct gain in improved instruction directed by the experts who, from the nature of things, have in the highest degree the qualifications necessary for the direction of the whole course to the best advantage. As it is, there are only three education districts in which manual-training affairs are under management of supervisors who are able to give a fair measure of attention to them, while in the other districts, where the duty falls to a member of the clerical staff, or perhaps to a senior teacher with his ordinary duties pressing heavily upon him, little beyond routine administration can be accomplished.

There were twenty-five itinerant instructors employed by the Education Boards in supervising and directing the instruction in nature-study, elementary agriculture, dairy science, and general science in the primary and district high schools during the year. These specialists are giving good service to the State. Their schedules of duties differ slightly according to the varying requirements of the Boards and the extent of the ground the instructors must cover in traversing their areas, but in general they are entrusted, under the direction of the senior Inspector of the district, with the guidance of teachers in regard to both the matter to be dealt with and the methods to be employed in carrying out experimental work in the plots, the laboratory, and the class-room. Amongst other duties cheerfully taken up by the agricultural instructors, and performed largely in their own time, is the supervision, in co-operation with officers of the Department of Agriculture and members of farmers' associations, of boys' and girls' club competitions connected with home gardens, crop-growing, and calf-rearing. It is noteworthy, too, that in the course of their visits to different localities they are frequently consulted by parents and by old pupils now engaged in farming pursuits on problems confronting the men on the land in their daily occupation. They have aided greatly in transforming a very large number of bare and, in some cases, neglected school-grounds into places altogether pleasing to the eye, for not only have they given expert advice on this matter to the teachers and children, but they have by personal effort stirred apathetic School Committees into action and worked shoulder to shoulder with them in the effort to brighten the surroundings of the school, and thus create and encourage in the minds of the children love and respect for all that is orderly and beautiful.

The various branches of handwork in the schools are not now taken as separate subjects, the materials and exercises being used as aids in dealing with the ordinary subjects of the curriculum. There is a danger here lest hand-and-eye training, which in itself is so important in the education of the young, should be thrust too far into the background. I am strongly of the opinion that handwork is not carried on with due continuity; it bulks large in the kindergarten, infants', and junior classes, but appears to fall away rapidly in the middle division, and the result is that, as far at any rate as the boys are concerned, there is an undue break between the work of the lower division and that of the manual-training classes. Weakness in this direction seems to be almost universal. The solid training in co-ordinating the operations of hand and eye, in the use of the scale rule, in instrumental drawing, in elementary geometry, and in mensuration, which should be secured by appropriate practice in carton and cardboard work, is on all hands reported to be lacking, and as a consequence boys attending woodwork and metal-work classes must spend some time in making a commencement when they should be merely continuing, for there is no great change in the new occupations beyond the difference in the media.

Inquiries regarding the handwork material, the whole of which is supplied by the Department through the Boards, show that there is little complaint with respect to the quality; the quantity is sometimes said to be insufficient, but in most cases this appears to be the result of errors or omissions in requisition or distribution.

3. DETAILED TABLES RELATING TO TECHNICAL INSTRUCTION.

TABLE J 1.—SOME PARTICULARS RELATING TO TECHNICAL EDUCATION FOR THE YEARS 1925 AND 1926.

—	1925.	1926.
Number of centres at which classes were held	45	50
Number of technical high schools	15	15
Number of technical day schools	8	8
Number of students at all classes	18,098	19,740
Including—		
(*a*) Technical high schools	5,132	5,963
(*b*) Technical day schools	12,966	1,096
(*c*) Other classes		12,681
Number of free pupils at all classes	10,268	11,930
Including—		
(*a*) Technical high schools	4,891	5,758
(*b*) Technical day schools	5,377	1,015
(*c*) Other classes		5,157
Approximate amounts payable by Government for—	£	£
(*a*) Salaries and allowances	126,000	132,800
(*b*) Incidental allowances*	32,200	39,200
(*c*) Material for class use	4,200	..
Less recoveries from tuition fees	10,100	10,700
Total expenditure by Government for financial year	209,183	213,065
Including—		
(*a* Consolidated Fund	168,749	174,192
(*b*) Education purposes loans	37,892	37,314
(*c*) Subsidies on voluntary contributions	2,542	1,559

* From the 1st February, 1926, allowances were increased from 26 per cent. to 30 per cent. of salaries, and grants for material were abolished.

TABLE J 2—NUMBER OF PUPILS IN ATTENDANCE AT ALL CLASSES HELD DURING 1926.

Centres at which Classes are held.	Technical High Schools and Technical Day Schools.			Other Classes.			Grand Totals.
	Free.	Other.	Totals.	Free.	Other.	Totals.	
TECHNICAL SCHOOL BOARDS.							
Auckland Technical School	794	6	800	697	761	1,458	2,258
"Elam" School of Art	30	27	57	15	173	188	245
Pukekohe Technical School	249	5	254	..	21	21	275
Hamilton Technical School	247	9	256	142	142	284	540
New Plymouth Technical School	237	..	237	81	123	204	441
Hawera Technical School	245	15	260	..	..	..	260
Stratford Technical School	279	8	287	21	8	29	316
Wanganui Technical School	471	29	500	94	333	427	927
Feilding Technical School	192	2	194	63	100	163	357
Napier Technical School	187	30	217	89	159	248	465
Waipawa Technical School	..	..	..	..	21	21	21
Wellington Technical School	646	26	672	748	1,103	1,851	2,523
Petone Technical School	..	..	..	91	132	223	223
Nelson Technical School	31	3	34	162	190	352	386
Westport Technical School	141	6	147	34	78	112	259
Christchurch Technical School	914	20	934	889	1,301	2,190	3,124
Ashburton Technical School	151	9	160	147	67	214	374
Greymouth (sub-centres at Reefton and Hokitika)	195	10	205	44	139	183	388
Timaru Technical School	115	2	117	141	186	327	444
Kaiapoi Technical School	..	..	..	..	43	43	43
Waimate Technical School	..	..	..	..	108	108	108
Dunedin Technical School	473	18	491	608	627	1,235	1,726
Oamaru Technical School	..	..	..	15	35	50	50
Invercargill Technical School	475	8	483	216	214	430	913
HIGH SCHOOL BOARDS.							
Whangarei Technical School	..	..	..	28	31	59	59
Palmerston North Technical School	219	7	226	358	346	704	930
Dannevirke Technical School	..	..	..	..	10	10	10
Gore Technical School	..	..	..	8	46	54	54
UNIVERSITY COLLEGE BOARD.							
Canterbury College School of Art	127	32	159	121	359	480	639
SECONDARY EDUCATION BOARD.							
Masterton Technical School	105	1	106	140	171	311	417
EDUCATION BOARDS.							
Auckland (Onehunga, Rotorua, Taumarunui, Te Aroha, Thames, Waihi)	..	..	..	52	121	173	173
Hawke's Bay—							
Gisborne	..	..	..	68	54	122	122
Hastings	250	13	263	..	..	..	263
Wellington (Blenheim, Lower Hutt)	..	..	..	72	84	156	156
Nelson (Motueka, Takaka)	..	..	..	13	46	59	59
Canterbury (Leeston, Lakeside, Killinchy, Doyleston, Southbridge, Fairlie)	..	..	..	..	192	192	192
Totals, 1926	6,773	286	7,059	5,157	7,524	12,681	19,740
Totals, 1925		Details not available.					18,098

TABLE J 3.—NUMBER OF STUDENTS, ACCORDING TO AGES, ADMITTED TO TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1926.

Name of School.	Under 13 Years.		13–15 Years.		15–17 Years.		Over 17 Years.		Totals.			Students admitted during 1926 who left a Public Primary School during 1925. (Included in Foregoing Totals.)	
TECHNICAL HIGH SCHOOLS.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.
Auckland	20	28	317	229	112	85	7	2	456	344		250	196
Pukekohe	5	9	71	76	43	39	10	1	129	125		57	61
Hamilton	6	4	86	76	39	33	8	4	139	117		79	57
Hawera	3	6	69	58	51	51	7	15	130	130		66	46
Stratford	5	2	59	78	59	55	10	19	133	154		57	70
Wanganui	14	9	150	95	120	63	34	15	318	182		138	97
Feilding	2	..	36	26	56	41	18	15	112	82		58	30
Napier	4	2	67	42	49	36	4	13	124	93		68	33
Hastings (to 30/4/26)	11	8	76	72	41	38	10	7	138	125		71	54
Wellington	21	34	275	172	94	62	5	9	395	277		215	134
Westport	1	..	24	20	37	35	9	21	71	76		31	21
Christchurch	28	19	329	235	159	136	15	13	531	403		266	168
Greymouth	2	1	44	30	46	59	5	18	97	108		56	48
Dunedin	21	28	164	168	42	55	4	9	231	260		158	150
Invercargill	16	20	157	154	66	58	8	4	247	236		143	121
Totals	159	170	1,924	1,531	1,014	846	154	165	3,251	2,712		1,713	1,286
TECHNICAL DAY SCHOOLS.													
"Elam" School of Art	..	..	3	5	4	13	9	23	16	41		13	8
New Plymouth	5	6	44	71	39	53	11	8	99	138		45	67
Palmerston North	..	..	31	35	47	91	3	19	81	145		53	87
Masterton	3	2	35	41	17	7	..	1	55	51		37	38
Nelson	..	..	15	5	9	2	3	..	27	7		17	4
Ashburton	..	..	17	26	51	53	6	7	74	86		41	42
Timaru	1	..	21	33	24	33	2	3	48	69		30	37
Canterbury College School of Art	..	..	4	23	7	75	5	45	16	143		11	62
Totals	9	8	170	239	198	327	39	106	416	680		247	345
Grand totals	168	178	2,094	1,770	1,212	1,173	193	271	3,667	3,392		1,960	1,631
									7,059			3,591	

TABLE J 4.—NUMBER OF STUDENTS, ACCORDING TO AGES, ADMITTED TO CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1926.

Education District.	Under 13 Years.		13–15 Years.		15–17 Years.		Over 17 Years.		Totals.			Students admitted during 1926 who left a Public Primary School during 1925. (Included in Foregoing Totals).	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.
Auckland	12	12	131	111	528	218	821	350	1,492	691		222	98
Taranaki	1	7	12	24	50	31	66	42	129	104		40	21
Wanganui	..	..	43	40	199	194	383	435	625	669		76	69
Hawke's Bay	2	1	28	11	100	57	116	86	246	155		36	13
Wellington	15	25	179	99	614	233	920	456	1,728	813		239	162
Nelson	10	17	36	84	58	71	89	158	193	330		21	39
Canterbury	122	136	288	242	697	358	1,072	822	2,179	1,558		195	118
Otago	5	6	173	86	338	129	407	141	923	362		155	57
Southland	3	1	47	31	101	84	105	112	256	228		53	39
Totals	170	205	937	728	2,685	1,375	3,979	2,602	7,771	4,910		1,037	616
									12,681			1,653	

TABLE J 5.—NUMBER OF PUPILS HOLDING GOVERNMENT FREE PLACES AT TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1926.

School.	Juniors.				Seniors.						Totals		Grand Totals.
	First Year.		Second Year.		First Year.		Second Year.		Third Year.				
TECHNICAL HIGH SCHOOLS.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Auckland	249	196	163	109	42	32	..	3	..	..	454	340	794
Pukekohe	56	64	32	42	21	10	11	2	5	6	125	124	249
Hamilton	80	57	34	47	14	11	4	..	..	..	132	115	247
Hawera	61	45	37	41	17	18	8	12	..	6	123	122	245
Stratford	57	69	37	44	18	22	14	13	4	1	130	149	279
Wanganui	141	98	89	40	46	18	14	8	9	8	299	172	471
Feilding	51	29	8	13	..	..	25	15	27	24	111	81	192
Napier	64	30	32	27	13	14	3	2	2	..	114	73	187
Hastings (to 30/4/26)..	71	57	30	33	15	17	12	9	1	5	129	121	250
Wellington	214	133	124	94	33	28	12	7	..	1	383	263	646
Westport	31	21	23	23	8	16	5	13	..	1	67	74	141
Christchurch ..	294	181	163	137	44	50	13	23	5	4	519	395	914
Greymouth	47	52	32	31	8	11	6	3	1	4	94	101	195
Dunedin	158	148	54	76	13	16	2	5	..	1	227	246	473
Invercargill	143	118	59	82	37	28	5	3	..	..	244	231	475
Totals for 1926 ..	1,717	1,298	917	839	329	291	134	118	54	61	3,151	2,607	5,758
Totals for 1925 ..	1,378	1,226	815	711	298	260	82	66	27	28	2,600	2,291	4,891
TECHNICAL DAY SCHOOLS.													
"Elam" School of Art	4	6	2	8	1	2	1	4	..	2	8	22	30
New Plymouth ..	47	69	26	44	19	17	5	8	2	..	99	138	237
Palmerston North ..	54	86	18	39	2	11	2	4	..	3	76	143	219
Masterton	37	38	16	11	1	2	..	..	..	..	54	51	105
Nelson	17	4	2	1	4	2	1	..	..	..	24	7	31
Ashburton	40	36	24	38	5	8	..	..	..	..	69	82	151
Timaru	29	36	16	22	2	8	..	2	..	..	47	68	115
Canterbury College Sch'l of Art	11	58	4	43	..	5	..	6	..	..	15	112	127
Totals for 1926 ..	239	333	108	206	34	55	9	24	2	5	392	623	1,015
Totals for 1925 ..	Not available.												
Grand totals, 1926	1,956	1,631	1,025	1,045	363	346	143	142	56	66	3,543	3,230	6,773

TABLE J 6.—NUMBER OF PUPILS HOLDING GOVERNMENT FREE PLACES AT TECHNICAL CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1926.

Education District.	Jr. 1st Year.		Jr. 2nd and 3rd Year.		Sr. 1st Year.		Sr. 2nd Year.		Sr. 3rd and 4th Year.		Totals.		Grand Totals.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Auckland	167	110	208	54	131	64	93	27	71	9	670	264	934
Taranaki	18	15	10	7	11	4	16	6	12	3	67	35	102
Wanganui	79	58	44	62	46	68	40	55	37	26	246	269	515
Hawke's Bay ..	36	11	18	15	20	18	18	16	3	2	95	62	157
Wellington	162	59	124	59	183	74	162	52	139	37	770	281	1,051
Nelson	25	46	23	27	14	25	7	18	6	18	75	134	209
Canterbury	252	111	243	79	200	93	149	81	80	54	924	418	1,342
Otago	132	47	136	36	83	54	67	21	39	8	457	166	623
Southland	25	17	30	29	34	20	18	24	9	18	116	108	224
Totals	896	474	836	368	722	420	570	300	396	175	3,420	1,737	5,157

TABLE J 7.—TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS: COURSES TAKEN BY STUDENTS DURING THE YEAR 1926.

School.	Industrial.		Agricultural.		Domestic.		Commercial.		General.		Art.		Totals.		Grand Totals.
TECHNICAL HIGH SCHOOLS.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Auckland	281	..	30	..	..	99	72	214	73	31	..	..	456	344	800
Pukekohe	19	..	12	..	..	22	24	56	74	47	..	..	129	125	254
Hamilton	125	..	..	..	..	40	14	77	..	..	..	..	139	117	256
Hawera	34	..	12	..	..	13	29	64	55	53	..	..	130	130	260
Stratford	..	..	73	..	..	59	19	41	41	54	..	..	133	154	287
Wanganui	60	..	40	..	..	45	46	99	172	38	..	..	318	182	500
Feilding	..	..	55	..	..	42	..	40	57	..	..	..	112	82	194
Napier	63	..	22	..	..	25	33	66	5	..	1	2	124	93	217
Hastings (to 30th April, 1926)	21	..	16	..	..	7	29	59	72	59	..	..	138	125	263
Wellington	267	..	..	..	..	64	70	195	24	4	34	14	395	277	672
Westport	29	..	..	..	..	..	17	45	25	31	..	..	71	76	147
Christchurch	391	..	36	..	..	146	104	257	..	..	..	..	531	403	934
Greymouth	40	..	..	..	..	15	10	49	47	44	..	..	97	108	205
Dunedin	161	..	10	..	..	64	58	185	..	..	2	11	231	260	491
Invercargill	165	..	17	..	..	108	65	128	..	..	..	..	247	236	483
Totals	1,656	..	323	..	..	749	590	1,575	645	361	37	27	3,251	2,712	5,963
TECHNICAL DAY SCHOOLS.															
"Elam" School of Art	..	..	..	..	..	..	..	..	..	..	16	41	16	41	57
New Plymouth Technical School	57	..	10	..	..	23	18	110	14	5	..	..	99	138	237
Palmerston N. Technical School	76	..	..	..	..	72	..	53	4	20	1	..	81	145	226
Masterton Technical School	44	..	..	..	..	13	11	38	..	..	..	..	55	51	106
Nelson Technical School	27	..	..	..	..	2	..	5	..	..	..	..	27	7	34
Ashburton Technical School	43	..	22	..	..	40	9	46	..	..	..	..	74	86	160
Timaru Technical School	40	..	..	..	..	8	8	61	..	..	..	..	48	69	117
Christchurch School of Art	..	..	..	..	..	..	..	..	..	..	16	143	16	143	159
Totals	287	..	32	..	..	158	46	313	18	25	33	184	416	680	1,096
Grand Totals	1,943	..	355	..	..	907	636	1,888	663	386	70	211	3,667	3,392	7,059

TABLE J 8.—OCCUPATIONS OF STUDENTS IN ATTENDANCE AT TECHNICAL CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1926.

Occupations.	Auckland.	Taranaki.	Wanganui.	Hawke's Bay.	Wellington.	Nelson.	Canterbury.	Otago.	Southland.	Totals.
Engineers and mechanics	205	25	63	28	145	22	172	122	30	812
Electricians	99	18	52	16	133	19	96	41	14	488
Plumbers, metal-workers, &c.	248	7	50	45	171	30	151	93	16	811
Woodworkers	205	18	84	11	211	10	236	100	30	905
Painters, plasterers, &c.	40	3	38	3	57	1	21	20	7	190
Printers, &c.	53	4	4	4	15	..	55	10	2	147
Agricultural pursuits	11	..	13	2	7	12	87	8	6	146
Professional pursuits	155	12	57	23	229	41	224	18	41	800
Clerical pursuits	431	61	269	78	696	33	584	260	101	2,513
Domestic pursuits	197	17	155	65	235	239	500	90	99	1,597
Dressmakers, milliners, tailoresses, &c.	35	1	30	6	41	3	68	11	2	197
Employed in shops or warehouses	161	22	93	61	145	35	321	133	45	1,016
Engaged in various other trades and industries	99	..	64	37	117	10	237	162	18	744
Labourers	4	..	11	3	12	..	56	13	3	102
Students	72	42	247	13	194	50	850	62	54	1,584
Occupations not stated	168	3	64	6	133	18	79	142	16	629
Totals	2,183	233	1,294	401	2,541	523	3,737	1,285	484	12,681

TABLE J 9.—RECEIPTS BY CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR ENDED 31ST DECEMBER, 1926.

Controlling Authorities.	Receipts from Government.						Other Receipts.						Total Receipts.
	Salaries and Allowances: Full-time, Part-time, and Student Teachers.	Incidental Allowances.	Sites, Buildings (including Maintenance), Equipment, and Rent.	Material for Class Use; Balance of Grants for 1925.	Subsidies on Voluntary Contributions.	Total Receipts from Government.	Tuition Fees.	Voluntary Contributions.	For Services rendered to other Schools.	Miscellaneous.	Transfers from other Accounts.	Total of other Receipts.	
TECHNICAL SCHOOL BOARDS.	£	£	£	£	£	£	£	£	£	£	£	£	£
Auckland Technical School ..	15,600	3,753	430	185	34	20,002	994	155	..	1,095	..	2,244	22,246
"Elam" School of Art	1,671	116	..	11	25	1,823	263	..	20	300	..	583	2,406
Pukekohe Technical School ..	4,401	1,286	95	..	..	5,782	56	8	..	158	..	222	6,004
Hamilton Technical School ..	5,090	1,542	264	30	..	6,926	260	..	63	156	..	479	7,405
New Plymouth Technical School ..	3,815	1,100	13	100	..	5,028	77	11	20	229	..	337	5,365
Hawera Technical School	3,099	806	139	4	46	4,094	61	..	..	132	..	193	4,287
Stratford Technical School ..	4,426	1,210	20	16	..	5,672	84	10	..	123	..	217	5,889
Wanganui Technical School ..	8,793	2,101	940	200	196	12,230	603	50	106	6,134	..	6,893	19,123
Feilding Technical School	3,536	926	247	27	10	4,746	106	24	32	178	414	754	5,500
Napier Technical School	4,327	1,055	215	192	35	5,824	269	60	..	411	..	740	6,564
Waipawa Technical School ..	81	25	..	..	..	106	23	..	..	..	..	23	129
Wellington Technical School ..	14,380	2,215	3,984	113	994	21,686	1,891	399	..	2,312	..	4,602	26,288
Petone Technical School	650	56	23	..	79	808	133	80	129	11	..	353	1,161
Nelson Technical School	2,679	811	29	12	..	3,531	187	25	31	129	..	372	3,903
Westport Technical School ..	3,136	781	160	67	18	4,162	105	43	98	69	..	315	4,477
Christchurch Technical School ..	16,650	3,561	9,326	700	343	30,580	1,218	498	..	5,385	..	7,101	37,681
Ashburton Technical School ..	3,392	780	175	78	209	4,634	103	69	71	139	..	382	5,016
Greymouth Technical School ..	4,360	1,178	140	54	100	5,832	179	..	156	480	..	815	6,647
Timaru Technical School	2,916	679	603	96	50	4,344	194	75	..	217	..	486	4,830
Kaiapoi Technical School	33	15	..	10	..	58	29	6	..	1	..	36	94
Waimate Technical School.. ..	1	14	..	22	13	50	92	13	..	26	..	131	181
Dunedin Technical School ..	9,987	2,061	..	323	92	12,463	956	185	..	1,102	..	2,243	14,706
Oamaru Technical School	98	42	..	..	..	140	50	49	..	..	..	99	239
Invercargill Technical School ..	8,176	2,158	1,298	225	..	11,857	300	84	..	587	..	971	12,828
HIGH SCHOOL BOARDS.													
Whangarei Technical School ..	..	..	..	..	..	..	34	..	..	..	..	34	34
Palmerston North Technical School..	6,298	1,087	175	173	186	7,919	772	172	13	249	..	1,206	9,125
Dannevirke Technical School ..	80	19	..	..	..	99	28	..	..	..	..	28	127
Gore Technical School	..	..	..	..	..	..	40	25	..	..	..	65	65
UNIVERSITY COLLEGE BOARD.													
Canterbury College School of Art ..	4,356	498	19	94	..	4,967	762	..	..	419	..	1,181	6,148
SECONDARY EDUCATION BOARD.													
Masterton Technical School ..	2,743	596	20	101	40	3,500	150	25	..	70	..	245	3,745
EDUCATION BOARDS.													
Auckland	305	194	864	23	..	1,386	92	..	..	240	..	332	1,718
Hawke's Bay—													
Gisborne	232	14	13	20	..	279	93	20	..	21	..	134	413
Hastings	1,199	325	170	36	5	1,735	11	..	..	240	..	251	1,986
Wellington	413	45	16	33	..	507	71	11	..	10	..	92	599
Nelson	..	..	..	..	..	..	20	..	..	21	..	41	41
Canterbury	4	..	14	..	..	18	95	2	..	..	..	97	115
Totals	136,927	31,049	19,392	2,945	2,475	192,788	10,401	2,099	739	20,644	414	34,297	227,085

TABLE J 10.—PAYMENTS BY CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR ENDING 31ST DECEMBER, 1926.

Controlling Authorities.	Salaries and Allowances of Principals and Teaching Staff.	Working-expenses.								Sites, Buildings, Equipment, and Rent.	Other Expenditure.	Transfers to other Accounts.	Total Expenditure.
		Salaries of Registrars and Clerical Staffs.	Office Expenses (including Advertising and Printing).	Material for Class Use.	Repairs to Buildings, and Equipment.	Caretaking and Cleaning.	Lighting, Heating, and Water.	Miscellaneous Working-expenses.	Total Working-expenses.				
TECHNICAL SCHOOL BOARDS.	£	£	£	£	£	£	£	£	£	£	£	£	£
Auckland Technical School ..	15,718	638	426	1,890	135	516	427	23	4,055	931	223	1,688	22,615
"Elam" School of Art ..	1,810	155	73	123	13	130	59	..	553	1	45	..	2,409
Pukekohe Technical School ..	4,356	67	111	242	73	235	64	97	889	559	158	..	5,962
Hamilton Technical School ..	5,215	74	116	371	110	206	35	..	912	575	106	..	6,808
New Plymouth High School ..	4,034	127	206	443	371	144	40	..	1,331	99	170	..	5,634
Hawera Technical School ..	3,115	75	76	61	9	178	39	..	438	478	232	..	4,263
Stratford Technical School ..	4,283	45	97	62	38	340	32	10	624	459	132	..	5,498
Wanganui Technical School ..	9,014	305	238	617	276	323	97	3	1,859	1,633	5,419	..	17,925
Feilding Technical School ..	3,650	126	94	14	22	336	157	..	749	555	260	..	5,214
Napier Technical School ..	4,120	249	148	243	290	140	125	44	1,239	266	356	..	5,981
Waipawa Technical School ..	98	10	7	1	..	..	4	..	22	..	..	..	120
Wellington Technical School ..	14,591	770	339	968	53	531	386	278	3,325	4,992	1,479	..	24,387
Petone Technical School ..	636	159	37	24	16	100	38	..	374	60	2	..	1,072
Nelson Technical School ..	2,681	160	65	288	11	104	45	15	688	118	75	..	3,562
Westport Technical School ..	3,237	113	103	272	95	197	120	..	900	361	74	..	4,572
Christchurch Technical School ..	16,603	847	522	1,413	699	1,107	330	..	4,918	9,147	6,518	..	37,186
Ashburton Technical School ..	3,423	126	81	271	15	220	61	31	805	449	69	..	4,746
Greymouth Technical School ..	4,537	159	66	189	14	200	64	98	790	520	652	..	6,499
Timaru Technical School ..	2,645	109	86	179	29	102	77	13	595	1,485	16	..	4,741
Kaiapoi Technical School ..	70	15	2	12	..	9	6	4	48	..	10	..	128
Waimate Technical School ..	92	35	8	31	4	12	12	..	102	..	..	..	194
Dunedin Technical School ..	10,184	621	357	1,051	71	626	272	35	3,033	566	324	..	14,107
Oamaru Technical School ..	132	71	6	..	..	6	5	..	88	..	..	..	220
Invercargill Technical School ..	8,657	383	350	619	219	578	174	..	2,323	1,395	1,801	..	14,176
HIGH SCHOOL BOARDS.													
Whangarei Technical School ..	151	..	..	45	..	25	11	..	81	..	..	..	232
Palmerston North Technical School	5,899	244	150	438	168	177	161	19	1,357	429	123	..	7,808
Dannevirke Technical School ..	61	..	..	40	..	..	3	..	43	..	..	..	104
Gore Technical School ..	81	32	5	..	3	..	9	4	53	21	..	..	155
UNIVERSITY COLLEGE BOARD.													
Canterbury College School of Art	4,344	200	193	136	48	346	203	..	1,126	85	126	450	6,131
SECONDARY EDUCATION BOARD.													
Masterton Technical School ..	2,746	97	100	224	138	103	99	23	784	400	..	..	3,930
EDUCATION BOARDS.													
Auckland	428	..	27	..	..	..	..	..	27	1,725	110	..	2,290
Hawke's Bay—													
Gisborne	316	45	8	79	19	8	7	..	166	43	..	..	525
Hastings	1,089	53	23	35	44	69	16	62	302	303	22	441	2,157
Wellington	441	70	15	26	3	1	3	..	118	23	..	..	582
Nelson	..	..	1	19	1	..	3	..	24	..	..	..	24
Canterbury	135	5	2	6	..	..	..	..	13	19	5	..	172
Totals	138,592	6,185	4,138	10,432	2,987	7,069	3,184	759	34,754	27,697	18,507	2,579	222,129

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TABLE 110.—PATIENTS IN CONTROLLING AUTHORITIES' TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR YEAR ENDING 31ST DECEMBER, 1932