

## CHAPTER IX.

## EDUCATION.

## § 1. Evolution of Educational Systems in Australia.

1. Educational Systems of the States.—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian education should have had its beginning in that State. In the evolution of educational method and system in Australia, New South Wales also has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Commonwealth Official Year Book, but it is not proposed to repeat it in the present volume. (See also 2 hereunder.)

(ii) *Educational Systems of other Commonwealth States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book. Later details are given hereunder.

(iii) *Medical Inspection of State School Children.* See Chapter XII., Public Hygiene.

2. Recent Development in State Educational Systems.—(i) *New South Wales.* In previous issues of the Year Book a brief account was given of the development of the New South Wales educational system since the year 1911. (See Year Book No. 17, p. 447.) Reference was made to the linking-up of the State School System with the University following on the passing of the University Amendment Act and Bursary Endowment Act of 1912, to the influence on attendance of the provisions of the amending Public Instruction Act of 1916, to the increased attention devoted in recent years to school hygiene and to medical and dental inspection, and to the methods adopted of dealing with the problem of the backward or deficient child. Attention was also directed to the spread of agricultural teaching by the establishment of special agricultural schools, together with the special "rural schools" in country centres. (See also § 2, 4 (v) hereinafter.)

Fees for high school instruction were re-imposed in 1923, but the regulation in connexion therewith was cancelled in 1924, thus restoring the position formerly held whereby no fees are charged for admission to any school controlled by the Department.

The Reports for the last two years draw attention to the disabilities under which the Education Department labours owing to shortage of teachers and lack of necessary funds for new buildings, equipment, and renovations. During 1923 an amount of £503,000 was obtained from loans and a sum of £100,000 voted in the ordinary way for expenditure on buildings. For the year 1924–25 a sum of £265,000 was voted for buildings, and this was supplemented by £100,000 from Loan Expenditure Suspense Account. These funds were utilized in the provision of urgently needed works, and it is hoped shortly to satisfy all reasonable requirements.

Excellent work is being done by the Parents and Citizens' Associations which have replaced the old School Boards.

(ii) *Victoria.* Some account of the development of educational activity in Victoria up to the close of the year 1922 was given in Year Book No. 17, p. 448. The principal task confronting the educational authorities during the last few years has been to overtake arrears in the way of providing sufficient new schools and remodelling existing unsatisfactory buildings. A feature of the work in 1924 was the increased attention given by teachers and inspectors to the use of intelligence tests as a means to secure more effective classification of pupils. A group test has been worked out by the Training College and will be given an extensive trial in 1926. During the last three years nine of the higher grade teachers from Victorian schools have taught in England and in Canada under the exchange system, and ten were on leave for travel and study chiefly in England and France. Considerable benefit has accrued, especially in the case of teachers of modern languages, of history and of geography. Excellent work is being done by the various local committees and mothers' clubs formed in connexion with the schools, and it is estimated that more than 20,000 people are interesting themselves in this direction.

(iii) *Queensland.* A brief account was given in Year Book No. 17, p. 448, of the changes introduced into the Educational System of Queensland by the Act of 1910. Reference was also made to the establishment of High Schools in 1912, of a Teachers' Training College in 1914, of rural schools in 1917, and other matters. Tuition by correspondence was initiated in 1922 with a few pupils, but at the end of 1924 there were 30 teachers and about 1,900 pupils. In 1923 classes were formed at various centres for giving special instruction to backward, sub-normal, and defective children, and operations in connexion therewith were extended in 1924. A travelling Domestic Science School was initiated at Cunnamulla towards the end of the year, a specially designed and equipped railway car having been constructed for this object. Apart from the rural schools and technical classes special vocational classes were opened in several centres in 1923.

(iv) *South Australia.* In Year Book No. 17, p. 449, attention was drawn to the modifications introduced into the educational system in 1921, in the way of a new course of instruction in the primary schools; the adoption of new methods of training, examination, and classification of teachers; and the revision of the system of inspection. Developmental work in 1924 consisted principally in (a) provision of greater facilities for teaching elementary agriculture, woodwork, and domestic science in the rural schools, (b) establishment of central schools, (c) extension of the activities of the medical branch, (d) introduction of methods of dealing with backward and mentally defective children, (e) initiation of a progressive building policy.

The recent substitution of local School Committees, each of which functions for one school only in place of the Boards of Advice which looked after groups of schools, has been attended by very satisfactory results. Greater provision of helpful equipment for schools has ensued, libraries have been established or extended, and playgrounds improved, etc. Excellent work has also been done by the mothers' clubs established in connexion with the Infant Schools.

(v) *Western Australia.* A brief account was given in Official Year Book No. 17, pp. 449-50, of the changes and improvements introduced into the educational system of Western Australia during the years 1912 to 1921, but considerations of space preclude its repetition in the present issue. During 1923 efforts were made at a more systematic correlation of the work done in the various courses at the central schools with the practical needs in the life work of the scholars. To assist children in the outback districts the number of special rural schools, referred to later, was increased, and in 1924 amounted to 40, while the system of teaching by correspondence has been greatly extended. Excellent work is being done by the Parents and Citizens' Associations formed in connexion with the schools. The spread of secondary education has resulted in a satisfactory increase in efficiency of candidates for the teaching profession, while good results have attended the arrangements for an interchange of teachers with the London County Council authorities.

(vi) *Tasmania.* Allusion was made in Year Book No. 17 (page 450) to the development on modern lines in recent years of the primary branch of the educational system of Tasmania, the establishment of secondary schools and of special infant schools, the extension of correspondence teaching, the provision of schools of method as an adjunct to a more efficient system of training teachers, and the methods adopted for dealing with the problem of retardation. Limits of space preclude the repetition of this information in the present issue. In common with other States, some difficulty has been experienced in securing suitable living accommodation for teachers in charge of outback schools, but it is hoped that this will in part be met by the projected scheme of consolidation of schools. During 1924 a commencement was made with the experiment of conveying children in two districts to a central school, instead of providing small local schools. It is proposed to extend this system as opportunity allows. In connexion with the problem of retardation, a Girls' Welfare School was established in 1924 at Newtown, and represents the first attempt to deal with children from 14 to 16 years of age. Provision for elementary instruction in agriculture at primary schools in certain centres was also made in 1924. Recently the practice has been adopted of allowing inspectors to make periodical visits to the mainland states for the purpose of gaining additional experience.

(vii) *Northern Territory.* Although the number of children of school age in the Territory is small, nevertheless ample provision has been made by the Commonwealth Government for primary education. State schools are in operation at Darwin, Parap, Pine Creek, Alice Springs, and Emungalan. There is also a school for aboriginal and half-caste children at Kahlin Compound, Darwin. Children of scattered settlers are visited and instructed by an itinerant teacher, while six families are receiving tuition by correspondence. In 1924, an inspector from the Queensland Education Department re-organized the educational system on the lines of that existing in Queensland. An inspection will be made annually in future by an officer from the Queensland Department, and scholarships awarded may be taken out at approved secondary schools in Queensland.

(viii) *Present position of State Education in Australia.* Throughout Australia primary education is compulsory and free, while there exists in all States a more or less liberal provision of scholarships and bursaries to the Higher State Schools, to the Secondary Schools, and to the Universities. Provided that the requisite standard is reached, it is, of course, permissible for children to receive home tuition, or to attend so-called private schools. The orientation, lighting, and ventilation of school buildings are being modernized. In all of the States periodical medical inspection of the children is in force. (A detailed statement of the work being done in this direction will be found in the chapter dealing with Public Hygiene.) Methods of training teachers are now better developed, and although the "pupil teacher" system with its effects has not been wholly eliminated it appears to be gradually vanishing. (The methods adopted in the various States for the selection and training of teachers are described in some detail in § 2, 6, hereinafter.) There has been a wider employment of kindergarten and Montessori principles in the early stages, and the more or less purely abstract teaching of the older days has been largely replaced by concrete methods. Self-activity on the part of the pupils is being further cultivated by the partial adoption of the "Dalton" system or modifications thereof. Such subjects as nature study, manual training, music, drawing, business practice, and domestic economy have received a general impetus. Greater attention has been given to the scientific classification of pupils, and to the difficult problem of dealing with sub-normal or defective children. (In the Report of the Education Department of South Australia for the year 1923, the Medical Inspector asserts that a large proportion of juvenile delinquency is due to mental deficiency.) Moreover, as will be seen from the above, and from § 2, 4, the State Education Departments are increasing their activities in the direction of secondary education. Lastly, the system of inspection has been considerably remodelled. Under the old system, the inspector was little more than an examining officer, but, under the present régime the primary duty of this officer consists in guiding and directing the teaching in accordance with approved methods. (See also § 6, Technical Education.)

(ix) *Co-ordination of Educational Activities.* As pointed out already, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by Inter-State conferences of directors of education and of inspectors and teachers. At the conference of directors held at Perth in 1924 the chief subjects dealt with were methods and cost of secondary education; afforestation and agricultural education; district schools; correspondence teaching; Dalton methods; and methods of dealing with retarded and defective children.

## § 2. State Schools.

1. *General.*—The State Schools, or, as they are sometimes termed, the "public" schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called "private" schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder.

2. Returns for Year 1924.—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the enrolment and "average attendance" in each State during the year 1924 :—

STATE SCHOOLS.—RETURNS, 1924.

State or Territory.	Schools.(a)	Teachers.(b)	Scholars Enrolled.	Average Attendance.	Percentage of Attendance on Enrolment.
New South Wales (c) ..	3,476	10,196	316,454	263,602	84.9
Victoria ..	2,640	7,346	237,744	188,939	79.5
Queensland ..	1,719	4,041	135,547	104,283	76.9
South Australia ..	1,037	2,678	83,483	68,759	82.4
Western Australia ..	818	1,949	55,478	48,301	87.1
Tasmania ..	521	1,202	32,283	26,898	83.3
Northern Territory ..	7	12	267	208	77.9
Australia ..	10,218	27,424	861,256	705,990	82.0

(a) Schools open during year.

(b) Exclusive of sewing mistresses.

(c) Including Federal Capital Territory.

The decrease in the birth rate and the effect of the war years are reflected in the figures for Western Australia and Tasmania, the enrolments in these States showing very slight increases over those for 1923, while the attendance figures for 1924 in Western Australia were about 200 lower than in 1923.

(ii) *Schools in the Federal Capital Area.* During the year 1924 fifteen State Schools were in operation in the Federal Capital Territory (Yass-Canberra). The pupils enrolled numbered 615 and the average attendance 481. Cost of upkeep amounted to £5,751. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department on the same lines as the ordinary State Schools, the Department being recouped for expenditure.

3. Growth of Enrolment and Attendance.—The enrolment and average attendance at the State Schools in Australia are given below for the years 1891, 1901, 1911, and for each year of the period 1920 to 1924 :—

STATE SCHOOLS.—ENROLMENT AND ATTENDANCE.—AUSTRALIA, 1891 TO 1924.

Year.	Total Population. (a)	Enrolment.	Average Attendance.	Year.	Total Population. (a)	Enrolment.	Average Attendance.
1891 ..	3,421	561,153	350,773	1921 ..	5,509	819,042	666,498
1901 ..	3,825	638,478	450,246	1922 ..	5,633	837,426	688,264
1911 ..	4,573	638,850	463,799	1923 ..	5,750	848,882	685,233
1920 ..	5,411	801,405	632,182	1924 ..	5,874	861,256	705,990

(a) At 31st December, in thousands.

The percentage of attendance on enrolment in 1924 amounted to 82.0, as compared with 80.7 in the preceding year, the lower figure in 1923 being due chiefly to the prevalence of epidemics of measles, whooping cough, and other ailments in New South Wales, Victoria and Tasmania. The attendance in Queensland was also adversely affected by unfavourable weather conditions.

4. Distribution of Educational Facilities.—(i) *In Sparsely-settled Districts.* It has always been the aim of the State to carry the benefits of education into the remotest and most sparsely-settled districts. This is effected in various ways :—(a) By the establishment of Provisional Schools, i.e., small schools in which the attendance does not amount to more than about a dozen pupils, these institutions merging into the ordinary public

school list when the attendance exceeds the minimum : (b) When there are not enough children to form a provisional school, what are known as Half-time Schools are formed, the teacher visiting them on alternate days : (c) In still more sparsely-peopled districts, an itinerant teacher goes from house to house within a certain radius. Thus, in Queensland during 1924 the 11 itinerant teachers' districts covered 315,000 square miles of country, while a distance of 41,465 miles was travelled in visiting 1,080 children. In this State also the Education Department has established what are known as Saturday Schools, in which small groups of children in outlying districts are visited by the nearest teacher on Saturdays and receive the benefit of several hours' instruction. These schools, of which there are ten, have been warmly welcomed in the districts in which they are established, inasmuch as under this system the children "outback" receive a greater amount of instruction than is possible under the system of itinerant teachers. Provision has been made for a vocational "top" to be established at schools in important distributing centres of inland pastoral areas in Queensland and special classes receive instruction in manual work, commercial work, and domestic economy. Itinerant teachers capable of imparting instruction in domestic and manual work have also been appointed to visit parents and children at various localities in the Central District. Further, in New South Wales, Victoria, South Australia, Western Australia and Tasmania parents in the thinly-peopled areas are allowed to club together and build a school, which receives aid from the Government in the form of a yearly subsidy and grant of school material. In some cases the Department also provides the building. During 1924, subsidy was paid to 694 schools in New South Wales. Victoria had 4 schools of this type, Western Australia 20, and Tasmania 47 : (d) Several "travelling" schools have been established in New South Wales, the teacher being supplied with a van carrying a tent for himself and one for use as a school, together with books and apparatus for primary teaching. South Australia has devised attractive portable schools to meet the needs of new districts and temporary settlements. Queensland has two travelling housecraft schools for the instruction of girls, as well as adults, in the smaller centres. Railway Camp Schools are established in some States on the sites of extensive railway works : (e) All the States provide also for education, by correspondence, of children in localities not at present reached by the methods outlined above. At the end of 1924 nearly 2,300 children were on the roll of the Correspondence School in New South Wales. In Victoria, about 400 invalid and isolated children were receiving instruction by this means. As evidence of the success of the system, it is stated that in some cases where families have moved into a district where attendance at school is possible, the parents have asked for the correspondence lessons to be retained. The first Correspondence School in Queensland was opened in February, 1922, with an enrolment of 37 pupils, but at the end of the year 1924 the net enrolment amounted to 1,877. In cases where parents can afford some assistance to the children it is considered that better results are obtained than by the itinerant teacher system. In South Australia the activities of the Correspondence School at Adelaide extend as far as Point Charles in the Northern Territory, and in 1923 a Dutch family near Hermansburg Mission Station in Central Australia applied for enrolment. During the year 1924, 710 children received instruction. A library has been established in connexion with the school, and the books are much appreciated by both parents and children "outback." The enrolment in correspondence classes in Western Australia during 1924 was over 1,000, and a staff of nineteen teachers is employed on the work. In addition, 1,109 children at small schools, and 67 who had left school, were taking correspondence lessons in special subjects. There are eight teachers attached to the Correspondence School in Hobart, and a visiting teacher tours the whole island, calling, as far as possible, at all the isolated dwellings. The number on the roll in 1924 was about 250.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well-equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1924 a sum of £38,242 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1924 was returned as £6,157. In South

Australia the sum of £1,919 was disbursed in 1924 in connexion with travelling expenses of school children, while £14,234 was spent in Western Australia, and about £700 in Tasmania.

(iii) *Education of Retarded and Defective Children.*—(a) *New South Wales.* A school for the deaf and dumb and the blind has been in operation for many years, and a scheme is under consideration for the provision of skilled teaching for the retarded and defective. A certain amount of scientific work in this connexion has been carried out at the Training College.

(b) *Victoria.* In this State there are special schools for the deaf and dumb and the blind, a school for epileptics, and two schools for the feeble-minded. Backward children in the metropolitan area and in several provincial centres are drafted into tutorial classes, under specially-trained teachers, and it is proposed to establish a residential training home.

(c) *Queensland.* Classes for the special instruction of backward and sub-normal or defective children have been in operation since 1923. The classes are held in Brisbane and the chief provincial towns and the results so far have been very satisfactory.

(d) *South Australia.* An expert psychologist has been appointed to examine and classify retarded and mentally defective children, train the special teachers required, and give instruction to students at the Training College.

(e) *Western Australia.* In collaboration with the school medical officers, the teachers keep records of special or defective children and take steps to ensure attention and help in making improvement.

(f) *Tasmania.* Special classes to deal with retarded or defective children have been established in various centres, and in 1924 a Girls' Welfare School was opened at New Town, this being the first attempt to deal with children from 14 to 16 years of age.

(iv) *Evening Schools.* Evening Public Schools have been in existence for many years in some of the States, but their progress has been uncertain. In New South Wales the 53 Evening Continuation Schools had an effective enrolment of 4,102 and an average attendance of 3,121 in 1924. The schools for boys are classed as commercial, commercial preparatory, junior technical, and junior technical preparatory, and for girls as domestic and domestic preparatory. Attendances at the schools for boys numbered 2,457, and at those for girls 664. The comparatively high proportion of attendance to enrolment shows that the institutions are attractive. In Victoria there were 6 evening continuation classes in operation during 1924, the average attendance being 49. Although the Education Act in Victoria gives authority for the establishment of evening continuation classes at which the attendance of boys up to the age of seventeen years and living within a radius of 2 miles may be made compulsory for six hours a week, considerations of expense have prevented the free exercise of this power. Evening Continuation Schools have been established under regulation in South Australia, and are intended principally to help the working boy to improve his general education. In Western Australia evening continuation classes were held at 21 centres in 1924, with an average enrolment of 2,668 pupils.

(v) *Higher State Schools.* (a) *New South Wales.* In New South Wales, public schools which provided advanced courses of instruction for two years for pupils who have completed the primary course were classed as Superior Schools. These were reorganized in 1913 as Day Continuation Schools, and divided into Superior Commercial Schools, Superior Junior Technical Schools, and Superior Domestic Schools for Girls. During 1924 there were 90 schools of this type in operation, of which 16 were in the Commercial group, 24 in the Junior Technical, and 50 in the Domestic group, with an average attendance of 12,014 in the sixth and seventh classes. It is believed, however, that greater efficiency could be achieved by reducing the number of these schools and establishing Central "Superior Public Schools" instead. Provision has also been made for the more advanced education of children in country centres by the establishment of 12 District Schools. These schools, which in 1924 had an average attendance of 964, are specially staffed, and, in addition to the usual work, undertake the preparation of students for admission to the training colleges. Composite Courses were given in 1924 at 409 country schools for the benefit of pupils anxious to continue their education beyond the primary course, but unable for various reasons to attend a centre where a High School or other

super-primary school exists. The average attendance at these courses was 3,809. In addition, there are 28 High Schools in the State. These had in 1924 an average attendance of 6,988. The growing demand for High School education in the metropolis and in country centres led to the establishment of Intermediate High Schools, and in 1924 the number had increased to 32, with an average attendance of 5,645. In accordance with Departmental regulations, there is a liberal distribution of scholarships and bursaries to the higher State Schools and to the University. During the last quarter of 1924, 780 pupils holding bursaries were receiving instruction at High, Intermediate High, and District Schools. Under the provisions of the University Amendment Act of 1912, 200 exhibitions were awarded in 1924 to successful students at the leaving certificate examinations, 122 of these being given to State School pupils and 78 to students from registered secondary schools.

The Sydney Grammar School (not a "State" School in the ordinary acceptance of the term), which receives a State endowment of £1,500 a year, had, in 1924, an enrolment of 611 pupils, and an average attendance of 575.

(b) *Victoria.* In Victoria, action was taken in January, 1912, to give effect to the provisions of the Education Act of 1910, with regard to the decentralization of the system of secondary education. Forty-five Higher Elementary and 33 District High Schools have been established, and, to obviate congestion at the High Schools, Higher Elementary Classes are carried on at 23 "Central" Schools. The average attendance for 1924 at the Higher Elementary Schools was 3,001, of whom 1,449 were girls, at the District High Schools 6,422, of whom 3,160 were girls, while 1,308 boys and 1,375 girls were receiving secondary teaching in the Central Schools. The qualifications for admission to the High Schools and Higher Elementary Schools are that pupils shall be not less than 12 years of age, shall possess the qualifying certificate or its equivalent, and that their parents shall undertake that the children will remain at school for four years. For the first two years there is a common course for all pupils, thereafter replaced by four special courses :—(1) A preparatory professional course for pupils preparing to proceed to the University, to enter the teaching profession, or to gain a sound general education; (2) an agricultural course to be taken in Agricultural High Schools; (3) a commercial course; and (4) a domestic arts course for girls. Parallel with these courses an industrial course has been developed for pupils who intend to enter upon some form of industrial occupation.

The demand for places in the metropolitan High Schools is in excess of the available accommodation, and although the "Central" Schools, already referred to, have to some extent relieved the congestion, increased provision is urgently needed.

In the Junior Technical Schools pupils are enrolled at 12 to 13 years of age for a course extending over three years designed to qualify for entrance to the Senior Technical Schools. There were 26 of these junior schools in operation at the end of 1924 with a net enrolment of 5,327 pupils.

Schools of Domestic Arts have been established—five in Melbourne, one in Ballarat, and one in Bendigo. At these institutions, in addition to continuing their general education, the girls receive special instruction in cookery, needlework, and various home duties. A modified course in domestic arts is given to senior pupils at Maryborough and Castlemaine.

Scholarships granted by the Department are as follows :—(a) One hundred junior, tenable for four years at a District High School or approved Secondary School, with allowance of £26 per annum for board when required; (b) Forty-four senior, tenable three to six years, with allowance of £40 towards expense of course at University; (c) Fifty junior technical, giving free tuition for three years at a Junior Technical or other approved school, and, in certain cases, board allowance of £26 per annum; (d) Fifty-five senior technical, giving free tuition for approved courses at Technical Schools, with £30 allowance for day students, and £10 for night students; (e) Sixty teaching, similar in other respects to junior; (f) Twenty nominated courses, giving three to six years' free tuition in agriculture, mining, or veterinary science at the University, with allowance in certain cases for maintenance; (g) Fifty free places in any course at the University with tenure up to six years, open to candidates attending district high schools, technical schools, and registered secondary schools; (h) Five free places in an approved course at the University open to Government officers other than teachers; (i) Fifteen free places

in a University course in Arts, Commerce, Science, or Education to teachers of the Education Department. Allowances are also made in some cases to high school and technical school pupils whose parents are in necessitous circumstances, while free tuition is granted to all children of deceased or totally incapacitated soldiers and sailors.

(c) *Queensland.* Prior to the year 1912, Queensland did not possess any distinctly secondary schools under State control, but in February of that year High Schools were opened at Warwick, Gympie, Bundaberg, Mount Morgan, Mackay, and Charters Towers. Tuition at these schools is free, but students must pass a qualifying entrance examination. Three courses of study—General, Commercial, and Domestic are provided. The General Course leads up to the University, and students are enabled to matriculate from the High Schools. In 1917 and 1920 High Schools were opened at Gatton and Roma respectively. "The Brisbane Junior High School" was opened in 1920, but from 1st July, 1921, was constituted a fully developed High School. High Schools are also conducted as departments of the technical colleges at Toowoomba, Rockhampton, Cairns, and Townsville. In smaller centres where an average of not less than 25 qualified pupils can be obtained, secondary tuition was provided at existing State Schools, and this was arranged for at Herberton, Childers, Dalby, Kingaroy, Pittsworth, Southport, Cairns, Wynnum Central, and Emerald. Owing to diminished attendance some of these secondary "tops" have been eliminated. The enrolment at High Schools in 1924 was 1,606, and the daily attendance 1,175. There are, moreover, ten Grammar Schools—six for boys and four for girls—each of which was subsidized by the State to the extent of £750 per annum, and in addition received a payment of £250 per annum for providing five scholarships for State scholars. Owing to representations regarding increased cost of maintenance, the grants were increased in 1920, and the total endowment paid to these schools in 1924 amounted to £17,800. The Government also pays *per capita* fees in payment for the tuition of State scholarship-holders in attendance at the Grammar Schools. During 1924 the payments for fees came to £15,029. The enrolment at the Grammar Schools in 1924 was 2,054 and the average attendance 1,673. Since the year 1909 these schools have been regularly examined by the inspectors of the Education Department.

Scholarships covering a period of four and a half years at a secondary school are granted on the results of examination. In the case of holders who live away from home while attending a secondary school the allowance is £30 per annum, but holders who live at home receive free text-books and an allowance of £4 per annum.

As a result of the 1924 examinations, held in April, scholarships were awarded to 472 pupils. Of the successful candidates 289 were granted the allowance of £4 per annum and free text-books, and 183 received the allowance of £30.

Prior to the establishment of the Queensland University, three exhibitions per annum to approved Universities were granted. These were instituted in 1878, and in all 96 exhibitions were granted. With the opening of a local University in 1910, the necessity for such exhibitions disappeared, and, since 1911, their place has been taken by twenty scholarships annually to the Queensland University. Each scholarship is tenable for three years, and carries an allowance of £26 per annum if the holder lives at home and attends the University, or £52 per annum board allowance where necessary.

(d) *South Australia.* Including the Adelaide High School, there were altogether 23 High Schools open in South Australia in 1924, with an enrolment of 4,136, an average attendance of 3,508, and a staff of 155 teachers. In addition to giving secondary education, these institutions form a valuable source from which the Department can draw a supply of young teachers. One hundred qualifying exhibitions to these schools are open to pupils who have completed the primary course, 50 of such exhibitions being reserved for country children. The exhibitions are of the value of £10 each, with an additional allowance of £20 per annum if it is necessary for the holder to live away from home.

In order to meet the needs of children who for various reasons do not enrol at the High Schools, eighteen Central Schools were established in 1924. The schools provide an education with a vocational bias for pupils who will leave school at the age of 15 or 16 years to enter upon industrial, commercial, or domestic pursuits, and they opened with an enrolment of 742 boys and 748 girls.



The Department has also established 18 Higher Primary Schools in order to provide increased facilities for higher education to country children. These schools cover the first and second years' work at the High Schools, and students who complete this work may compete for 24 junior exhibitions tenable for three years at a High School.

Pupils from the High Schools may compete for 12 bursaries tenable at the University, the School of Mines, or the Roseworthy Agricultural College. The bursaries carry exemption from fees, with an allowance of £20 per annum, which may be increased to £40 if the bursar is living away from home.

(e) *Western Australia.* The enrolment at the seven High Schools in 1924 was 1,388 and the average attendance 1,293. In addition, the primary schools include a number of Central Schools in which the upper classes are collected from various contributory schools in the surrounding districts. These schools provide graduated professional, commercial, industrial, and domestic courses. Altogether 2,891 pupils were taking these courses, while 625 children in country towns were receiving instruction beyond the primary stage. Entrants to State secondary schools must have passed an examination identical with that for secondary school scholarships, and boarding allowance up to £30 per annum is provided where necessary. Evening continuation classes were attended at 21 centres in 1924 by about 2,700 pupils. The classes are intended to provide some measure of higher education to those who leave school as soon as they reach the compulsory age of 14 years. Admission to these classes is free, but pupils must attend regularly three evenings a week. A scheme of carefully compiled correspondence lessons with the object of giving some measure of secondary education to suitable scholars in scattered country areas has also been arranged (see 4, 1 ante).

Fifty scholarships tenable for 3 years (with possibility of extension to 5 years) at approved secondary schools are annually offered for boys and girls attending Government or other efficient schools. The scholarships entitle the holders to receive a grant for books and travelling expenses. Boarding allowance up to £30 per annum may also be granted where necessary. Scholarships to enable children from country districts to attend at District High Schools or the Narrogin School of Agriculture were inaugurated in 1917. Only those children who must live away from home are eligible, and the tenure may in some cases be extended to 5 years. The scholarships carry an allowance of £30 per annum. During 1924, 47 District High School Scholarships and 9 tenable at the Narrogin School of Agriculture were awarded. Twenty scholarships are also awarded to children of fallen or disabled soldiers. The scholarships are tenable for 3 years, renewable for a further term of 2 years, and, where necessary, carry an allowance of £30 per annum. Two scholarships at the University are offered on the results of the school leaving examination.

(f) *Tasmania.* The enrolment and average attendance at the High Schools in 1924 were 738 and 701 respectively. These provide for five classes of pupils—(i) Those who desire to become teachers; (ii) University students; (iii) Commercial; (iv) Mechanics; (v) Home duties (girls). The full secondary course covers five years. Under the Bursaries Act of 1915, five junior city bursaries tenable for three years at a State or registered secondary school and carrying allowances up to £16 were awarded, also seventeen junior bursaries for country children with allowances up to £46, and six for children in country schools of the fourth to seventh class with allowances up to £46 tenable for three years. The Bursaries Board awarded 12 junior city bursaries, 8 junior country bursaries, 12 senior city bursaries, and 7 senior country bursaries in 1924.

(g) *Northern Territory.* A small number of pupils is in receipt of secondary instruction at the Darwin High School, the enrolment for 1924 amounting to 13.

(vi) *Agricultural Training in State Schools.* (a) *New South Wales.* During 1921 the whole subject of agricultural education was revised, and, under a Supervisor of Agriculture, a definite course of scientific and practical instruction was evolved. This course is now being taken at the residential schools at Hurlstone and Yanco, and it is proposed to establish similar schools in other parts of the State. The necessary number of teachers to initiate the work has been provided, and students will be trained at the University to meet future requirements. Rural Schools, giving a course in elementary

agriculture, nature study, and farm mechanics for boys, and domestic science and horticulture for girls were established in 1923. In 1924 the rural course was in operation in 12 country schools. The course extends over three years, and includes such subjects as elementary agriculture, applied farm mechanics, and rural economics in the case of boys, while the girl pupils receive training in domestic science and horticulture. A model farm, varying in extent from 1 to 5 acres, is attached to each school. Average attendance at these schools in 1924 was 640.

(b) *Victoria.* In Victoria, Agricultural High Schools have been established in various country centres. Pupils must be at least fourteen years of age, and have passed beyond the curriculum of the elementary school, or else be able to afford satisfactory proof that they are qualified to profit by the instruction offered. The schools are practically secondary schools with an agricultural bias, and form a link between the rural school and the agricultural college. They are also used as a preliminary stage in the education of boys and girls who wish to become teachers and eventually graduate in the State Training College and the University. At some of the schools short courses in agriculture have been instituted for farmers' sons who have left school. A local council is appointed for each school, and exercises a general oversight over its operations. The experimental plots at these schools have aroused much interest among the farmers from the surrounding districts. A Supervisor of Agriculture reports and gives advice on the teaching of agriculture in the State Schools. A fair number of teachers has gained diplomas in agriculture, and is capable of giving practical instruction at the High Schools. Schools of Agriculture are conducted by the Agricultural Department at the State Research Farm, Werribee. Teachers in the wheat-growing districts are also instructed for short periods by the organizing Inspector of Agriculture at the University, and their services are utilized as leaders or group supervisors in their districts. The elementary principles of agriculture are taught in a large number of State Schools, and progress has been made in the direction of establishing agricultural clubs and 'home-project' organizations. Experimental work at the Moriac School proved to the residents in the locality that onion-growing was a payable proposition. A Horticultural Society has been established, with a number of schools in affiliation, while practical help in school gardening is afforded by the departmental supervisor. The Society has a nursery and distributing centre for plants and seeds at Oakleigh, and sub-nurseries have been established at various schools. Recently an officer has been detailed to promote the establishment of school plantations on blocks adjacent to school properties, the subsequent care of the trees, etc., to be undertaken by the pupils.

(c) *Queensland.* In Queensland the Government provides a small grant to encourage the study of agriculture, horticulture, and kindred subjects in the State Schools, while a departmental teacher of agriculture visits the schools and gives assistance in agricultural, horticultural, and nature study work. Excellent experimental work has been carried out at some of the schools, and gardens have been established wherever circumstances permitted. Cotton culture was undertaken by some hundreds of schools, in many cases, with marked success, the product being harvested and sold at a satisfactory price. Several of the schools, with their surroundings of well-grown shade and ornamental trees, make attractive spots in the country landscape. In some cases forestry work has been taken up by schools, and, with the aid of the Forestry Department, it is proposed where feasible to plant school reserves with commercial timbers. Short courses of instruction for teachers have been instituted at the Gatton College. This institution was placed under the control of the Education Department in September, 1923, and was re-organized so as to include an Agricultural High School, which, in addition to ordinary secondary education, will provide graded courses in agriculture. Provision has also been made for non-resident students, and vacation courses have been arranged for State School teachers. A large number of teachers has gained a practical knowledge of milk and cream testing and dairy farming methods generally, and the subject is now added to the programme of instruction in several of the dairying districts. The practical advice and help given has resulted in many instances in marked improvement in the dairy herds. A Tractor School for farmers was carried on during 1924, and organized instruction in irrigated culture has been undertaken. At Nambour, a Rural School, the first of its type, was opened early in 1917. In addition to the ordinary subjects of the curriculum

this school provides for instruction in farming, fruit growing, dairying, etc., with dress-making, millinery and cookery for girls, and woodwork, leatherwork, and tinsmithing for boys. Training in business methods, shorthand and typewriting is also available. Supplies of trees for distribution to other schools are raised at Nambour, and many schools distribute trees and plants for home planting. In view of the success of this institution, schools of somewhat similar type have been established at Boonah, Marburg, Home Hill, and Clifton, and it is proposed to open others at Gordonvale, Murgon, Gayndah, Imbil, and Beenleigh. A new feature of the year's work in 1923 was the successful inauguration of "home project" schemes, whereby subjects of practical agricultural interest are studied out of school hours.

(d) *South Australia.* In South Australia the Public Schools' Floral and Industrial Society, founded in 1880, holds annual exhibitions of school work from all parts of the State. In addition, it has for some years undertaken the distribution of flower seeds among school children at a very cheap rate, and has thus fostered the love of horticulture. A special instructor has been appointed to give assistance to teachers desirous of making their school gardens aid in nature study work. Assistance is given by personal visits as well as by correspondence, and by instruction at vacation Summer Schools. Teachers in training receive instruction in nature knowledge and the art of conducting nature studies. A seed wheat competition amongst school children inaugurated in 1911 proved very successful, a second, which was commenced in 1916, concluded in 1920, and a third in 1921. In 1919 two of the competitors who entered on the work of wheat-breeding produced wheat of such quality that they were unable to supply the orders for seed grain received from South Australia, as well as from other States. Milk-testing is carried out in several schools, and the agricultural training generally is greatly helped by the practical co-operation of the farmers. In 1923 and 1924 Forest Camp Schools were held during the summer and autumn months in the Kuitpo forest, the scholars receiving practical training in forestry and allied subjects. At Murray Bridge the High School course includes agriculture and dairying.

(e) *Western Australia.* In Western Australia an advisory teacher of nature study visits the schools and gives advice in regard to proper methods in horticulture and experimental agricultural work. The number and usefulness of the gardens and experimental plots attached to State Schools show marked improvement each year. Special attention is being given to the needs of the country schools, and as far as possible the instruction is given a practical bias. In some districts definite projects are undertaken of importance to a rural community, i.e., vegetable growing, bee-keeping, and pig and poultry-keeping. The boys are also trained in useful manual work, and the girls, wherever possible, are taught simple cookery, and the drying and preserving of fruit and vegetables. Forty special rural schools have been established in different parts of the State, and the project system has as far as possible been made portion of the curriculum. Early in 1914 a school was opened on the Narrogin State Farm. The pupils are taken directly from the primary schools, and the course of instruction lasts for two years. On its completion students are qualified to enter on the diploma course at the University. The school was brought under the control of the Education Department in 1921, and has so justified its existence that it cannot accommodate all the applicants for admission. During 1924 there were 70 students. Provision has been made for practical work in agriculture at the High School at Northam, and, by arrangement, some of the pupils spend a portion of their time each year at the State Experimental Farm at Merredin. The Education Department is also interesting itself in finding employment on farms for town boys who have difficulty in obtaining employment at home.

(f) *Tasmania.* In Tasmania the organizing teacher of nature study visits and advises the teachers at the State Schools, and also gives addresses and model lessons at the schools of instruction. During 1924 a beginning was made with the work of giving agricultural teaching at selected primary schools, and if the results justify it the system will be extended as opportunity offers. Considerable success has attended the establishment of classes in Hobart for instruction in apple-grading and packing, and similar classes have been formed at several other centres.

5. Teachers.—The distribution of the teaching staff in the State Schools during the year 1924, including teachers of needlework, was as follows:—

## STATE SCHOOLS.—TEACHING STAFF, 1924.

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mistresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	2,345	1,191	1,985	4,695	..	..	204	4,310	6,090	10,400
Victoria ..	1,547	1,149	696	2,006	417	1,531	387	2,660	5,073	7,733
Queensland ..	1,013	683	564	1,399	152	230	..	1,729	2,312	4,041
South Australia ..	490	539	343	979	117	210	143	950	1,871	2,821
Western Australia ..	446	417	196	708	24	153	110	666	1,393	2,059
Tasmania ..	203	314	67	353	44	221	3	314	891	1,205
Northern Territory	4	6	..	1	..	1	..	4	8	12
Total ..	6,048	4,299	3,831	10,141	754	2,351	847	10,633	17,638	28,271

The figures for principal teachers include mistresses of departments, while students in training colleges have been grouped with assistants. Some of the teachers in sole charge of small schools have had very little training, but future permanent appointments will be confined as far as possible to those who have gone through a regular course of instruction.

It will be observed that there is a fairly large number of junior teachers, or pupil teachers, as they are called in some of the States. The pupil teachers will, however, in time disappear, and their places will be filled by young people who have undergone a course of training in schools specially provided for the purpose. Allusion to the methods of training will be found in the next sub-section.

In New South Wales and in some of the other States attention has recently been drawn to the difficulty of securing an adequate supply of teachers, particularly male teachers for small schools in out-back districts. Difficulty is also experienced in some of the States in securing suitable living accommodation for teachers of these small schools.

6. Training Colleges.—The development of the training systems of the various States has been alluded to at some length in earlier issues of the Year Book. The present position is as follows:—

(i) *New South Wales.* At the end of 1924 the total number of students in training was 891 (351 men and 540 women), of whom 279 were taking the twelve months' course for rural teachers or assistants, and the balance the various courses up to five years, and the special courses arranged in accordance with departmental requirements. Practically all accessible metropolitan schools are used as practice schools for giving training-college students opportunity to acquire practical skill in teaching. Formerly the limits of accommodation at the College were responsible for the employment in the schools of a number of untrained juniors, but during recent years teachers entering the service have at least six months' professional training. At present some difficulty is experienced owing to the necessity for holding classes in three separate buildings some distance apart, but this will disappear with the completion of the new buildings within the University grounds. The Principal of the College is also Professor of Education at the University. Coupled with its educational research the College issues a scientific educational periodical written almost exclusively by the staff, while members of the staff are from time to time afforded opportunities of visiting foreign countries on study leave. In addition to the help and advice afforded by the inspectorial staff, teachers in rural districts receive the advantage of tuition by lectures and correspondence from members of the Training College staff. The Department also arranges for schools of instruction in various subjects during vacations.

(ii) *Victoria.* During recent years the educational and professional attainments of the general body of teachers in Victoria have greatly improved. Prior to the establishment of the High Schools, the pupil or junior teachers were recruited from the ranks of those who had obtained the Merit Certificate in the eighth grade of the elementary schools, and the acquirement of the necessary literary qualifications for promotion was greatly hindered by the circumstance that they were engaged in teaching for the greater

portion of the day. Under present conditions, candidates spend at least two years in a High School, and consequently enter on their professional duties with a better mental and physical equipment. A number of High School pupils after serving as junior teachers for a year are awarded studentships at the Training College. The present Training College dates back to 1874, but during the retrenchment period, viz., from 1893 to 1900, it was closed. The institution was reopened in February, 1900, with an enrolment of 57 students. At the close of 1924 the students in training numbered 285, of whom 183 were women. In addition to the correspondence courses and the Saturday and evening classes, classes were conducted for private kindergarten students, and for students of manual and domestic arts, so that altogether over 500 students were in receipt of instruction. The students at the Hostel receive training in domestic economy. Several practising schools are attached to the Training College, and infant rooms with attached kindergartens have been specially equipped for the training of infant teachers. The University High School gives secondary teaching practice to both departmental and private students. Three courses of training are provided for at the College, i.e., for kindergarten or infant teachers, for primary teachers, and for secondary teachers. Teachers are also greatly helped by district Conferences, and by special training at the Vacation Schools. Excellent results have been attained at the psychological laboratory attached to the Training College.

(iii) *Queensland*. The great majority of the teachers in Queensland originated in the pupil-teacher system, under which beginners, at the age of fourteen or thereabouts, were selected from the senior classes of the primary schools and placed in charge of classes, their efforts being to some extent supervised by the head teachers or senior assistants. In addition to the strain involved in teaching, the neophytes had to prepare notes of lessons, and to study for the annual examinations. During recent years, however, the juniors have been largely recruited from the secondary schools, and their more advanced physical and mental development renders them better fitted for their duties. At the end of 1924 there were 119 of these apprentice-teachers employed. Arrangements have been made to increase the number as early as possible, and in order to attract candidates of a suitable type, teacher-scholarships are granted in accordance with the following scheme—(a) Thirty senior scholarships (20 for males and 10 for females) to candidates who obtain the highest "approved" passes at the University Senior Examination. These scholarships entitle holders to receive free professional tuition at the Training College to enable them to complete their classification examination, together with prescribed living allowances. At the conclusion of their course the student teachers may be appointed teachers in Class III., Division 6. (b) Sixty junior scholarships (40 for males and 20 for females), with a currency of two and a half years, are given to candidates who have obtained approved passes at the University Junior Examination. At the end of their course these students are admitted as classified teachers in Class III., Division 8. (c) Positions as student-teachers in local State schools are offered to 33 boys and 20 girls who have attended secondary schools. The period of training extends over two and a half years, during which they are trained by their respective head teachers. Living allowances are granted, and at the end of their term the students are expected to satisfy the requirements of the Class III. Teachers' Examination.

At the Training College, which was opened in 1914, the activities comprise—(a) training of teacher-scholarship holders; (b) short courses of training for unclassified teachers selected from small country schools; (c) tutorial classes and correspondence tuition courses to assist students preparing for departmental examinations or for matriculation. During 1924 the number of students under training or tuition was 394, comprising 2 university students, 15 senior and 57 junior scholarship holders, 63 teachers at evening classes, 39 short course students, and 218 teachers receiving tuition by correspondence. In addition, 102 students, principally public servants, were receiving tuition at evening classes.

(iv) *South Australia*. In preceding Year Books a brief account was given of the scheme of training for teachers introduced in 1920. (See No. 17, p. 461.) The total number of students in attendance at the Training College during 1924 was 328. Practical work in teaching is carried out at selected schools for the various types of teachers. In order to provide an adequate supply of qualified students, provision is made for the award of 150 scholarships annually, tenable at a High School. These scholarships entitle the holder to one or two years' education at a High School beyond the Junior Public stage, with an allowance of £40 per annum for boys and £30 for girls, and a boarding

allowance of £20 per annum if students live away from home. Special evening or Saturday morning classes of instruction are held by the inspectors in their districts, particular attention being devoted to the interests of the rural teacher.

(v) *Western Australia.* A Training College for teachers was opened at Claremont in 1902. The original building provided accommodation for 60 students, but extensions were opened in 1908 and the number in training in 1924 was 210. Of the long-course students, 41 were in the first year, and 37 in the second year, while 19 were taking the special course for graduates and third year students. The remaining 113 were taking the one year's course for teachers of country schools. A fair proportion of the full-course students attend lectures at the University, and some remain for a third or fourth year to complete degree work. In addition to the ordinary schools at which teachers gain professional experience, special practising schools have been established for the proper training in teaching and managing the smaller country schools. The standard for entry into the teaching profession has been considerably raised during recent years. Formerly young people were taken at the age of fourteen years from the primary schools and appointed as "pupil" teachers. At present the probationary teachers or monitors must be seventeen years of age, and are expected to possess a good secondary education. After a short period of probation they enter the Training College for special professional training. University graduates receive a special course of one year's duration. Untrained applicants are appointed only when the supply of trained teachers is insufficient. The teachers in the metropolis are greatly helped by periodical conferences of inspectors and teachers, while in rural areas demonstration lessons are given by inspectors at convenient centres. Teachers in isolated areas are assisted by the correspondence classes.

(vi) *Tasmania.* During 1917 the scheme for the training of teachers was recast and grouped in four divisions:—(1) A short course to supply the professional training required for the less important positions in the primary schools and for teachers of the smaller provisional and Sixth Class schools; (2) Training of infant teachers; (3) Training for positions in the larger primary schools; (4) Training of high school teachers. Practical training for the various classes is given in well-equipped practising schools and in model small schools. The inspectors hold schools of instruction for teachers of small schools, and teachers of moderate attainments are also helped by the Correspondence School. The enrolment at the Training College in 1924 numbered 70.

7. *Expenditure.*—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting technical schools, and the cost per head of average attendance, for the five years ended 1924 are shown below. The figures do not include expenditure on buildings, which is given separately in a subsequent table.

#### STATE SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1920 TO 1924.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Tor.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1920	2,668,060	1,325,149	1,103,041	403,768	394,931	182,822	2,763	6,080,534
1921	3,227,245	1,615,882	1,210,592	452,364	464,136	230,131	2,607	7,202,957
1922	3,234,549	1,759,692	1,186,537	444,373	521,110	239,117	2,943	7,388,321
1923	3,185,085	1,814,185	1,200,636	491,341	526,739	225,261	3,463	7,446,710
1924	3,296,669	1,859,809	1,264,005	538,744	543,395	240,787	4,015	7,747,424
PER HEAD OF AVERAGE ATTENDANCE.								
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1920	11 7 5	7 15 6	11 7 7	6 11 0	8 15 0	7 3 5	12 1 4	9 11 8
1921	12 16 9	8 19 5	11 18 1	7 1 9	10 2 11	8 16 0	10 12 11	10 15 4
1922	12 11 3	9 8 8	11 10 10	6 15 0	10 16 1	8 16 1	15 16 5	10 14 8
1923	12 7 1	9 17 9	11 9 1	7 7 4	10 17 0	8 12 0	18 18 6	10 17 4
1924	12 5 6	9 16 10	11 16 7	7 16 8	11 5 0	8 19 0	19 6 1	10 19 6

The growth in cost of maintenance in 1924 as compared with 1920 has been brought about by the higher salaries and allowances paid to teachers, and the increased expenditure in connexion with the supply of materials and equipment.

The figures for Queensland include expenditure in connexion with State scholarship holders at Grammar Schools and other approved secondary institutions, allowance being made for the number of these pupils in arriving at the cost per head of attendance.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, exclusive of technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. Any satisfactory estimate of this nature is, however, rendered difficult by the circumstance that there is no exactly comparable definition of the term "secondary" as applied in the various States, while difficulties arise in connexion with the correct apportionment amongst the various branches of expenses of administration, inspection, and the training of teachers. A further complication is caused by the fact that both elementary and higher education are in some instances given in the same school and by the same teacher. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications above enumerated.

#### STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1924.

State.						Cost.	Cost Per Head of Population.
						£	s. d.
New South Wales	..	..	..	..	..	360,361	3 3
Victoria	..	..	..	..	..	192,631	2 4
Queensland	..	..	..	..	..	92,080	2 3
South Australia	..	..	..	..	..	63,330	2 4
Western Australia	..	..	..	..	..	99,880	5 8
Tasmania	..	..	..	..	..	14,820	1 5

The figures in all cases are exclusive of cost of buildings.

(iii) *Buildings.* Expenditure on school buildings in each of the years quoted was as follows :—

#### STATE SCHOOLS.—EXPENDITURE ON BUILDINGS, 1920 TO 1924.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
1920	370,412	131,266	138,985	28,907	26,851	19,406	..	715,827
1921	293,420	176,099	67,490	64,885	70,533	53,059	..	725,486
1922	464,015	349,562	83,754	70,506	81,773	31,329	..	1,080,939
1923	628,592	481,372	93,760	85,024	55,173	12,751	..	1,356,672
1924	766,019	531,571	157,683	107,466	71,634	20,643	184	1,655,200

The large increases in expenditure shown in most instances during the last two years were due to the efforts made to overtake arrears in necessary buildings and repairs.

(iv) *Total.* The net total cost during the year 1924 was as follows :—

#### STATE SCHOOLS.—NET TOTAL COST, 1924.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings	4,062,688	2,391,380	1,421,688	616,210	615,029	261,430	4,199	9,402,624

The figures in this and the preceding tables refer to all grades of State schools (with the exception of technical schools), and include evening schools. Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1924 to £13 6s. 4d., as compared with £4 9s. 3d. in 1901.

8. **School Savings Banks.**—Returns show that these institutions are in existence in four States. In New South Wales, there were 885 banks at the end of 1924, the deposits amounting to £62,182 and withdrawals to £66,696. Since the establishment of the banks in 1887, deposits totalled £1,011,918, and withdrawals £999,855. Of the latter sum the withdrawals of accounts of £1 and upwards for deposit in the Government Savings Bank as children's individual accounts amounted to £187,208. In Victoria banks were in operation at 1,473 schools at the end of 1925. On the 30th June deposits amounted to £73,574 and withdrawals to £31,911. Since the inauguration of the school bank system in 1912 the total deposits reached £241,612, and the withdrawals £127,376. In South Australia, there were 44,220 depositors, with £62,986 to their credit; and in Western Australia, there were 616 school banks, with 44,837 depositors and £74,443 to their credit.

### § 3. Private Schools.\*

1. **Returns for 1924.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1924 :—

PRIVATE SCHOOLS, 1924.

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales .. .. .	693	4,200	98,801	67,724
Victoria .. .. .	490	2,163	64,265	(a) 54,600
Queensland .. .. .	186	1,155	31,411	24,991
South Australia .. .. .	180	865	16,542	12,819
Western Australia .. .. .	117	508	11,336	10,090
Tasmania .. .. .	73	324	7,106	5,319
Northern Territory .. .. .	1	4	82	71
Total .. .. .	1,740	9,219	229,543	175,614

(a) Estimated.

The totals for New South Wales include returns from the Sydney Grammar School, which receives a yearly State subsidy of £1,500, and which, in 1924, had an enrolment of 650, and an average attendance of 575.

The figures for Queensland include the returns from Grammar Schools, of which there are ten—six for boys and four for girls, with an enrolment of 1,261 boys and 793 girls. These schools are governed by boards of trustees, partly nominated by Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The total Government aid received in 1924 amounted to £17,800. In addition, a sum of £15,029 was received for Government scholarships and bursars' fees. The Grammar Schools are inspected annually by officers of the Department of Public Instruction.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools during 1891, 1901, 1911, and in each year of the period 1920 to 1924 are as follows :—

PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE, 1891 TO 1924.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 .. .. .	124,485	99,588	1921 .. .. .	198,638	164,073
1901 .. .. .	148,659	120,742	1922 .. .. .	201,574	167,362
1911 .. .. .	160,794	132,588	1923 .. .. .	206,910	169,466
1920 .. .. .	192,093	156,083	1924 .. .. .	229,543	175,614

The comparatively small rate of increase in private school enrolment and attendance is due in large measure to the development of the State educational systems, especially as regards the provision of secondary education.

\* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.



3. Registration of Private Schools.—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451), but consideration of space precludes the repetition of this information in the present issue.

#### § 4. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia, the details for which were furnished by the Education Department.

FREE KINDERGARTENS, 1924.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistance.
New South Wales (Sydney)	15	726	27	78	47
Victoria (Melbourne) ..	25	1,508	66	28	407
(Ballarat) ..	1	33	1	..	15
Queensland (Brisbane) ..	6	584	7	16	9
South Australia (Adelaide)	7	220	2	8	..
Western Australia (Perth)	5	207	8	25	8
Tasmania (Hobart) ..	4	134	5	13	..
(Launceston) ..	2	81	3	4	..
Total .. ..	65	3,493	119	172	486

In New South Wales there were 73 students at the Kindergarten Training College. At the Melbourne College, 28 students were in training. The Brisbane Training College had 16 students in training during 1924, the Training College at Adelaide 17, and at Perth 25. There is no training college at Hobart, but the free kindergartens are used as practising schools in connexion with the Kindergarten Association. Thirteen students were in training during 1925.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

#### § 5. Universities.

1. Origin and Development.—(i) *University of Sydney.* The Act of Incorporation of the University of Sydney received Royal Assent on the 1st October, 1850, and the first Senate was appointed on the 24th December of that year. The first matriculation examination was held in October, 1852, when 24 candidates passed the required test, and the formal inauguration ceremony took place on the 11th October of the same year. A Royal Charter was granted to the University on the 27th February, 1858. Women students were admitted in 1881. The passing of the University (Amendment) Act of 1912 marks an important epoch in the development of the educational system of New South Wales. The Act aims at placing the University in a more effective position as the culminating point in a thoroughly co-ordinated system of State education, and it is claimed that the passing of this measure made the educational system—from the Primary Schools through the Secondary Schools to the Technical Colleges or to the University—form a progressive and continuous whole. More extended reference to this Act and to the liberal scheme of exhibitions provided thereunder for scholars from the State and Private Schools was given in Official Year Book No. 15, page 745. At the inception of the University there were only three professorships. The present staff consists of 32 professors, 6 associate and 5 assistant professors, and 160 lecturers and demonstrators. There are, in addition, 17 honorary lecturers.

(ii) *University of Melbourne.* This institution was established by Act of Parliament assented to on the 22nd January, 1853, and its first council was appointed on the 11th April of that year. The foundation stone of the main building was laid on the 3rd July, 1854, and the University was formally inaugurated on the 13th April, 1855. By Royal Letters Patent, issued in 1859, its degrees are, like those of the Sydney institution, declared of equal status with those of any other University in the British Empire. Women

students were admitted to degree courses for the first time in 1880. The University, which began in 1855 with schools of Arts and Law, has now a staff of 20 professors, 4 associate professors, 134 lecturers and demonstrators, and 131 various assistants. The Conservatorium of Music has a staff numbering 46.

(iii) *University of Queensland.* The Act to establish the University of Queensland was passed in 1909, and the first Senate was appointed on the 14th April, 1910. The University was opened on the 14th March, 1911, when 60 students were matriculated. Provision has been made for a Correspondence Study department in connexion with the institution, and at the request of the Brisbane branch of the Workers' Educational Association weekly lectures are given in History and Economics. At the present time there are 11 professors, with 18 independent lecturers, 3 assistant lecturers and demonstrators, and 20 miscellaneous assistants.

(iv) *University of Adelaide.* This University was established by Act of Parliament in 1874. Its origin and progress were largely due to the munificence of the late Sir Walter Watson Hughes and Sir Thomas Elder, G.C.M.G., the total gifts of the latter amounting to over £100,000. The academical work of the institution was commenced in March, 1876, when 8 matriculated and 52 non-graduating students attended lectures. The foundation stone of the University buildings was laid on the 30th July, 1879, and the buildings were opened in April, 1882. In 1881, by Royal Letters Patent, the degrees granted by the institution were recognized as of equal distinction with those of any University in the British Empire. The Elder Conservatorium of Music was opened in 1898. Power was given by Act of Parliament in 1880 to grant degrees to women. At first there were only four professorships in the University, whereas the present staff consists of 18 professors, 119 lecturers and demonstrators, and 55 miscellaneous assistants, while the staff at the Conservatorium, not included in the foregoing figures, numbers 19.

(v) *University of Western Australia.* The University of Western Australia was established under an Act which received Royal assent on the 16th February, 1911, and the first Senate was appointed on the 13th February, 1912. The University was opened in March, 1913. There are now 7 professors, in addition to 27 lecturers and demonstrators and 17 miscellaneous assistants. The Chair of Agriculture was endowed by Sir Winthrop Hackett. Associates of the Perth Technical School or the Kalgoorlie School of Mines may, under prescribed conditions, obtain a reduction in period of attendance for the B.E. degree, and students from the School of Mines may be admitted to the examinations and take portion of their course at the University.

(vi) *University of Tasmania.* The Act to establish the University of Tasmania (Hobart) was assented to on the 5th December, 1889. At the present time the institution, which is small but efficient, possesses a staff of 7 professors, 13 independent lecturers, and 6 assistant lecturers and 2 miscellaneous assistants. Under Statutes the Zeehan School of Mines and Metallurgy and the School of Mines and Industries at Mount Lyell were affiliated to the University.

2. Teachers and Students.—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1924 :—

UNIVERSITIES.—TEACHERS AND STUDENTS, 1924.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney .. .. .	43	177	2,189	499	2,688
Melbourne .. .. .	24	134	..	..	2,197(a)
Queensland (Brisbane) .. .. .	11	21	310	137	447
Adelaide .. .. .	18	119	818	635	1,453(b)
Western Australia (Perth) .. .. .	7	27	372	5	377
Tasmania (Hobart) .. .. .	7	19	145	31	176

(a) Exclusive of 226 music students.

(b) Exclusive of 564 music students.

Students at the Conservatorium of Music have been excluded in the case of Melbourne and Adelaide. The Conservatorium in Sydney, while attached to the Education Department, is not under the control of the University.

3. University Revenue.—The income of the Universities from all sources during the year 1924 was as follows :—

#### UNIVERSITIES.—REVENUE, 1924.

University.	Government. Grants.	Fees.	Private Foundations.	Other.	Total.
	£	£	£	£	£
Sydney .. .. .	125,153	41,631	83,928	5,176	255,888
Melbourne .. ..	63,642	73,600	9,863	24,105	171,210
Queensland (Brisbane) ..	22,300	8,492	17,623	736	49,151
Adelaide .. .. .	39,618	22,524	12,513	589	75,244
Western Australia (Perth)	17,750	1,554	2,002	2,161	23,467
Tasmania (Hobart) ..	12,860	2,997	1,456	160	17,473
Total .. .. .	281,323	150,798	127,385	32,927	592,433

The extent to which the older-established Universities have benefited by private munificence will be apparent from the following table. The amounts quoted represent actual cash received, special mention being made of individual gifts of £5,000 and over :—

#### UNIVERSITIES.—BENEFACTIONS.

University of Sydney.		University of Melbourne.		University of Adelaide.	
Donor.	Amount.	Donor.	Amount.	Donor.	Amount.
	£		£		£
J. H. Challis ..	276,750	Sir Samuel Gillott ..	34,400	Sir Thos. Elder ..	98,760
Sir P. N. Russell ..	100,000	Sir Samuel Wilson ..	30,000	The Hon. Sir Lang-	
Thos. Fisher ..	30,000	James Stewart ..	25,624	don Bonython ..	40,000
W. O. Watt ..	15,103	Hon. Francis Ormond	20,000	Mrs. Jane Marks	30,000
Miss Elizabeth Caird	9,576	John Hastie ..	19,140	R. Barr Smith	
Sir Hugh Dixon ..	9,050	Robert Dixon ..	10,837	and family ..	21,150
Edwin Dalton ..	8,000	Sir J. M. and Lady		Sir W. Hughes ..	20,000
J. F. Archibald ..	7,135	Higgins ..	9,700	Family of John	
Hon. Sir W. Macleay	6,221	John Dixon Wyse-		Darling ..	15,000
Mrs. Hovell ..	6,000	laskie ..	8,400	Mrs. G. A. Jury	12,000
Thos. Walker ..	6,200	Mrs. E. R. Moran ..	7,000	Hon. J. H. Angas	10,000
Mrs. M. H. Dalley ..	5,000	David Kay ..	5,764	Other donations	33,544
Other donations ..	69,438	Cuming Smith & Co.			
		Ltd. ..	5,250		
		Subscribers, Ormond	5,217		
		Exhibitions in Music			
		Mr. and Mrs. F. Knight	5,000		
		Henry T. Dwight ..	5,000		
		Wm. Thos. Mollison	5,000		
		Other donations ..	96,478		
Total .. .. .	548,473	Total .. .. .	292,810	Total .. .. .	280,454

The figures for the Sydney University are exclusive of the bequest by the late Hon. Sir Samuel McCaughey, M.L.C., of property producing an annual income of £19,000 to be applied to the general purposes of the University. In addition to the sum of £6,000

shown above, the Hon. Sir W. Macleay also presented the Museum of Natural History to the University of Sydney. The column "Other Donations" for Melbourne University includes portion of the sum of £49,000 raised by special appeal in 1920.

The credit balances of some of the above endowments now amount to very considerable sums. For example, on the 31st December, 1924, the Challis Fund amounted to nearly £333,000, while in the case of Melbourne University the Stewart Fund on the 31st December, 1924, stood at £30,900, and the Dixon Fund at £16,600.

In addition to the above there were various other bequests to Sydney University—e.g., collection of Egyptian antiquities, etc., by Sir Charles Nicholson, and Natural History collection by Mr. Geo. Masters, while the building for the Natural History Museum was given by Sir W. Macleay. Numerous prizes and scholarships have also been given to the various colleges. In Melbourne, the Hon. Francis Ormond's benefactions to Ormond College amounted to about £108,000. Private benefactions to the University of Queensland amounted in 1924 to £90,000, of which £45,200 was received from the trustees of the late Sir Samuel McCaughey and £9,800 from the Walter and Eliza Hall Trust. A gift of £10,000 was received from the British Red Cross Association in 1920, and a similar sum was presented in 1923 by Miss Kate Garrick. With a view to advancing the cause of education in agriculture, forestry and allied subjects, Mr. Peter Waite transferred to the Adelaide University in 1914 the whole of the valuable Urrbrae estate at Glen Osmond. The estate comprises 134 acres of land with a fine mansion. In 1915, he presented the estate of Claremont and part of Netherby, comprising 165 acres, adjoining Urrbrae, while in 1918 he transferred to the University 5,880 shares in a public company to provide funds to enable the University to utilize the land for the purposes intended. In addition to the sum of £30,000 mentioned above, presented by Mrs. Jane Marks in 1922, Adelaide University benefited during the year by a gift of property valued at £20,000, presented by Mrs. A. M. Simpson and Miss A. F. Keith Sheridan. In Western Australia the Chair of Agriculture was founded by an endowment of Sir Winthrop Hackett, first Chancellor of the University, and a sum of £19,450 was received from this endowment in 1923. Private benefactions to the University of Tasmania amount to about £6,800.

4. **University Expenditure.**—For the year 1924 the expenditure by the Universities under various headings was as follows:—

#### UNIVERSITIES.—EXPENDITURE, 1924.

University.	Salaries and Administration.	Scholarships, Bursaries, etc.	General Maintenance.	Buildings and Grounds.	Other.	Total.
	£	£	£	£	£	£
Sydney .. ..	128,269	5,966	36,549	105,909	474	277,167
Melbourne .. ..	96,272	9,372	9,092	16,045	(a) 26,920	157,701
Queensland (Brisbane) ..	23,787	3,381	6,632	266	(b) 9,398	43,464
Adelaide .. ..	49,964	958	173	(d) 5,686	(c) 14,570	71,351
Western Australia (Perth)	19,508	385	..	50	(e) 4,010	23,953
Tasmania (Hobart) ..	11,658	636	979	(f) ..	3,460	16,733
Total .. ..	329,458	20,698	53,425	127,956	58,832	590,369

(a) Includes £11,887 laboratory and research expenditure. (b) Includes £3,009 laboratory and research.  
 (c) Includes £5,152 laboratory and research. (d) Exclusive of £15,892 Government expenditure from loans. (e) Includes £1,859 laboratory and research. (f) Included in General Maintenance.

5. **University Extension.**—Extension lectures were instituted at Sydney University in 1886, and in 1892 a Board was appointed which receives and considers applications from country centres, and makes provision for engaging lecturers and managing the entire business connected with the various courses. The Board also arranges for courses

of lectures in other States. In 1924 provision was made for 18 courses, the lectures being given in part at the University, and in part in various suburban and country districts.

Evening tutorial classes open to both matriculated and unmatriculated students have been established in various centres in accordance with the University Amendment Act of 1912. Fifty-eight of these classes, attended by about 1,500 students, were in operation during 1924. Thirty-seven of the classes were held in the metropolitan area, and 21 in country districts.

University extension lectures in Victoria date from the year 1891, when a Board was appointed by the Melbourne University for the purpose of appointing lecturers and holding classes and examinations at such places and in such subjects as it might think fit. A joint committee composed of representatives from the Extension Board and the Workers' Educational Association respectively controls the organization of tutorial classes. The Board also arranges for advising country students by correspondence on social and cultural subjects. The tutorial classes during the year numbered 23, of which 10 were held in Melbourne, 8 in the suburbs, and 5 in country towns, the combined attendance reaching 800. In addition, about 300 students were receiving tuition by correspondence. A Vacation School was in operation from 26th May to 6th June, and was attended by 400 students, a large proportion of whom were teachers. Extension lectures were given in the city and in five country centres.

As pointed out previously, a correspondence study department has been inaugurated in connexion with the University of Queensland in order to overcome, as far as possible, the difficulties of students who desire to benefit by University teaching, but who for various reasons are unable to attend the lectures. In 1924 there were 155 students on the roll. In addition, 6 public lectures and 3 intra-mural courses were given in Brisbane, and 9 lectures in country towns, while 8 classes were conducted in Brisbane and 3 in the country for members of the Workers' Educational Association, and attended by 165 and 49 students respectively, and correspondence lectures were provided for 1,134 country students. Five extension classes in country towns were provided with notes and text-books, and a tutor was appointed to supervise the work.

The Adelaide University has also instituted short courses of extension lectures in Arts and Science, to which students are admitted on payment of a nominal fee. Public intimation of these lectures is made from time to time during the session. Three courses of lectures were delivered in 1924. Enrolments at the twelve tutorial classes in 1924 numbered 779. In addition, short courses of popular lectures, study circles, and tutorial classes were conducted at various local centres.

In Western Australia provision has been made for the giving of courses of extension lectures in Perth and suburbs, and also—by arrangement with local committees—in country centres. The professor of agriculture visits the chief farming districts for the purpose of giving lectures to, and holding conferences with the primary producers. Special short courses for farmers are given at the University. Short courses of popular lectures are also given in the evening by various professors at the University.

In Tasmania during 1919 the University Extension Board which had previously controlled the work of providing extra-mural tuition was replaced by the Committee for Tutorial Classes. The Professor of Economics is director of tutorial classes, and conducts one class annually. There are also lectureships for the northern and west coast districts. Attendance at the classes in 1924 numbered 204.

**6. Workers' Educational Association.**—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. The work of the Association is gaining in popularity year by year, and the growth of the movement has been phenomenal. The Government of New South Wales at first granted the University of Sydney the sum of £1,000 to initiate a scheme for tutorial classes. There are now direct grants from all State Governments except Western Australia, and an additional University grant in New Zealand. The particulars

of grants for classes are as follow:—New South Wales, £5,970, 61 classes; Victoria, £4,500, 25 tutorial classes and extension work; Tasmania, £1,380, 20 classes; South Australia, £2,550, 23 classes; Queensland, £3,000, 8 classes and 24 study circles. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £400, paid on the basis of £1 for £1 on subscriptions and donations up to this amount. Correspondence courses form a strong feature of the work in Queensland, groups of construction workers and other outback pioneers being reached thereby. The total number of students throughout Australia is approximately 5,000, the greater number of whom are taking three-year courses while working at their daily occupations. An analysis of these occupations showed that the great majority of the students were wage-earners. The principal subjects chosen in all States are Industrial History, Economics, Political Science, and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology, and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee which appoints tutors and generally supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer and more serious courses, a great many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia. A strong feature of the work of the Association is the organization of a number of country branches to carry facilities for higher education to districts in which these have hitherto been lacking. This work has been particularly successful in New South Wales, Victoria, Queensland, and Tasmania. A Commonwealth Conference held at Adelaide in 1918 resulted in the formation of a federal organization now known as "The Workers' Educational Association of Australia." Its central office is in the Education Department, Melbourne. The Federal Council co-ordinates the activities of the W.E.A. in all States, and has inaugurated a series of publications on sociological and economic subjects. Seven books have been published to date, including "Modern Economic History" by Professor H. Heaton; "Marx and Modern Thought," by G. V. Portus; "Shadows and Realities of Government," by F. A. Bland; "A New Province for Law and Order," by Mr. Justice Higgins. The Federal Council also publishes "The Highway," a monthly magazine now in its eighth year, which contains notes on the movement, and general discussions on educational work.

## § 6. Technical Education.

1. **General.**—Although provision has been made in some of the States in respect to many necessary forms of technical education, the total provision made would imply that this branch of education has not been regarded as of great importance. As will be seen later on, the expenditure on technical education for the whole of Australia is comparatively small.

2. **New South Wales.**—Some account of the origin and development of technical education in New South Wales was given in Official Year Book No. 15, page 750, but considerations of space preclude its repetition in this issue. It may be noted, however, that technical education had its origin in this State in 1883, but it was not until the year 1913 that a definitely co-ordinated scheme was adopted. The branch Technical Colleges with the exception of those at Newcastle and Broken Hill, were then superseded by Trade Schools, admission to which was restricted to those actively engaged in the trade concerned, and was dependent also on the possession of a certain degree of preparatory knowledge. Courses of instruction in which workshop experience is not necessary to train the efficient worker—such as Art, Science, and Commercial Courses—are, however, open to all students who have the requisite preliminary knowledge. Advisory committees were appointed for each trade or group of trades and have proved very helpful. The first two or three years' course of instruction is given in the Trade Schools, of which there are ten, and students may then go on for a further two or three years' advanced teaching

at the Technical Colleges, of which there are three, one at Sydney, one at Newcastle, and one at Broken Hill. The higher courses embrace instruction in advanced trades' work qualifying for the position of manager or foreman, but no attempt is made to train for the professional standing. It is hoped, however, that the scheme will develop so that part of the graduates may proceed to the University. Admission to the higher courses will eventually be restricted to those who have either graduated in the Trade Schools of the Department, or who evidence possession of a similar standard of knowledge. In addition to the courses given in the Technical Colleges and Trade Schools, elementary instruction has been provided at various centres where there has been a demand for it, and provision has been made also for special courses of instruction by correspondence. A liberal scheme of scholarships has been drawn up for students passing from the day or evening Junior Technical Schools or Domestic Science Schools, to the Trades and Science Schools, as well as scholarships to the University at the close of the diploma course.

At the end of 1924 the enrolment in the junior technical schools amounted to 5,009, an increase of nearly 1,500 on the figures for the previous years.

The table below gives some idea of the development of technical education in New South Wales during the five years 1920 to 1924 :—

TECHNICAL EDUCATION.—NEW SOUTH WALES, 1920 TO 1924.

Year.	Number of Classes.	Number of Enrolments.	Individual Students.	Number of Lecturers and Teachers.	Fees Received.
					£
1920 .. ..	638	18,119	9,258	406	12,701
1921 .. ..	636	18,974	9,696	447	12,641
1922 .. ..	646	21,328	9,806	470	13,627
1923 .. ..	664	23,496	10,234	478	14,042
1924 .. ..	674	25,462	11,386	499	16,644

In 1924 an Employment Bureau was established with the view of finding suitable employment for boys who have completed their course of training.

3. Victoria.—Technical instruction in mining has for many years received considerable attention in Victoria, the Ballarat School of Mines, which was established as far back as 1870, having achieved an Australasian reputation. Fine work was also done at the School of Mines in Bendigo, and later on excellent courses of training were evolved at The Working Men's College in Melbourne. The general scheme of instruction, however, lacked cohesion, and it was not until after the publication of the Report of the Royal Commission on Technical Education, which was appointed in 1899, that many defects were remedied. Prior to 1910 the whole of the schools were under the control of local councils, but in the year mentioned the control passed to the Education Department. At the end of 1924 there were 26 Technical Schools receiving State aid. The largest technical institution in Melbourne is the Working Men's College, founded in 1887. The College, in addition to giving instruction in a large number of technical subjects, is also a School of Mines. During 1924 the classes in operation numbered 177, and the average enrolments per term amounted to 2,500. Such institutions as the Swinburne Technical College, and the Ballarat and Bendigo Schools of Mines, have also an extensive curriculum embracing the more important industrial subjects. Special attention has been given in recent years to the provision of technical education for girls. There are, moreover, 24 Junior Technical Schools in existence, giving a two or three years' course of instruction to boys between the ages of 12½ and 15 years, thereby preparing them for the more advanced teaching in the higher schools.

Particulars regarding the growth of technical education in Victoria during the last five years are given in the appended table :—

TECHNICAL EDUCATION.—VICTORIA, 1920 TO 1924.

Year.	Number of Classes.	Number of Enrolments.	Average Attendance.	Fees Received.
				£
1920 .. .. .	115	14,174	10,548	29,132
1921 .. .. .	116	15,105	10,663	25,831
1922 .. .. .	120	16,168	12,236	28,725
1923 .. .. .	125	17,679	12,804	32,286
1924 .. .. .	122	19,234	13,832	32,404

Considerably more than 2,000 returned soldiers have received the advantages of vocational training, and the staff and councils of the various technical schools have taken great interest in the work of teaching and finding employment for qualified trainees.

4. Queensland.—Up to the passing of the "Technical Instruction Act of 1908," technical education in Queensland was controlled by local committees, the State simply providing financial aid. Under the provisions of this Act, the State took over the technical colleges at Brisbane, South Brisbane and West End, and formed therefrom a Central Technical College. By an amending Act in 1918, power was taken to assume the control of other technical institutions, and in 1919 the colleges at Toowoomba and Rockhampton came under departmental control. In 1923 the Colleges at Cairns, Townsville, and Bowen, and in 1924 the institution at Bundaberg, were taken over. Technical High Schools were inaugurated in 1921 at the Central and Ipswich Technical Colleges, and the vocational courses given in the High Schools connected with the Colleges at Toowoomba and Rockhampton attracted a large number of students. The Department's policy of combining Technical Colleges with High Schools in the country centres has proved very successful. During 1924 there were seventeen technical colleges in operation, while classes in technical subjects were held in a number of smaller centres. Twelve colleges were directly controlled by the Department and five by local committees. Preparatory Day Trade Schools were established at Ipswich and Brisbane in 1916, and Domestic Science Day Schools at Brisbane and Ipswich in 1915, and at Townsville in 1918. A certain amount of technical and vocational work is also provided for at the Rural Schools (See § 2, 4 (vi.c.)). Two Travelling Domestic Science Schools have been constructed to meet the needs of districts where the population is not sufficient to warrant the establishment of permanent classes, and those institutions have been very successful. The specially-fitted railway cars each travelled over 1,200 miles in 1924, 22 centres were visited, and the courses of instruction were attended by 284 school pupils and 100 adults. The progress of technical education since 1920 is shown in the following table :—

TECHNICAL EDUCATION.—QUEENSLAND, 1920 TO 1924.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1920 .. .. .	509	11,863	(a) 9,000	377	13,074
1921 .. .. .	522	11,993	(a) 9,500	372	13,882
1922 .. .. .	512	12,069	(a) 10,000	396	14,549
1923 .. .. .	607	11,565	(a) 10,000	387	13,220
1924 .. .. .	611	13,002	(a) 11,000	364	13,633

(a) Estimated.



Greater attention is being devoted to the development of trade classes, and under the Apprenticeship Act of 1923, apprenticeship is controlled by the Minister for Works, while committees consisting of representatives of employers and employees have been appointed for the various skilled trades. Attendance at apprentices' classes is compulsory in the towns to which the provisions of the scheme have been extended.

5. *South Australia.*—Prior to the year 1917 the condition of affairs in regard to technical education in Australia was regarded by the Education Department as unsatisfactory. There was a School of Mines and Industries in Adelaide, and in addition Schools of Mines at Moonta, Port Pirie, Kapunda, Mount Gambier, and Gawler. While the Government bore the bulk of the cost of maintenance of these institutions, they were controlled by independent councils, and there was no regular co-ordination in regard to staffs, curriculum, etc. A Director of Technical Education was appointed in 1916, and the reorganization of the system was thereupon undertaken. The position in 1921 was, however, still unsatisfactory, as the control of technical education in the State rested with two bodies, (a) the Council of the South Australian School of Mines and Industries whose activities are confined to the metropolitan area; and (b) the technical branch of the Education Department, which deals with schools in the metropolis, as well as throughout the country districts. During that year, an amending Act dealing with the technical education of apprentices was passed, and, by proclamation, the scope of the original Act was widened so as to include over 150 separate trades. Regular meetings of the Apprentices Advisory Board were held, and improvements in conditions of apprenticeship were made on their recommendation. In 1924, 609 apprentices and probationers were enrolled in the various classes. The total number of registrations since the inception of the Act was 2,503, and of these 329 completed the full three years' course and received certificates. The Country Technical Schools previously alluded to were maintained in 1924, as also the new schools opened in 1922 at Kadina and Wallaroo. Classes were established at Murray Bridge and Mannum, and a Technical School was opened early in the year at Thebarton.

Particulars regarding the position of technical education in the State during the five years 1920 to 1924 are given hereunder:—

#### TECHNICAL EDUCATION.—SOUTH AUSTRALIA, 1920 TO 1924.

Year.	Number of Classes.	Enrolments.	Average Attendance.	Number of Teachers.	Fees Received.
					£
1920 .. .. .	358	11,304	8,424	200	5,161
1921 .. .. .	357	10,499	7,187	183	5,713
1922 .. .. .	311	10,609	7,875	160	6,008
1923 .. .. .	332	11,339	8,834	175	6,309
1924 .. .. .	421	12,312	9,416	185	6,465

6. *Western Australia.*—A Technical School was established at Perth in 1900, and since its opening has progressed rapidly. During the year 1924 there was an average enrolment of 2,100 students each term. The school is affiliated to the University, and provides instruction for evening students in University work in mathematics, physics, chemistry, and geology. The trade classes are well supported, and particular attention is devoted to subjects of value to the skilled tradesman. Committees, including representatives of employers and workers' unions, have been formed for each group of trades, and confer regularly with the trade instructors. Full time day classes in engineering are provided for pupils who have passed through the Junior Technical School, and a number of railway apprentices attend the day-classes at Perth and Midland Junction. Classes are also held for mechanics in the Postal Department.

The Fremantle School, which had 567 students on the roll in 1924, is being gradually developed on the trade side. Midland Junction had an average of 143 students, exclusive of railway apprentices, Boulder had 173, and Kalgoorlie 94. Smaller groups of classes were conducted at other centres. The schools are all under the control of the Education Department, the officer entrusted with the supervision being styled Director of Technical Education.

Returns for the last five years are embodied in the table hereunder :—

TECHNICAL EDUCATION.—WESTERN AUSTRALIA, 1920 TO 1924.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1920 .. .. .	455	5,424	(a)3,158	151	976
1921 .. .. .	461	6,773	(a)3,466	145	1,920
1922 .. .. .	449	6,920	(b)5,679	153	3,139
1923 .. .. .	446	6,850	(c)5,552	146	2,988
1924 .. .. .	451	7,002	(d)5,633	147	2,837

(a) Individual students. (b) 3,471 individual students. (c) 3,409 individual students. (d) 3,423 individual students.

7. Tasmania.—Provision for technical education dates from the year 1888, but in the report of the Commission appointed in 1906 to inquire into the condition of technical education in Tasmania, allusion was made to the want of co-ordination between existing institutions and the Education Department, and it was recommended that the schools should be taken over by the Government, and a trained technologist appointed as organizing inspector. The inspector was appointed in 1917 and a Technical Education Branch was established in 1918. The scheme of technical education includes provision for courses of training in industrial, commercial, and domestic pursuits. Under the first-mentioned, the scheme provides for junior technical schools, applied science schools, technical trade schools, and art and applied art schools, and it is to this group that the activities of the Department have hitherto been almost exclusively confined. The co-operation of employers and employees has been obtained, and certain of the more advanced courses have been co-ordinated with the courses given at the University. There are Junior Technical Schools at Hobart, Launceston, and Queenstown, which had enrolments in 1924 of 110, 95, and 95 respectively. Senior Technical Schools are in operation at Hobart and Launceston organized into Departments of Engineering and Applied Science, Art, and Trade; and at Queenstown and Zeehan, courses in Metallurgical and Mining Engineering are undertaken.

TECHNICAL EDUCATION.—TASMANIA, 1920 TO 1924.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1920 .. .. .	135	1,152	784	63	1,338
1921 .. .. .	167	1,218	860	65	1,286
1922 .. .. .	209	1,098	(a)	55	1,069
1923 .. .. .	254	1,151	(a)	72	1,133
1924 .. .. .	(a)	1,351	971	83	1,533

(a) No record.

8. *Expenditure on Technical Education.*—The expenditure on technical education in each State during the period 1920 to 1924 is shown below :—

**TECHNICAL EDUCATION.—EXPENDITURE 1920 TO 1924.**

Year.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
		£	£	£	£	£	£	£
1920	{ (a)	211,987	118,168	57,219	34,538	16,326	13,677	451,915
	{ (b)	2,668	9,326	22,607	13,080	494	328	48,503
1921	{ (a)	210,515	162,596	62,321	40,864	19,212	17,808	513,316
	{ (b)	13,972	29,619	4,854	4,172	580	259	53,456
1922	{ (a)	169,925	202,228	59,075	43,744	18,406	18,222	511,600
	{ (b)	48,978	21,750	1,577	708	1,030	151	74,194
1923	{ (a)	146,158	215,320	60,824	46,655	18,189	18,271	505,417
	{ (b)	16,971	45,649	13,379	3,461	1,590	366	81,416
1924	{ (a)	166,844	239,319	62,888	56,140	18,229	20,415	563,835
	{ (b)	7,100	53,572	3,514	5,811	1,003	127	71,127

(a) Maintenance.

(b) Buildings.

Cost of maintenance in New South Wales during 1924 shows a decrease of £45,000 on the figures for 1920, the falling-off being due to the disappearing expenditure on vocational training of soldiers and sailors.

The expenditure on maintenance for technical education in 1924 amounted to 1s. 11d. per head of the population of Australia, as compared with 26s. 8d. per head expended on maintenance for primary education.

**§ 7. Business Colleges and Shorthand Schools.**

There has been considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States excepting Queensland are given in the following table :—

**BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1924.**

State.	Schools.	Teachers.	Students Enrolled.		Average Attendance.		Fees Received
			Males.	Females.	Males.	Females.	
New South Wales ..	22	148	1,813	5,111	685	2,646	£ 46,953
Victoria ..	14	158	4,914	2,868	3,550	2,228	(b)
Queensland(a) ..	..	..	..	..	..	..	..
South Australia ..	6	44	843	1,335	728	974	14,033
Western Australia	11	45	1,406	717	(b)	(b)	18,888
Tasmania ..	3	17	155	652	70	169	4,893

(a) Included in private schools.

(b) Not available.

The figures for New South Wales are exclusive of students instructed at home through the medium of correspondence classes.

In Victoria it is explained that the preponderance of male students is due to the larger enrolment of males in the correspondence classes.

# § 8. Diffusion of Education.

1. General Education.—A rough indication of the state of education of the people is obtained at each Census under the three headings, "read and write," "read only," and "cannot read." The grouping of the whole population, exclusive of aborigines, in these three divisions is given for each Census since 1871:—

## EDUCATION AT CENSUS PERIODS, 1871 TO 1921.

State or Territory.		1871.	1881.	1891.	1901.	1911.	1921.
N.S.W.	Read & write	296,741	507,067	835,562	1,071,935	1,380,196	1,760,435
	Read only..	56,391	49,372	43,539	29,728	6,557	5,868
	Cannot read	149,866	193,386	244,853	253,183	259,981	334,068
(a) Victoria	Read & write	478,464	653,346	908,490	998,010	1,136,189	1,331,621
	Read only..	70,953	47,950	32,794	21,852	4,741	3,238
	Cannot read	180,781	160,270	198,556	181,208	174,621	196,421
Q'land	Read & write	74,940	136,436	276,381	376,294	508,584	633,338
	Read only..	12,080	13,657	14,618	11,737	3,542	3,108
	Cannot read	33,084	63,432	102,719	110,098	93,687	119,526
S. Aust.	Read & write	117,349	200,057	236,514	290,748	344,398	421,025
	Read only..	21,509	15,267	9,571	8,283	1,812	1,643
	Cannot read	46,768	64,541	74,346	64,126	62,348	72,492
(b) W. Aust	Read & write	14,166	19,684	34,254	150,099	237,605	283,344
	Read only..	2,717	2,430	2,061	3,107	972	890
	Cannot read	7,902	7,594	13,467	30,918	43,537	48,498
Tasm'nia	Read & write	55,941	74,966	103,138	133,579	155,447	175,435
	Read only..	13,946	9,606	6,287	3,907	925	610
	Cannot read	29,441	31,133	37,242	34,989	34,839	37,735
Northern Ter.(c)	Read & write	..	..	..	..	2,408	2,832
	Read only..	..	..	..	..	36	15
	Cannot read	..	..	..	..	866	1,020
Fed. Cap. Ter.(d)	Read & write	..	..	..	..	1,424	2,093
	Read only..	..	..	..	..	14	8
	Cannot read	..	..	..	..	276	471
C'wealth	Read & write	1,037,601	1,591,556	2,394,339	3,020,665	3,766,251	4,610,123
	Read only..	177,596	138,282	108,870	78,614	18,599	15,380
	Cannot read	447,842	520,356	671,183	674,522	670,155	810,231

(a) Including Federal Capital Territory prior to 1911.

(b) Including Northern Territory prior to 1911.

(c) Included in South Australia prior to 1911.

(d) Included in New South Wales prior to 1911.

It will of course be understood that the heading "cannot read" includes a large proportion of children under five years of age.

The proportion in Australia of the various classes per 10,000 of the population is shown below for each Census period:—

## PROPORTION OF EDUCATED AND ILLITERATE PER 10,000 PERSONS, 1871 TO 1921. (AUSTRALIA.)

Division.	1871.	1881.	1891.	1901.	1911.	1921.
Read and write ..	6,239	7,073	7,543	8,004	8,454	8,481
Read only ..	1,068	615	343	208	42	28
Cannot read ..	2,693	2,312	2,114	1,788	1,504	1,491

As pointed out previously, the "cannot read" group includes a large proportion of children under five years of age.

2. Education of Children.—The figures in the preceding tables refer to the entire population of Australia, and as the age constitution of those dwelling in the various portions thereof underwent considerable modifications during the period dealt with, a far more reliable test of the diffusion of education will be obtained by a comparison of the Census returns in regard to children of school age. For comparative purposes this has been taken to include all children in the group over five and under fifteen years of age, and the degree of education of these at each Census from 1861 to 1921 will be found below.

### EDUCATION OF CHILDREN OF SCHOOL AGE AT CENSUS PERIODS, 1861 TO 1921.

State or Territory.	1861.	1871.	1881.	1891.	1901.	1911.	1921.
N.S.W. <sup>a</sup>							
{ Read & write	34,040	68,776	121,735	196,240	251,187	291,450	371,106
{ Read only..	20,345	26,886	25,100	21,375	15,934	993	497
{ Cannot read	25,472	32,924	41,663	48,580	60,734	34,793	67,421
Victoria							
{ Read & write	42,268	122,739	170,713	201,199	236,515	237,028	271,105
{ Read only..	25,518	39,636	25,249	15,656	13,128	410	193
{ Cannot read	19,341	29,490	21,421	27,441	27,765	19,621	29,002
Q'land							
{ Read & write	2,156	12,698	33,317	62,402	95,635	117,347	144,419
{ Read only..	1,534	6,104	7,019	7,580	5,955	616	296
{ Cannot read	1,629	6,015	9,615	16,257	18,827	8,633	16,723
S. Aust. <sup>b</sup>							
{ Read & write	15,485	30,608	46,630	58,291	69,451	69,878	89,930
{ Read only..	8,748	12,432	7,926	4,618	4,229	248	120
{ Cannot read	6,907	10,074	12,483	17,988	15,480	9,638	12,684
W. Aust.							
{ Read & write	1,333	3,218	4,418	6,910	25,326	47,568	62,682
{ Read only..	226	617	1,260	933	1,815	159	99
{ Cannot read	1,015	1,795	1,593	2,348	5,431	5,234	9,636
Tasm'nia							
{ Read & write	11,919	17,335	17,188	24,007	32,890	36,351	40,458
{ Read only..	2,848	4,143	4,108	2,974	1,795	186	63
{ Cannot read	4,581	6,663	6,606	8,829	8,475	5,575	7,377
Northern Ter. <sup>c</sup>							
{ Read & write	..	..	..	..	..	195	314
{ Read only..	..	..	..	..	..	..	..
{ Cannot read	..	..	..	..	..	118	159
Fed.Cap. Ter. <sup>d</sup>							
{ Read & write	..	..	..	..	..	322	402
{ Read only..	..	..	..	..	..	2	4
{ Cannot read	..	..	..	..	..	47	108
C'wealth							
{ Read & write	107,201	255,374	394,001	549,049	711,004	800,139	980,416
{ Read only..	59,219	89,818	70,662	53,136	42,856	2,614	1,272
{ Cannot read	58,945	86,961	93,381	121,443	136,712	83,659	143,110

(a) Including Federal Capital Territory prior to 1911. (c) Included in South Australia prior to 1911.  
(b) Including Northern Territory prior to 1911. (d) Included in New South Wales prior to 1911.

In the case of Tasmania full details for the years 1861 to 1871 are not available, and the figures for those years are approximate. The variation in degree of education may be more readily seen by reducing the foregoing figures to the basis of proportion per 10,000, and the results so obtained are embodied in the following table, a glance at which is sufficient to demonstrate the remarkable strides that at least the lower branches of education have made since 1861. In that year, only 48 per cent. of the children of school age could read and write, while 26 per cent. were illiterate. The returns for 1921 show that the proportion of those who could read and write had increased to over 87 per cent., while the totally illiterate had declined to 13 per cent.

EDUCATION OF CHILDREN (AGES 5 TO 14) PER 10,000 AT CENSUS PERIODS,  
1861 TO 1921.

State or Territory.		1861.	1871.	1881.	1891.	1901.	1911.	1921.
N.S.W. <sup>a</sup>	Read & write	4,263	5,349	6,458	7,372	7,662	8,907	8,453
	Read only..	2,547	2,091	1,332	803	486	30	11
	Cannot read	3,190	2,560	2,210	1,825	1,852	1,063	1,536
Victoria	Read & write	4,851	6,397	7,853	8,236	8,526	9,221	9,028
	Read only..	2,929	2,066	1,162	641	473	16	6
	Cannot read	2,220	1,537	985	1,123	1,001	763	966
Q'land	Read & write	4,973	5,116	6,670	7,236	7,942	9,269	8,946
	Read only..	2,884	2,460	1,405	879	495	49	18
	Cannot read	3,063	2,424	1,925	1,885	1,563	682	1,036
S. Aust. <sup>b</sup>	Read & write	4,973	5,763	6,956	7,206	7,790	8,761	8,754
	Read only..	2,809	2,341	1,182	571	474	31	11
	Cannot read	2,218	1,896	1,862	2,223	1,736	1,208	1,235
W. Aust.	Read & write	5,179	5,716	6,076	6,780	7,775	8,982	8,656
	Read only..	878	1,096	1,733	916	557	30	14
	Cannot read	3,943	3,188	2,191	2,304	1,668	988	1,330
Tasm'nia	Read & write	6,160	6,160	6,160	6,704	7,620	8,632	8,447
	Read only..	1,472	1,472	1,472	830	416	44	13
	Cannot read	2,368	2,368	2,368	2,466	1,964	1,324	1,540
Northern Ter. <sup>c</sup>	Read & write	..	..	..	..	..	6,230	6,638
	Read only..	..	..	..	..	..	..	..
	Cannot read	..	..	..	..	..	3,770	3,362
Fed.Cap Ter. <sup>d</sup>	Read & write	..	..	..	..	..	9,868	7,821
	Read only..	..	..	..	..	..	5	78
	Cannot read	..	..	..	..	..	127	2,101
C'wealth	Read & write	4,757	5,910	7,061	7,588	7,984	9,027	8,717
	Read only..	2,628	2,078	1,266	734	481	29	11
	Cannot read	2,615	2,012	1,673	1,678	1,535	944	1,272

(a) Including Federal Capital Territory prior to 1911. (b) Including Northern Territory prior to 1911.  
(c) Included in South Australia prior to 1911. (d) Included in New South Wales prior to 1911.

3. Education as shown by Marriage Registers.—Another common method of testing the spread of education is to compare the number of mark signatures with the total number of persons married during each year of a series. The percentage of males and females signing with a mark to the total persons married in the Census years 1861 to 1921 was as follows :—

EDUCATION.—MARRIAGE SIGNATURES, AUSTRALIA, 1861 TO 1921.

Year.	Proportion Signing with Marks of Total Persons Married.			Year.	Proportion Signing with Marks of Total Persons Married.		
	Males.	Females.	Total.		Males.	Females.	Total.
	Per cent.	Per cent.	Per cent.		Per cent.	Per cent.	Per cent.
1861	18.50	30.69	24.60	1901	1.35	1.29	1.32
1871	10.58	16.40	13.49	1911	0.56	0.54	0.55
1881	4.34	6.78	5.56	1921	0.16	0.18	0.17
1891	2.27	2.40	2.34				

The table shows that there has been a large diminution in illiteracy, and judging from the figures for the last few years the proportion bids fair to practically disappear.

### § 9. Miscellaneous.

1. *Scientific Societies.*—(i) *Royal Societies.* Despite the trials and struggles incidental to the earlier years of the history of Australia, higher education and scientific advancement were not lost sight of. Thus the origin of the Royal Society dates as far back as 1821, when it was founded under the name of the Philosophical Society of Australasia, Sir Thomas Brisbane being its first president. Scientific work was fitfully carried on by means of a Society whose name varied as the years rolled on. It was called the Australian Philosophic Society in 1850. In 1856 the old Australian Society merged into a resuscitated Philosophical Society of New South Wales, and its papers were published up to 1859 in the Sydney Magazine of Science and Art (2 vols., 1858–9). Its present title dates from 1866. Some of the papers of the old Philosophical Society were published in 1825 under the title of “Geographical Memoirs of New South Wales” (Barron Field), and contain much that is interesting in regard to the early history of Australia. One volume containing the Transactions of the Philosophical Society of New South Wales (1862–65) was published in 1866. The journal of the Society did not begin to bear a serial number, however (vol. 1), until the year 1867. “Transactions of the Royal Society of New South Wales” were published in 1867, the title of the series being altered to “Journal” in 1878. Up to the end of 1925, 59 volumes had been published. The exchange list comprises the names of 383 kindred societies. At the present time the library contains over 30,000 volumes and pamphlets, valued at about £9,000. Income and expenditure for the year ended 31st March, 1925, were £1,737 and £1,885 respectively, and the Society had on the same date 379 members.

The Royal Society of Victoria dates from 1854, in which year the Victorian Institute for the Advancement of Science and the Philosophical Society of Victoria were founded. These were amalgamated in the following year under the title of the Philosophical Institute of Victoria, whilst the Society received its present title in 1860. The first volume of its publications dates from 1855. Up to 1925, 70 volumes of proceedings had been issued. The Society exchanges with 250 kindred bodies. The constitution of the Society states that it was founded “for the promotion of art, literature, and science,” but for many years past science has monopolized its energies. A mathematical and physical section encourages discussion in these sciences. The library contains over 16,000 volumes, valued approximately at £4,200. Income for the year 1925 amounted to £628, and expenditure to £634. There are 206 members on the roll.

The inaugural meeting of the Royal Society of Queensland was held on the 8th January, 1884, under the presidency of the late Sir A. C. Gregory. The Society was formed “for the furtherance of the natural and applied sciences, especially by means of original research.” Shortly after its formation it received an addition to its ranks by the amalgamation with it of the Queensland Philosophical Society, which was started at the time when Queensland became a separate colony. At the end of 1925 the members numbered 166; publications issued, 37 volumes; library, 7,500 volumes; societies on exchange list, 230. Income and expenditure in 1925 amounted to £338 and £294 respectively.

The Royal Society of South Australia grew out of the Adelaide Philosophical Society, which was founded in 1853, its object being the discussion of all subjects connected with science, literature, and art. Despite this programme, the tendency of the papers was distinctly scientific, or of a practical or industrial nature. With the advent of the late Professor Tate, the Society became purely scientific. Permission to assume the title of “Royal” was obtained in 1879, the Society thenceforward being known as “The Royal Society of South Australia.” In 1903 the society was incorporated. In 1925 the number of members was 134. The income for the year 1924 was £650, and expenditure £742. Up to 1924 the Society had issued 48 volumes of proceedings and 8 parts of memoirs, exclusive of several individual papers published in earlier years. The exchange list numbers about 220, while the library contains 4,400 volumes and over 1,900 pamphlets. The Field Naturalists section of the Society comprises 220 members, and issues a small quarterly journal called “The South Australian Naturalist.”

Permission to assume the title of Royal Society was granted to the Natural History and Science Society of Western Australia in March, 1914. This Society has grown out of the Mueller Botanic Society, founded in July, 1897. The objects of the Society are

the study of natural history and pure science, promoted by periodical meetings and field excursions, the maintenance of a library, and issue of reports of proceedings. It numbers at present 267 members, whose subscriptions form its only source of revenue, the income and expenditure in 1924-25 being £267 and £179 respectively. Five volumes of proceedings were issued as *Journal of the Natural History and Science Society of Western Australia*, and eleven as of the *Royal Society*. Its publications are exchanged with 78 institutions at home and abroad. The library contains some 200 volumes, and over 1,000 unbound journals, pamphlets, etc.

The *Royal Society of Tasmania* (the first *Royal Society* outside the United Kingdom) was inaugurated by Sir Eardley Wilmot, Lieutenant-Governor of Van Diemen's Land on the 14th October, 1843. It may be mentioned, however, that a scientific society had been formed as far back as 1838 under the presidency of Sir John Franklin, then Governor of the colony, and in 1841 the number of resident members was 31, and corresponding members, 38. The meetings of this parent society were held at Government House, and three volumes of proceedings were issued. A large portion of the Colonial Gardens, together with a grant of £400, was given to the Society. A library and museum were established in 1848. In 1885 the museum and gardens were given back to the State, the Society being granted room in the museum for its library and meetings. The names of Captains Ross and Crozier, of H.M.S. *Erebus* and *Terror*, appear in the list of the first corresponding members. The Society, which, since 1844, has published 64 annual volumes of proceedings, possesses 225 members, 8 corresponding members, 9 life members, exchanges with 230 kindred bodies, and has a library containing 14,000 volumes, in addition to manuscripts, etc., valued at over £10,000. Income for the year 1925 was £403, and expenditure £391.

(ii) *The Australasian Association for the Advancement of Science*. This Association was founded in 1887, with head-quarters at the Royal Society's House in Sydney. It was recognized that in addition to Royal, Linnean, and Naturalists' Societies generally, there was a decided necessity for an organization representative of scientific education in Australia and New Zealand "to give a stronger impulse and a more systematic direction to scientific inquiry, to promote the intercourse of those who cultivate science in different parts of the Commonwealth of Australia, the Dominion of New Zealand, and in other countries, to obtain more general attention to the objects of science, and a removal of any disadvantages of a public kind which may impede its progress." The Association aims at co-operation between the workers in the various branches of science on the one hand, and between the professional scientist and the general public on the other. Its meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held in Perth in August, 1926. Although the actual funds of the Association are small, liberal aid has always been forthcoming from the various State Governments, especially in connexion with the printing of the important volumes of its proceedings, of which Vol. XVI. is the latest issued. The library of the Association contains 4,000 volumes. Not the least important of the activities of the Association was the giving a constitution to the Australian National Research Council which brought in its train the Pan-Pacific Scientific Congress of 1923.

(iii) *Other Scientific Societies*. The Linnean Society of New South Wales, with head-quarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to nearly £80,000. Income for the year 1925 amounted to £5,445 and expenses to £5,365, including £2,411 for research purposes. The Society maintains a research bacteriologist, and offers annually 4 research fellowships in various branches of natural history. The library comprises some 13,000 volumes, valued at about £7,000. Forty-eight volumes of proceedings have been issued, and the Society exchanges with some 180 kindred institutions. The ordinary membership at the end of 1924 was 165.

The British Astronomical Society has a branch in Sydney, and in some of the States the British Medical Association has branches.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.



2. **Public Libraries.**—In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city :—

**METROPOLITAN PUBLIC LIBRARIES, 1924.**

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Sydney .. .. .	335,802	(b)	44,529	380,331
Melbourne .. .. .	307,325	42,314	..	349,639
Brisbane .. .. .	45,834	..	..	45,834
Adelaide .. .. .	125,413	47,430	..	176,843
Perth .. .. .	121,845	..	16,888	138,733
Hobart .. .. .	25,000	..	..	25,000

(a) Including 114,115 volumes in the Mitchell Library.

(b) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At the end of December, 1924, the books numbered 45,034.

During 1921 the Public Library authorities in Sydney inaugurated the system of lending boxes of children's books to country schools, and a large number of these children's travelling libraries are now in operation. Boxes are forwarded to out-back schools distant from towns. Each box contains about 40 books, and is lent for a period of four months, and then exchanged for another collection, the Library Trustees defraying the cost of carriage both ways.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc. which, owing to limitations of space, are not in open access.

The Mitchell Library in Sydney consisted of over 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, valued at £100,000, and bequeathed in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testator stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now about 114,000 volumes in the library in addition to valuable collections of Australian postage and fiscal stamps.

Amongst other important libraries in New South Wales may be mentioned the "Fisher" Library at Sydney University, with 155,000 volumes; the library at the Australian Museum, 24,000; the Teachers' College library, 23,000; Sydney Technical College library, 11,000; and the library at the Botanic Gardens, 9,000. Libraries attached to the various State Schools possessed about 422,000 volumes in 1924.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height, and is capable of seating 320 readers at a time, all of whom are under efficient supervision from the centre of the room. During the year 1924, 3,437 volumes were lent to Mechanics' Institutes and Free Libraries, and 763 books were sent by post to borrowers in the country.

The library at Brisbane (South) contained about 14,000 volumes at the end of 1923.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914 Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland, and Ceylon, and obtained valuable information

also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification, and permanent preservation of the available papers. A suitable building for housing the documents and the staff was provided in 1921.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 31,000 volumes.

Mention may be made here of the free library attached to the Commonwealth Patents Office, which contains over 10,000 volumes, including literature dealing with patents in the principal countries of the world.

Statistics in regard to libraries generally are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1924 showed a total of 524 libraries in receipt of State or municipal aid, containing 1,307,000 books; Queensland returned 221 libraries, with 457,000 books; South Australia, 237 libraries and 823,000 books; Western Australia, 265 libraries and 288,000 books; Tasmania, 23 libraries and 121,000 books; while there are 2 libraries, with 3,000 books, in the Northern Territory.

3. **Public Museums.**—The Australian Museum in Sydney, founded in 1836, is the oldest institution of its kind in Australia. In addition to possessing fine collections of the usual objects to be met with in kindred institutions, the Museum contains a very valuable and complete set of specimens of Australian fauna. The cost of construction of the building was £79,000. The number of visitors to the institution in 1924 was 261,000, and the average attendance on week-days 717, and on Sundays 1,363. The expenditure for 1924 amounted to £21,000. A valuable library containing about 24,000 volumes is attached to the Museum. Courses of evening popular lectures are delivered, and lecturers also visit distant suburbs and country districts, while afternoon lectures for school children are provided. Nature talks are also broadcasted by wireless. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum, and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids in country schools. The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, and the Museum of Normal and Morbid Anatomy, connected with the University, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public. There is a fine Technological Museum in Sydney, with branches in five country centres. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus, and the gums, kinos, tanning materials, and other economic products of native vegetation generally. During 1922 the work of the Museum was strengthened by the appointment of an advisory committee representing the scientific, general, and industrial activities of the State. The number of visitors to the Technological Museums during 1924 was about 136,000.

The National Museum at Melbourne, devoted to Natural History, Geology, and Ethnology, is located in the Public Library Building. The National Art Gallery is situated in the same building. The Industrial and Technological Museum, also housed under the same roof, contains about 10,000 exhibits. Cost of construction for the combined institutions is set down at £327,000. There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the Schools of Mines in the chief mining districts.

The Queensland Museum dates from the year 1871, but the present building was opened in January, 1901. Since its inauguration the Government has expended on the institution a sum of £110,410, of which buildings absorbed £20,735, purchases £31,451, and salaries £58,224. The number of visitors during 1923 was 102,000, of whom 44,000 visited the institution on Sundays. The Queensland Geological Survey Museum has branches in Townsville, opened in 1886, and in Brisbane, opened in 1892.

Under the Public Library Act of 1884 the South Australian Institute ceased to exist, and the books contained therein were divided amongst the Museum, Public Library, and Art Gallery of South Australia, and the Adelaide Circulating Library. The Museum was attended by 91,000 visitors in 1924. Cost of construction of the Museum building was returned as £65,000.

The latest available returns show that the Western Australian Museum and Art Gallery contains altogether 101,000 specimens, of an estimated value of £81,700. The Museum is housed in the same building as the Art Gallery, and the visitors to the combined institutions during the year reached 67,000. Cost of construction of the building amounted to £45,800.

There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral, and miscellaneous products. The Museums received aid from the Government during 1924 to the extent of £1,664. The cost of construction in each case is included in that of Art Galleries given below.

4. Public Art Galleries.—The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. Cost of construction of the present building amounted to about £94,000. At the end of 1924 its contents, which are valued at £170,000, comprised 533 oil paintings, 422 water colours, 831 black and white, 179 statuary and bronzes, and 807 ceramics, works in metal and miscellaneous. During 1924 the average attendance on week days was 474, and on Sundays 1,516. Since the year 1895 loan collections of pictures have been regularly forwarded for exhibition in important country towns.

The National Gallery at Melbourne at the end of 1924 contained 677 oil paintings, 5,370 objects of statuary, bronzes, ceramics, etc., and 14,513 water colour drawings, engravings, and photographs. The Gallery is situated in the same building as the Museum and Public Library, the total cost of construction being £327,000. Several munificent bequests have been made to the institution. That of Mr. Alfred Felton, given in 1904, amounts to about £8,000 per annum. In 1913, Mr. John Connell presented his collection of art furniture, silver, pictures, etc., the whole being valued at £10,000. The Art Gallery at Ballarat contains over 400 oil paintings and water colours, with some fine statuary, bronzes, etc., while there are some valuable works of art in the small galleries at Bendigo, Castlemaine, Geelong, and Warrnambool, and in some cases pictures are sent on loan from the National Gallery.

The Queensland National Art Gallery, situated in the Executive Buildings, Brisbane, was founded in 1895, and contains a small, but well chosen collection of pictures. At the end of 1923 there were on view 104 oil paintings, 28 water colours, 147 black and white, and 33 pieces of statuary, together with various prints, mosaics, and miniatures. Exclusive of exhibits on loan, the contents are valued at about £11,300. Visitors during the year averaged 160 on Sundays and 119 on week days.

The Art Gallery at Adelaide dates from 1880, when the Government expended £2,000 in the purchase of pictures, which were exhibited in the Public Library Building in 1882. The liberality of private citizens caused the gallery rapidly to outgrow the accommodation provided for it in 1889 at the Exhibition Building, and on the receipt of a bequest of £25,000 from the late Sir T. Elder, the Government erected the present building, which was opened in April, 1900. The Gallery also received bequests of £16,500 in 1903 from the estate of Dr. Morgan Thomas, and of £3,000 in 1907 from Mr. David Murray. At the 30th June, 1925, there were in the Gallery 632 paintings in oil and water colour, 265 drawings and black and whites, 247 statuary, furniture, and art work, 6,380 prints, and 1,430 ceramics and miscellaneous. Building and site are valued at upwards of £31,000. Visitors during the year 1924 numbered 77,000. The cost of construction of the Art Gallery amounted to £22,000.

The foundation stone of the present Art Gallery at Perth in Western Australia was laid in 1901, and, as in the case of Melbourne, the Public Library, Museum, and Art Gallery are all situated in the one structure. The collection comprises 107 oil paintings, 53 water colours, 256 black and white, 275 statuary, and 1,150 ceramic and other art objects. Visitors to the Museum and Art Gallery in 1924 numbered 67,000.

In Tasmania, the Art Gallery at Hobart was opened in 1887. Its present contents consist of 125 oil paintings, 132 water colours, 21 black and white, and 175 etchings, engravings, etc., the value of the contents being estimated at £5,000. The cost of construction of the building was £4,500.

The Art Gallery at Launceston was erected in 1888 at a cost of £6,000, and opened on the 2nd April, 1891. Only a small proportion of the contents belongs to the gallery, the bulk of the pictures being obtained on loan. At latest date there were on view 100 oil paintings, 65 water colours, and miscellaneous exhibits, the whole being valued at £4,900.

5. State Expenditure on all Forms of Educational Effort.—The expenditure from the Consolidated Revenue in each State and Territory on all forms of educational and scientific activity during each of the last five financial years was as follows :—

## EXPENDITURE ON EDUCATION, SCIENCE, AND ART, 1920-21 TO 1924-25.

State or Territory.		1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
New South Wales ..	{ Total £	3,737,960	3,736,294	3,777,551	3,779,896	3,987,709
	{ Per head	35/8	35/1	34/9	34/2	35/4
Victoria ..	{ Total £	1,847,184	1,955,036	2,048,949	2,166,763	2,259,529
	{ Per head	24/2	25/3	25/9	26/8	27/3
Queensland ..	{ Total £	1,350,399	1,362,197	1,349,387	1,410,089	1,510,944
	{ Per head	36/0	35/6	34/3	34/9	36/2
South Australia ..	{ Total £	607,160	627,075	623,902	709,728	764,914
	{ Per head	24/9	25/0	24/4	27/0	28/5
Western Australia ..	{ Total £	543,356	596,518	604,947	621,168	628,755
	{ Per head	32/10	35/6	35/3	35/1	34/6
Tasmania ..	{ Total £	263,524	281,677	281,602	271,321	286,334
	{ Per head	24/9	25/10	25/9	24/9	26/3
Northern Territory	{ Total £	4,291	4,860	4,884	4,515	4,858
	{ Per head	21/6	26/0	27/6	25/5	27/0
Australia ..						
	{ Total £	8,353,874	8,563,657	8,691,222	8,963,480	9,443,043
	{ Per head	30/11	31/1	30/10	31/2	32/2

The comparatively heavy increases during the last five years are partly due to the expanding provision for State-aided education, to greater cost of building, equipment, and maintenance, and to increments in teachers' salaries and allowances.