

# London County Council.

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## EDUCATION ACT, 1918.

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### DRAFT SCHEME OF THE LOCAL EDUCATION AUTHORITY

*(Accompanying the report of the Education Committee,  
dated 30th June, 1920)*

L.C.C. EDUCATION OFFICES,  
VICTORIA EMBANKMENT,  
W.C. 2.  
13th July, 1920.

R. BLAIR,  
*Education Officer.*

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## PART I.

## INTRODUCTION.

## HISTORICAL AND LEGISLATIVE RETROSPECT.

## I.

It is a statutory commonplace that the education provided by an education authority must have "regard to the needs of the locality." Where the locality is small, and the industrial life is dependent on one or two industries, the preparation of a scheme of education is easy. Where, however, the "locality" includes the largest aggregation of population known to history, an industrial and commercial community of great variety, a population of every condition between extremes of wealth and poverty, a social system with roots centuries old and growth undisturbed for generations, the needs of the "locality" are clearly more than local. London is the home of the world's markets; the centre of international finance; the Capital City of a world-wide Empire; the meeting-place of nearly every race and people. It is not only, therefore, the needs of the "locality" which are insistent in their claim on the London Education Authority. The policy of the authority must be largely influenced by the part which it is to play in the moulding of the Empire, and in the general advance of humanity, on which its own existence to a large extent depends.

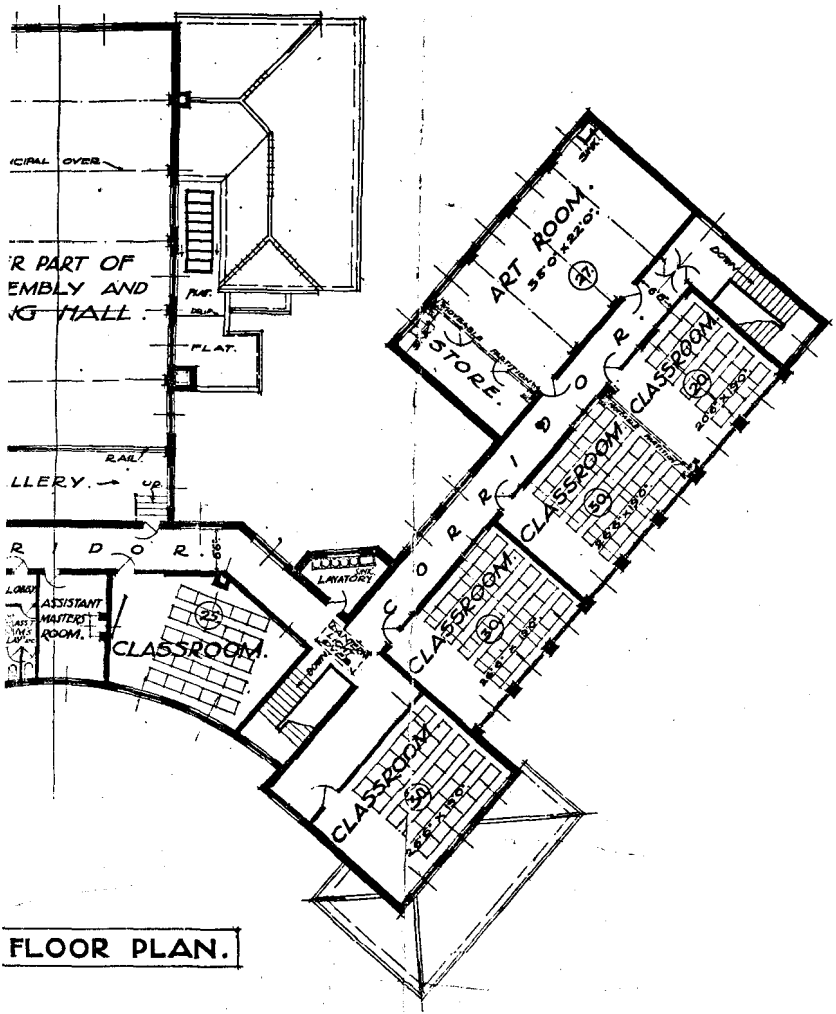
## II.

The administrative County of London includes within its 120 square miles a population of four and a-half millions. It is closely surrounded by an outer zone of another two and three-quarter millions. The dividing lines are neither industrial nor economic nor geographical. They rest on tradition and statutory authority. Further, residence and occupation are often far apart, and millions travel daily, forwards and backwards, across unseen lines of demarcation, largely oblivious of their existence. The site and use of institutions offering education for the "needs of the locality" has at length become a serious administrative problem for all the authorities in the area of Greater London.

London, inner and outer, has no staple industry. Coal and iron, the foundations of modern industry, do not exist within its borders, nor, with the possible exception of the Kent coalfields, in close proximity to them. The only raw materials found within its borders are the by-products of its own manufacture or consumption, such as chemical and gas by-products, and the primary ingredients of soap, glue, size, etc. Over long periods of time, London has been the stronghold of the small trader. The absence of a staple industry, and the varied demands of its own population, have developed the many-sidedness of its industries. Its geographical situation in relation to Continental and Central Europe and the Colonies, its docks and waterways, combined with the influence of its export trade on the control of freights, have promoted every kind of manufacture, and have made it the market in commodities ranging from corn, timber, tea, coffee and wool, to rubber, bark, metals, furs, and diamonds. The security of its industrial life lies in its many-sidedness and its adaptability to ever-changing conditions. Industries come and go, but the continued development of London remains. London in recent times has lost silk manufacture and shipbuilding, but it renews its industrial life in the making of motor-cars and aeroplanes; in a great expansion of scientific instrument work; and in a wide extension on the engineering side of its repairing and finishing shops. Further instances of its recuperative power in compensation for lost industries may be found in the 50 per cent. increase of tonnage entered at the port of London between 1894 and 1914; and in the recent enormous increase in the amount of power oil "consumed." This rose from 11 million gallons in 1902 to 232 million gallons in 1918. Its many-sidedness is further exhibited in the tens and hundreds of thousands employed in the large groups of occupations comprised under transport (conveyance of men, goods, and messages); food, tobacco, drink, lodging; commercial life; the building trades; dress; the metal trades; printing and woodwork. In these and other occupations, the numbers employed exceed, with their families, the populations of large provincial towns. London is the largest engineering "centre" in the world; the numbers dependent on the leather industry exceed the population of Leicester or Northampton; the printing and paper trades employ an aggregate in excess of Yarmouth or Chester. Even the workers in the musical trades, with their families, would form a moderate-sized provincial town. A striking aspect of its many-sidedness is to be found in the large proportion of its population working independently, or taking small contracts "for the trade." Many occupations, such as those of the small retailers, are fairly evenly distributed over the whole area; but a localisation, starting from some original advantage of material or situation, persists with great tenacity. The most obvious are the City business-houses and the West End shops; engineering, S.E. (Woolwich and Erith), N.E. (Hackney and Tottenham), West (Willesden, Hammersmith, Chiswick); clothes, ready-made (East End), bespoke (West End); boots and shoes (Bethnal Green); Woodwork (Shoreditch); scientific instruments (Clerkenwell); printing (City, Holborn, Southwark, Westminster); building trades (Hammersmith and Wandsworth); chemicals (Tottenham, Stratford, Battersea); musical instrument makers (Kentish Town and Camden Town).

The conditions of London life lead to a gradual deterioration of its population. London renews its strength by constant accession from the provinces. There is a marked upward turn of the curve of population (in age groups) from 18 to 27; and before the war certain trades were characterised by





**FLOOR PLAN.**

**COUNTY COUNCIL.**   
**SECONDARY SCHOOL FOR BOYS.**  
**WIMBORNE, HAMMERSMITH.**

to the problems of co-ordinating and making further provision for higher education. Since then a long series of studies of different aspects of technical education has been embodied in important monographs, most of which, though not published or finally adopted by the Council, have formed the material out of which something approaching to a unified system of local education has come to be evolved. Two important surveys have also been made of the provision of secondary education and training colleges.

#### IV.

It will be seen from the foregoing that by the end of the 19th century there had arisen a complex educational system. Elementary schools were of two kinds: voluntary schools with insufficient funds, and Board Schools maintained out of the rates. Further, while one set of local authorities (the County and Town Councils) were aiding secondary and technical education, another set (the School Boards) were in certain districts providing education of a higher type *ultra vires* their Parliamentary powers. The time was, therefore, ripe for further legislative action. The Education Act, 1902, the second comprehensive measure, introduced unity into local administration by making the local education authority responsible for all types of education, and placed upon it the duty of maintaining the voluntary schools, except in so far as the fabric of the buildings is concerned, and of keeping them efficient. The Education Act, 1902, was made applicable to London in the following year by the Education (London) Act, 1903. These Acts were followed by important measures affecting the welfare of children, especially the Education (Provision of Meals) Act, 1906, which enabled local education authorities to provide meals for necessitous children; the Education (Administrative Provisions) Act, 1907, which inaugurated a system of school medical inspection and treatment; the Children Act, 1908, which dealt with neglected children and children in sordid surroundings, and consolidated the previous legislation relating to industrial and reformatory schools; and the Mental Deficiency Act, 1913, which dealt with mentally defective children. As regards the latter, considerable progress had already been made under the Elementary Education (Defective and Epileptic Children) Act, 1899, and, in the case of blind and deaf children, under the Elementary Education (Blind and Deaf Children) Act, 1893. In 1918, the third comprehensive educational measure was passed, giving largely increased powers and duties to all local education authorities throughout the country.

#### V.

In 1870 London was still a collection of loosely connected, populous areas. Now it has become knit into a single aggregation of vast proportions—roughly a business core with radial lines (trains, tram, and omnibus) extending almost everywhere to the periphery. The extensive development of travelling facilities has had a material influence in unifying London, and in contributing to a coherent system of education. The war arrested development in education, as in industry and commerce. But the Education Act of 1918, and the School Teachers (Superannuation) Act of the same year, have given a new impetus to educational effort; ideas born of five years' titanic struggle and anguish are sending new impulses of life and thought through old channels and traditions, and a national system of education has become visibly nearer.

#### THE LONDON EDUCATION AUTHORITY.

The London County Council is the local education authority responsible for promoting the general co-ordination of all forms of education within the County of London. Practically the whole of the elementary education in London is under the Council's control. In the various branches of higher education, the Council is associated with other authorities, such as the University of London, the City Companies, the governing bodies of endowed secondary schools, and the governing bodies of polytechnics and technical institutes. In the promotion of every type of education, it is the policy of the Council to work in co-operation with other agencies, and to secure that there is no overlapping or duplication of effort.

All matters relating to the exercise of the Council's powers under the Education Acts, except the power of raising a rate or borrowing money, stand referred by statute to the Education Committee of the Council; and the Council, before exercising any such powers, unless in its opinion the matter is urgent, receives and considers the report of the Education Committee. The Council delegates to its Education Committee very considerable powers under the Education Acts. The Education Committee, constituted by statutory scheme, is composed of 50 members, of whom 38 are members of the Council, and 12 co-opted members. Of the 50 members of the present committee, 14 are women. The meetings of the Committee are open to the public, and are held, as a rule, on alternate Wednesdays, at the County Hall, except during the periods in which the Council is in recess. The powers and duties of the Committee, are in part redelegated, and are distributed among nine standing sub-committees. The Committee is assisted in the administration of elementary education by 177 statutory bodies of managers of provided schools, and 344 statutory bodies of managers of non-provided schools, and in the administration of its own secondary schools, training colleges, technical institutes, and schools of art, by 41 governing bodies, or advisory sub-committees, as the case may be. The Committee also nominates representatives to serve upon the governing bodies of all schools and institutions to which the Council makes grants, and upon many other educational foundations.

The Council's education budget for the financial year 1920-21 amounts to £9,351,294 on elementary education account, and to £2,360,085 on higher education account; total £11,711,379.

To these figures, which were prepared before the issue of the Burnham (London) Award, must be added £1,665,000 on Elementary Education Account in respect of the revised scale of salaries for elementary school teachers. The total education expenditure on maintenance account for the financial year 1920-21 will consequently be £13,376,379. The receipts from Government grants have hitherto amounted to about 40 per cent. of the Council's expenditure, but under the Education Act, 1918, the Council will receive a grant equivalent to 50 per cent. of its approved expenditure.

As regards administrative staff, the Council's education department consists of 1,225 officers, inclusive of the inspectorate, numbering 109. There are also 33 paid organisers of child welfare work. For administrative purposes, London is divided into 12 districts, in each of which there is a divisional staff; a district inspector is attached to each divisional office. Separate secretarial staffs are allocated to training colleges and technical institutes. The inspectorate has just been re-organised. In order to bring about complete co-ordination, as contemplated by the Act of 1918, the new scheme provides for a body of officers who will deal with London education as a whole, having under their supervision all different types of schools within their area, and all of whom will be interchangeable among the various forms of educational institutions.

In addition to the above, which constitutes the department of the education officer, other departments of the Council have special functions assigned to them in connection with education.

The medical inspection and treatment of school children is under the direction of the Council's School Medical Officer. The design and construction of all school buildings is under the direction of the Council's Architect, who is also responsible for their maintenance and upkeep. The Council also has its own legal, valuation, finance, and Parliamentary departments.

## CHAPTER I. ELEMENTARY EDUCATION.

So far as the actual management of elementary schools is concerned, the Education Acts, 1902, and 1903, differentiate between schools provided by the local education authority and those not so provided; but the Council has laid down by standing order that, in determining matters of educational administration, no distinction shall be made, except where required by statute. The same scale of salaries, and in most cases the same regulations, are in force in both types of schools. The schools formerly known as voluntary schools are now known as "non-provided" schools. The teachers in these schools are appointed by the managers (subject to the consent of the Council under section 7 of the Act of 1902), but their salaries are paid by the Council from the proceeds of the rates and Parliamentary grants.

In non-provided schools religious instruction may be, and usually is, of a denominational character. In the schools provided by the Council the Bible is read, and there are given such explanations and such instruction therefrom in the principles of the Christian religion and of morality as are suited to the capacities of children, provided always that in such explanations and instruction the provisions of the Elementary Education Act, 1870, in section vii (relating to the conscience clause) and section xiv (relating to undenominational instruction) are strictly observed, both in letter and spirit, and that no attempt is made in any such schools to attach children to any particular denomination.

### I.

#### *School accommodation.*

In London there are at present 590 provided schools and 361 non-provided schools. The total average roll and the total average attendance for the year ended 31st March, 1919, the latest period for which a complete year's figures are available, were 695,197 and 590,633, respectively. In addition, there are a few elementary schools which are in receipt of Parliamentary grants, under section 15 of the Education Act, 1902, but are not maintained by the Council, and, to this extent, are outside the municipal administration. The following table shows the Elementary School accommodation, the average roll, and the average attendance, for the year ended 31st March, 1919:—

| School                 | Recognised accommodation as at 31st March, 1919. | Average Roll for year ended 31st March, 1919. | Average Attendance for year ended 31st March 1919. |
|------------------------|--|---|--|
| L.C.C. . . . .         | 604,161  | 551,675                                       | 469,716  |
| Non-Provided . . . . . | 156,737  | 143,522                                       | 120,917  |
| Total . . . . .        | 760,898  | 695,197                                       | 590,633  |

The accommodation as shown above is that recognised by the Council and the Board of Education at March, 1919. It includes large classrooms, the accommodation of which will in due course be written down to the "40 and 48" basis, in accordance with the scheme referred to later.

### II.

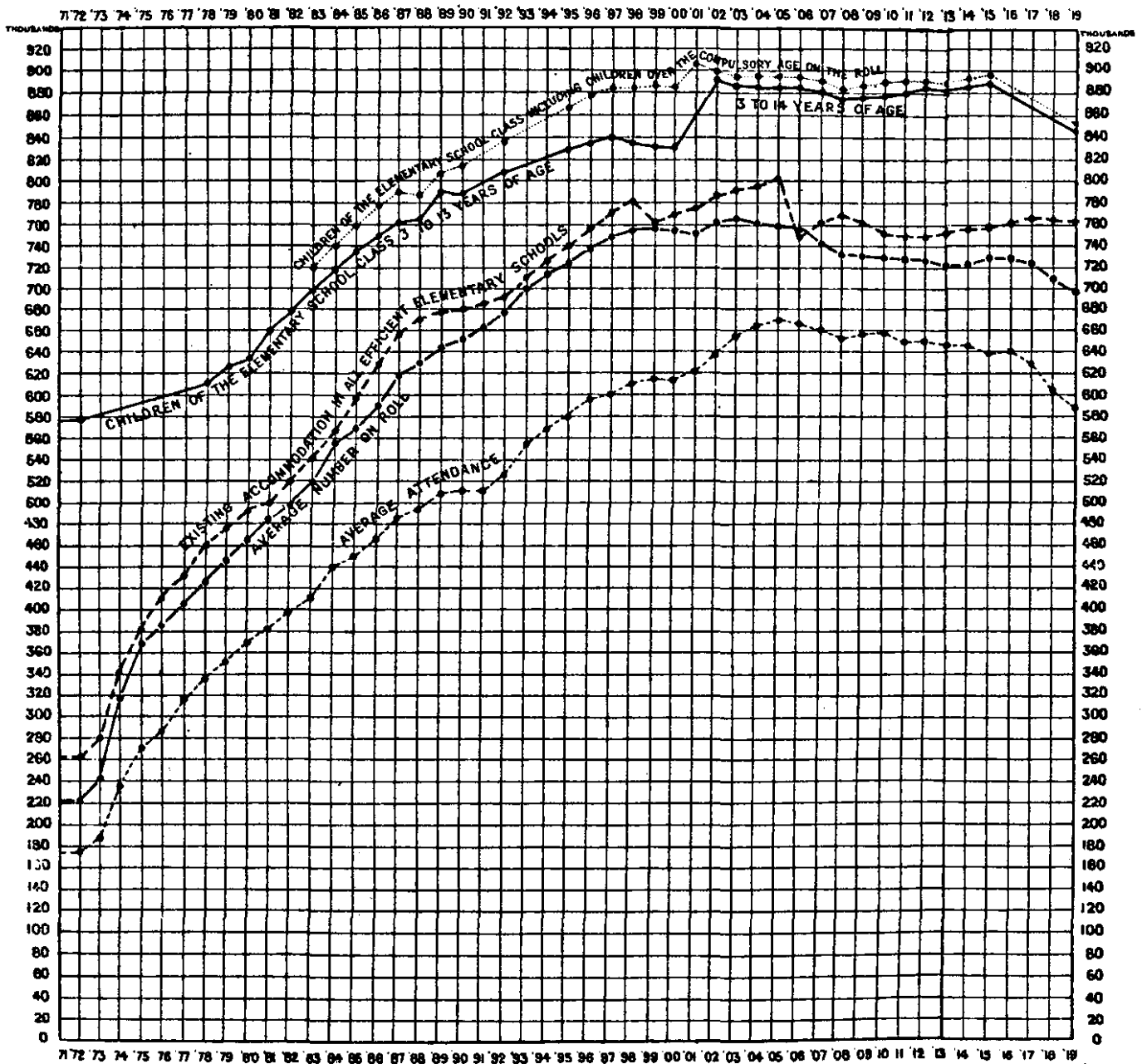
#### *School attendance.*

Elementary education must be provided for all children between the ages of 5 and 14, and in the case of children attending public elementary schools attendance is compulsory from the end of the

### Diagram A.

#### SCHOOL ATTENDANCE.

Number of children of the elementary school class, accommodation, roll, and average attendance in elementary schools, 1871-1919.



school term in which a child reaches the age of 5 to the end of the school term in which he or she reaches the age of 14. (Education Act, 1918, section 9 (i).) Children under 5, but over 3, may be admitted, but attendance is not obligatory, and during the war certain restrictions were laid down as regards their admission. Children over 14 are allowed to remain in attendance until the close of the educational year in which they reach the age of 15, or in some cases until the close of the school term in which they reach the age of 16, but the number of children attending after 14, except in central schools, is very limited.

The first object in connection with school attendance is to secure that every child is enrolled, the next being to see that he or she maintains regular and punctual attendance. From 1870 onwards, as might be expected, there was a practically continuous increase in the proportion of children enrolled in elementary schools, and, when the Council became the education authority in 1904, 97·2 per cent. of the children between 5 and 14 were on the school rolls. This figure is still being gradually improved, and to-day about 97·9 per cent. of the children of compulsory age are enrolled, the remainder not being enrolled owing to legitimate causes, such as illness, absence in the country, permanent mental or physical disablement, &c. As regards regularity of attendance, a steady and continuous improvement was shown up to the year 1909-10, when the percentage of average attendance to average roll reached the high figure of 90·1. Between that time and the outbreak of war the percentage decreased to 89·3, the decrease being due mainly to the increasing attention paid to the health of children under the modern system of school medical inspection and treatment. Regularity of attendance has further suffered since 1914 owing to war conditions, and the percentage in 1918-19 fell to 85·0. With the return of peace conditions, however, a considerable improvement has been manifested.

As regards the method of ascertaining the number of children of school age in the area, it has long been the practice in London to take an annual census (known as the annual scheduling) of children of the elementary school class. In this census are included all children between the ages of 3 and 14, as well as those over 14 who are enrolled at school. The census is taken during April and May by the school attendance officers. Detailed particulars respecting each child are entered in schedule books kept at the Council's 12 Divisional Offices, and the particulars in these books are kept up to date. The information obtained by means of this census is summarised, and usually printed each year as part of the Council's annual report. The census is thus not only utilised in securing the enrolment and regular attendance of all children, but it also provides statistics on which the needs of the various districts of the county in respect of elementary school accommodation are determined.

The attendance of children at school is enforced by means of personal visits paid to the homes of the children by about 350 school attendance officers. These officers work in close co-operation with the head teachers, and obtain from them, week by week, "attendance slips," on which the attendances of each child are recorded. Whenever a child's record begins to show signs of irregular attendance, the case is investigated, and doubtful cases are at once visited by the school attendance officer. Every possible effort is made to bring about a satisfactory result by persuasive means, but if improvement does not result, the case is brought before the local attendance committee, and, if necessary, dealt with by prosecution before the Justices.

## III.

*Employment of children.*

As regards the employment of children, the Employment of Children Act, 1903, is now rigorously enforced. In 1907, the Council transferred from the Public Control Committee to the Education Committee the administration of this Act and the bye-laws thereunder. Up to the time of the transfer, the provisions relating to street trading had not been made effective, principally owing to lack of staff, but the use of the school attendance machinery secured a marked improvement. During the first year following the transfer, no less than 14,400 cases of infringements of the Act were discovered. As the result of the experience of the years 1907-1910, new bye-laws were confirmed by the Home Office in 1911, after a local inquiry held in 1910. The Council has taken the opportunity of the further powers conferred by Section 13 of the Education Act, 1918, to strengthen its bye-laws, and to define, as far as practicable, the exact hours of employment.

The following are the revised bye-laws as to employment of children generally, and street trading, approved by the Council and submitted to the Home Office for confirmation.

*Notes.*—(a) By section 13 of the Employment of Children Act, 1903, the expression "child" means a person under the age of 14 years.

(b) Section 13 of the Education Act, 1918, enacts that "a child under the age of 12 shall not be employed."

1.—A child shall not be employed in the delivery of milk, the delivery of newspapers, carrying or delivering goods or parcels, in or in connection with any shop, in any coal yard, in industrial work at home, or in housework away from home, or as a messenger, unless notice shall first have been given by the employer to the head teacher of the school at which the child attends.

(Industrial work means any work in which manual labour is exercised by way of trade, or for purposes of gain in making, altering, repairing, ornamenting, finishing, adapting for sale, or cleaning any article.)

2.—A child shall not be employed in any of the occupations specified in by-law No. 1, unless within the following periods, namely,

(a) in the case of a child so employed at the date when these bye-laws come into operation, a period of 30 days after such date;

(b) in the case of any other child, a period of 14 days from the date when such employment begins;

he has obtained from the school medical officer a certificate that such employment will not be prejudicial to his health or physical development and will not render him unfit to obtain the proper benefit from his education, and the certificate has been produced to and endorsed by his employer.

No charge shall be made for such certificate.

3.—A child shall not be employed on any day when the school is open except—

(i) From 7 a.m. to 8 a.m., provided that the employment during this hour is restricted to the delivery of newspapers or to light household work.

(ii) From 5.30 p.m. to 6.30 p.m.

4.—A child shall not be employed on Mondays to Fridays inclusive, when the school is not open, except from 7 a.m. to 8 a.m., and from 9 a.m. to 12 noon.

5.—A child shall not be employed on a Saturday—

(i) For more than 3 hours.

(ii) Before 9 a.m., except in the delivery of newspapers or in light household work, in which occupation such child may be employed from 7 a.m. to 8 a.m.

(iii) After 12 noon.

6.—A child shall not be employed on a Sunday—

(a) Before 8 a.m. or after 10 a.m.

(b) In any of the occupations specified in by-law No. 1.

7.—During any week in which a school is open for more than two days, the hours of and conditions governing employment on Monday, Tuesday, Wednesday, Thursday, and Friday, shall be the same as though the school were open on each of these days.

8.—A child shall not be employed—

(a) In or in connection with the sale or delivery of intoxicating liquors, except on premises where such liquors are exclusively sold in sealed vessels.

(b) To lather customers or in similar work in any barber's or hairdresser's shop.

(c) In or about any premises used for the purpose of public amusement by means of automatic machines, mutoscopes, shooting ranges, games of chance or skill, or similar devices, or in cinemas, or in selling programmes, refreshments, or other articles, or in taking checks or tickets, or in shifting scenery in any theatre, cinematograph hall, or other place of public entertainment.

(d) In collecting or sorting rags or refuse.

9.—A child shall not be employed out of doors in the occupations specified in by-law No. 1, unless suitably clad. In inclement weather such child shall also be provided with a waterproof coat or similar garment.

10.—No person under the age of 16 years shall be employed in or carry on street trading.

Provided that a boy over 14 years of age and exempt from school attendance may be employed to assist a parent in the business of a costermonger at a fixed stall or pitch, subject to the following conditions—

- (a) He shall not be employed before 8 a.m. or after 7 p.m.
- (b) He shall not be employed for more than 8 hours on any day, or for more than 48 hours in any one week, including attendance at a continuation school.
- (c) He shall not be employed, unless suitably clad. In inclement weather he shall be provided with a waterproof coat or similar garment.
- (d) He shall not annoy any person by importuning.
- (e) The parent shall keep available for inspection at the place of employment a written record showing the name, address, and date of birth of such boy, together with the hours of commencing and ceasing work on each day.
- (f) Such boy shall first procure a badge from the London County Council, which he shall wear whilst at work on the upper part of the right arm in such a manner as to be conspicuous. Such badge shall be deemed to be a licence to trade, and may be withheld or withdrawn for such period as the London County Council think fit in any of the following cases—
  - (i) If the boy has, after the issue of the badge to him, been convicted of any offence.
  - (ii) If it is proved to the satisfaction of the London County Council that the boy has used his badge for the purpose of begging or receiving alms, or for any immoral purpose, or for the purpose of imposition or for any other improper purpose.
  - (iii) If the boy fails to notify the London County Council within one week of any change in his place of residence.
  - (iv) If the boy commits a breach of any of the conditions under which such badge is issued; such conditions to be stated on such badge or to be delivered to the boy in writing.

11.—A boy to whom a badge has been issued by the London County Council shall in no way alter, lend, sell, pawn, transfer, or otherwise dispose of, or wilfully deface, or injure such badge, which shall remain the property of the London County Council, and he shall, on receiving notice in writing from the London County Council (which may be served by post) that the badge has been withdrawn, deliver up the same forthwith to the London County Council.

12.—Nothing in these by-laws contained shall restrict the employment of children in the occupations specified in section 3 (a) of the Prevention of Cruelty to Children Act, 1904, further than such employment is already restricted by statute.

#### IV.

##### *Duties of School Managers.*

The Council is assisted in the work of its elementary schools by bodies of school managers appointed in accordance with Section 2 (i) of the Education (London) Act, 1903. The duties assigned by the Council to school managers are of considerable importance. The more important of these duties are briefly set out below, but it may be said broadly that the work of the managers is to foster the schools under their care by every means in their power, to see that the rules laid down for the guidance of teachers are adhered to, to smooth down the difficulties of teachers by constant encouragement and sympathy, and generally to promote the mental, moral, and physical welfare of the children.

Specific duties which have been assigned to the managers may best be summarised under the following headings. This summary is by no means complete, but it includes the most important of their duties:—

(1) *Premises.*—Plans for the alteration and enlargement of schools are always presented to the managers, and they are invited to submit their views. They are also required to submit recommendations as to equipment, ventilation, lighting, and sanitary condition of the schools.

The managers deal with applications for schoolkeeperships, and nominate one person for appointment. They are also required to supervise the work of the schoolkeepers, and to report annually on their work and conduct. They select the women cleaners, and have power to dismiss them for misconduct or unsatisfactory work.

(2) *School Work.*—Managers are invited to be present, occasionally, a few minutes before the school work commences. It is their duty to see that in Council schools the regulations in respect of Bible instruction are duly carried out; in non-provided schools the religious instruction is, of course, under the control of the managers.

The scheme governing the award of prizes must be approved by the managers, and all offers to present prizes must be submitted through them.

(3) *Attendance of Pupils.*—The managers are represented at the Local Attendance Sub-Committees, which deal directly with cases of unsatisfactory attendance. They are required to make themselves acquainted with the conditions of employment of children attending the

schools, and to see that the provisions of the Employment of Children Acts and By-laws are generally observed.

(4) *Closure of Schools*.—Applications for the closure of schools have to be approved by the managers, and they are authorised to grant one whole holiday, or two half-holidays, during any one educational year, in recognition of some local event of importance to the schools.

(5) *Enquiries*.—The managers are required to investigate all complaints against teachers, and it is also their duty to enquire into cases of accident, damage, fire, and theft, where the latter is not committed by a pupil of the school.

(6) *Teaching Staff*.—Candidates for assistant teacherships, except in certain specified cases, are selected by the managers, after consultation with the head teachers, and the managers nominate the candidate whose appointment they desire.

Managers are required to assess the qualifications of all applicants for the Promotion List. When a head teacher is being appointed for a school within their group, a representative of the managers is invited to be present at the meeting of the Teaching Staff Sub-Committee at which the appointment is made. The representative of the managers is asked to give the managers' views, but is not entitled to vote.

(7) *Children's Care*.—The managers of each school, or group of schools, appoint either two or three of their number to serve on each Children's Care School Committee.

## V.

### *School organisation.*

On first attending school, a child is enrolled in the infants' department, and, if the school is a three-department school, is usually drafted to the senior department at about the age of 7. If the school is a two-department school (senior mixed and combined junior mixed and infants), a child does not leave the junior department till about the age of 9½. Senior departments, are, as a rule, organised separately for boys and girls, but there are a certain number of mixed departments. As a rule, a department does not accommodate more than 350 children. The standard type of school consists of three departments of eight rooms each, with a total accommodation of about 1,000 places. Each department is provided with a hall and separate rooms for the head and assistant teachers. In most cases a room for medical inspection is included.

In a few cases, where an exceptionally large number of places is required (say, 1,500), the Council is proposing, as an experiment, to establish a four-department school for 1,480 children, organised as follows:—

|  |    |    |       |     |
|--|----|----|-------|-----|
| Senior Boys' Department and Senior Girls' Department | .. | .. | each. | 352 |
| Two Junior Mixed and Infants' Departments            | .. | .. | ..    | 388 |

Non-provided schools are generally smaller than provided schools.

The educational year in London elementary schools has hitherto ended on the Friday preceding the first of April in each year, but a revision of this date is under consideration. The principal promotion of pupils take place in April; a second promotion is made at the end of October at the close of the educational half-year.

## VI.

### *Reduction in size of classes.*

The Council has introduced a reform of far-reaching importance in regard to the size of classes in London elementary schools. Under the Government regulations, a school is eligible for a Parliamentary grant, if the number of children on the register of any one class does not exceed 60. In March, 1912, however, the Council decided to incur expenditure, to be spread over 15 years, amounting in the aggregate to £5,150,000, by means of which sufficient additional school accommodation (about 120,000 school places) would have been provided to enable all classrooms in existing schools to be reduced by the year 1927 to the figure already adopted by the Council for new schools, viz., 40 in the case of senior departments, and 48 in the case of infants' departments. The scheme also includes the remodelling or rebuilding on modern lines of out-of-date school buildings. Up to the present about 32,000 school places have been provided, and £1,675,000 expended, in connection with the scheme, but, owing to the war, and the financial restrictions imposed by H.M. Treasury, building work had to be temporarily suspended. The scheme has now been resumed and will be applied district by district until the whole county has been covered. It should, however, be understood that the progress of the scheme is conditional on funds being available and on priority of capital expenditure as between education and other municipal work. The average number of children per class teacher has been steadily decreasing of late years, and was, according to the latest available figures, 37·2 for provided and 33·9 for non-provided schools.

The following table shows how the process of reduction has proceeded:—



*London County Council Schools.*

| Year. | Average attendance for year ended 31st March. | Total number of fixed staff of certificated assistant teachers, plus number of head teachers normally responsible for a class. | Average size of class based on figures shown in Col. 3. |
|-------|---|--|---|
| (1)   | (2)   | (3)  | (4)   |
| 1907  | 504,335                                       | 10,887   | 46.3  |
| 1908  | 505,698                                       | 11,136   | 45.4  |
| 1909  | 513,196                                       | 11,319   | 45.3  |
| 1910  | 517,482                                       | 11,454   | 45.1  |
| 1911  | 514,021                                       | 11,707   | 43.9  |
| 1912  | 514,780                                       | 11,970   | 43.0  |
| 1913  | 510,796                                       | 12,168   | 42.0  |
| 1914  | 511,962                                       | 12,416   | 41.2  |
| 1915  | 506,246                                       | 12,530   | 40.4  |
| 1916  | 509,361                                       | 12,614   | 40.4  |
| 1917  | 501,046                                       | 12,574   | 39.8  |
| 1918  | 479,700                                       | 12,652   | 37.9  |
| 1919  | 469,704                                       | 12,639   | 37.2  |

In Council schools practically all teachers are certificated. The figures given in the table below include a number, proportionately large, of teachers not holding the certificate (*i.e.*, uncertificated and supplementary teachers). This number has steadily decreased. The lower teaching power, so to speak, accounts in some measure for the smaller size of classes in non-provided schools.

*Non-Provided Schools.*

| Year. | Average attendance for year ended 31st March. | Total number of fixed staff of assistant teachers, plus number of head teachers normally responsible for a class. | Average size of class based on figures shown in Col. 3. |
|-------|---|---|---|
| (1)   | (2)   | (3)   | (4)   |
| 1907  | 153,014                                       | 3,909   | 39.1  |
| 1908  | 145,163                                       | 3,821   | 38.0  |
| 1909  | 139,825                                       | 3,711   | 37.7  |
| 1910  | 139,777                                       | 3,624   | 38.6  |
| 1911  | 136,547                                       | 3,613   | 37.8  |
| 1912  | 135,743                                       | 3,626   | 37.4  |
| 1913  | 133,950                                       | 3,559   | 37.6  |
| 1914  | 133,716                                       | 3,585   | 37.3  |
| 1915  | 131,370                                       | 3,594   | 36.6  |
| 1916  | 131,159                                       | 3,559   | 36.9  |
| 1917  | 129,488                                       | 3,541   | 36.6  |
| 1918  | 123,285                                       | 3,554   | 34.7  |
| 1919  | 120,917                                       | 3,564   | 33.9  |

The following table shows the variations in the size of individual classes between September, 1910, and July, 1919:—

| Date.           | 40 and less on roll. | Between 41 and 50 on roll. | Between 51 and 60 on roll. | Over 60 on roll. | Total. |
|-----------------|----------------------|----------------------------|----------------------------|------------------|--------|
| September, 1910 | 3,433                | 4,706                      | 5,047                      | 1,982            | 15,168 |
| July, 1919      | 4,334                | 6,955                      | 4,831                      | —                | 16,120 |

## VII.

*The Curriculum and Time-Table.*

1. At the beginning of the twentieth century the school curriculum had already begun to show evidence of the greater freedom of choice and emphasis which had recently been permitted by the Board of Education. Generally speaking, the change has tended to enhance the syllabus on the side of culture, and to decrease its more formal side—a change greatly accelerated by the publication of the *Suggestions to Teachers* in 1905.

In the Infant School the 3 R's were discontinued for children under five, much curtailed for the older infants, and limited as a rule to the morning session. Speech-training soon became an essential feature. Games, dancing, story-telling, expressional drawing, expressional modelling, gradually

displaced both the 3 R's and the more formal of the Kindergarten occupations. Object lessons disappeared in favour of nature study; the lessons were shortened, and the time-table rendered more elastic. More significant still was the gradual disintegration of the class system, and the substitution of individual and independent work for oral class teaching. Constructive handwork has largely given place to "didactic" handwork, carried out with home-made apparatus. The teaching of the Montessori school of thought has not been without its influence in this direction.

In a less marked degree, there is evident in the senior school the same tendency to make the individual, or, at second best, a small group of individuals, the teaching unit instead of the class. Individualised work has to a certain extent been rendered necessary by the double-promotion system, and has been rendered possible by a reduction in the size of the class. The smaller teaching unit is further exemplified by the formation of special classes for backward children—classes outside the main current of promotion. The programme of work for these children is made simpler and more practical. Specialisation in teaching, which was almost unknown at the beginning of the period, is rapidly gaining vogue. The growth of the central school system has led to the withdrawal from the ordinary school of such subjects as French, algebra, and, to a smaller extent, geometry.

To state the changes more specifically, formal grammar has disappeared; composition is being introduced, and supplemented by oral composition; arithmetic has become more "concentric," necessitating earlier instruction in fractions and decimals; practical arithmetic has become an integral part of the mathematical course; object lessons have quietly passed out to give room to nature study and science; reading has changed from a lesson to a pursuit; poetry is not without its votaries; the study of dramatic literature has been extended; and, last but not least, organised games have become part of the school life.

The more technical forms of practical work—handicraft, cookery, laundry, and housewifery—were so well established under the centre system at the beginning of the period, that there was little room for improvement, except by destroying the system, and attaching workrooms to each school. In this direction some, but not much, change has taken place. In the less formal handwork, however, especially in the lower standards, a rapid development was taking place; this development was checked, and in most cases annulled, by the prohibitive cost of material during the war.

The art work of the earlier part of the period manifested a strong reaction against the symmetrical pencil drawings of former days. Drawing from the object with crayon or brush became universal, and was regarded by some as the only legitimate form of art instruction. This narrow view is gradually being discarded, and a wider and more varied art syllabus, including simple designs and the despised pencil work, is now being followed.

The character of instruction in music has changed in the direction of fewer chart exercises, more and better songs, more breathing exercises, and more practice in voice production. The staff notation is being studied in an increasingly large number of schools. In senior girls' schools dancing is becoming increasingly popular.

Perhaps the most noticeable change of all is the increase of incidental activities which involve a departure from the time-table. These are mainly visits to places of educational interest and school journeys. The visits, especially visits to the theatre to see Shakespearean drama, have multiplied enormously during recent years. The school journey movement, which was retarded by the war, is now going rapidly forward.

Changes contemplated in the future lie in the direction of laying more securely the foundations of learning (reading, writing, spelling, and computation) in the lower part of the school, and building on these for the acquisition of culture in the upper part of the school. It is also hoped to arrive at a more scientific basis of classification and promotion, and to develop further specialisation in teaching, which in its turn will lead to alterations in time-table and curriculum, and will tend to raise the quality of the instruction given.

2.—By these means the uniformity imposed by the rigid conditions of the Revised Code has been replaced by variety, which has now become the distinguishing characteristic of London schools, and a revolution has been wrought the nature of which must be felt to be appreciated. No observer can fail to be impressed by the varied architecture of the school buildings. In the course of a short journey one can see edifices that contrast with one another in every detail. There is the old church hall, now divided into classrooms by partitions, and struggling to adapt itself to modern demands: side by side with it are the older buildings of the School Board, with three storeys and large classrooms, altered later by the provision of central halls, out of which, for convenience of supervision, the classrooms opened. A new change in the course of educational thought has caused the removal of the hall from close proximity to the classrooms, either by means of corridors, or, last and best, by the provision of bungalow buildings, one for each department, and grouped on a single site.

This multifarious diversity of structure is the outward and visible index, rather than the adequate expression, of the spiritual complexity within. It might be thought that the influence of a central authority which controls so vast a machine, passing down through its various channels, must necessarily terminate in each child in the same manner, stereotyping character, outlook, and intellect. But it is not so. Such a conclusion, however true of the past, would be erroneous to-day: such an impression, if gained from a cursory inspection of the teaching, would be illusory. Though, down to a certain point, the schools have, and must have, a common character, the large measure of freedom left to the head teacher by the broad outlines laid down in the Code and the Regulations of the Council, grants him ample scope in which to express in curriculum, time-table, and method his ideas of what should be the education given to the child. The result is that each school possesses its own special atmosphere, of which the visitor soon becomes subtly aware; not less compelling because so pervasive

and natural as to be imperceptible at first : depending on many factors, the locality, its inhabitants, the buildings, the sympathy, understanding, and imagination of the staff, as well as upon the work done. The work done is nicely adapted to different needs : in many schools situated in poor neighbourhoods, backward children are specially cared for : in others free discipline is practised to foster individuality : in another stress is laid upon the artistic tendencies in our nature ; in a slum school the main need may be to brighten the monotonous lives of the pupils, and to make them realise that there can be a better life than that which their environment has provided : in one filled largely with the children of prosperous artizans and commercial workers, the brisk alert tone of business is observable. While the influences of the older time still persist, here more, there less, there is no mistaking the direction of the current, and the universality of its flow.

Besides being agreeable to the English temperament, too stubborn and resistive to be pressed without injury into one mould, and besides being conformable to the infinitely diverse needs of London, with its mixture of ancient and modern, its heterogeneity of population, its social discrepancies, and its many activities, this multiplicity of function and variety of educational effort is solving the problem of reconciling central and local control, and of securing the advantages of both. Braced and supported by the former, the schools are now taking root, and growing, spontaneously, products of their native soil. In this way an external system of subject instruction is being replaced by an internal development of character. There is growing up by fine degrees a tradition of character-training easily discernible, and comparable, in its own sphere, to that which is the main achievement of the great public schools. Behind efficiency of system freedom has developed, and individuality has asserted itself. The teachers are using the time-table and curriculum not so much to impart knowledge as to make citizens ; amidst the mechanical tyranny of his industrial and commercial surroundings to fit the scholar for life ; and to place him in vital relation to the communities, local and imperial, of which he is a member. The schools are coming to aim deliberately at giving opportunity for self-development and self-expression to all types of personality, and to eschew consciously any attempts at crushing down native growths of enthusiasm and power.

### VIII.

#### *Special Subjects of Instruction.*

In a city so large as London there are naturally considerable divergences between the special requirements of different districts, and accordingly the schools are not all of a uniform type as regards curriculum. The subjects of instruction, in addition to those usually found in public elementary schools, include domestic economy, handicraft, nature study, physical exercises, organised games, and swimming. In a few cases modern languages are taken, but the teaching of this subject is, as a rule, confined to schools organised on a special basis and known as "central" schools.

Instruction in domestic economy and handicraft is provided at "centres." A "centre" is a specially constructed building, usually on the site of an elementary school ; a centre is not limited to the children of the particular school, but is also attended by children from neighbouring schools.

In the case of domestic economy, accommodation for each branch of the subject (cookery, laundry, and housewifery) is, as far as possible, grouped, so that many centres consist of rooms for each of the three branches, and the instruction is, in these cases, made part of one organic whole. The girls are required to carry out the practical work themselves, and do not work in pairs or groups, but singly. Girls of 11 years of age are eligible for admission to the centres, if in Standard VI, or, if in a lower standard, on reaching the age of 12 years and 9 months—the aim of the Council being that every girl should receive a two years' course of about 90 lessons in domestic economy before leaving school. The syllabus of instruction varies with the needs of the district, and is designed to bring the instruction in each case within the limits of the homes and the incomes of the parents. With a view to ascertaining which method of organising the instruction is best suited to the requirements of London girls, experiments are being tried in certain districts, by which girls attend the centres full-time for three months, or half-time for six months, or, alternatively, on two consecutive half days a week for twelve months, towards the end of their school career. The number of centres in use at present is as under :—

|                                      |     |
|--------------------------------------|-----|
| Cookery .. .. .                      | 175 |
| Combined cookery and laundry .. .. . | 56  |
| Laundry .. .. .                      | 135 |
| Housewifery .. .. .                  | 73  |
| Total .. .. .                        | 439 |

These 439 centres provide an "effective" accommodation of 64,000 places. It is estimated that some 6,000 additional places, or, say, 35 additional centres, are required. It is hoped to provide these at the rate of 10 a year.

As regards handicraft, all boys in Standards V, VI, VII, and ex-VII are eligible, with the exception of those under 11 years of age, or physically unfit to handle tools. Boys over 11 years and 9 months, but below Standard V, are also eligible. Over 92 per cent. of the accommodation necessary to meet these requirements has already been provided. There are at present in use 241 woodwork centres and 18 metal-work centres, providing a total accommodation of 75,840 places. It is estimated that some 5,000 additional places, or, say, 25 additional centres, are required. Here again, it is hoped

to proceed at the rate of 10 a year. Many of the metal-work centres are equipped with power machinery. Drawing, bench, and machine work are suitably combined in the courses of instruction. A special room for practical work is being provided in each of the senior departments of new and remodelled schools.

Nature study occupies an important position in the school curriculum. Its aim is to evoke in the child a sympathetic interest in his or her natural surroundings. As the direct observation of animals, plants, and rocks in their natural environment is an essential feature of the subject so regarded, London schools are necessarily placed at a considerable disadvantage, but efforts of various kinds have been made to encourage nature study. For instance, small grants of money are made to head teachers for the purchase of materials in illustration of science and object lessons. These grants are devoted to the cultivation of plants in schools and playgrounds, and to the maintenance of small aquaria. Again, a Botany scheme has been organised, under which botanical specimens are distributed centrally among the schools. Specimens of all varieties are collected from districts in and around London and despatched to the schools in boxes. Surplus bedding plants for the schools are obtained from the Council's parks, and certain schools are allowed to receive specimens and cuttings from the parks all the year round. Nearly 10,500 boxes, containing about 8½ million specimens, are distributed during the year, and the demand is considerably in excess of the available supply. It was necessary to discontinue the botany scheme during the war, but it has now been resumed. In addition, the Council arranges for the formation of about 20 school gardens each year, apart from those provided in connection with the enlargement of existing schools and the erection of new schools.

Increasing attention is being given to visits to museums and other places of educational interest; to school journeys lasting for a week or more, during which the headquarters of the party are fixed either in the country or at the seaside; and to physical exercises, organised games, swimming, and other subjects tending to improve the physique of the children or stimulate a wider range of interest.

Generally speaking, it may be stated that the tendency of the last few years has been to diminish the number of examinations imposed on the schools, and to give more freedom to teachers in framing their curricula.

## IX.

### *Central Schools.*

In addition to the ordinary elementary schools, which supply the normal type of education, the Council in 1910 organised a system of central schools, with a view to providing for certain specially selected boys and girls from the age of 11 upwards a four years' general course of instruction with a definite commercial or industrial bias. Fifty-one schools have been organised on this basis, distributed, more or less, uniformly throughout the county. The pupils are in the main selected from the ordinary elementary schools at about 11 years of age, partly on the results of the competition for Junior County Scholarships, partly on the progress and promise they have shown in these "contributory" schools. Considerable discretion is allowed to the head teachers of the central schools and the contributory schools, acting in conjunction, in the selection of children above the age of 11 who may have shown considerable development subsequent to the taking of the Junior County Scholarship Examination.

As already indicated above, central schools are distinguished from the ordinary elementary schools by the fact that the pupils are specially selected on the score of ability and educational promise. These selected children are afforded the opportunity of taking a complete four years', or in some cases five years', course with a special curriculum. The central schools are distinguished from the secondary schools by the fact that they are public elementary schools providing free education to all the pupils in attendance, and that the curriculum is framed with a view to enabling the pupils to pass direct into commercial and industrial pursuits. It will thus be seen that, though the curriculum in all central schools aims at providing a sound general education suitable for any walk in life, it was found necessary to establish two types of schools in order that attention might be given to the special aims of the pupils. In the one type special attention is given to commercial instruction; subjects such as book-keeping, shorthand, and typewriting are taught, and modern languages are treated from a commercial as well as from a literary standpoint; such schools are called central schools with a commercial bias. In the other type, known as central schools with an industrial bias, special attention is paid to the more practical forms of work, for example, drawing, woodwork and metalwork, practical science, and handwork generally; no attempt is made, however, to give instruction in any particular trade. Of the 51 central schools organised up to the present time, 9 have an industrial bias, 25 a commercial bias, and 17 both a commercial and an industrial bias. This double bias is found to be practicable only in some of the larger schools where parallel classes can be formed throughout the four or five years' course. In some schools with a dual bias an experiment is being tried by which all the pupils follow a common course during the first year, bifurcation only taking place at the beginning of the second year. In one case the bifurcation has been postponed until the beginning of the third year. It may be added that, while central schools are intended eventually to replace the former higher grade and higher elementary schools, it has been found desirable to retain a limited number of higher grade schools, until the full complement of central schools can be established.

The central schools are distinguished from the ordinary elementary schools not only as indicated in the preceding paragraph, but also by the adoption of a more liberal staffing and by the provision of more fully-equipped premises. In addition to an adequate supply of classroom accommodation, special rooms for science, art, practical work, needlework, etc., are provided, where the curriculum

calls for such. Further, an effort is made, especially in the case of the newer buildings, to render the central school self-contained in the matter of woodwork, metalwork, and domestic economy centres (cookery, laundry, and housewifery). As regards staffing, not only is there greater liberality from a numerical point of view, but every effort is made to appoint teachers who have made a special study of some subject of the curriculum, and have thus become expert in the teaching of that subject. As a result, the teaching is much more specialised than is practicable in the ordinary elementary school.

In order to enable parents to maintain their children at a central school after 14 years of age, the Council makes money grants, known as "junior county exhibitions," for the assistance of parents whose means would otherwise not admit of the child completing the full curriculum. These money grants are of two kinds—(1) major exhibitions of £15 a year, payable by monthly instalments of £1 5s.; (2) minor exhibitions of £2 10s. to £5 a year, payable in advance by quarterly instalments of 12s. 6d. The major exhibition is intended for the encouragement of the poorer parents; the minor exhibition is intended for those parents who, while not in need of the larger money grant, have difficulty in defraying the child's travelling expenses to and from the central school. Both classes of exhibition are tenable for the remainder of the central school course from the end of the term in which a child reaches the age of 14. The number of these money grants payable at any one time is limited to 750 major and 200 minor exhibitions.

It may be added that special bodies of managers are appointed for Central Schools under the provisions of section 32 (1) of the Education Act, 1918, including persons in close touch with the industrial and commercial world. This will, it is hoped, have the advantage of bringing the work of the central schools more directly under the notice of prospective employers, and also of giving the pupils and their parents a clearer idea of the future prospects of boys and girls in the world of commerce and industry. Many head-teachers have also given invaluable help in this direction by becoming closely acquainted with great commercial and industrial concerns. This has enabled them to help the children towards suitable employment on leaving school. The future extension of the central school system is dealt with in Part II.

## X.

### *Books and Apparatus.*

The books, apparatus, and stationery required for use in schools and institutions maintained by the Council, as well as furniture and other equipment, are supplied from central stores. At fixed periods during the year, requisitions are made by the principal or head master, or head mistress, as the case may be, for the books and materials required for the ensuing term. These requisitions are considered in connection with a graded scale of limits.

Requisition lists of suitable books, apparatus, and materials are issued, and teachers have a free choice in their selection from these lists. In exceptional circumstances, applications for books and materials not included in the approved requisition lists are considered by the Education Committee.

Every endeavour is made to keep these lists up to the most modern requirements, and to classify them systematically, so as to make them a valuable educational guide to teachers. All new books, revised editions, or other material submitted by publishers, or otherwise brought to the notice of the Education Committee, are fully considered, and account is taken of new movements and tendencies in the teaching of the various subjects of the school curriculum. In placing books upon the requisition lists, the Committee take into account not only literary and other merits, but also suitability in respect of type, illustrations, and general appearance.

The Council has also established a scheme for the circulation of continuous reading books. Under this scheme, sets of books are circulated among the schools in each of the electoral divisions, the sets being so arranged that each child has about three books each term. The allocation of the books is made by the local consultative committees of head teachers. The scheme has met with marked success, and there are now about a million and a-half volumes in circulation. They provide a plentiful supply of new and varied reading matter, and have widened the children's knowledge of English language and literature.

The loan and circulating system is also applied to evening institutes by means of a collection of books, vocal and instrumental music, and mechanical models, all of which are used to a considerable extent.

The optical lantern is now systematically used in some hundreds of schools and institutes, and teachers and lecturers have the use of a collection made by the Council consisting of about 35,000 lantern slides.

A room is set apart at the Council's Education Offices for the exhibition of specimens of approved books and apparatus. This room is available for use by teachers and others interested in educational matters.

## XI.

### *Child Welfare.*

The Council, as local education authority, is concerned not only with the mental advancement of the child, but also with its physical and social welfare. This aspect of educational work is supervised by the Central Care Sub-Committee of the Education Committee, and by School Care Committees, which have been established in all elementary schools.

The problems with which School Care Committees have to deal may be grouped under four main heads :—

- (1) The selection of necessitous children, with a view to the provision of free meals, and the care of the families.
- (2) The care of children in need of medical treatment.
- (3) The care of neglected children.
- (4) The after-care of children leaving school, including advice as to suitable employment.

In carrying out these duties School Care Committees work in close co-operation with head teachers, who render valuable assistance in every branch of children's care work.

(1) *Necessitous Children*.—The Education (Provisions of Meals) Act, 1906, empowers a Local Education Authority to provide free meals, wherever children by reason of lack of food are found to be incapable of taking full advantage of the education provided. Under the Council's organisation, it is the duty of School Care Committees to decide, after investigation, which children are so handicapped, and to put their names on the free meal list. The meals, breakfast and dinner, are provided for the most part in suitable hired halls. Where convenient, the Council's domestic economy centres are used. In the case of blind, mentally defective, or physically defective children, the meals are served, as a rule, on the school premises. Speaking generally, only necessitous children are fed free, as the majority of London children attend schools close to their homes. In exceptional cases, however, where both parents are at work all day, non-necessitous children are supplied with dinner, at cost price. School Care Committees are, further, encouraged to do constructive work by urging the families to become self-supporting. For this purpose the School Care Committees work in close co-operation with other social organisations in the district, both voluntary and official, such as the Children's Country Holiday Fund, and the various societies connected with religious and philanthropic organisations. The number of children requiring free meals, daily, has declined from an average of 45,406 in the month of September in the years 1912, 1913, and 1914, to 8,254 in September, 1919. The meals are supplied under contract, on menus approved by the School Medical Officer. Special milk meals are provided for delicate children, and in some cases cod liver oil is recommended. Samples of the meals provided are subjected from time to time to chemical analysis.

(2) Information in regard to the care of children in need of medical treatment is given under the heading "school medical work" in XII below.

(3) *Care of Neglected Children*.—The care of neglected children is another important aspect of Children's Care work. When the neglect is slight or temporary, much may be done by regular friendly visiting. For cases where the efforts of the School Care Committees fail, the Council has provided a number of special officers, who visit at the request of the School Care Committees. In cases of serious neglect, when the desired improvement does not result after the visits of the special officer, recourse is had to prosecution under the Children Act, 1908. The Council has not hitherto undertaken its own prosecutions, but the cases are referred to the National Society for the Prevention of Cruelty to Children.

In order to provide occupation and recreation for children whose home circumstances are unfavourable, the Council has afforded facilities to the Evening Play Centres Committee and the Children's Happy Evenings Association to supervise and interest the children after school hours. The latter Association, after a long and successful enterprise extending over 30 years, discontinued its activities in October, 1919, but the Evening Play Centres Committee, established under the auspices of the late Mrs. Humphry Ward, continues to maintain play centres at which recreation is combined with physical and moral training and instruction in handwork. The Council aids the Evening Play Centres Committee by a money grant, in addition to providing the use of premises free of cost. The Evening Play Centres Committee conducts a day vacation school in the summer, as well as evening play centres during the remainder of the year. 34 such centres are at present working. In addition to the foregoing voluntary activities, the Council itself conducts play centres during the summer holidays, both in school playgrounds and in parks and open spaces.

(4) *After-care and Choice of Employment*.—When children reach the age of 14, they and their parents are faced with the important problem of a right choice of employment. In normal times, a certain number of children secure good openings through their parents or relations, but the majority of elementary school children have no such advantage. In order to deal with this question comprehensively, the Council has exercised its powers under the Education (Choice of Employment) Act, 1910, and has agreed with the Central Juvenile Advisory Committee of the Ministry of Labour a scheme of co-operation under the Act. Under this scheme a juvenile department of the Labour Exchanges has been established in every area in London. This juvenile department consists of a paid secretary and an advisory committee of voluntary workers, having special knowledge of social and trade conditions. The aim of the advisory committees is to urge boys and girls to enter the trades for which they are most fitted, to see that the places found for them are suitable, and to make sure that they are really learning the trades in which they have been placed. The Skilled Employment Association, a voluntary organisation which existed before the Juvenile Advisory Committees were formed, also has branches throughout London, and places boys and girls of school leaving age in skilled trades. School Care Committees form a link between the children and these organisations. Two months before a child is due to leave school, the head teacher sends a report to the School Care Committee, giving information as to his or her conduct, ability, and health. To this report is added any information which the School Care Committee possess in regard to the child or the home conditions. The parents are then asked to attend with the child at one of the monthly conferences, at which are present one

or more members of the School Care Committee, the head teacher of the day school, and the responsible teacher of the evening institute which the child should attend on leaving the day school. The members of the Conference have before them the reports from the head teacher and the School Care Committee, and are thus able to advise the parents as to the most suitable career for the particular child. After the Conference, the reports on the child are sent to the Juvenile Advisory Committee, and, unless the child already has a suitable place in view, he or she is urged to attend before the Juvenile Advisory Committee.

School Care Committees also try to arrange for a friendly visitor to keep in touch with each child, until he or she reaches the age of 17. These friendly workers, or supervisors, as they are officially called, look up the children under their care and give whatever help and advice is needed. Every effort is made to co-operate with existing agencies, such as boy's and girls' clubs, Boy Scouts, and Girl Guides, and the supervisors endeavour to secure that the boy or girl under their charge joins some such organisation. In this work the Council acts in co-operation with the newly-established Juvenile Organisations Committee of the Board of Education.

In order that the services of volunteers may be utilised to the best advantage, the Council has appointed a number of "Organisers," whose duty it is to act as a link between the Council and School Care Committees, to help new workers, and supply School Care Committees with information. The co-operation existing between these officials and the voluntary workers leads to uniformity and continuity of effort.

## XII.

### *School medical work.*

(a) *The central organisation.*—The responsible officer at the head of the school medical service is the school medical officer, who is also the medical officer of health of the county, and the work is directed from the offices of the Public Health Department at 2, Savoy-hill.

The work of the public health department is arranged in five branches—

- (a) General.
- (b) Inquiries and examinations.
- (c) Inspection and treatment of school children.
- (d) Mental deficiency.
- (e) Tuberculosis.

At the head of each branch is a principal assistant medical officer, reporting directly to the school medical officer.

The main portion of the school medical work falls within branch (c), but the other branches are also to a greater or less extent concerned with the school medical service.

The technical portion of the medical work in the Council's special schools is directed by branch (d), mental deficiency, to which is attached a woman principal assistant medical officer in addition to the principal assistant medical officer in charge of the branch.

There is also a principal assistant medical officer, and an assistant of the standing of divisional medical officer, who are both skilled bacteriologists, and who deal with questions of infectious disease and carry out researches in a well-equipped bacteriological laboratory. In addition to the above, there are five part time principal assistant medical officers, one of whom is an expert in dental matters, one an otologist, one an ophthalmologist, one an orthopædist, and one a doctor specially concerned with higher education work.

Thus, the school medical service is furnished not only with the expert assistance of the research medical officer who is in charge of branch (b), but also has available every necessary variety of specialist assistance and advice. Mention should also be made of the assistance to the school medical work which is freely forthcoming from the officers in branch (a) General, including the Council's sanitary inspectors and that of the chemist's section of this branch, in which analyses are carried out of food supplied to educational institutions, and enquiries are made into the properties of remedial preparations and educational materials, etc.

Other officers connected with the school medical service attached to the central office are (1) a superintendent of school nurses, with an assistant of the standing of divisional superintendent; (2) a principal organiser of children's care work, who is a half time officer in the public health and education officer's departments; (3) a principal assistant organiser of children's care work.

(b) *Local Administration.*—For the purposes of school medical inspection and treatment, the county is organised locally in five geographical divisions, east, north-east, north-west, south-west, and south-east. At each divisional office there are a divisional medical officer, a divisional assistant superintendent of school nurses, a divisional treatment organiser, and a district organiser of children's care work, with the necessary staff of assistant organisers. A whole time medical officer of divisional medical officer rank, who has special knowledge of ear diseases, visits each division in turn for the purpose of keeping under observation all children with discharging ears.

(c) *Medical Inspection.*—The statutory medical inspection of school children is carried out by a staff of 57 assistant medical officers. These officers carry out the routine inspection in elementary and special schools of three age-groups of children, viz., entrants, children between eight and nine, and children between 12 and 13. On an average, 25 children are seen at each inspection. Parents are invited to attend, and the school doctor is assisted by a school nurse; as a rule, the head teacher and a representative of the School Care Committee are also present. The three age-groups mentioned comprise about 240,000 children. In addition, as the outcome of the first inspection,



children found to be in need of treatment or continued observation are seen again at special visits. About 120,000 children are thus re-inspected every year. Provision is also made for urgent cases, and for special cases outside the age-groups, upon which the head teachers or School Care Committee desire an opinion. Some 60,000 children are seen annually under this heading.

Apart from the above statutory duties, the assistant medical officers conduct special investigations into outbreaks of infectious disease, the effect of employment, the incidence of particular diseases, and keep under observation children attending open air schools, camp schools, holiday camps, playground classes, school excursions, remedial exercises, etc. The duties of the assistant medical officers also comprise the following :—

(1) The examination of all candidates for scholarships or admission to a central school, with a view to ascertaining their physical fitness for the course.

(2) The periodical examination of children who appear to be dull or backward. Lists of such children are kept by head teachers and submitted to the assistant medical officers, who advise as to the necessity for statutory examination under the Defective and Epileptic Acts. They also refer for specialist examination children who appear to require education in epileptic colonies, schools for the blind or deaf or partially deaf, schools for myopes, open-air schools, certain types of playground classes, etc.

(3) The assistant medical officers attend at the school treatment centres at specified times to see urgent cases submitted by head teachers of neighbouring schools. Certain of the assistant medical officers, specially recognised by the Board of Education, conduct admission examinations at special schools. At these examinations about 10 children are seen during a session. The inmates of residential special schools are also inspected annually.

Assistant medical officers also visit the Council's trade schools, secondary schools, training colleges, and higher education institutions generally. In the trade and secondary schools, the routine inspection takes place biennially, while pupils with defects, or needing observation, are seen from time to time, as may appear necessary. In all institutions, the assistant medical officers note any hygienic defects and report upon them.

(d) *Medical Treatment.*—Much of the medical treatment of school children is provided by the London hospitals, under agreement with the Council. The Council also maintains school treatment centres in various parts of London. The Council has agreements with 12 hospitals; and 45 school treatment centres are conducted by voluntary committees for the treatment of various ailments. It is contemplated to increase the 45 school treatment centres to 58. The ailments treated include visual defects, ear, nose, and throat defects (including adenoid growths and enlarged tonsils), ringworm, dental caries, and minor ailments. As regards adenoids and tonsils, the Council has accepted an offer by Lady Henry to transfer to the Council, for use as a centre for operative treatment, premises in Woolwich originally occupied as a crèche. The centre has accommodation for the treatment of 24 in-patients at a time. The patients are, as a rule, kept at the centre for two nights following the operation. About 2,500 cases can be dealt with during the year. The centre is confined to cases referred from south-east London.

The following table shows the total number of cases in each category treated during the year ended 31st December, 1919 :—

|                                 |         |
|---------------------------------|---------|
| Visual defects .. .. .          | 28,011  |
| Ear, nose, and throat defects.. | 12,837  |
| Ringworm .. .. .                | 1,722   |
| Minor ailments .. .. .          | 47,414  |
| Dental defects .. .. .          | 79,216  |
| Total .. .. .                   | 169,200 |

The provision made in the estimates for the year 1920-21 is :—

|                                 | Cases.  |
|---------------------------------|---------|
| Visual defects .. .. .          | 31,645  |
| Ear, nose, and throat defects.. | 15,845  |
| Ringworm .. .. .                | 2,490   |
| Minor ailments .. .. .          | 45,760  |
| Teeth .. .. .                   | 113,520 |
| Total .. .. .                   | 209,260 |

The Council endeavours, where possible, to carry out the intention of the Local Education Authorities (Medical Treatment) Act, 1909, section 1, by recovering from parents some part of the cost of school medical treatment. A charge of one shilling per case is made in respect of each case treated under the above schedules. When the parents are unable to afford payment of one shilling, the charge is reduced to a penny, or in some instances remitted altogether. It is the duty of the School Care Committee to arrange for appointments at the hospitals and school treatment centres, and to notify the collecting officer when, in their opinion, the charge should be reduced or remitted. A revision of these charges and of the method of collection is under consideration.

Special arrangements have been entered into for the treatment of deformities by remedial exercises. In the case of dental defects, arrangements have been made for visits to the schools by dental surgeons.



The facilities already in existence in regard to elementary schools have been extended to the scholarship children attending the Council's maintained and aided secondary schools.

(e) *Following-up.*—The following-up of children found defective has been placed by the Council in the hands of the School Care Committees. The organisation consists of voluntary workers attached to each school, who are recruited and assisted by paid organisers. The number of voluntary workers at the present time is about 5,850. A voluntary worker usually sits with the school doctor at medical inspections, and interviews the parents of defective children with a view to assisting them to obtain any necessary treatment. In cases where private arrangements are out of the question, the voluntary worker, having obtained the consent of the parent, applies for a voucher entitling the parent to present the child for treatment at one of the Council's centres.

If the child requires spectacles, and the parents cannot afford to pay for them, it is the School Care Committee's task to obtain them through any available fund, or to arrange for a loan and delegate a worker to collect the money from the parents in small instalments.

Difficulty is experienced, more particularly in the poorer parts of London, owing to the fact that it is not always possible to secure voluntary workers for the purpose of following-up. This difficulty became very acute towards the end of 1917, and arrangements were made under which in certain schools in which the need was particularly felt the following-up was carried out by a nurse. This expedient proved very satisfactory, so far as these schools were concerned.

In the case of minor ailments, the discovery of the need for medical treatment arises to a large extent in the intervals between the visits of the school doctors. Consequently, the children are for the most part sent direct to the centres, at the instance of school nurses, school attendance officers, teachers, and School Care Committee workers. The school doctors attend regularly at the centres, for the purpose of inspection, for a short period after school hours, and refer the cases, where suitable, to the minor ailment department for daily treatment.

(f) *Cleansing.*—The supervision of the personal hygiene of the children is largely in the hands of the school nurses. The latter invariably attend the school medical inspections for the purpose of preparing the children and assisting the school doctors; in the intervals of inspection the nurses visit the schools in order to pass under review the whole of the children. Those found suffering from minor ailments are referred to the treatment centres; those suffering from ringworm or scabies are excluded from school and visited at home until cured; those found to be verminous are dealt with under a cleansing scheme. The scheme provides for 25 centres, at which the children are cleansed in the first instance voluntarily. Attached to the cleansing stations are school nurses, who, in addition to superintending the cleansing of children attending voluntarily, visit the schools in order to convey to the cleansing stations, compulsorily, children whose parents ignore the voluntary facilities offered and take no alternative steps. All children found to be suffering from scabies are given opportunities of attending the cleansing stations at special times, when appropriate treatment is given.

The school nursing staff consists of 208 nurses—127 attached to schools, 44 to treatment centres, 32 to cleansing stations, 3 to open-air schools, and 2 to the central office. The staff is supervised by a superintendent of nurses and 6 assistant superintendents, 5 of whom act as divisional superintendents.

#### *Special Provision for Anæmic and Sub-Normal Children, and Children with Speech Defect.*

##### (i) *Anæmic children.*

The Council has for several years past experimented with open-air schools and playground classes for children who, without symptoms of active disease, have a tendency to incipient phthisis. Four open-air schools are now being conducted—Birley House School, London Road, Forest Hill, S.E., "Shooters Hill" School, Plum Lane, Plumstead, S.E., Bow Road School, Bow and Bromley, E., and the Stowey House School, Clapham, S.W. These schools have accommodation varying from 100 to 200. The children, boys and girls, are selected by the Council's School Medical Officer from children in neighbouring schools, whose delicate state of health is likely to derive benefit from open-air treatment. The schools are kept open throughout the year. The school hours are from 9 a.m. to 6 p.m. (1 p.m. on Saturdays), and three meals a day are provided on the school premises. The physical condition of the children is kept under regular observation, and the results are carefully recorded. The teaching methods are in several respects different from those adopted in ordinary elementary schools, the open-air life rendering such modifications both possible and desirable. The reports upon the improvement in the health of the children are very satisfactory. Under a scheme recently approved for the provision of accommodation for all "pre-tuberculous" children in the London area, it is estimated that about 10 additional schools of the above type will be required, up to a total accommodation of 2,000, inclusive of the four existing schools.

The Council has also promoted open-air education by organising playground classes in connection with ordinary elementary schools. These classes have proved to be extremely satisfactory. During the period from April to October, 1919, 87 such classes were held, mainly in the poorest and most crowded districts of London, including a number of classes accommodated in adjacent parks and open spaces. At present about 3,700 children attend playground classes. It is hoped in time to increase this provision to 8,000 places.

For children definitely suffering from tuberculosis, who are unable to attend either open-air schools or playground classes, the Council makes provision by means of specific schools for tuberculous children, which are conducted as "schools for the physically defective." The Council proposes in due course to provide accommodation for 2,000 tuberculous children. Of these 2,000 places 340 have already been provided,

(ii) *Sub-Normal Children.*

Many elementary schools, particularly those in poor districts, contain a large number of children who, without being mentally defective, are incapable of progress at the same rate as normal children. This mental condition is attributable to adverse home conditions, frequent migration from district to district, and, in part, to recurrence of epidemic disease in unfavourable surroundings. These children require a special curriculum. In certain schools, where the number of backward children is sufficiently large, there is a "fast" side of the school for normal children and a "slow" side for backward children. In other schools, containing only a small proportion of backward children, special classes are formed. In schools where practically all the pupils are backward, a special curriculum is in use, in which handwork, gardening, and organised games predominate. Special investigations into the psychology of sub-normal children have been made by the psychologist attached to the education officer's department, and valuable suggestions made by him in this connection have been circulated to head teachers, with a view to the adaptation of the curriculum to the mental development of the child.

(iii) *Children with Speech Defect.*

The Council has established classes for the remedial treatment of children suffering from speech defect. Each class consists of 12 children, drawn from the senior departments of elementary schools, and meets twice a week for an hour and a quarter at a centre convenient to the schools. There are 6 such centres, at present, but the number will be increased, as opportunity offers. It is estimated that there are about 1,200 children with speech defect in attendance at elementary schools, for whom remedial treatment is desirable. Under the present arrangements, 400 of these children are receiving treatment. The centres are selected, as far as possible, in the districts in which the largest number of children with speech defect reside, or which are easily accessible by means of the Council's tramways. Where the distance travelled to the centre is considerable, the travelling expenses of the children to and from the classes are defrayed by the Council. The centres are located in the ordinary elementary schools, the class meeting in a vacant classroom at the hours when the ordinary pupils are receiving instruction in handicraft or domestic economy.

## XIII.

*The Education Library.*

In order to enable teachers to procure the most up-to-date books dealing with the subject-matter of education, and with teaching methods, a special education library has been formed at the Education Offices, containing books for reference and circulation, and educational periodicals. There are over 14,000 books in circulation, including standard works on psychology, educational method, handwork, history, geography, literature and art, music, economics, and kindred matters. All teachers in the Council's service or in aided schools are entitled to borrow books. The library is open as a reading room every day and on three evenings a week until 6 p.m.

A weekly notice of books added to the library is published in the Council's "Gazette," thus supplying in convenient form a select bibliography of current educational literature. Twice a year the lists are republished in pamphlet form, and sent out to all members of the library who desire them. An annotated catalogue is also issued, in order that teachers unable to call personally at the library may select books with some certainty of procuring the type of book they require.

Since the library was established some eight years ago, the number of members has been steadily growing. The total membership is now nearly 8,300, including some 7,000 teachers, and there is constant testimony to the usefulness of the library in connection with the daily work of the schools. The books are delivered and collected by the Council's carriers free of cost to the teacher. Each volume is issued for at least a month, but the period of issue is extended, wherever possible, to meet the needs of members. During the year 1919 the total number of books issued was 27,225, an increase of more than 6,000 over the previous year. The books were distributed among the various subjects as follows:—

|                    |       |                     |       |
|--------------------|-------|---------------------|-------|
| Literature .. .. . | 5,219 | Psychology .. .. .  | 1,627 |
| History .. .. .    | 3,719 | Economics .. .. .   | 1,231 |
| Geography .. .. .  | 3,666 | Art .. .. .         | 1,078 |
| Pedagogy .. .. .   | 2,854 | Language .. .. .    | 598   |
| Science .. .. .    | 2,420 | Philosophy .. .. .  | 417   |
| Handwork .. .. .   | 1,877 | Mathematics .. .. . | 400   |
| Music .. .. .      | 1,805 | Hygiene .. .. .     | 314   |

## XIV.

*The Teaching Staff.*

In the elementary schools of London there are about 20,000 certificated teachers, of whom, as a rule, about one-third are men. All but comparatively few of these teachers have been trained at a training college. There are some 300 uncertificated teachers still employed (some on the "Unattached" staff, the majority in non-provided schools), but no such teachers are now appointed to the London service.

On 11th May, 1920, the Council was informed that the Burnham Committee had provisionally agreed to a scale of salaries for elementary teachers in the London area ("Zone IV") as hereafter to be defined. This provisional scale ("Zone IV") had to be modified to suit the special conditions existing in the London County Council area, and in agreement with representative London County Council teachers on the Burnham Committee a scale of salaries has been adopted for London

practically approximating in its financial effects to the "Zone IV" scale; this scale has been accepted by the Burnham Committee as equivalent to their "Zone IV" scale. In so far as elementary school teachers are concerned, this scale will constitute London's part of the national settlement.

Under the scale referred to, which is operative from 1st April, 1920, the salaries paid to assistant teachers on entry into the service commence at a minimum of £200 (men) and £187 10s. (women), and rise by annual increments of £12 10s. in each case to a maximum of £425 (men) and £340 (women); all assistant teachers are brought to the position which they would have reached had the scale been in force throughout the assistant teacher's whole term of service, wherever rendered. The salaries of head teachers are also considerably improved, and all head teachers are similarly placed in their appropriate positions on the new scales, which provide for salaries as follows:—

|                        |                        | <i>Men.</i>         |                     |                  | <i>Women.</i> |
|------------------------|------------------------|---------------------|---------------------|------------------|---------------|
| Grade I                | .. Salary as assistant | + £25-£15-£467 10s. | Salary as assistant | + £20-£15-£374.  |               |
| Grade II               | .. " " "               | + £50-£25-£510      | " " "               | + £40-£20-£408.  |               |
| Grade III              | .. " " "               | + £75-£25-£552 10s. | " " "               | + £60-£20-£442.  |               |
| Grade IV               | .. " " "               | + £100-£25-£600     | " " "               | + £80-£20-£480.  |               |
| Grade V                | .. " " "               | + £125-£25-£650     | " " "               | + £100-£20-£520. |               |
| <i>Central Schools</i> |                        |                     |                     |                  |               |
| Grade I                | .. .. .                | £525-£25-£625       | .. .. .             | £420-£20-£500.   |               |
| Grade II               | .. .. .                | £525-£25-£675       | .. .. .             | £420-£20-£540.   |               |
| Grade III              | .. .. .                | £525-£25-£725       | .. .. .             | £420-£20-£580.   |               |

Full details of the revised scale are set out in Appendix VI.

The salaries bill for teachers in elementary schools alone now amounts to over £7,100,000 a year. Both in Council and non-provided schools there is an average of one class teacher for every 40 children. In order to meet the increasing demands of the elementary schools, and to fill vacancies arising through death, disablement, or other causes, a list is compiled annually of specially selected students about to leave training colleges. This list is known as "The List of First Appointments." The number of students on this list is limited to 500. The Council has also authorised the formation of an "Approved List" of teachers, who are selected by a panel of inspectors and appointed to the permanent service. The teachers on this list are utilised in an "Unattached" capacity until nominated for allocation to a particular school by a body of managers.

The Council makes the following provision for-securing an adequate staff of "Supply" teachers throughout the year:—

(1) A staff of "floating" teachers, known as the "Unattached" staff, is maintained.

This staff consists of 20 head teachers and 1,030 assistant teachers.

(2) A list is kept of teachers approved for "Supply" work, pure and simple. The teachers on this list are employed to meet casual requirements, and number about 500.

Under these two heads the "floating" staff available is some 1,550.

On the average, men teachers spend about 22 years in the service, women teachers about 19 years, before being promoted to a head-teachership. Some 70 to 80 head-teacherships in Council schools fall vacant every year, and appointments are made, in the normal course, from within the service. Candidates for head teacherships, if within the service, must first be placed on the promotion list. The promotion list is formed, usually at intervals of two years, after consultation with managers and inspectors, and after about 1,000 of the best qualified applicants have been interviewed by the Council's principal officers. Members of the Teaching Staff Sub-Committee are invited to be present at the interviews. Men candidates for the promotion list must ordinarily have had 10 years' experience in London schools, women candidates 8 years.

It must be expected that, amongst so large a staff of teachers, cases of inefficiency and of irregular conduct should occasionally arise—cases, for example, of proved professional incompetency, or breaches of discipline such as the infliction of some unauthorised form of punishment, or more serious offences. With a view to securing the utmost possible fairness in the treatment of such cases, careful provision is made in the Council's regulations for the thorough investigation of any charge against a teacher—by the managers of the school in the first instance, and, if necessary, by the Teaching Staff Sub-Committee of the Education Committee. In the case of an adverse report by the Teaching Staff Sub-Committee, an appeal lies to the Education Committee, who are required, if the teacher so desires, to take the directions of the Council.

There is another aspect of a large teaching staff deserving of mention, namely, the extent to which, apart altogether from power to teach, professional experience may be put to good use by the local education authority. In connection with the establishment in 1905 of Junior County Scholarships, local scholarship committees, both of head masters and head mistresses, were organised in each electoral division, the committees including the head masters and head mistresses of all public elementary schools within the electoral division. The sphere of operations of these committees was subsequently extended, and permanent committees were established in each electoral division under the name of "Local Consultative Committees." The principal function of these local committees is to obtain suggestions on various topics from those most closely in touch with the schools. The Committees meet six times a year. The chairmen of the local committees of head masters, and the chairmen and vice-chairmen of the local committees of head mistresses, form two "Central Consultative Committees." The meetings of the Central Consultative Committees are held once a quarter at the County Hall. By means of these committees the Council is enabled to obtain the considered opinions of teachers on various educational problems.

In addition to this regular machinery for utilising the experience of teachers, it has been found advisable from time to time to form conferences and committees of teachers to examine special subjects, or such subjects as could not be submitted to large bodies until they had first been thoroughly investigated by a smaller committee. Important Conferences have been held for the discussion of the following:—(1) the Teaching of English, (2) the Teaching of Arithmetic, (3) the Teaching of Geography, (4) the Teaching of History, (5) Drawing, (6) Handicraft, (7) Needlework, (8) Museum Specimens, (9) Co-operation between Public Libraries and Public Elementary Schools, (10) Visits to Places of Educational Interest, (11) the Curriculum of Training Colleges, (12) the Method of Selecting Junior County Scholars, (13) School Attendance, (14) Speech Training. Smaller conferences have also been summoned from time to time to discuss subjects of educational interest on which the Education Committee desired to have special expert advice. Special care has been taken to make these conferences representative of the subject under consideration by inviting to them, in addition to members of the Council's teaching service and inspectorate, persons of acknowledged reputation in the subject. For example, the Conference on Arithmetic, in addition to teachers from all types of schools, included mathematicians of the highest standing, who were not necessarily engaged in teaching. Men and women of reputation in the literary world gave their services in connection with the Conference on English. The Conference on Geography included some of the best-known geographers in England, and members of the Royal Academy served on the Conference on Drawing. Several of the reports issued by the Conferences have attracted considerable attention, and have influenced educational theory and practice in London and elsewhere.

## XV.

### *Schools for Defective Children.*

#### *(a) Schools for the Blind and Deaf.*

In accordance with the Education (Blind and Deaf Children) Act, 1893, and the Education Act, 1918, section 9, the Council provides day schools for blind or deaf children up to the end of the term in which they reach the age of 16, and, if necessary, maintains such children in residential institutions. The education is, in both cases, free, but in residential institutions a charge for maintenance is made according to the means of the parents.

There are 317 blind and 693 deaf children of the elementary school class in London between the ages of 5 and 16. In some instances, the Council sends blind or deaf children to schools or institutions not under its own control. This course is usually taken in the case of Jewish or Roman Catholic pupils, or those specially recommended to be sent to country or seaside institutions. The Council provides for the remainder of the children in its own schools, as follows:—Six day schools for the blind, six day schools for the deaf, two residential and day schools for the blind, and three residential and day schools for the deaf. These schools have a total accommodation of 342 for the blind and 690 for the deaf.

Between the ages of 5 and 13, blind or deaf children attend mixed day schools, where they are taught in classes containing 15 pupils each in the case of the blind, and 10 pupils each in the case of the deaf. A few blind or deaf children, who live too far away from the schools to attend as day pupils, or whose home circumstances are undesirable, are boarded out with foster-parents in the neighbourhood of the school. The instruction in reading and writing in schools for the blind is given by means of the Braille system; the instruction in schools for the deaf is usually on the oral system. The defective deaf, while encouraged to learn to speak, are also taught by means of finger alphabet, writing, and simple signs.

The elder pupils—those from 13 to 16—are taught in schools which are partly day and partly residential. Those who have suitable homes, from which they can conveniently attend, are day pupils; those who come from a distance, or from unsuitable homes, are resident pupils. The instruction of the elder children, both blind and deaf, includes a large amount of technical work. The instruction has a strong trade bias, and experience shows that many of these children, on leaving school, are able to obtain employment in trades which they have been taught.

In addition to the 317 blind and 693 deaf children mentioned above, there are 659 partially blind, and 117 partially deaf, London children. To meet the requirements of these children, 13 schools have been opened for those suffering from high myopia, and three for the partially deaf. These children attend an ordinary elementary school for instruction in certain subjects, and are encouraged to mix with the normal children as much as possible.

#### *(b) Schools for the Mentally and Physically Defective.*

The Council provides separate schools for mentally defective and physically defective children. In accordance with the Elementary Education (Defective and Epileptic Children) Act, 1899, as extended by the Education Act, 1918, section 9, instruction is provided for such children from the age of 7 up to the end of the term in which they reach the age of 16. In a few cases, on approved grounds, instruction is provided, and Parliamentary grant paid, in respect of children under 5.

There are 6,854 mentally defective children in 87 day special schools, and 3,900 physically defective and invalid children in 38 day special schools and four hospital schools. Of the latter four schools, two are schools for tuberculous children. The number of children taught each by teacher averages about 20.

Children are admitted to schools for the mentally or physically defective on a medical certificate in the terms of Section 1 of the Elementary Education (Defective and Epileptic Children) Act, 1899, *i.e.*, that not being imbecile, and not being merely dull or backward, they are defective, that is to say, incapable by reason of mental or physical defect of receiving proper benefit from the instruction given in the ordinary elementary school, but not incapable, by reason of such defect, of receiving benefit from instruction in special classes. The scheme of instruction is an adaptation of that obtaining in the ordinary elementary schools, with a larger proportion of manual work, nearly half the time being given to manual occupations.

There are 12 separate schools for elder mentally defective boys, where, in addition to the ordinary subjects of instruction, handicraft (woodwork and metalwork), shoemaking, and tailoring are also taught, and 5 separate schools for elder mentally defective girls, where instruction is given in domestic economy and needlework. The Council has also a home for mentally defective boys, certified under the Children Act, 1908, to which some 36 of the most difficult cases are sent.

Special measures have been taken with regard to a few mentally defective children who, on account of moral difficulties, are found to be unfit for mixed schools, or who require residential treatment. Several such children have been sent by the Council to institutions for the mentally defective established specially for such cases.

Children who, on or before reaching the age of 16, require custodial treatment, are notified to the local authority under the Mental Deficiency Act, 1913, for transfer to institutions certified under that Act, or to be placed under supervision.

As regards schools for the physically defective, two separate schools are provided for elder physically defective girls, in which, in addition to the ordinary subjects, trade needlework is taught.

The Council has an arrangement with the authorities of the Heritage School of Arts and Crafts, Chailey, Sussex, for the reception of 24 physically defective children. The children sent to this school are selected from day schools for the physically defective, as suffering from ailments incapable of amelioration, unless they are removed from London surroundings. The children selected must show sufficient evidence of skill to enable them to profit by the teaching at Chailey.

Arrangements have also been made with the Chalfont, Lingfield, Much Hadham, and Soss Moss epileptic colonies for the reception of London cases, and altogether 90 epileptic children are at present so dealt with. The Council has under consideration the provision of further accommodation for epileptics so as to provide for all educable epileptic children.

At the schools for the blind, deaf, physically defective, and mentally defective, School Care Committees have been constituted under the Education (Provision of Meals) Act, 1906, as in the case of the ordinary elementary schools. Two voluntary committees undertake the after-care of children leaving these schools.

The problem of the "pre-tuberculous" and tuberculous child has up to the present been partially met (i) by the establishment of the open-air schools and playground classes referred to previously; (ii) by the provision of schools for tuberculous children. Apart from the two hospital schools referred to above, there are three day schools for tuberculous children, *viz.*, Kensal House, Harrow Road, W., Springwell House, Clapham, S.W., and Stormont House, Hackney. The Council also co-operates with local dispensaries and other voluntary bodies providing open-air classes in parks and gardens, and lends teachers and equipment for this purpose. It is estimated that some 20 additional schools will be required for tuberculous children.

## XVI.

### *Industrial Schools.*

The Council's industrial schools are intended for the reception of children under 14 years of age, who, by reason of their surroundings or personal moral weaknesses, are in danger of falling into crime. The industrial schools are definitely preventive, not punitive, in their character. Children must be committed by a magistrate, and may be retained at an industrial school until they reach the age of 16 years, after which the managers have powers of supervision for a further period of two years, with power of recall if necessary, except in cases where the committal is in respect of non-compliance with an order to attend an elementary school. Children are usually licensed out at about the age of 15 years.

The Council has eight industrial schools of its own, seven residential schools and one day school. In addition, the Council has entered into contracts with 80 industrial schools in London and the provinces and in Scotland for the reception of London children; seven of these schools are certified and reserved for mentally defective children, one for physically defective boys, one for physically defective boys and girls, and two for morally defective girls. The parents are required to contribute, where possible, towards the cost of maintenance. There are 827 children at present maintained by the Council in its own industrial schools, and 3,026 in schools with which it has agreements.

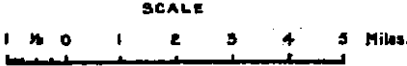
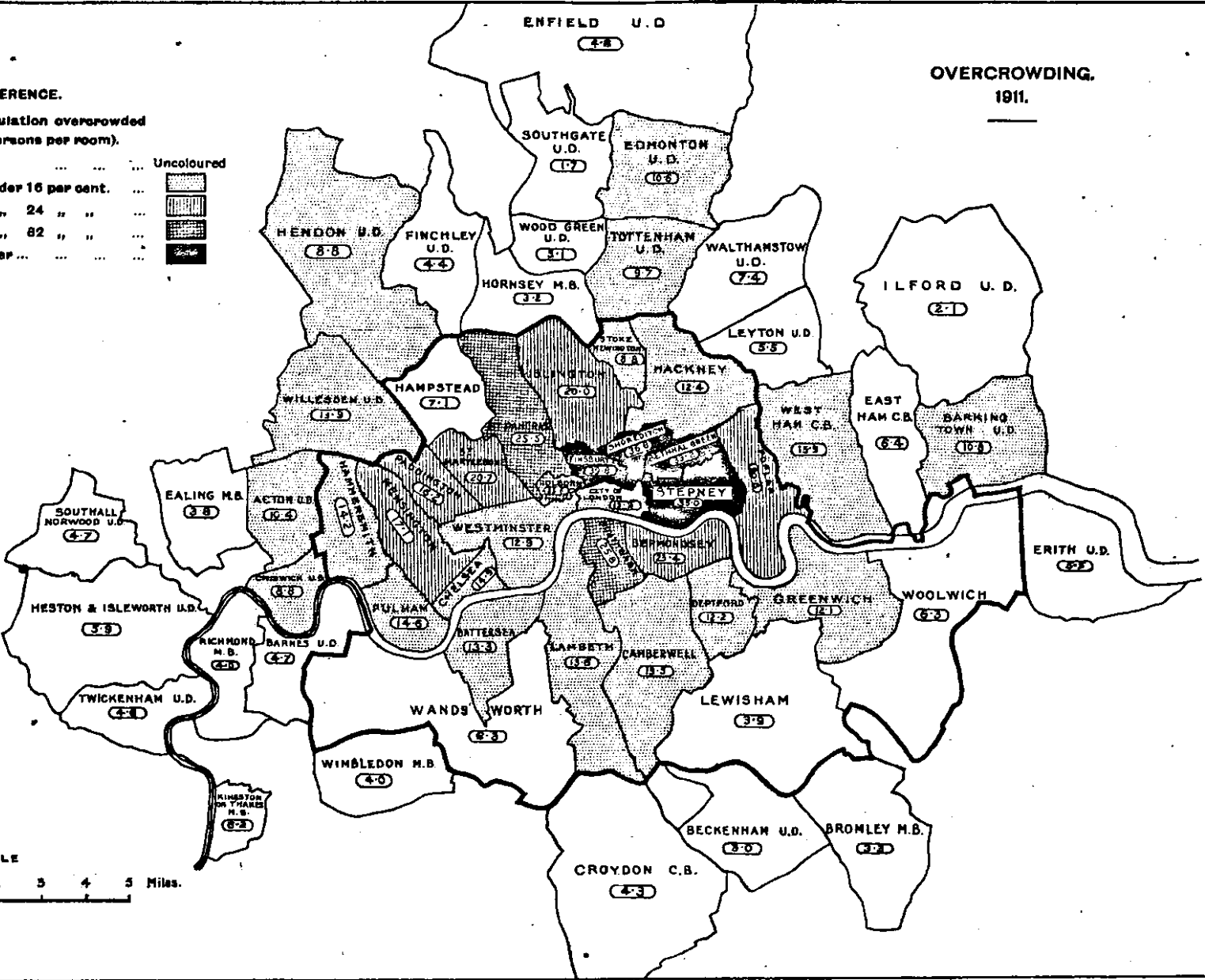
The routine consists of schoolroom work and industrial occupation in equal proportions; physical training and swimming also receive considerable attention. The trades and occupations usually taught in boys' schools are tailoring, shoemaking, carpentry, farming, gardening, and band-playing, and in some cases other trades, such as printing, smithing, etc. A few of the institutions are training ships, or shore schools of a similar character, with facilities for boating and instruction in navigation. The Council boards out suitable cases with foster parents, and about 270 children are dealt with in this way.

**OVERCROWDING,  
1911.**

**REFERENCE.**

Percentage of population overcrowded  
(more than two persons per room).

|                                    |     |     |                     |
|------------------------------------|-----|-----|---------------------|
| Under 8 per cent.                  | ... | ... | Uncoloured          |
| 8 per cent. and under 16 per cent. | ... | ... | [Diagonal lines]    |
| 16 " " " " 24 " "                  | ... | ... | [Cross-hatch]       |
| 24 " " " " 82 " "                  | ... | ... | [Dense cross-hatch] |
| 82 " " and over                    | ... | ... | [Solid black]       |



MAP 1.

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On leaving an industrial school, boys are usually placed in an occupation or trade for which they have been trained. A large number go to Army bands, and many others to skilled trades or farm service. Girls are trained in all branches of domestic work, and on leaving school usually obtain good situations as servants. Boys and girls are also sent out to Canada under the care of one of the recognised emigration societies, by which they are placed in situations and supervised until they reach the age of 18. The after-careers of industrial school children are in the great majority of cases satisfactory, and in some instances these children do exceptionally well, attaining such positions as Army bandmasters, officers in the mercantile marine, farmers, managers of shops, skilled mechanics, etc.

As there is now little truancy in London, the schools formerly known as truant schools have been discontinued. Truants are now sent to industrial schools, and are usually committed to such schools until they reach the age of 16. The cases are, however, reconsidered periodically, with a view to the children being licensed out to attend ordinary schools. When children are licensed out from industrial schools, a condition is made that they shall attend an elementary school regularly until they reach the age of 14. Failing compliance with this condition, they are sent back to an industrial school for a further period.

#### *Reformatory Schools.*

Reformatory schools are intended for the reception of young persons up to the age of 16 years, who, having been convicted, are committed to a reformatory in lieu of being sent to prison.

The Council has one reformatory school of its own, at present housed in temporary premises in Cedars Road, Clapham, and agreements with 29 other reformatories for the reception of young persons committed from Courts in London. There are now 524 London cases, viz., 446 boys and 78 girls, in these schools. It is intended in due course to transfer the Cedars Road Reformatory to a site outside the Metropolitan area.

#### *Places of Detention.*

Under the provisions of the Children Act, 1908, the buildings formerly known as "remand homes," but now as "places of detention," were transferred from the Metropolitan Asylums Board to the Council. At the present time there are three places of detention, which accommodate 240 children, as follows: Pentonville-road (110 boys over 13 years of age); Harrow-road (40 boys over 7 and under 13 years of age); Ponton-road (54 girls over 7 and under 16 years of age, and 36 boys and girls under 7 years of age).

Formerly, each remand home served certain police districts, and no classification of the children was attempted. The increasing numbers, the extreme differences in the ages of the children brought for admission, and the difficulty of isolating young persons of bad character from other inmates, have rendered it impossible to provide adequate accommodation for elder and younger children at each home. A general classification has therefore been effected on the basis of the ages and sex of the children, as shown above. Children on remand, or not admitted to bail prior to the hearing of the case, are detained in these institutions, and receive board, lodging, and suitable clothing; they are also given instruction of an elementary character.

## CHAPTER II.

### HIGHER EDUCATION.

#### I.

#### *Secondary Schools.*

The London secondary schools may be divided into five types; the figures given relate to March, 1919:—

- (1) Schools maintained (provided) by the Local Education Authority—23 schools with 8,072 pupils, 2,653 boys and 5,419 girls.
- (2) Schools aided by the Local Education Authority—31 schools with 11,808 pupils, 8,068 boys and 3,740 girls.
- (3) Other public secondary schools—47 schools with 16,462 pupils, 8,161 boys and 8,301 girls.
- (4) Schools conducted by religious bodies (not included in groups 2 or 3)—40 schools with 5,170 pupils, 1,702 boys and 3,468 girls.
- (5) Private schools (421 schools with 27,295 pupils).

There are other schools in groups 4 and 5 with which the authority had not been able to get into touch at the date of the return. The schools in both these groups must be regarded as preparatory rather than secondary. These schools have hitherto been unconnected with the Council's system of education, except in so far as they have provided places for boys and girls for whom the Council would otherwise have had to make provision in secondary or elementary schools. Schools in group 3 are not inspected by the Local Education Authority. The greater number are, however, included in the Board of Education's list of efficient secondary schools, and are also recognised for the attendance of the Council's scholarship-holders. There are, however, 17 schools in this group which, up to the date of the Education Act, 1918, were not under the inspection of the Board of Education or of the Local Education Authority. Of these 17 schools, eight are recognised by the Council for the attendance of its scholarship-holders, viz., City of London School (boys and girls), Clapham College, Colfe Grammar School, Mercers'

School, St. Paul's School (boys and girls), and St. Angela's High School. The remaining nine are—Merchant Taylors' School, University College School, Westminster School (St. Peter's College), Dulwich High School (formerly belonging to the Girls' Public Day School Trust, but now handed over to the Church Schools Company), the two Francis Holland Schools (Regent's Park and Graham Street), St. Mary's College, Streatham College, and Queen's College School. The question of the additional secondary school accommodation necessary is discussed in Part II. of this scheme.

When the Council's scholars attend a school not on the list of aided schools, the Council pays the ordinary fee on their behalf. The schools in group 2 receive maintenance grants from the Council, which provide, in addition to the amount estimated to be due for scholars' fees, the sum necessary, in the opinion of the Council, to make up the school income to the amount required for efficient maintenance, including payment of salaries in accordance with the Council's scale. In addition to annual maintenance grants, special building grants are made from time to time for the enlargement or improvement of school premises, or the provision of proper accommodation for science, art, and manual work. Of the 23 schools maintained by the Council, eight have been taken over from other bodies of governors, and 15 have been newly established by the Council. The Council appoints a body of governors for each of the maintained schools, and entrusts to the governors and the headmaster or headmistress, as the case may be, a considerable measure of control of the internal organisation and discipline of the school. All the schools maintained or aided by the Council and 26 of those in group 3 (non-aided schools) are working under the Regulations of the Board of Education for the award of grants.

The schools in groups 1, 2, and 3 aim at providing a course up to the age of at least 16 and to the standard of a first school examination, and most are endeavouring to establish an advanced course up to the age of 18. The number of "advanced courses" recognised in the session 1918-19 was as follows:—

|                         | Classics. |        | Science. |        |       | Modern Studies. |        |
|-------------------------|-----------|--------|----------|--------|-------|-----------------|--------|
|                         | Boys.     | Girls. | Boys.    | Girls. | Dual. | Boys.           | Girls. |
| Maintained schools.. .. | —         | —      | 3        | —      | —     | 2               | 3      |
| Aided schools .. ..     | —         | —      | 7        | —      | 1     | 1               | 3      |
| Non-aided schools .. .. | 2         | —      | 6        | 3      | —     | 3               | 8      |
| Totals .. ..            | 2         | —      | 16       | 3      | 1     | 6               | 14     |

It will be noticed that only a small number of boys' schools are taking advanced courses in modern studies, and that very few girls' schools are taking these courses in science. It is expected that, as the advantages of modern studies and science come to be more fully recognised, and as the upper sections of the schools grow, the number in each case will be increased.

As the outcome of a survey in 1909 of the available accommodation, it was estimated that ten secondary school places in public and private secondary schools were required per 1,000 of the population. Neither this estimate, nor the detailed proposals for meeting it, were submitted to the Council, but they formed the basis of action in succeeding years. Another survey, more exhaustive than the first, has recently been completed, and it has been shown that, in order to meet the immediate needs of London, a standard of 10 per 1,000 in public schools alone (apart from private schools) should be adopted, and that there is urgent need for an increase in the secondary school accommodation of at least 4,000 places.

The establishment by the Council of provided secondary schools has inevitably raised the issue of its relations with existing secondary schools. The relation of Board Schools to voluntary elementary schools had been settled by the Education Act, 1902; and it may be that the Education Act, 1918, and the School Teachers' (Superannuation) Act, 1918, will indirectly bring the governing bodies of aided secondary schools into closer co-operation with the Council. In the meantime, continuing the policy of the Technical Education Board, the Council has aided those secondary schools of a public character which sought the Council's help. Gradually, the aid has taken the form of a deficiency grant on three main conditions: (1) that the school receives the Council's scholarship holders; (2) that the school shall be open to inspection; and (3) that the salaries of teachers shall be raised to the Council's scale. In the course of time questions of fundamental principle have arisen. The policy of the Higher Education Sub-Committee in its recommendations to the Council has in recent years been guided by two main principles:—(1) That, as far as possible, each institution should fall into line with a general policy of education in London; (2) that financial assistance should be given to such an extent, and under such conditions, that, while avoiding unnecessary expenditure, the schools are kept efficient. Within these wide limits, an "aided" school may fairly conserve its individuality, and have no cause for complaint that its traditions, on which it is rightly sensitive, are being encroached upon. Within the same limits, the Council can secure that London has adequate and appropriately selected advanced courses.

It has already been indicated that one of the indirect effects of the Education Act, 1918, may be a closer co-operation of all the schools in London offering secondary education. The best-known of the private schools, which devote themselves to preparation for business and Civil Service examinations, have, on their own application, been inspected by the Council. A more hopeful view of the

possibilities of co-operation with the local education authority is pervading the larger endowed schools; many of them desire to form part of the public system, and their incorporation in it would not be without mutual advantage. The endowed schools, small and great, with their long accumulated traditions and historical outlook, can contribute much to the common stock of knowledge and organisation, and they might not be losers by co-operation with a publicly-elected body.

## II.

### *Curriculum.*

When the Council became the Authority for higher education, a bias had been given to the curriculum of many of the London secondary schools, especially those with a small endowment, by the grants made under the technical instruction Acts of 1889 and 1891, which could be devoted only to science, art, and modern languages. Thus, in a number of schools, particularly those connected with polytechnics and technical institutes, a disproportionate time was allocated to one or other of these subjects, and the qualifications of the teachers of them were often higher than those of other members of the staffs. Since the passing of the Education Acts of 1902 and 1903, which made it possible for aid to be given to any subject of the curriculum, these inequalities have been gradually redressed.

Another factor which unduly influenced the curriculum, especially in the lower stages, was the number of external examinations. These have been gradually reduced, so that to-day few London secondary schools present their pupils for an external examination before the age of 16. The whole conception of the secondary school curriculum may be said to have been transformed. It is no longer regarded as a mere aggregate of subjects, determined by a variety of circumstances, internal and external, but as an organism in which every part is vitally related to every other, and which evolves from within. The new schools created and maintained by the Council, while lacking the traditions and historical associations of the older aided foundations, have had the advantage of profiting from the first from this more liberal and balanced view of the curriculum. And the older schools, with the financial aid and the advice of the Board of Education and the Council, have shown themselves ready to adjust their schemes of work to the new conditions. All alike are seeking to give a training that is (1) humane on the literary, scientific, and artistic sides; (2) physical, through organised games, drill and gymnastics, and remedial treatment; (3) practical, in the sense of being a preparation for the pupils' after careers; (4) social, through various recreative activities, out of school hours.

The core of the curriculum is increasingly to be found in the work of the four years between 12 and 16, the latter being the age (as already mentioned) at which the first external examination is now usually taken. Though there are naturally and rightly many variations in detail, the broad lines of the syllabus in the London secondary schools during this period are uniform. English is recognised as forming the basis of the scheme of work. It is no longer the Cinderella of the curriculum. Better methods of teaching grammar and composition, written and oral; increased attention to speech-training and phonetics; above all, a more liberal supply of good literature, and more enlightened ways of studying it, have given to English a new place and significance. The change has been partly due to the necessity of finding a means of literary culture for the large number of junior scholars who have entered secondary schools with little humane background. But it springs in the main from a new attitude to the mother-tongue as an instrument of liberal education. Among its results is the recognition of the great importance of the library in the school equipment.

With few exceptions secondary school pupils learn at least one foreign language, usually French. The teaching of this subject has been largely influenced by the "direct method," which lays predominant stress on the use of the spoken language. The method, even when not adopted fully, has done much to vitalise the work in French. It makes severe demands on the capacity and energy of the teachers, who have been helped to improve and keep up their qualifications by the provision of classes in phonetics, and of scholarships to enable them to attend holiday courses in France. The considered aim of the teaching is not merely to give a knowledge of French, but to familiarise the pupils with some of the general features of the Latin culture. In most schools a second language is taught, and is usually begun two years after the first. Where a modern language is taken, it has been usually German. What permanent effect the war will have on the place of German in the secondary school curriculum, and on our national education generally, it is too soon to say. Italian and Spanish, both very important for literary and commercial purposes, can hardly as yet be said to be serious competitors with German for the place of the second language. This place is still mainly taken, not by a modern language, but by Latin. This might have been expected in the older "aided" schools for boys, some of which were inheritors of the classical tradition. But it is noteworthy that not only in them and in the girls' "high schools," but also in the new maintained schools, both for boys and girls, a considerable proportion of pupils are learning Latin. None the less the traditional methods of classical instruction have been modified. More effort is being made to familiarise boys and girls with a fairly wide range of Latin literature, and less attention is being given to Latin prose and to grammar. The direct method is used in some schools, but most teachers of Latin in London prefer the older system, with the modifications just mentioned. Except in the historic public schools, and in some of the girls' schools which follow similar lines of study, Greek has a small place in the curriculum. It is taken by pupils who are aiming at entrance classical

scholarships, and until recently it has been a necessary subject for those who wish to proceed to the older universities.

The scope of history as a secondary school subject has been widened, though there have been difficulties in giving it an adequate place in the time-table. Social and industrial history have been dealt with, as well as political, though "civics" as a separate subject has not made much way. The war will doubtless direct increased attention to modern European history. The historical text-books in use in the schools have been greatly improved, and are often written by scholars of the highest standing. Much more use than formerly is made of pictures and documents for illustrative purposes. In some schools these have been collected and effectively arranged in special history rooms.

Geography, in spite of some good work, has scarcely yet secured its due place in the curriculum, partly owing to the lack of sufficient teachers with special qualifications in the subject.

It has already been pointed out that, owing to the operation of the Technical Instruction Acts, there has been less lee-way to make up in the mathematical and scientific sides of the curriculum than in the humanistic. But here, too, there are developments to be noted. In all the new school buildings erected since the Council assumed control, and in the reconstruction of old buildings, careful provision has been made for laboratory instruction, with the result that the aided and maintained secondary schools enjoy adequate facilities for practical work in science. The tendency, if anything, has been to lay rather too much stress on laboratory instruction, and to neglect the wider aspect of science teaching. A reaction against this narrowing of the scope of the curriculum has now set in, and more attention is being paid to the broad generalisations of science, and to the relation of scientific knowledge to the problems of everyday life. During the last few years many schools have been endeavouring to create a real interest in science by forming a lending library of popularly written books on science for general reading. This is a valuable step forward.

In mathematics concrete methods of instruction have been introduced with good effect, and some of the methods used in the higher branches of mathematics have been introduced at an earlier stage in the curriculum. There is still room for improvement in the teaching of applied mathematics, and in the upper part of the school a good deal might be done by laying stress upon the relations of physics to mathematics.

During the period under review there has been a marked change in the attitude towards music and art as parts of the secondary school curriculum. They are no longer looked upon as "extras," but as essential elements in a liberal education, though instrumental music, involving individual instruction, is necessarily taken outside of school hours. Manual training in woodwork and metalwork for boys, and domestic economy for girls, have been developed, and have been brought into closer relation with the more academic sides of the curriculum.

Far more attention has been given of late years to the physical well-being and development of the pupils. Large playgrounds have been provided. Organised games, drill, and gymnastics occupy much time. Mid-day dinners have been arranged on the school premises at a minimum cost. A system of medical examination has been instituted. In fact, the most modern conception of a secondary school curriculum is the application, to a wider extent than was possible in the ancient world, of *mens sana in corpore sano*. Social activities are also strongly in evidence.

In the maintained schools and in most of the aided schools the curriculum does not include in school hours the "clerical" subjects of typewriting, shorthand, and book-keeping, though the lack of facilities for learning them has led a good many pupils, especially girls, to leave school prematurely. What effect the day continuation schools may have on this somewhat difficult problem remains to be seen. In some boys' schools advanced commercial courses, including economics, industrial and social history, and modern languages, have been organised. Now that the University of London has instituted a degree in commerce, such courses will become increasingly important.

It is too soon yet to estimate the effect of the "advanced courses" recently instituted by the Board of Education. They are as yet in a somewhat experimental stage. But there is every reason to expect that they will stimulate and systematise the work at the top of the school, and that they will do much to prolong the average of school life. The relation between these courses and the university examinations needs to be adjusted, if they are to have their full effect on the higher work of the schools.

It is perhaps the best testimony to the influence of the secondary schools on the intellectual and social life of London that at the present time they cannot accommodate the large numbers who are seeking admission to them. They have helped to create a demand which has outrun the supply. There has been a stirring of the waters, of which the end is not yet. London has at last listened to Matthew Arnold's insistent cry "Organise your Secondary Education."

### III.

#### *The Training of Teachers.*

##### (i) *Accommodation.*

Particulars as to the Council's provision for the preliminary education of teachers are given in the section on scholarships, page 31.

The Council at the present time maintains five training colleges for teachers. The London Day Training College, Southampton Row, W.C. (for men and women university students), provides a four-year course for undergraduate students and a one-year course for post-graduate students. This college is a school of the University of London. There are two residential colleges for women, Avery

Hill College and Furzedown College. The former provides accommodation for 320, the latter for 250 students. In each case the majority of the students live in the college and its hostels, but there are a few day students. The Council also maintains a day college for women at Graystoke Place. The duration of the course at the Avery Hill, Furzedown, and Graystoke Place colleges is two years. Shoreditch Technical Institute is also recognised as a training college for men desiring to become certificated teachers with special qualifications in handicraft.

The Council makes maintenance grants to three recognised training colleges for domestic economy teachers—the Battersea Polytechnic, the National Training School of Cookery, and the National Society's Training College—and awards a certain number of scholarships tenable at these institutions.

The question of the further provision for the training of teachers is dealt with in Part II, Chapter II.

#### (ii) *The Training College Curriculum.*

In the early days of training colleges the view was generally held that the curriculum should be limited to the branches of instruction taught in the elementary schools. The training college subjects were the elementary school subjects, carried further and supplemented by teaching method. The narrowness of the culture thus afforded soon became apparent, and the programme was extended to include some, at least, of the studies peculiar to secondary schools and universities. Moreover, the training college had to keep pace with the expansion of the curriculum of the elementary school, as described in Chapter I, section VII. If nature study, for instance, is taught in the bulk of the primary schools, it is clearly necessary that it should also be taught at the training colleges. The result has been a steady extension of the curriculum: the subjects have multiplied in number and increased in complexity. The consequent overcrowding of the curriculum, acute even in the days of Herbert Spencer (see Education, Chapter IV), became a problem of increasing gravity. There was only one way to solve it, and that was by a system of "electives." The student was allowed, within certain limits, to choose his own course of study—a departure rendered possible by two new factors. First, the newer students were better educated than the old and could more safely "drop" some of the subjects; for the old pupil teacher system had been abandoned, and the London students at least entered the colleges either straight from secondary schools or after a single year's service as student teachers. The second contributory factor was the changed view of the teacher's functions. The older view was that every teacher should be trained to teach every subject in any part of the school, and to teach them equally well. It is now fully recognised that specialisation in teaching is desirable, to a certain extent at least, even in the elementary school; and specialisation in studies is its logical counterpart.

It is also recognised that the teaching of infants demands an equipment of knowledge and skill very different from that required for the teaching of senior pupils. A differentiation has in consequence arisen between the course of training for teachers of infants and the course for teachers in senior schools. The needs of the future will bring about a still further differentiation, for the training of two new types of teachers of widely different functions will have to be provided for—nursery school teachers and day continuation school teachers.

The more strictly technical side of the teacher's training has also undergone considerable change, both in its theoretical and its practical aspects. In bygone days it was only the lecturer in education who dealt with the principles and practice of teaching; now he confines his attention to the general aspects of educational doctrine, while each of the lecturers in the academic subjects, in addition to teaching the students his own special subject, teaches them how to teach it. Instruction in the art of teaching is, in fact, either as a matter of general or of special method, the concern of every member of the training college staff.

Concurrently with the shortened (or abolished) period of preliminary training in teaching, there has arisen a tendency to extend the period and scope of school practice. Instead of having for each college one practising school attended by relays of students throughout the year, the Council has attached to each college a large number of practising schools, in order to provide a variety of teaching experience and to permit of much elasticity in the mode and distribution of practice.

A new type of practising school has recently come into prominence—the demonstration school. It derives its name, partly from the fact that the principles of teaching inculcated at the training college to which it is attached are there demonstrated in practice, partly from the fact that demonstration, or model, lessons are given in presence of the students. The Council has been at considerable pains to staff these demonstration schools with suitable teachers, and has made special additions to the salaries of the teachers in recognition of the important functions they perform.

## IV.

### *Classes and Lectures for Teachers.*

(1) The Council, having in mind that a teacher to be successful must continue to be a student, makes considerable provision for classes and lectures for teachers. Before the war the number of admissions was about 17,000 annually, mostly teachers in elementary schools; this number is approximately 85 per cent. of the number of teachers employed. (The 17,000 admissions do not represent 17,000 individuals, as many teachers attend more than one class.) The fact that the attendance at these lectures and classes is so large is evidence that they are fulfilling a definite

purpose in the general scheme of education in London. The classes may be regarded as falling under three main heads :—

(i) Classes intended to improve a teacher's knowledge and skill in respect of some specific subject of the school curriculum—to this group belong courses in physical education given by the Council's organisers, classes in laboratory arts, handwork, and the teaching of calculations, and some of the courses in modern languages.

(ii) Classes and lectures intended to improve the teachers' appreciation of the æsthetic subjects of the school work—to this group belong courses by Mr. John Drinkwater, Sir Henry Newbolt, and Mr. Laurence Binyon on Poetry, by Mr. Macpherson and Dr. Borland on Music, by Professor Selwyn Image on Art, by Sir Sidney Lee and Professor Gilbert Murray on literature, and many other courses of similar aim.

(iii) Lectures intended to widen the outlook of the teachers and to bring them into contact with the highest authorities in different branches of learning. Mention may be made of the lectures on recent developments in science by Mr. Handley-Page, Sir William Bragg, Sir William Pope, Sir Richard Glazebrook, Sir Arthur Schuster, Dr. Rosenhain, and other distinguished men of science. Courses on historical subjects have been given by Professor J. H. Morgan, Mr. G. P. Gooch, Lord Charnwood, M. Emile Cammaerts, Sir Harry Johnston, Sir Charles Lucas, and others. Single lectures have also been given by Sir Valentine Chirol, Lord Leverhulme, Professor MacLaughlin, and Sir F. Lugard.

In addition to classes and lectures specially arranged for teachers, the Council pays the fees of teachers attending evening university classes at the School of Economics, King's College (Evening School of English), and University College (Evening Schools of History, Geography, and Phonetics). The Council also pays the fees of teachers attending the Institut Français du Royaume Uni. The classes for teachers are in close touch with the Education Library. Books recommended by lecturers are added to the library, and the catalogue of volumes available is circulated among all teachers attending the classes.

#### (2) *Holiday Courses.*

The Council makes grants to teachers in maintained or aided schools to assist them to attend approved holiday courses. The most important of the courses hitherto approved have been those held in foreign countries for teachers of modern languages.

#### (3) *Facilities for Full-Time Study.*

The Council is prepared to consider applications from teachers in its schools for leave of absence for purposes of study. In the case of the whole-time staff of technical institutes, schools of art, and trade schools, selected members of the staff may be required to take six months' leave of absence, with pay, for the purpose of improving their industrial, or commercial, knowledge and experience, in connection with the subjects for which they were appointed. Maintenance grants, in addition to full pay during absence, are granted to teachers of French in central schools, if recommended for a term's study in France.

### V.

#### *The Scholarship Scheme.*

A comprehensive system of scholarships has been established. These scholarships may be divided into three classes : county scholarships, scholarships for students intending to become teachers, and technical and trade scholarships. In each case the scholarships, in addition to remission of fees, provide maintenance grants where the circumstances of the scholar make such assistance necessary.

The county scholarships provide a complete scheme, by which a boy or girl may proceed from the public elementary school at the age of 11 to the highest grades of education at a University, technical college, or other institution providing advanced training. Every boy and girl in an elementary school in London, who has reached a certain standard by the age of 11, is required to sit for an examination in English and Arithmetic. On the result of this examination, combined with the reports from the schools, about 1,600 to 1,700 junior county scholarships are awarded each year, but the number is not limited. These scholarships, which are also open (under a condition as to income) to children not in attendance at elementary schools, are tenable at almost any secondary school in London, in the first instance for three years, and are renewable for a further period of two years, if the scholar is reported to be capable of profiting by further education, *i.e.*, they are held as a rule till the scholars attain the age of 16. It has recently been decided that, in future, these scholarships shall be tenable for five years from the date of award. Boys and girls who do not succeed in obtaining junior county scholarships at the age of 11, have an opportunity of entering for supplementary junior county scholarships at the age of 13. The latter scholarships were introduced mainly for the benefit of children whose mental powers develop at a somewhat later age. At the age of 16, some of the scholars leave school for industrial or business pursuits; others are recommended for bursaries, and remain at secondary schools for a further year, or in some cases two years, with a view to entering the teaching profession; others obtain intermediate county scholarships which enable them to continue their education until the age of 18 or 19. About 300 of these intermediate county scholarships are offered for competition each year. They may be competed for both by junior county

scholars and by other pupils in secondary schools, whose parents' incomes do not exceed a certain limit. On attaining the age of 18, intermediate scholars or other eligible pupils in secondary schools may apply for senior county scholarships, which enable them to proceed to a university or a technical college for a three years', or in some cases a four or five years' course, of advanced study.

The scholarships for the preliminary education of teachers consist of probationer bursaries, bursaries, and student teacherships. Probationer bursaries are usually tenable for three years; bursaries and student teacherships are, as a rule, tenable for one year each. Probationer bursaries are awarded at the age of 13 or 14, but are confined to certain schools. Bursaries are open to pupils of all secondary schools. The age limits for bursaries and student teacherships are 16-18. During the tenure of the bursaries, the scholars continue their education at the schools they have already attended. During the tenure of the student teacherships, they are engaged for the greater part of their time in receiving training in the art of teaching. At the end of the period of tenure, student teachers enter training colleges. In certain cases bursaries are given for a second year in lieu of student teacherships.

The technical and trade scholarships comprise the following:—(a) Scholarships in Science and Technology, to enable persons engaged in industry to devote themselves to full-time day instruction in technical colleges of University rank; (b) scholarships in art and artistic crafts, tenable at the day classes of schools of art or schools of arts and crafts; (c) Evening Exhibitions in Art, Science, and Technology; (d) Trade Scholarships for boys and girls, tenable at day trade schools; (e) Scholarships in Domestic Economy, tenable at the day classes of polytechnics and technical institutes.

Important changes in the scholarship scheme have been approved by the Council since the passing of the Education Act, 1918. These changes, which are fully set out in Part II, Chapter II, § III will first become operative as regards awards taken up in 1921.

## VI.

### *Technical Education.*

The brief survey of London's industrial activities given in the introductory chapter will indicate that a properly co-ordinated solution of the problem of technical education must be a matter of gradual and constant development, with the fusion of conflicting voluntary and other interests; whilst, owing to the perpetual growth of new industries, the disappearance of old ones, and the complex and ever-changing distribution of work places and residences, no simple permanent lines of organisation can be expected for London, as in the case of provincial towns largely dependent for their existence on one staple industry.

The field of possible activities is, and has been, so enormous, that, with a limited supply of scattered institutions not organically connected, a type of institution was, in the earlier days, almost bound to arise, which would find its activities in many fields. The polytechnic institutions played a great part in focussing sporadic educational efforts and in carrying forward the waning traditions of schools of the "Mechanics' Institute" type. The Birkbeck College, founded in 1823 "for the purpose of giving instruction to students in the principles of the arts they practise and in the various branches of science and useful knowledge," was the first important institution to develop multiple activities, and the polytechnics of to-day are the direct successors of this form of organisation.

The systematic survey and resurvey of the whole field of industrial effort, and of the education needed for it, now tend increasingly to strengthen a policy which focuses phases of industry in particular institutions, and the more important occupations have so wide and diversified educational needs that schools devoted to one industry, or a small group of related industries, readily find a sufficiently broad avenue for the whole energies of principals and staff. The monotechnic type of institution has shown great potentialities in pushing forward education for specific trades, and the scientific principles applied to industry which such schools teach are now recognised by the trades themselves as a vital factor in progress.

Educational advancement has proceeded unequally in its application to various types of activity. Comparatively new industries have generally tended to go forward in education more rapidly than old industries, but gradually the application of scientific principles is extending through the medium of specialised technical training, and "rule of thumb" methods are being reduced to a rational basis of systematic knowledge. There are now comparatively few industries which are not catered for directly or indirectly in the technical education system of the Council.

Since the provision of technical education became a matter of State concern, its development in London is marked by three distinct periods. The first covers the years 1889 to 1904, from the passing of the Technical Instruction Acts, 1889 and 1891, the allocation of the residue grant, popularly known as "whiskey money" in 1890, and the establishment of the Technical Education Board in 1893, to May, 1904, when the Council became the Local Education Authority under the Education Acts, 1902 and 1903. The Report by Mr. (now Sir) H. Llewellyn Smith to the Special Committee on Technical Education in 1892 is the first general survey of the needs of London. The full story of the work of the Technical Education Board is to be found in the Reports of that body for the eleven years 1893-4 to 1903-4. The second period, during which the progress of technical education was governed by the traditions and policy of the Technical Education Board, may be said to close in 1909, when the Council, after a detailed survey of the facilities provided, agreed as to certain fundamental principles which should determine the allocation of work among the various polytechnics and kindred institutions. The third period, from 1909 until the present day, has witnessed the Council's



policy, which, while promoting a great expansion in the volume of work, is perhaps best expressed as a series of sustained efforts towards a progressive delimitation of the functions of rival institutions, arising out of a general endeavour to "promote the co-ordination of all forms of education" within the area.

The reorganisation of evening schools in 1913 presents an important point of reference during the latest period, as in that year the whole work of evening education was reviewed, and succeeding years have witnessed far closer co-operation between ordinary evening schools and technical institutions, which had formed the separate fields of effort of the School Board and the Technical Education Board, respectively.

The administrative activities of the Technical Education Board were fivefold:—

1. *Polytechnics and other aided institutions.*—The extension of work in these institutions was aided by grants for buildings, for equipment, and for maintenance.

2. *Maintained institutions.*—Direct efforts were made in taking control of certain institutes and in establishing new ones.

3. *Secondary schools.*—The Technical Education Board exercised supervisory activity over secondary schools, according to the view that science subjects and modern languages formed an essential part in the development of technical and commercial education, and gave grants (in 1903–4 amounting to £33,000, including fees of scholarship holders) to secondary schools which sought such aid. The Council, under its statutory powers (Education Acts, 1902–3), was enabled to assist existing secondary schools, and to increase the provision by establishing new ones, irrespective of whether the education given could be brought under the definition "technical instruction."

4. *Scholarships.*—The Technical Education Board established a system of scholarships to assist boys and girls of ability in obtaining education beyond the primary stages, and to assist adults to extend their studies in art, science, and technological subjects in day and evening institutions. This policy, in both its elements, has been continued and greatly developed since 1904.

5. *University education.*—In this respect the Technical Education Board, insistent on the need for educating the future leaders of industry and commerce, not only aided the establishment of the London School of Economics, but made grants to the University of London in respect of various institutions to the extent of £10,000 a year, and made further grants to schools of the University amounting in 1903–4 to £7,000, mainly in respect of free places.

In regard to University Education, it should be stated that the Council's action has hitherto been confined mainly to giving grants for specific purposes to the University of London and to Schools of the University. The problem of the organization of University Education in London was referred in 1910 to a Royal Commission under the chairmanship of Lord Haldane. The report of the Commission, issued in 1913, was under the consideration of the Council, when the outbreak of war put an end for the time being to the possibility of any action in the matter.

Of these five divisions, 3, 4, and 5 are dealt with elsewhere in this scheme. The story of the development of 1 and 2 only is continued here.

## VII.

### *London Technical Institutions in 1903.*

In their report for 1903–4 the Technical Education Board gave the following list of 26 institutions, some of which are under the direct control of the Council, as an indication of the great advance in technical instruction which had been made during the previous ten years. The list does not include a number of minor institutions which have ceased to exist:—

1. Battersea Polytechnic.
2. Borough Polytechnic.
3. City Polytechnic (Northampton Institute and City of London College and Birkbeck College).
4. East London Technical College.
5. Goldsmiths' Institute.
6. Hackney Institute.
7. Northern Polytechnic.
8. Regent-street Polytechnic.
9. Sir John Cass Technical Institute.
10. South Western Polytechnic.
11. Woolwich Polytechnic.
12. L.C.C. Central School of Arts and Crafts.
13. L.C.C. School of Building.
14. Camberwell School of Arts and Crafts.
15. L.C.C. Paddington Technical Institute.
16. L.C.C. School of Photo-Engraving and Lithography.
17. L.C.C. Poplar Technical Institute (now the School of Engineering and Navigation).
18. L.C.C. Shoreditch Technical Institute.
19. L.C.C. Sydenham Technical Institute.
20. L.C.C. Westminster Technical Institute.
21. Sir John Cass Branch of Hackney Institute.
22. Herold's Institute.



23. Leather Trades School (now the Cordwainers' Technical College).
24. St. Bride Foundation Printing School.
25. Trades Training School.
26. Wandsworth Technical Instituté.

The report added that "Of the less important institutes referred to above in Mr. Llewellyn Smith's report, the Bow and Bromley Institute has been absorbed into the East London Technical College, and the Aldenham Institute, the Morley College, and the Working Men's College have regularly received aid from the Board in respect of certain technical classes."

Useful work was carried out in Domestic Economy Schools, of which there were 14 in 1903-4. Owing, however, to changing economic conditions, this phase of the Technical Education Board's operations has largely disappeared.

## VIII.

### *The Polytechnics.*

It is just on 30 years since the polytechnic movement took concrete shape in the great institutions which carry that name. At that time the localities which gave their names to the polytechnics were far less closely bound together into a coherent entity than they are to-day. There was more parochialism, the vestries had not been replaced by the metropolitan boroughs, and local feeling and local patriotism were more distinct. The enormous improvement in travelling facilities within the last 30 years, the creation of the London County Council, and a growth of corporate feeling and cohesion in London and among Londoners led to the view that the "localities" need not and could not be provided for, in respect of technical education, by self-contained institutions undertaking to offer all educational facilities for their areas. The same problem to-day confronts Greater London. The rapid growth of institutions left little time for forethought, and overlapping and competition, endowed by the rates, were common. It would not be thought advisable to provide a university for each of the 30 or more London localities; nor a central school of arts and crafts; nor a central school of photo-process work; nor a central school of printing. The area must be treated as a whole and not in parts. The Technical Education Board fostered the growth of commercial education, so did the School Board. Science and art classes were the immediate care of the Technical Education Board; the School Board also had its science and art classes and schools. The low fees of the School Board institutions were a subject of complaint on the part of the institutes nursed by the Technical Education Board. In the middle grades of work there was much competition for students. In earlier days such competition may have had a wholesome effect, but a consideration of the needs in London as a whole induced the Council, after consultation with all the authorities concerned, to adopt a line of policy which may be broadly stated as follows:—

That in the case of the larger polytechnics and technical institutes there should be an organised concentration of effort; that an institution whose circumstances were such that it could, with advantage, specialise in branches of instruction affecting one trade or group of trades should seek development in the direction suitable to it, rather than indulge in competition in other directions in which adequate provision is made by another institution; that the Council should adopt a specific policy for each of its maintained institutions, and should confer with the governing bodies of the aided institutions as to the adoption of definite educational policies; and that no deviation from the policy approved for a given institution should be undertaken without the approval of the Council.

As a corollary to this policy each governing body of an aided institution supplies the Council at specified dates with a statement of their programme of educational work, and particulars of any developments which they propose; these statements form the basis upon which the Council assesses its maintenance grants to the institutions concerned.

Naturally, the policy, both as a whole and in its details, was at first much opposed, and the Council's relations with a number of governing bodies were for a time strained. When, however, in the reorganisation of its evening schools, in 1913-14, it became obvious to the aided institutions that the Council was no more concerned in its own (maintained) institutions than in independently managed (aided) schools, and that, in fact, to the Council all institutions were London schools, and engaged in a common effort for London education, the strain was relaxed; and more recently, by the action of the Council in deciding that some new functions should be discharged by aided institutions only, the good-will of all the governing bodies has been secured, and the field of technical education has now become an area of combined effort. It was not, however, an easy matter, so to determine the policy of each institution as to enable that institution to fall into line with a general policy for the whole of London. The needs of London's industry and commerce had to be explored.

## IX.

### *Special Inquiries and Consultative Committees.*

Amongst the activities of the Technical Education Board were enquiries by special committees into—

- Building trades (1899),
- Commercial education (1899),
- The application of science to industry (1902), and
- Technical instruction for women (1903).

Since these dates the Council has conducted numerous enquiries into individual trades and occupations and related questions, in furtherance of its educational policy. The following may be specially mentioned—

- The apprenticeship question (1906).
- Women's trades (1907).
- Juvenile labour in Germany (1910).
- Training and employment in the mercantile marine (1912).
- Training and employment in the building trades (1912).
- Training and employment in the printing trades (1914).
- Trade and technical education in France and Germany (1914).
- Engineering (1916).

These and other enquiries into the chemical industries, architecture, pianoforte manufacture, boot and shoe manufacture, glass manufacture, instrument-making, optical industries, etc., have largely served as the basis of the Council's action, and sufficiently indicate its appreciation of the importance of treating the large questions involved as "London" rather than parochial problems.

The following groups of industry have been fully considered from time to time, and a general policy is now adopted in respect of education for them for the immediate future—engineering, electrical engineering, technical optics, architecture, building, furnishing and furniture making, wood carving, printing, photo-engraving and lithography, musical instrument making and pianoforte manufacture, tailoring, flour milling, and textile distributing.

The Higher Education Sub-Committee instituted (1915) a series of interviews with leaders in industry and commerce, who were encouraged to express freely their views on the existing provision of industrial and commercial education and further developments. The needs of specific industries have been further considered through the generous expert advice given by various Consultative Committees, formed by the Council, irrespective of particular institutions, to advise on the educational needs and provision for particular occupations in the area as a whole.

Amongst these may be mentioned the Consultative Committees on Silversmithing, Book Production, Furnishing Trades, Dressmaking and Allied Trades, Tailoring, Engineering, Chemistry, Banking. The outbreak of war put a period to the further development of this type of central advisory committee, but its utility has been demonstrated, and the formation of further advisory committees is under consideration. Recent additions have been made to the list by the formation of a Textile Distributing Committee and a Consultative Committee on Flour Milling. The success attending the work of these bodies has been largely due to their representative character, including, as they generally do, representatives of employers, employees, and experts in allied occupations.

## X.

### *Development of policy.*

It has already been said that, in the main, the policy of the Technical Education Board continued undisturbed to govern the Council's policy in technical instruction down to 1909. But some important changes were effected. The London Polytechnic Council, which had been established in 1894, in order to co-ordinate the work of the several institutions, became redundant as a result of the Education (London) Act, 1903. This Act made the County Council the local education authority with power to promote the co-ordination of all forms of education, and the London Polytechnic Council dissolved in 1904. The Northampton Polytechnic, the Birkbeck College, and the City of London College, which had been federated as the City Polytechnic under the management of a supreme governing body (the Council of the City Polytechnic), became independent institutions under the control of separate governing bodies on the dissolution of the supreme governing body by the Charity Commissioners in 1907. In 1909, a report on the London Polytechnics and other technical institutions was presented to the Higher Education Sub-Committee, followed, in 1912, by a Report on "Eight Years of Technical Education and Continuation Schools (mostly evening work)." The latter document is in two parts dealing with (i) History and Administration, and (ii) Subjects of Instruction in some XXVIII sections with appendices, and may be regarded as a pre-war record of the general position of technical education in London. The complete reorganisation of evening schools in 1913 is dealt with later in this scheme in a separate section. It will suffice to say here that the result of this reorganisation has been largely to exclude junior students under 17 years of age from polytechnics, technical institutes, and schools of art, and to provide for them in evening institutes of a specialised type maintained by the Council; to provide for commercial instruction of an elementary and advanced type in special institutes also maintained by the Council; and to develop special institutes for women. These measures have largely relieved the pressure in the higher institutions, setting free their staff and accommodation for more specialised lines of effort.

## XI.

### *Statistical comparison.*

Some measure of the expansion of work may be gathered from a comparison of student-hours and expenditure. It has to be remembered that all evening work and much of the day work of technical institutions was very seriously affected during the war, and that from its earliest days until now the whole has been voluntary on the part of the students. A recovery has now been effected, and the statistical returns for 1919-20 so far show a marked increase in the volume of work over those for 1913-14. The figures for the whole session 1919-20 are an estimate based on

actual returns reported to the Council in December, 1919. The Technical Education Board reported that the evening student-hours in mechanical and electrical engineering subjects had reached a total of 123,867 in 1900-1. By 1909-10 student-hours in these subjects had increased to 286,112. Those for the war-time session (1917-18) were 150,653, while the estimated number for the current session is 360,000.

A tabular statement for some important departments is given below :—

*Polytechnics—Comparative figures for evening education.*

| Subject.                | Student hours 1900-1901. | Student hours 1909-10. | Student hours 1917-18. | Student hours 1919-20.* |
|-------------------------|--------------------------|------------------------|------------------------|-------------------------|
| Engineering .. .. .     | 123,867                  | 286,112                | 150,653                | 360,000                 |
| Mathematics .. .. .     | 36,569                   | 67,956                 | 59,978                 | 136,000                 |
| Building trades .. .. . | —                        | 62,602                 | 16,212                 | 42,800                  |
| Physics .. .. .         | 75,766                   | 78,319                 | 40,693                 | 82,000                  |
| Chemistry .. .. .       | 52,142                   | 91,549                 | 70,558                 | 167,000                 |

The growth of expenditure on maintenance is indicated by the following figures. In the case of the aided institutions the Council's grants constitute about 60 per cent. of the total expenditure.

|   | 1904.     | 1910-11. | 1919-20 (estimated). |
|---|-----------|----------|----------------------|
|   | £         | £        | £                    |
| (i) Polytechnics .. .. .                            | 170,339   | 204,883  | 325,000              |
| (ii) Technical institutes (aided and maintained) .. | 38,614    | 90,966   | 172,955              |
| (iii) Schools of Art (aided and maintained)..       | 21,503    | 33,373   | 61,624               |
| (iv) Centres (science and art and commercial)       | 138,944   | 140,816  | 262,935              |
| (v) Ordinary evening schools .. .. .                |           |          |                      |
|   | £ 369,400 | 470,038  | 822,514              |

## XII.

*Technical institutions and schools of art.*

When the work of the Technical Education Board was directly assumed by the Council in 1904, the Board had a considerable amount of building work in hand, which fell to be completed by the Council. A site in Southampton-row for the L.C.C. School of Arts and Crafts had been appropriated, and plans prepared of the splendid building which now occupies one of the most central educational sites in London. The L.C.C. School of Building in Ferndale-road had just been opened; the L.C.C. Poplar Technical Institute (now the L.C.C. School of Engineering and Navigation) was in course of erection; the L.C.C. Paddington Technical Institute had been opened after the necessary alterations and repairs; the enlargement of the Norwood Technical Institute had been completed, providing for science laboratories and workshops which were in process of equipment; a two-storey building was about to be erected at the Shoreditch Technical Institute; and plans had been prepared for an additional building at the L.C.C. Westminster Technical Institute.

In addition to completing these works, the Council has rebuilt the L.C.C. Hammersmith School of Arts and Crafts and the L.C.C. School of Photo-Engraving. The L.C.C. Barrett-street Trade School has been instituted by the conversion of an old elementary school off Oxford Street, and the Bloomsbury Trade School has been installed in the former premises of the Royal Female School of Art. Additional blocks of buildings have been provided for the L.C.C. Paddington Technical Institute, the L.C.C. Shoreditch Technical Institute, and the L.C.C. Camberwell School of Arts and Crafts.

Building grants have, moreover, been given to enable the aided institutions to extend their premises, including the Battersea and Borough Polytechnics, Northampton Polytechnic, Northern Polytechnic, South Western Polytechnic, Wandsworth Technical Institute, and Woolwich Polytechnic. The Regent-street Polytechnic has also been completely rebuilt, the Council having made a contribution of £38,500 for this purpose. Apart from buildings, annual grants for maintenance and equipment have enabled the various institutions to re-arrange their laboratories, workshops, and classrooms, and to renew and extend their equipment.

A list has been given above of the institutions existing in 1904, when the Technical Education Board completed its work. The institutions, aided and maintained, now existing are given in the table below.

\* Estimate based on students enrolled to 1st November, 1919.

*Technical Institutions and Schools of Art.**Aided.**The Polytechnics.*

Battersea Polytechnic.  
 Birkbeck College.  
 Borough Polytechnic.  
 City of London College.  
 Northampton Polytechnic.  
 Northern Polytechnic.  
 Regent-street Polytechnic.  
 Sir John Cass Technical Institute.  
 South Western Polytechnic.  
 Woolwich Polytechnic.

*Maintained.*

Beaufoy Institute.  
 Hackney Institute.  
 Norwood Technical Institute.  
 Brixton School of Building.  
 Paddington Technical Institute.  
 Poplar School of Engineering and Navigation.  
 School of Photo-Engraving and Lithography,  
 Bolt Court  
 Shoreditch Technical Institute.  
 Westminster Technical Institute.

*Other institutions.*

|  |   |
|--|---|
| <p>Cordwainers' Technical College.<br/>         Goldsmiths' College.<br/>         Herold's Institute.<br/>         Leathersellers' Technical College.<br/>         St. Bride Foundation Printing School.<br/>         Wandsworth Technical Institute.<br/>         Albany Institute, Deptford.<br/>         Bermondsey Settlement.<br/>         Blackheath, Lee, Lewisham and Greenwich<br/>         School of Art.<br/>         College for Working Women, Fitzroy Square.<br/>         Morley College.<br/>         Newcomen Foundation Domestic Trade<br/>         School for Girls.<br/>         Passmore-Edwards Settlement.<br/>         Royal School of Art Needlework.<br/>         Sailors' Home—School of Nautical Cookery.<br/>         St. Martin's School of Art.<br/>         School of Woodcarving.<br/>         Toynbee Hall.<br/>         Working Men's College, Camden Town.</p> | <p>Camberwell School of Arts and Crafts.<br/>         Central School of Arts and Crafts.<br/>         Hammersmith School of Arts and Crafts.<br/>         Clapham School of Art.<br/>         Putney School of Art.<br/> <br/>         Trade School for Girls, Barrett-street.<br/>         Trade School for Girls, Bloomsbury.<br/>         Trade School for Girls, Hammersmith.</p> |
|--|---|

The names of the various institutions are sufficient to indicate that some are entirely devoted to education connected with specific industries, such as the School of Building and St. Bride Foundation Printing School; others are devoted to a restricted type of student, such as the Trade Schools for Girls; Schools of Art, such as St. Martin's School, and Schools of Arts and Crafts, such as the Central School of Arts and Crafts, are conducted for definite fields of effort; whilst the majority of the polytechnic type, such as the Battersea and Regent-street Polytechnics, and of the technical institute type, such as the Hackney and Westminster Institutes, embrace diverse fields of effort, not necessarily closely related to each other, but related to the needs of the local industry or population. To avoid misconception, it should be stated that practically all the phases of instruction for which particular institutions are set apart are also to be found amongst the numerous departments of the composite institutions. For example, in the Westminster Technical Institute will be found such diverse activities as a school of art, schools for cooks and waiters, civil engineering and gas manufacturing classes, and evening classes in various other subjects.

Reference has been made elsewhere to the origin and early history of the polytechnics. These institutions are controlled by independent governing bodies, on which the Council is represented, and the Council is enabled, through a special system of grants in aid, to obtain their cordial co-operation in its broader policy of educational provision.

Generally speaking, the polytechnics provide both day and evening education for adult students, though two of them, the Birkbeck College and the Sir John Cass Institute, are primarily concerned with evening education. Some are concerned mainly with the education of artisans, and of these the Borough Polytechnic is a typical example. In other cases, professional courses up to the standard of a university degree, are provided; thus, the Birkbeck College is specially concerned with evening education up to a university standard of students occupied in their callings during the day, while the Battersea Polytechnic and the Northampton Polytechnic provide day courses in engineering of a university standard. The polytechnics, in addition to recreative and technical education for part-time evening students in a great variety of subjects, provide in some cases day trade or junior technical schools for boys and girls. Day courses are also arranged for apprentices on a part-time basis, as, for example, in the case of pianoforte manufacture, at the Northern Polytechnic. One polytechnic, the

City of London College, is almost entirely concerned with commercial education and the technology of commercial commodities. Schools of architecture and building, of bakery and confectionery, of brewing, and of carriage building may be cited as further examples to illustrate the variety of instruction available.

The polytechnics receive large endowments from the City Parochial Foundation. As a result of the report of the Royal Commission of 1878, the City of London Parochial Charities Act was passed in 1883. The Act provided *inter alia* that the Charities in 107 parishes of the City of London should be administered by a corporate body, entitled "The Trustees of the London Parochial Charities," and that the Charity Commissioners should publish statements setting out the charitable endowments of these 107 parishes, distinguishing the secular from the ecclesiastical endowments. The income of the secular fund was found to be £50,000 a year, and of the ecclesiastical fund, £35,000 a year.

Before handing over these funds to the trustees, the Charity Commissioners made certain capital grants out of the corpus of the Charities; among these were:—

£11,750 to the Regent Street Polytechnic.  
 £6,750 to the People's Palace.  
 £45,000 to the Northampton Institute.  
 £6,000 to the Royal Victoria Hall and to Morley College.

Since then the income of the Central (secular) Fund has averaged some £55,000 a year, and is increasing. The grants out of the fund are divided under three heads:—

- (1) Polytechnics and kindred institutions.
- (2) Open spaces.
- (3) Miscellaneous.

The following annual grants are fixed:—

|   | £     |
|---|-------|
| Regent Street Polytechnic .. .. .         | 3,500 |
| People's Palace .. .. .                   | 3,500 |
| Northampton Polytechnic Institute .. .. . | 3,350 |
| Birkbeck College .. .. .                  | 1,000 |
| City of London College .. .. .            | 1,000 |
| Victoria Hall and Morley College .. .. .  | 1,000 |
| Borough Polytechnic .. .. .               | 2,500 |
| Battersea Polytechnic .. .. .             | 2,500 |
| South Western Polytechnic .. .. .         | 1,500 |
| Working Man's College .. .. .             | 400   |
| Northern Polytechnic .. .. .              | 1,500 |
| North Western Polytechnic .. .. .         | 1,500 |

In addition to the above grants, which are obligatory under the central scheme, the trustees have at their disposal the surplus income of the central fund. They have exercised this discretionary power in support of polytechnics in sums varying from £356 in 1891 to £17,364 in 1911.

Since the establishment of the scheme in 1891, the City Parochial Foundation has contributed a sum of £729,162 to the various polytechnics in the metropolis, exclusive of the capital grants made in that year. The sum mentioned includes both discretionary and obligatory grants.

A statement of the block and equipment grants allocated to the polytechnics in 1911-12 and 1919-20 will give some indication of the extent of the Council's grants in aid.

|   | <i>Block grant.</i> |          | <i>Equipment grant.</i> |          |
|---|---------------------|----------|-------------------------|----------|
|   | 1911-12.            | 1919-20. | 1911-12.                | 1919-20. |
|   | £                   | £        | £                       | £        |
| Battersea Polytechnic .. .. .             | 10,500              | 13,100   | 2,000                   | 750      |
| Birkbeck College .. .. .                  | 6,600               | 10,100   | 500                     | 850      |
| Borough Polytechnic .. .. .               | 10,634              | 15,600   | 1,240                   | 550      |
| City of London College .. .. .            | 3,902               | 8,700    | 175                     | 600      |
| Northampton Polytechnic .. .. .           | 7,330               | 10,250   | 1,600                   | 4,200    |
| Northern Polytechnic .. .. .              | 8,100               | 15,350   | 725                     | 750      |
| Regent Street Polytechnic .. .. .         | 12,500              | 32,000   | 8,250*                  | 2,000    |
| Sir John Cass Technical Institute .. .. . | 4,450               | 7,300    | 520                     | 1,100    |
| South-Western Polytechnic .. .. .         | 11,500              | 9,800    | 750                     | 2,000    |
| Woolwich Polytechnic .. .. .              | 10,865              | 17,750   | 400                     | 1,100    |
| Totals .. .. .                            | £86,381             | 139,950† | 16,160                  | 13,900   |

\* Including equipment for new building.

† Exclusive of £60,000 in respect of war bonus and improved salary scales voted subsequently to the block grants.

During the latter part of the war period, owing to rapidly varying conditions, assessments of block grants were made from year to year. It is expected that the triennial assessment will shortly be resumed.

The endowments of the lesser aided institutions are relatively small, the largest endowments being those of St. Bride Foundation (Printing School), approximately £400 annually; Newcomen's Foundation (Domestic Trade School), £560 annually; and Herold's Institute, £50 annually; though in the latter case the sum is not all allocated to education.

Each of the aided institutions is controlled by a governing body or committee, on which the Council is represented. The Council further arranges by conferences and otherwise that there is no undue competition or overlapping between one aided institution and another, thus exercising its duty under Section 2 of the Education Act, 1902, of co-ordinating the educational effort of the area.

The most important institution not aided by the Council is the City and Guilds Finsbury Technical College, which provides a two-year course for those desiring to enter the mechanical engineering and electrical engineering trades, and a three-year course for those desiring to enter the chemical trades. Other schools which may be mentioned as coming under this head are the Trades Training Schools, Great Titchfield Street; the South London Technical Art School; and the School of Pharmacy of the Pharmaceutical Society. In addition, a number of private adventure schools are taking advantage of the Education Act, 1918, and applying for recognition and inspection by the Council as local education authority.

The Council in 1918 introduced a new scale of salaries for principals and other teachers in technical institutions. The scale for principals is divided into groups, the minimum salary in the lowest group being £440 and the maximum in the highest group £1,250. The salaries for heads of departments range from £440 to £840 in the case of men, and from £340 to £640 in the case of women. The salaries of whole-time lecturers and teachers range from £225 to £490 (men), and from £180 to £340 (women). In the case of polytechnics and other aided institutions, the qualifications and proposed scales of salary of principals, and the scales of salary of heads of departments, are submitted for the Council's approval, and the appointment of principals must not be confirmed until the approval of the Council has been received.

### CHAPTER III.

#### *Evening Institutes.*

##### I.

#### *Introduction.*

Neither the present system of voluntary evening continuation schools, nor their future development in part as compulsory day continuation schools, can be adequately appreciated without due regard to their past history. It should not be overlooked that these schools, when taken over by the local education authority in 1904, were already a vigorous growth, and a valuable testimony to the persistence of the School Board for London in the face of many obstacles. A short account of this movement will not be out of place.

1. Night schools existed before School Boards, but they were few in number, and the instruction they gave—like that in the day schools before 1870—was rudimentary. The Education Act of 1870 laid down no restrictions as to school hours. The old night schools were, therefore, continued under the Act, teaching the three R's to illiterates, and at first without regard to age. They were maintained out of the rates and by grants from the Education Department. The School Board's only authority for legal expenditure—the Act in question—empowered School Boards to provide elementary schools for "children"; and an elementary school was defined as "a school or department of a school at which elementary education is the principal part of the education there given." The history of evening schools in the 80's and 90's is largely a record of conflict between these two restrictions and the standards and ideals of the School Board. The Education Code Act, 1890 (referred to later) removed the requirement that, as a condition of the parliamentary grant to an evening school, elementary education should be the principal part of the education given.

2. In the very early days of the School Board only a few evening schools were opened. Pressure of other work crushed out the consideration of any general scheme. The education offered was quite elementary. Even at this early stage, however, the view was held that education of a more advanced kind than that given in the elementary day schools should be offered in evening schools to those unable or unwilling to attend secondary schools. The first attempt to establish a system of evening schools in London was made in 1873, but partly owing to regulations forbidding the opening of an evening class, except on a specified number of students enrolled, and requiring its closure under like conditions, partly owing to difficulties as to teachers' salaries, these first efforts failed. It is probable also that the School Board at that time (1875) was incurring very severe criticism of its alleged lavish expenditure, and that it therefore resolved to drop a branch of its work which was costly and not popular. Although direct management was dropped for a time, the Board agreed to allow voluntary agencies the use of the Board's buildings, at a nominal rent, for the purpose of evening schools.

3. It was not until 1882 that the School Board again assumed direct responsibility. In that year 9,000 pupils were enrolled, of whom one-third were women and girls. The classes formed were of two kinds, elementary and advanced. The elementary classes were conducted under the conditions of the Code. They were regarded merely as repetitions of day schools with their then maximum age limit of 13, their standard distinctions, their examinations for grant by His Majesty's Inspector,

and their limitations on subjects beyond reading, writing, and arithmetic. For the advanced classes the School Board undertook no financial responsibility. They merely continued the practice of granting the use of school buildings, at a nominal fee, to responsible teachers and other persons, who had to rely for funds on the fees of students and grants from the Science and Art Department. The teachers' direct interest in the fees, and in the grants on "passes" in the Science and Art Department examinations, exposed the evening schools to the criticism, which persisted over many years, that the evening schools existed for the benefit of the teachers.

4. For ten years (1885-1895) the character of the evening schools was much influenced by the work of the Recreative Evening Schools Association. This Association was a voluntary body of educationists, seeking, at their own cost, objects sufficiently indicated by the name they assumed. The Code set up intellectual standards only—such as they were—but the Association endeavoured to popularise evening schools, and increase their influence, by the introduction of more attractive subjects, such as vocal music, lantern lectures, clay modelling, domestic economy, and the like. It was beginning to be realised that the day had gone by for teaching the three R's to illiterates, and that the time had come when a genuine evening continuation school was required. The "hooligan" problem had also arisen. The Association had come to grips with one of the permanent elements in London labour problems, viz., that education, superadded to the day's work, is not to be measured in terms of mere instruction, but must find expression on the recreative side. To-day, this characteristic finds itself reflected in clubs, societies, and other social activities, some closely, others loosely connected with the evening school organisation. The Code of 1890, which made evening schools possible, apart from the three R's, was largely the result of the work of the Recreative Evening Schools Association. In 1895 the School Board took over the Association's apparatus, and, as the aims of the Association had gradually been included in the Board's programme, the Association was dissolved.

5. From 1895 onwards the evening schools grew in numbers and importance, session by session, although a crisis was twice brought about by the Local Government Board auditor. Some considerable relief had been obtained through the Education Code Act, 1890, which declared that it should not be required as a condition of a Parliamentary grant to an evening school that elementary education should be the principal part of the education given. The auditors were still, however, apprehensive. On the first occasion, the auditor compelled the School Board to refuse admission to maintained classes to pupils over 21 years of age. This was the old question of the meaning of "children" in the Act of 1870. The Cockerton judgment of 1901 induced the second crisis. It was decided that the School Board could not charge to the rates (1) the cost of science and art classes conducted under the direction of the Science and Art Department; (2) the cost of instructing persons not being "children" within the meaning of the Education Acts. This judgment delayed the advance of the School Board's ideals and standards, and rendered necessary some change in the law. Pending the passing of the Acts of 1902 and 1903, temporary expedients were adopted by Parliament, or by the Board of Education, to preserve, as far as possible, the higher work of the School Board. To prevent the decapitation of the evening school system threatened by the Cockerton judgment, a short enabling Act was passed in 1901. The operation of this Act was subsequently extended by further enabling Acts. By these Acts county councils were enabled to authorise School Boards to continue the evening work which had been declared illegal. In effect, the Acts permitted county councils to delegate to the School Board the powers obtained from the Technical Instruction Acts to conduct such classes. The Acts were also an indication that in 1901 a change in the local administration of education was in sight.

6. With the exception of the Cockerton judgment, the last years of the School Board's administration of evening schools were uneventful. The period is noteworthy principally for the opening of commercial centres; more liberal staffing; the appointment of special lecturers in history, law, literature, and economics; and the extension of physical culture. Pressure was also brought to bear on the medical profession in regard to the health requirements of the people, and classes in first aid, hygiene, and other kindred subjects were instituted. This period brings to a close a career of great activity, of which the outstanding feature is that, in 1904, 150,000 adolescents and adults were being educated in evening schools, although necessarily in premises acquired for entirely different purposes.

7. It has been shown how a voluntary association played an important part in the early development of evening schools. The title of the Association "The Recreative Evening Schools Association" is in itself suggestive. Even in those pioneer days, the view that the education of the classroom had to be supplemented by recreative and other healthy external activities, had become a live influence, and the Association may fairly be said to have been the sponsor of the prevailing opinion of to-day. Other voluntary organisations which exercised considerable influence on evening schools were the Society of Arts and the London Chamber of Commerce. The activities of these two bodies were mainly directed to the encouragement of commercial subjects, such as book-keeping, shorthand, typewriting, banking, currency, languages, etc.—through the medium of the examinations held under their auspices. These examinations furnished a useful incentive to continued study, and the diplomas awarded by the two bodies were of much assistance in enabling students to obtain employment. The National Union of Teachers also established a system of examinations and certificates for evening school students, and a large number of science and art classes were conducted by voluntary committees. This then was the position at the time when the Technical Education Board came into existence in 1893. Some reference has already been made to the functions of this Board, but it may be stated here that a local system of strong institutions, acting as centres of influence and gradually attracting within their sphere the miscellaneous classes of an area, formed the main pivot of their



policy. To this system of aided or maintained science and technology the evening school system of the School Board for London bore no intimate relationship. There was no general plan to provide for the needs of London as a whole; nor was a policy of give and take adopted between the two authorities themselves, nor, indeed, between the institutes and schools within their respective control. Certain facilities offered by the polytechnics and technical institutes and schools of art were also being offered by the evening schools; and competition grew on both sides. Not only was there absence of co-operation between the two systems, but much overlapping and rivalry existed. These were the inevitable results of the concurrent activities of two local authorities in circumstances demanding a rapid extension of technical education and evening schools. In 1899 the two authorities arrived at an agreement to avoid overlapping in certain aspects of their work, but little progress had been made in this direction when the Council became the local education authority in 1904.

8. From 1904 onwards serious attention was directed to the co-ordination of the two systems. Investigation showed that the time was not ripe for a complete scheme of co-ordination, which would link up the whole system of evening schools and institutions throughout the County. Such scheme, it was felt, must be the outcome of experience and gradual development. Certain tentative proposals were, however, adopted by the Council in 1905, with the concurrence of the Governors of the various polytechnics, and a commencement was made by delimiting the frontiers of the polytechnic, the technical institute, the commercial and science and art centre, and the ordinary evening school, in regard to specific spheres of work. The areas concerned were those of the Battersea, Borough, Northern, South Western, and Woolwich Polytechnics, and of the Paddington Technical Institute. A distinct advance was thus made. The result, however, fell short of expectations. The old feeling of rivalry had not been extinguished. In circumstances, such as those referred to, it was difficult to persuade either set of institutions that each was part of a larger system, and that both were subordinate to the general interests of London education.

9. The experiment of reorganisation initiated in 1905, as between the evening institutes and the polytechnics and technical institutes, was brought to its consummation in 1913. In order that this latter reorganisation may be clearly understood, it is desirable to restate some of the more serious difficulties. (1) Students had hitherto been permitted to enter the institutes at any time during a session. This continuous admission of students, when the classes formed had already made some progress, was discouraging to students and teachers alike, and tended to retard the rate of progress of the students previously enrolled. (2) A great number of the teachers engaged in evening schools were employed in teaching during the day, and could hardly be expected to do justice to their classes in the evening at the conclusion of the day's work. (3) The students, as a rule, were devoting the whole of their time to a limited number of subjects chosen by themselves. They frequently found that they were not making appreciable progress, and so ceased to attend. There is no doubt that one of the principal causes of this was a want of ground work in such fundamental subjects as English and Arithmetic. (4) Although some employers had realised the value of continued education, many were ignorant of the facilities offered, and it became obvious that a better understanding between industry and education was of the first importance. (5) Finally, it was necessary to ensure that, in any reorganisation, the work should be kept under observation by officers whose activities during the day were not so fully occupied as those of the day school inspectorate, and that the progress of the evening institutes should be assessed by a separate group of inspectors.

The scheme formulated in 1913 was designed to overcome the objections to which reference has been made. Specific types of institutes were established, each type with its own educational objective. A clear division was to be drawn between the institutes, according to the ages of the students, junior institutes to be confined to students under 18 years of age, and senior institutes to students over that age. A system of affiliation between the junior and senior institutes was essential, by which the junior institutes would provide a two years' course in specific preparation for the more advanced work of the senior institutes. To each institute was allotted a specific working area, and the head of the Institute was expected not only to make known the facilities offered in the local institute, but to endeavour to secure the co-operation of employers of labour, local club leaders, and others. Further, the employment for teaching purposes of persons engaged in the day time was limited to three evenings per week. The principal features of the reorganisation effected on these lines may be summarised as follows:—

(i) Junior institutes for students between 14 and 18 years of age are organised in buildings distinct from the senior institutes.

(ii) Students under 18 years of age taking commercial and technical subjects are required to attend organised courses of study covering three evenings a week, and are not allowed to take isolated subjects only.

(iii) Close connection is established between—(1) junior commercial institutes and the commercial institutes; (2) junior technical institutes and the polytechnics and technical institutes.

(iv) Special provision is made for women students by the establishment of women's institutes.

(v) There is a revised scale of fees, under which provision is made for the remission of fees in the case of all students who have made 75 per cent. of the possible attendances in the preceding session.



(vi) In certain of the larger institutes, principals and responsible teachers are required to devote their full time to the work of the institute, so as to enable them to give their whole energies to the organisation of the institute, the recruiting of students, the visitation of employers, and the supervision of the curriculum. A number of posts have also been established, the holders of which devote half their time to the day school and half to the evening institute.

(vii) The teaching is brought into close touch with the requirements of the business or the workshop.

The following are the types of evening institutes :—

(a) Commercial institutes, providing an advanced commercial education for both sexes, to which students under 17 years of age are not admitted unless educationally qualified.

(b) Junior commercial institutes, providing a two-year course of preparatory commercial education for both sexes.

(c) Junior technical institutes, providing a two-year course of preparatory technical education for boy students (with provision for admission of girl students in certain cases).

(d) Women's institutes, providing education in domestic and health subjects for female students.

(e) Institutes with more than one department (*e.g.*, junior commercial and junior technical).

(f) General institutes, providing a general education for both sexes.

(g) Free institutes, providing a general education, not commercial or technical, for both sexes.

(h) Institutes for the deaf, providing a general education for deaf students of both sexes.

(i) Literary institutes, providing instruction of a non-vocational type for students over 18.

Special classes are also arranged for such students as police, firemen, post office and other Government messengers. A complete list of all subjects taught in evening institutes will be found in Appendix II. A comparison between the number of subjects taught in 1889 and 1919, respectively, is significant of the progress made. Appendix III gives further comparative statistics of the growth of these institutes during the years 1882 to 1919.

10. The history of evening institutes, often called evening continuation schools, has been given at some length, since both by their successes and failures they prepared the way for one of the central features of the Education Act, 1918, *viz.*, compulsory day continuation schools.

## II.

### *Commercial Institutes.*

The Commercial Institutes number 25. For the purpose of advanced commercial instruction the County is divided into 25 educational areas, each of which is served by a senior commercial institute, with a group of affiliated junior institutes. In their original inception the senior institutes provided commercial education of a less advanced type, of the standard, for example, necessary in a merchant's office, or the lower branches of the Civil Service, but the scope of the institutes has now been considerably enlarged. The curriculum to-day includes nearly all the subjects of professional examinations connected with commerce. The senior institutes necessarily vary in character according to the needs of the district. The outstanding feature of the curriculum is a series of grouped courses, though single-subject classes are also provided to meet individual requirements. The grouped courses are designed to provide adequate courses of study for commercial students, and to cover the examination requirements of the various professional bodies for the award of diplomas. Thus the course for accountants includes accountancy, law, economics, and general business knowledge, and is based on the examinations of the Societies of Chartered Accountants and Incorporated Auditors and Accountants, respectively, whilst the course for those entering banks includes economics, banking, foreign exchanges, law, etc., and is based on the examination of the Institute of Bankers. Similarly, grouped courses have been arranged in respect of shipping, insurance, local government, auctioneering, surveying, estate agency, and company management. Foreign languages also occupy an important place. The languages taught include French, Spanish, Italian, Russian, German, Portuguese, Dutch, and Norwegian. In addition to the conversational and written aspects of a language, every endeavour is made to widen a student's outlook through the history and geography of a country and its commercial relations and institutions. The libraries of the institutes contain carefully-selected standard works on commercial subjects, as well as newspapers and magazines circulating in the business world. Considerable provision is still made for teaching shorthand, typewriting, and book-keeping, that is to say, for the professional equipment of the junior clerk.

The senior commercial institutes also make provision for the humanities and the recreative side of a student's life. The subjects taught in this connection include English literature and civics, and there are well-established classes in vocal and instrumental music and physical exercises. Another excellent feature in many of the institutions is the growth of social clubs for such purposes as cycling, photography, lawn tennis, chess, etc. Debating and dramatic clubs also flourish, and social evenings are held periodically. Generally, much interest is taken in the corporate life of the institute, which is a local centre of considerable intellectual activity.

During the war the senior institutes suffered severely from the absence of men of military age. The enrolment fell considerably, but the latest available returns indicate a marked improvement, the figures for the year 1918-19 being as under :—

|                                   |           |
|-----------------------------------|-----------|
| Students enrolled.. .. .          | 21,062    |
| Registered student hours .. .. .  | 1,279,820 |
| Average hours per student .. .. . | 60·77     |

Of the 21,062 students enrolled 3,463 completed 75 per cent. or more of the total hours possible in their respective classes.

### III.

#### *Junior Commercial Institutes.*

There are 40 institutes of this type, affiliated to, and working closely in connection with, the elementary day schools on the one hand, and the senior commercial institute of their immediate neighbourhood on the other. On completion of a two years' course, students are transferred from the junior to the senior commercial institutes. Junior commercial institutes are primarily organised to provide continued education for boys and girls intending to earn their living in the commercial world. Courses are arranged with book-keeping, commerce, shorthand, or a modern language as the main subject, to which three hours a week are devoted; one hour a week is given to English, one to tutorial work, and one to a cognate subject such as arithmetic, commercial correspondence, or business training. The chief aim of this type of institute is vocational, but classes in physical exercises or gymnastics are held in the majority of the institutes. The same social activities and the same corporate life are in evidence as in the case of the senior commercial institutes. The results of the teaching are tested by an annual examination. The returns for the year 1918-19 show an enrolment of 17,204.

### IV.

#### *Junior Technical Institutes.*

Junior Technical Institutes were first established separately in 1913. They provide specialised technical training for students from 14 to 18 years of age engaged in particular trades. In all courses English is an obligatory subject, and many courses include gymnastics in addition to the practical work, science, calculations, and drawing connected with the particular trade. The courses are specifically designed to meet the requirements of those employed in London trades, and in each course one evening out of the three is devoted to trade work. There are 31 typical courses, which extend over a period of two years. Each junior institute is affiliated to a senior technical institute, or polytechnic. There are 15 junior technical institutes. The enrolment at these institutes for the year 1918-19 was 6,226.

### V.

#### *Women's Institutes.*

The Women's Institutes provide places for study and recreation in all parts of London, particularly for girls and women who are not specialising in commercial occupations or trades. There are 36 women's institutes—28 fee-paying and 8 free. The curriculum comprises:—

##### The Domestic Crafts—

- Cookery.
- Dressmaking.
- Embroidery and Design.
- Domestic Handicraft.
- Domestic Upholstery.
- Housework.
- Laundrywork.
- Millinery.

- Domestic Calculations.
- Health Subjects.
- English.
- Vocal and Instrumental Music.
- Drawing.
- French (in three selected institutes)
- Special short courses in Domestic Architecture and Home-planning.

Physical exercises, country dances, and folk songs are also included. Considerable prominence is given to this part of the curriculum, which is increasingly popular. Grouped courses are not compulsory, but are encouraged, especially for junior students. The number of students taking grouped courses shows a marked increase. A very large number of clubs have affiliated with women's institutes with beneficial results. Here again, as in the case of other types of institutes, an important feature is the development of the social side of the institute. A common room is provided at each institute, in which students can read or play games. Simple refreshments are supplied at cost price. There is also a library containing newspapers and periodicals. The enrolment at these institutes for the year 1918-19 was 19,116 (fee paying) and 8,912 (free).

## VI.

*Institutes with more than one Department.*

These institutes, sometimes known as dual institutes, serve areas in which the demand is insufficient to justify a separate institute of each type. There are 31 such institutes in all, sub-divided as under:—

|   |    |
|---|----|
| Junior Commercial and Women's .. .. .                   | 10 |
| Junior Technical and Women's .. .. .                    | 2  |
| Junior Commercial and Junior Technical .. .. .          | 14 |
| Junior Commercial, Junior Technical and Women's .. .. . | 5  |
|   | —  |
|   | 31 |
|   | —  |

The curriculum and aims of the several departments are the same as those detailed in III, IV, and V above. The institutes are, as far as possible, placed in charge of responsible teachers qualified in respect of both departments of the institute. The total enrolment for the year 1918-19 was 17,250.

## VII.

*General Institutes.*

General institutes are situated in outlying or isolated districts, where there is no polytechnic, technical institute, or commercial institute within reasonable distance. On this account the curriculum is not so limited in character as that of a junior commercial or junior technical institute. In addition to instruction in commercial and technical subjects, classes in domestic and health subjects are provided. Students under 18 years of age taking commercial and technical subjects are required to take the courses of instruction outlined for junior commercial and junior technical institutes. Foreign languages may be taught. The general institutes have been found to be of service in the outer suburbs, where the educational needs of the population are very varied. The total enrolment at these institutes for the year 1918-19 was 15,068.

## VIII.

*Free Institutes.*

The Free Institutes are located in the poorer areas of London. There are 19 such institutes—9 for women, 3 for men, and 7 for both sexes. The enrolment for the year 1918-19 was as follows:—

|                                   |       |
|-----------------------------------|-------|
| Women's Institutes .. .. .        | 8,912 |
| Men's Institutes .. .. .          | 518   |
| Institutes for both sexes .. .. . | 2,023 |

A registration fee of 6d. is charged, but is remitted in necessitous cases.

The object of a free institute is to provide education and recreation for persons who do not seek vocational (*i.e.*, commercial or technical) education, and who, by reason of age or lack of attainments, are not eligible for enrolment at a literary institute. The subjects taught comprise the following:—

|                        |  |
|------------------------|--|
| For women.. .. .       | Dressmaking.<br>Needlework.<br>Cookery.  |
| For men .. .. .        | Woodwork.<br>Metalwork.<br>Boot Repairing.   |
| For both sexes .. .. . | English.<br>Literature.<br>History.<br>Vocal Music.<br>First Aid.<br>Physical Exercises. |

As regards the subjects taken by men and youths, it is found that the practical subjects are the only ones that appeal strongly to the type of student in attendance. It is becoming increasingly apparent that even the simplest type of free institute has not as yet succeeded in reaching to any considerable extent the class that needs education most.

## IX.

*Literary Institutes.*

Literary Institutes, formerly known as non-vocational institutes, are intended for persons over 18 years of age who do not desire vocational training. The aim of a literary institute is to induce culture amongst a class whose opportunities in this direction have been limited. There are seven

literary institutes. With the exception of one institute, which meets at the Graystoke Place Training College, the classes are held in the buildings of secondary schools. The following list indicates the relative popularity of the subjects taught:—

*Subjects taught at nearly all institutes.*

Literature.  
Elocution.  
Appreciation of Music.  
Appreciation of Art.  
Æsthetics.  
History.  
French.

*Subjects taught at several institutes, but at present attracting small classes.*

Practical Psychology and Mental Training.  
Architecture.  
Vocal Music.  
Nature Study or Science.  
Astronomy.

Other subjects occasionally applied for are instrumental music, physical exercises, folk songs and dancing, drawing, economics, geology, and sociology. The enrolment at these institutes for the year 1918-19 was 574.

## X.

### *The Teaching Staff.*

(1) The logical sequences of an extended curriculum are variety in the qualifications of the teaching staff and the employment of specialists. In the early years of evening schools, when they were largely miniature day schools, a government certificated teacher was accepted as qualified to teach any or all of the subjects; and in those days the staff of the evening schools consisted almost wholly of day school teachers. When, however, subjects not generally taught in the day schools began to be introduced into the evening school curriculum, the services of specialists had to be enlisted; these were obtained, as a rule, from business houses or from private or secondary schools. The gradual widening of the scope of the curriculum kept up an increasing demand for specialists, and by degrees the general character of the staff has undergone a complete change. During the last few years day school teachers have been in a minority. At the same time, although day school teachers are in a minority as regards numbers, they hold most of the responsible positions, for which their experience and skill in school management qualify them. A comparative table is given in Appendix I, showing the number of whole-time and part-time appointments, respectively. The Council in 1913 introduced the principle of appointing as heads of institutes persons whose whole time could be devoted to the work. It was obvious that men and women who were teaching 10 half-days in a day school and 3 or 4 (or in some cases 5) evenings a week in an evening school could not do justice either to themselves or the schools. Of all the reforms made in 1913 this was probably the most far-reaching. The introduction of the principle of whole-time appointments has been a complete success, and it will be seen from the table referred to that since 1913 the number of such appointments has doubled.

(2) The teaching staff of evening institutes is now chosen from approved panels containing some 10,000 names. Specialist teachers are largely recruited from business houses. The higher subjects of commercial law, banking, accountancy, and economics are taught by barristers or solicitors, chartered accountants, banking officials, and others similarly qualified. Dressmaking and millinery are taught by women in the employ of commercial firms. The instruction in home nursing, first aid, infant care, maternity nursing, midwifery, and other medical subjects, is given by qualified medical practitioners and nurses.

### *Joint Standing Conferences and after-care.*

In order to bring the institutions providing evening instruction into closer relationship, the principals and responsible teachers of the various types of institutes in a district, including the polytechnics and larger maintained technical institutes, are members of Joint Standing Conferences. For this purpose London is divided into thirteen districts. The introduction of these conferences has promoted a better understanding between the heads of the institutes, and has cemented the relationship between the institutes themselves. The duties of these conferences may be summarised as follows:—

- (i) To make suggestions for adequate provision for the particular branch of education in the area concerned.
- (ii) To consider the procedure relating to the transference of students from one institution to another.
- (iii) To determine in which institute particular classes for which there is a limited demand should be conducted.
- (iv) To arrange for the attendance of representative heads of institutes at after-care conferences, and for the visitation of employers of labour in the area.
- (v) To consider any questions which are common to the evening institutes in a district.

The "after-care" work of the Council has already been described in the chapter on Child Welfare, but some reference may be made here to the functions of the conference on "after-care." The conferences are specially representative of those interested in the welfare of the ex-day school pupil. Each

conference is attended by the head teacher of the day school concerned, by a responsible teacher of an evening institute, and by a member of the local juvenile advisory committee. Considerable advantage accrues from co-operation with the juvenile advisory committee, as the representative is able, after consulting the parents and the children, to advise as to suitable employment. The conference impresses on the parent and on the pupil the importance of continued education, and an appropriate evening institute is recommended, to which free admission is granted, if the pupil joins at the beginning of the term following his leaving the day school. A student who has once joined an evening institute may continue his education from the junior to the senior institute without payment of fee, provided he maintains regularity of attendance. The "after-care" conferences are a very real factor in evening school life.

## XI.

### *Evening Exhibitions in Art, Science, and Technology.*

As already explained, students are expected to proceed from Junior to Senior Institutes at the end of a two years' course. In order to encourage students to attend the junior course regularly, to undertake a certain amount of home study, and to attain a definite standard of efficiency, the Council has arranged a system of evening exhibitions, 140 exhibitions being awarded annually to students in junior technical institutes (or general institutes with technical departments), and to students in women's institutes. It is a condition of the award of an exhibition that the student shall have made 75 per cent. of the possible attendances in the previous session. The exhibitions are tenable in the first instance for one year, but, subject to satisfactory work and attendance, may be renewed for a second and a third year. Exhibitioners are required to devote not less than six hours a week to attendance at evening classes, or part-time day classes (provided that they are engaged in trade or industry), at approved institutions. The course of study must be related to their employment. Exhibitioners are entitled to admission to the approved classes without payment of fees, together with a maintenance grant of £1 a term, or £3 a year, to cover travelling and other incidental expenses.

## XII.

### *Miscellaneous.*

The session extends from about the third week in September, to Whitsuntide in the case of commercial institutes, and to Easter in the case of other institutes. Summer courses are arranged at the majority of the institutes.

The fees charged to the students are 2s. a course in junior institutes, 2s. a course or single subject in general, women's, and literary institutes, and 5s. a course or single subject in commercial institutes. An extra charge of 1s. (2s. 6d. at commercial institutes) is made for each additional subject. Students residing outside the county are charged a small additional fee. Students who make 75 per cent. of the possible attendances are admitted free during the following session.

The Council in 1918 introduced a revised scale of salaries for principals, responsible masters and mistresses, and other teachers in evening institutes. The salaries of principals and whole-time responsible masters range from £350 to £600, and of whole-time responsible mistresses from £300 to £400. The payments to lecturers and instructors range from 10s. an evening to £1 1s. an evening; special payments of a higher amount are made in special cases.

Continuous efforts are made to bring the work of evening institutes to the knowledge of employers, and to induce them to give facilities for their young employees to attend. In a large number of cases special classes have been arranged for employees of particular firms, and facilities are granted by the employers to encourage attendance, e.g., "time off," payment of fees, award of prizes, etc.

Special facilities are offered in the evening institutes for the systematic study of literature and history by cycle courses extending over six years. Each course consists of 25 lectures. Each lecture is followed by a period of class instruction and certificates are issued in connection with the work of the courses.

In literature six such courses have been arranged dealing with :—

- (i) Shakespeare.
- (ii) Cavalier and Puritan Literature.
- (iii) Eighteenth Century Literature.
- (iv) The Romantic Revival.
- (v) Victorian Literature.
- (vi) Modern English Literature.

In history five similar courses have been arranged :—

- (i) The French Revolution, Napoleon, and the Making of Modern Europe.
- (ii) The English Industrial Revolution.
- (iii) Democracy and the Growth of the Empire in the Victorian Era.
- (iv) 1870–1920. The Great War and the events that led up to it.
- (v) Outlines of World Civilisation, or England and America since 1783.

## XIII.

*Some special features of the Evening School System.*(1) *Choral Unions.*

Musical classes which aim at the performance of concerted music depend for their success upon combined results, as well as upon individual progress. It was consequently felt at an early stage in the history of evening schools that something beyond the weekly rehearsal was necessary to maintain the students' interest in the work ; and also, as no student is refused admission, there may be in a given class, and often is, a curious balance or lack of balance between the voice parts. In order to provide an object for work, and to enable a high grade of music to be studied with prospect of success in performance, a number of choral unions, or combinations of local classes, were called into being, and have admittedly done much to stimulate the love of good music in London.

(2) (a) *Girls' and Women's Clubs.*

A large number of clubs for girls and women have existed in London for many years, some with philanthropic, others with definitely religious aims. In most of these there is a considered educational programme. The number of classes held in connection with any one club varies from a single class to as many as 25. The subjects taught include all those taught in women's institutes, in addition to book-keeping, shorthand, and French. With a view to preventing waste of effort, a large number of these clubs have been affiliated to evening institutes. There are 210 clubs affiliated to women's and dual institutes, comprising 379 classes with an approximate roll of 8,222 students. There are also 41 girls' clubs not so affiliated, in which the Council provides the teachers. The latter category contains 117 classes with an approximate roll of 2,558 students.

(b) *Boys' Clubs.*

Boys' clubs are much less numerous than girls' clubs. The Council provides teachers in boys' clubs, of which 19, with a membership of 582, are affiliated to evening institutes. The boys enrolling in these affiliated classes are required to take a definite course of instruction, as in the junior commercial and junior technical institutes.

(3) *Educational Visits.*

Visits to places of educational interest are becoming increasingly popular with all classes of evening students. The places visited cover a wide range, from printing works, power stations, telephone exchanges, motor building works, and engine repairing shops, in the case of technical students, to cathedrals, museums, and places of archæological interest, in the case of literary students. Visits to performances of Shakespearean plays are also arranged.

The affiliation of junior institutes to polytechnics and other senior institutions is shown in the two diagrams immediately following :—

# PROVISION OF COMMERCIAL INSTRUCTION For Male and Female Students.

- COMMERCIAL INSTITUTES.
- + JUNIOR COMMERCIAL INSTITUTES.
- GENERAL INSTITUTES.
- AFFILIATION.

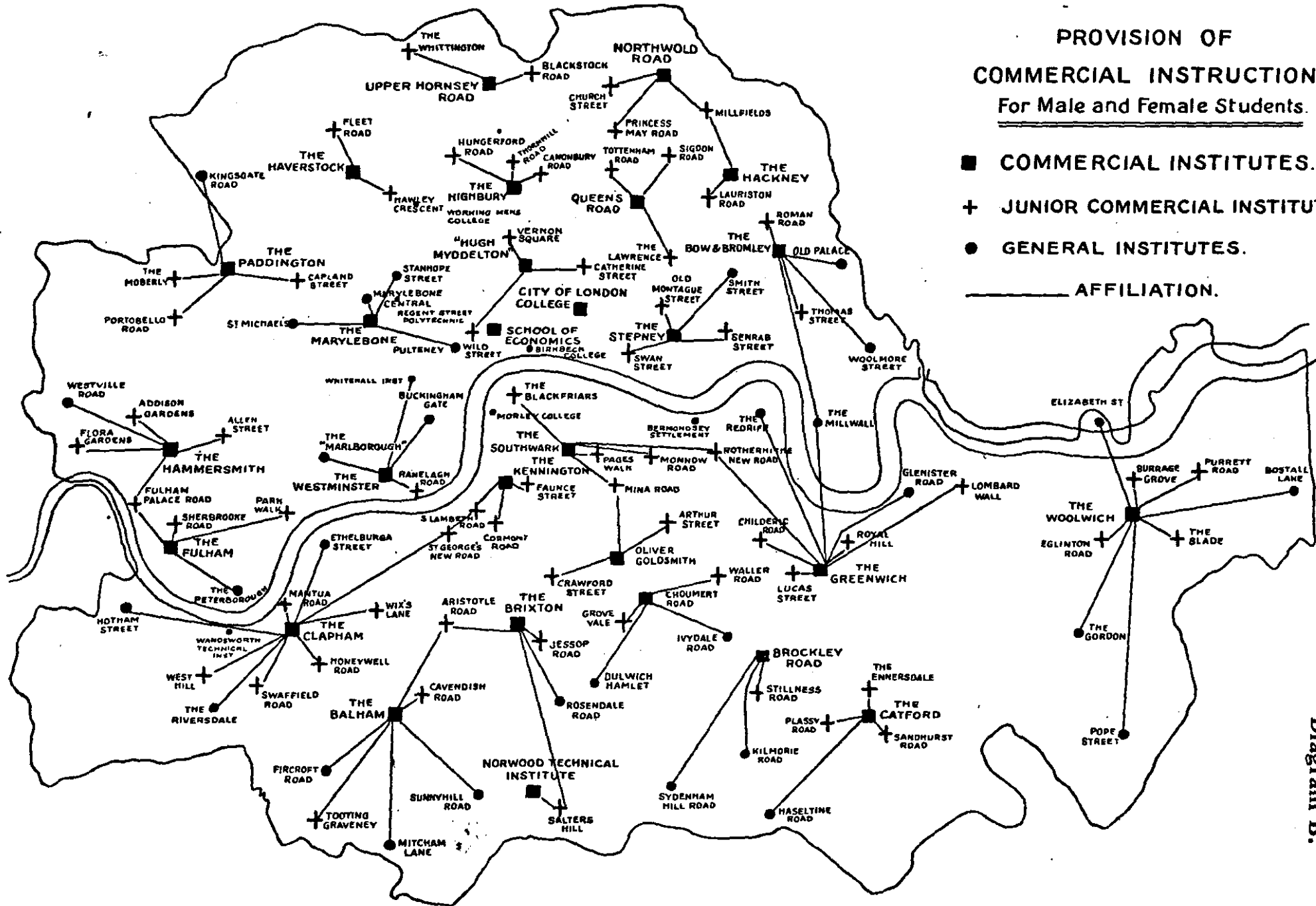
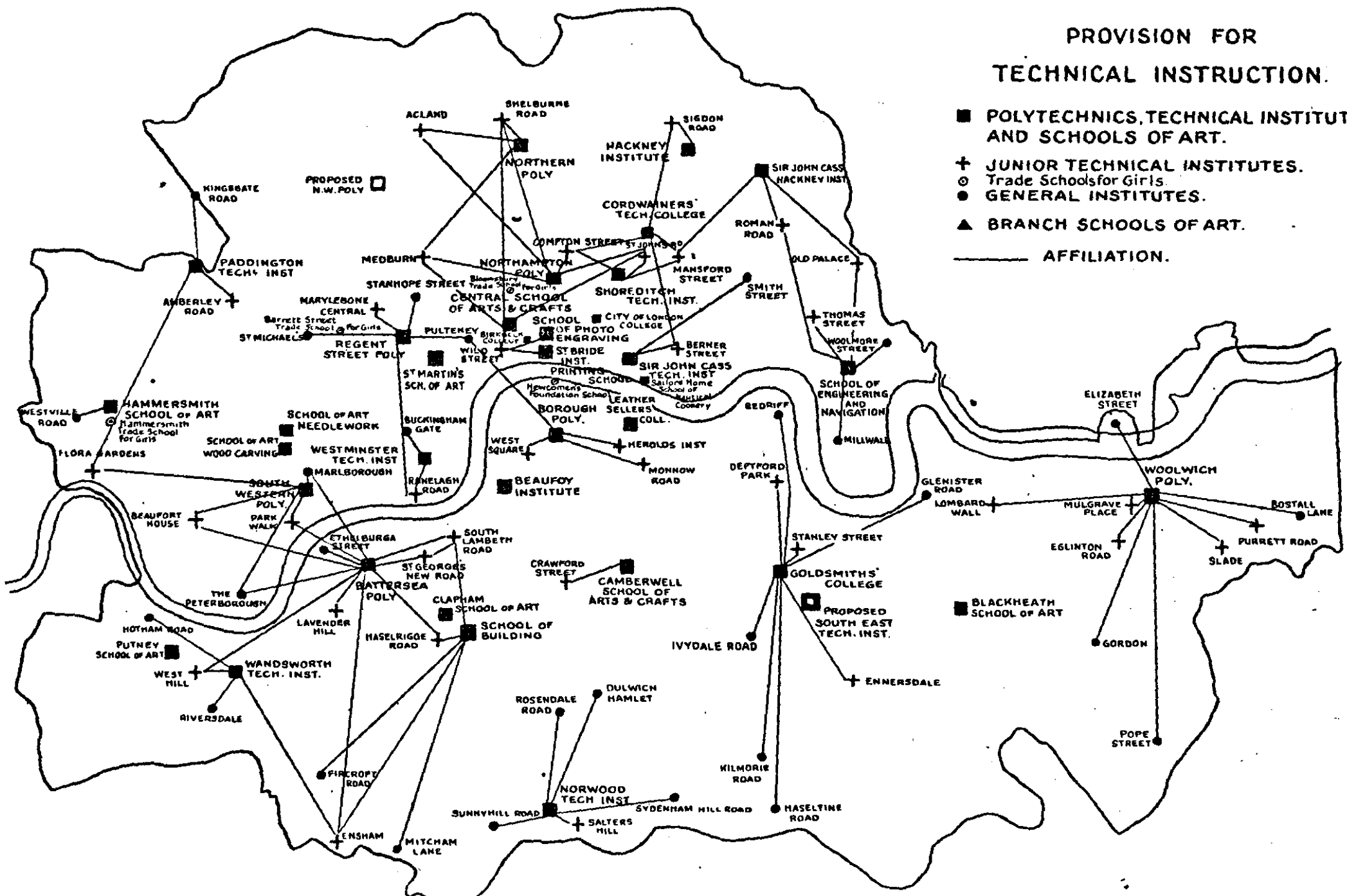


Diagram B.

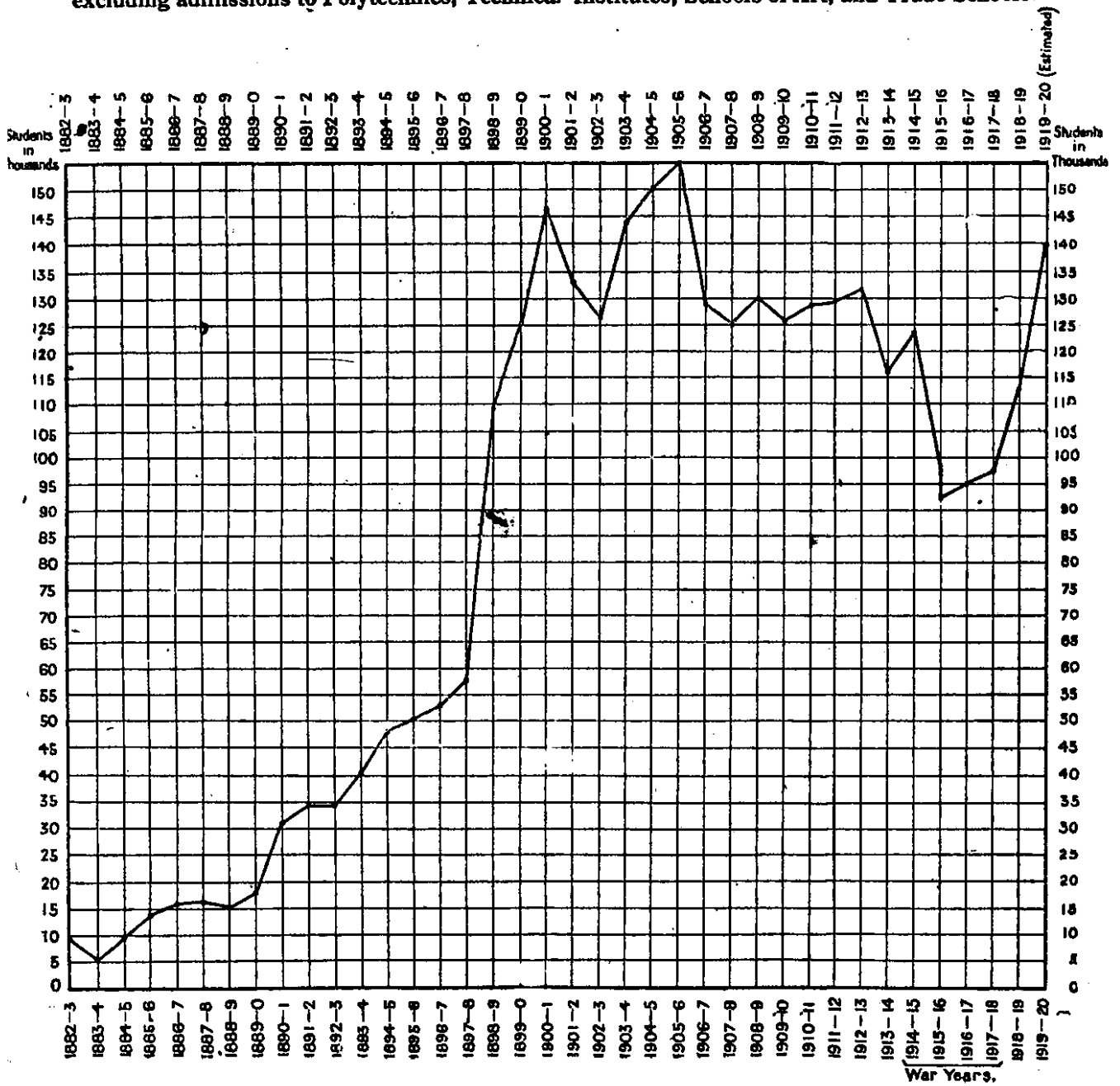
# PROVISION FOR TECHNICAL INSTRUCTION.

- POLYTECHNICS, TECHNICAL INSTITUTES AND SCHOOLS OF ART.
- + JUNIOR TECHNICAL INSTITUTES.
- Trade Schools for Girls.
- GENERAL INSTITUTES.
- ▲ BRANCH SCHOOLS OF ART.
- AFFILIATION.

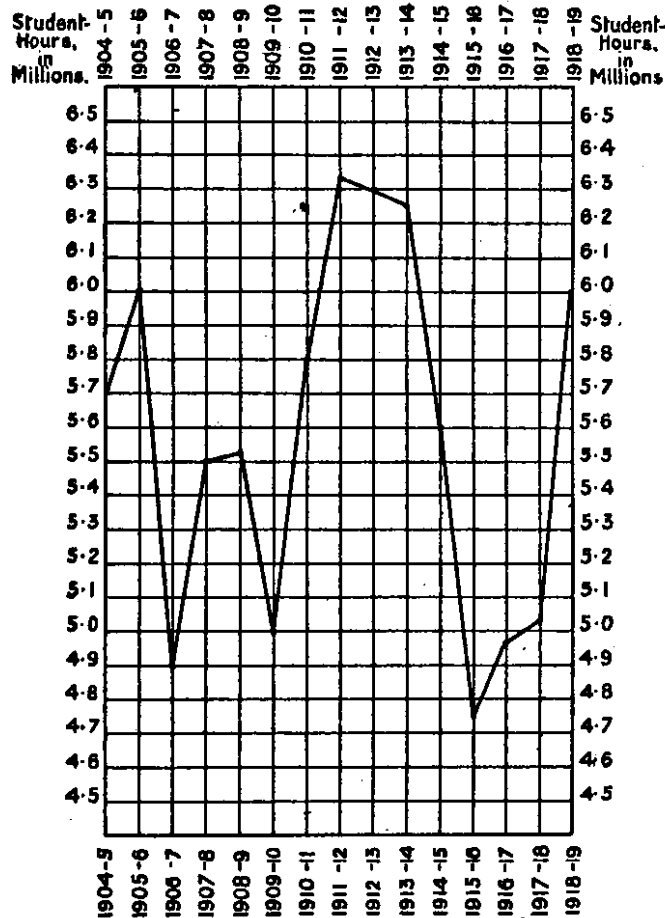




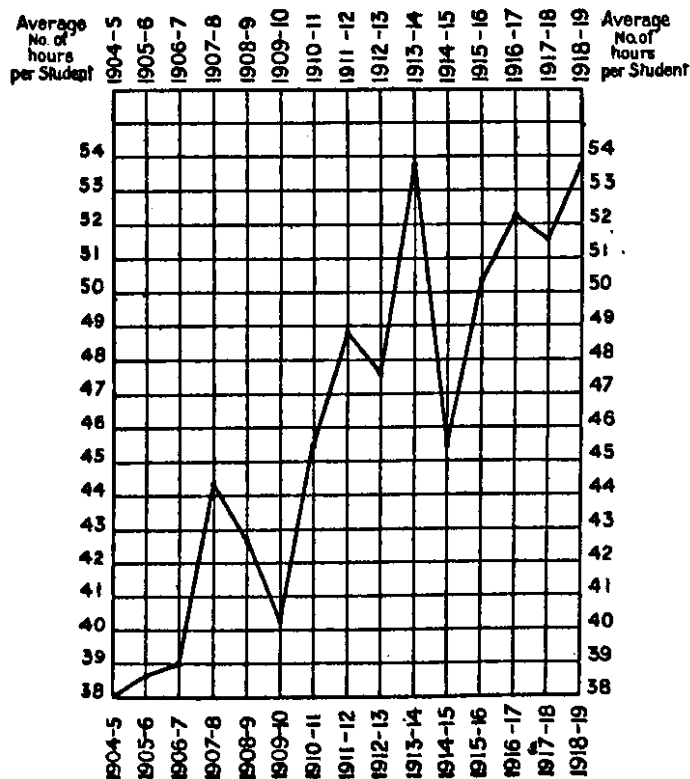
**Diagram D** showing the number of Students admitted to Evening Schools from 1882-83 to 1918-19, excluding admissions to Polytechnics, Technical Institutes, Schools of Art, and Trade Schools.



**Diagram E** showing aggregate number of Student-hours in Evening Institutes from 1904-05 to 1918-19, excluding admissions to Polytechnics, Technical Institutes, Schools of Art, and Trade Schools.



**Diagram F** showing average number of hours attendance per Student in the Evening Institutes from 1904-05 to 1918-19, excluding admissions to Polytechnics, Technical Institutes, Schools of Art, and Trade Schools.



## APPENDIX I.

## COMPARISON OF NUMBER OF INSTITUTES AND TYPES OF APPOINTMENT OF RESPONSIBLE TEACHERS FOR SESSIONS 1913-14 AND 1919-20.

| Type of Institute.                                 | Session 1913-14. |             |            |           | Session 1919-20. |             |            |           |
|--|------------------|-------------|------------|-----------|------------------|-------------|------------|-----------|
|  | Number.          | Whole time. | Half time. | Seasonal. | Number.          | Whole time. | Half time. | Seasonal. |
| Commercial ... ..                                  | 28               | 17          | 11         | —         | 25               | 22          | 3          | —         |
| Junior Commercial ... ..                           | 45               | —           | 15         | 30        | 40               | 5           | 14         | 21        |
| Junior Technical ... ..                            | 22               | —           | 22         | —         | 15               | 1           | 14         | —         |
| Women's (fee-paying or free)                       | 40               | 12          | 15         | 13        | 37               | 21          | 8          | 8         |
| Institutes with more than one department.          | 31               | —           | 19         | 12        | 30               | 4           | 13         | 13        |
| General ... ..                                     | 37               | —           | 8          | 29        | 29               | 3           | 8          | 18        |
| Free (men and mixed) ... ..                        | 19               | —           | 2          | 17        | 10               | —           | 1          | 9         |
| Literary (non-vocational) ... ..                   | 7                | —           | 2          | 5         | 7                | 1           | —          | 5         |
| Deaf ... ..  | 10               | —           | —          | 10        | 1                | —           | —          | 1         |
| Special for Post Office and Government Messengers. | 3                | 1           | —          | 2         | 2                | 2           | —          | —         |
| Totals ... ..                                      | 242              | 30          | 94         | 118       | 196              | 59          | 61         | 75        |

The number of institutes has decreased by 18 per cent. and the number of whole-time posts has increased by almost 100 per cent.

## APPENDIX II.

## COMPARATIVE LIST OF SUBJECTS TAUGHT IN EVENING INSTITUTES.

| Session 1889-90.           | Session 1897-98.                  | Session 1919-20.                               |
|----------------------------|-----------------------------------|--|
| Algebra.                   | Algebra.                          | Accounting and Auditing.                       |
| Arithmetic.                | Ambulance.                        | Aesthetics                                     |
| Book-keeping.              | Arithmetic.                       | Appreciation of Art.                           |
| Botany.                    | Art.                              | "    Literature.                               |
| Chemistry.                 | Book-keeping.                     | "    Music.                                    |
| Cookery.                   | Botany.                           | Arithmetic.                                    |
| Domestic Economy.          | Building Construction.            | Art.   |
| Drawing.                   | Chemistry.                        | Art Embroidery.                                |
| Elementary Science.        | Commercial Correspondence.        | Articulation for Stammerers                    |
| English.                   | Commercial Knowledge.             | Astronomy.                                     |
| French.                    | Composition.                      | Banking and Banking Law.                       |
| Geography.                 | Cookery.                          | Banking and Currency.                          |
| History.                   | Domestic Economy.                 | Blind, classes for the.                        |
| Magnetism and Electricity. | Domestic Science.                 | Book-keeping.                                  |
| Mechanics.                 | English.                          | Business Methods and Office Routine.           |
| Physiology.                | French.                           | Calculations for all Trade Courses.            |
| Reading.                   | Geography.                        | Chemistry.                                     |
| Writing.                   | Geology.                          | Civics.  |
|                            | Geometry.                         | Commerce.                                      |
|                            | German.                           | Commercial Correspondence.                     |
|                            | History.                          | Cookery.                                       |
|                            | History (including Literature).   | Country Dances and Folk Songs.                 |
|                            | Hygiene.                          | Danish.  |
|                            | Laundrywork.                      | Domestic Tailoring.                            |
|                            | Life and Duties of the Citizen.   | Domestic Upholstery.                           |
|                            | Machine Construction and Drawing. | Drawing.                                       |
|                            | Magnetism and Electricity.        | Dramatic Literature.                           |
|                            | Manual Training in Wood.          | Dressmaking.                                   |
|                            | Mathematics.                      | Dutch.   |
|                            | Mechanics.                        | Economics                                      |
|                            | Mensuration.                      | Elocution.                                     |
|                            | Navigation.                       | Embroidery.                                    |
|                            |                                   | Embroidery, Simple and Design.                 |
|                            |                                   | English for foreigners.                        |
|                            |                                   | English Language and Literature.               |
|                            |                                   |  |
|                            |                                   | English Literature (Cycle).                    |
|                            |                                   | Esperanto.                                     |
|                            |                                   | Eurhythmics.                                   |
|                            |                                   | First Aid.                                     |
|                            |                                   | French Language and Literature.                |
|                            |                                   | French Polishing.                              |
|                            |                                   | Gardening.                                     |
|                            |                                   | General Knowledge.                             |
|                            |                                   | Geography.                                     |
|                            |                                   | German.  |
|                            |                                   | Gymnastics.                                    |
|                            |                                   | Handicraft (Domestic, Woodwork and Metalwork). |
|                            |                                   | Health Subjects.                               |
|                            |                                   | History.                                       |
|                            |                                   | History of London.                             |
|                            |                                   | History, Industrial and Social.                |
|                            |                                   | Homecraft.                                     |
|                            |                                   | Home Nursing.                                  |
|                            |                                   | Household Accounts.                            |
|                            |                                   | Housewifery.                                   |
|                            |                                   | Infant Care.                                   |
|                            |                                   | Insurance.                                     |
|                            |                                   | Irish.   |
|                            |                                   | Italian.                                       |
|                            |                                   | Latin.   |
|                            |                                   | Laundrywork.                                   |
|                            |                                   | Law (Commercial, Banking and Municipal).       |
|                            |                                   | Leatherwork.                                   |
|                            |                                   | Lip Reading.                                   |
|                            |                                   | Mathematics.                                   |
|                            |                                   | Midwifery.                                     |
|                            |                                   | Millinery.                                     |
|                            |                                   | Music (Instrumental).                          |
|                            |                                   | "    (Orchestral).                             |
|                            |                                   | "    (Theory of).                              |
|                            |                                   | "    (Vocal).                                  |
|                            |                                   |  |
|                            |                                   | Nature Study.                                  |
|                            |                                   | Needlework.                                    |
|                            |                                   | Norwegian.                                     |
|                            |                                   | Photography.                                   |
|                            |                                   | Physical Exercises.                            |
|                            |                                   | Physica.                                       |
|                            |                                   | Portuguese.                                    |
|                            |                                   | Precis.  |
|                            |                                   | Psychology and Mental Training.                |
|                            |                                   | Reading and Writing.                           |
|                            |                                   | Russian.                                       |
|                            |                                   | Science.                                       |
|                            |                                   | Science of Common Things.                      |
|                            |                                   | Seamanship.                                    |
|                            |                                   | Secretarial Practice.                          |
|                            |                                   | Shorthand.                                     |
|                            |                                   | Sociology.                                     |
|                            |                                   | Spanish.                                       |
|                            |                                   | Swedish.                                       |
|                            |                                   | Tutorial for all Trade and Commercial Courses. |
|                            |                                   | Typewriting.                                   |
|                            |                                   | Woodwork.                                      |
|                            |                                   | Workshop Practice for all Trade Courses.       |
|                            |                                   |  |
|                            |                                   | SPECIAL COURSES                                |
|                            |                                   | ARE ARRANGED FOR THOSE ENGAGED IN:—            |
|                            |                                   |  |
|                            |                                   | Railway Administration.                        |
|                            |                                   | Shipping and Transport.                        |
|                            |                                   | Grocery Trade.                                 |
|                            |                                   | Auctioneering.                                 |
|                            |                                   | Surveying.                                     |
|                            |                                   | Insurance.                                     |
|                            |                                   | Banking.                                       |
|                            |                                   | Textiles.                                      |

APPENDIX II.—*continued.*

| Session 1889-90.   | Session 1897-98.  | Session 1919-20.   |   |
|--|---|--|---|
| <p>Needlework and Cutting-out.<br/>Physical Exercises (Life saving, Swimming, Gymnastics).<br/>Drill.<br/>Physics.<br/>Physiography.<br/>Reading.<br/>Recitation.<br/>Science of Common Things.<br/>Shorthand.<br/>Sound, Light and Heat.<br/>Steam.<br/>Violin.<br/>Vocal Music.<br/>Writing.</p> | <p>THE FOLLOWING TRADE COURSES ARE HELD :—</p> <p>Aircraft industries.<br/>Bookbinding.<br/>Bootmaking.<br/>Building.<br/>Cabinet Making.<br/>Carpentry.<br/>Chemical Industries.<br/>Dental Mechanics.<br/>Electro Plating.<br/>Engineering trades—mechanical, electrical, motor.<br/>Furriery.<br/>Gasfitting.<br/>Hairdressing.<br/>Instrument making.<br/>Metal Plate work.<br/>Motor body and carriage building.<br/>Optical industries.<br/>Painting and Signwriting.<br/>Pattern making.<br/>Photo process.<br/>Pianoforte construction.<br/>Plumbing.<br/>Printing.<br/>Silversmithing, etc.<br/>Tailoring.<br/>Upholstery.<br/>Watch and Clockmaking.<br/>Wiremen's work.<br/>Woodcarving.</p> <p>SPECIAL LECTURES.</p> <p>LECTURES ON SPECIAL SUBJECTS ARRANGED FOR THE SESSION 1919-20 for STUDENTS OF EVENING INSTITUTES.</p> <p><i>Commercial subjects.</i></p> <p>Italian Trade.<br/>How Railway systems affect the development of a country.<br/>Scientific management in commerce.<br/>London Traffic.<br/>Trade opportunities with South America.<br/>The budgets and national expenditure.</p> <p><i>Technical subjects.</i></p> <p>Chemical industries of London.<br/>The Building industries of London.</p> | <p>History of paper-making.<br/>The uses of Electricity.<br/>Our Coal Supply.<br/>The Construction and Uses of Dynamos and Motors.<br/>The Use of Gas in Industry.<br/>By-products.<br/>Aeroplanes.<br/>Inventions of the nineteenth and twentieth centuries.<br/>Furniture: its Design, Construction and Development.<br/>The Production and Distribution of Power.<br/>Science as a Factor in the Development of an Industry.<br/>The Chemistry of Engineering Materials.<br/>Women's opportunities in Industry and Commerce.<br/>Construction of Large Buildings.<br/>Centralisation of Electric Supply.<br/>Development of Aeroplane Engines.<br/>Garden Cities.<br/>Wireless Telegraphy.<br/>Town Planning.</p> <p><i>Humanistic subjects.</i></p> <p>(Architecture, Civics, History, Inventions, Popular Science):—</p> <p>Factory Acts and Trade Boards.<br/>Domestic Architecture: what is it, and what it ought to be.<br/>Historical sketch of the position of women in English industrial life.<br/>Opportunities for women in the professions.<br/>The Education Act, 1918.<br/>The Development of Dress and Adornment.<br/>Attempts to dominate Europe.<br/>Select from :—<br/>1. Philip II of Spain.<br/>2. Louis XIV.<br/>3. Napoleon.<br/>4. Prussia.<br/>The relations of America to Great Britain.</p> | <p>The rise of the Japanese Empire.<br/>The Federal System of Colonial Government.<br/>The Ministry of Health.<br/>Social questions affecting London from the works Charles Dickens: works Charles Kingsley.<br/>Matthew Arnold and his place in English Literature.<br/>Social questions affecting England from the works Thomas Carlyle.<br/>The influence of John Ruskin on social questions.<br/>Musical appreciation.<br/>"Libraries and how to use them."<br/>National heroes.<br/>The Hanse Towns.<br/>Poland.<br/>The Balkan States.<br/>The S. American Republics.<br/>The Congress of Vienna.<br/>The Industrial Revolution.<br/>Modern economic development of Russia, France, U.S. and Germany.<br/>History of Poor Relief.<br/>The Whitley Councils.<br/>The Ministry of Ways and Communications.<br/>Legislation as applied to children.</p> <p>SHORT COURSES OF LECTURES ON SPECIAL SUBJECTS FOR STUDENTS OF SENIOR COMMERCIAL INSTITUTES.</p> <p>Advertising.<br/>Costing.<br/>Commercial importance of London.<br/>Factory Administration.<br/>Landmarks of British Trade Policy.<br/>Local Government.<br/>Modern Office Organisation.<br/>Rise of the United States.<br/>Salesmanship.<br/>Timber Trade.</p> |

APPENDIX III.  
NUMBER OF PUPILS ADMITTED TO EVENING INSTITUTES AND NUMBER OF STUDENT  
HOURS FROM 1882 TO 1919.

| Session.    | No. of Schools. | No. of Pupils Admitted Throughout Session. | Total No. of Student Hours. | Average Hours per Student. |
|-------------|-----------------|--|-----------------------------|----------------------------|
| 1882-1883   | 83              | 9,064                                      |                             |                            |
| 1883-1884   | 74              | 5,563                                      |                             |                            |
| 1884-1885   | 84              | 9,346                                      |                             |                            |
| 1885-1886   | 114             | 13,968                                     |                             |                            |
| 1886-1887   | 128             | 16,050                                     |                             |                            |
| 1887-1888   | 128             | 16,320                                     |                             |                            |
| 1888-1889   | 135             | 15,732                                     |                             |                            |
| 1889-1890   | 159             | 18,268                                     |                             |                            |
| 1890-1891   | 232             | (a) 31,015                                 | Figures                     |                            |
| 1891-1892   | 239             | 34,562                                     | not                         |                            |
| 1892-1893   | 242             | 34,797                                     |                             |                            |
| 1893-1894   | 265             | 40,858                                     |                             |                            |
| 1894-1895   | 271             | 48,512                                     | available.                  |                            |
| 1895-1896   | 271             | 50,218                                     |                             |                            |
| 1896-1897   | 276             | 52,804                                     |                             |                            |
| 1897-1898   | 280             | 57,586                                     |                             |                            |
| 1898-1899   | 321             | (b) 109,121                                |                             |                            |
| 1899-1900   | 368             | 125,640                                    |                             |                            |
| 1900-1901   | 395             | 146,971                                    |                             |                            |
| 1901-1902   | 398             | (c) 133,191                                |                             |                            |
| 1902-1903   | 376             | (d) 126,753                                |                             |                            |
| 1903-1904   | 373             | 144,865                                    |                             |                            |
| 1904-1905   | 373             | 150,605                                    | 5,727,521                   | 38·0                       |
| 1905-1906   | 351             | 156,604                                    | 6,042,046                   | 38·6                       |
| 1906-1907   | 327             | (e) 127,130                                | 4,960,774                   | 39·0                       |
| 1907-1908   | 307             | 124,931                                    | 5,512,896                   | 44·1                       |
| 1908-1909   | 299             | 130,087                                    | 5,572,484                   | 42·8                       |
| 1909-1910   | 276             | (f) 126,514                                | 5,058,589                   | 40·2                       |
| 1910-1911   | 280             | 128,464                                    | 5,871,315                   | 45·7                       |
| 1911-1912   | 275             | 129,019                                    | 6,338,899                   | 48·9                       |
| 1912-1913   | 276             | 132,318                                    | 6,301,761                   | 47·6                       |
| **1913-1914 | 242             | 116,338                                    | 6,272,172                   | 53·9                       |
| 1914-1915   | 236             | (g) 124,193                                | 5,639,183                   | 45·4                       |
| 1915-1916   | 196             | 94,346                                     | 4,749,967                   | 50·3                       |
| 1916-1917   | 192             | 94,959                                     | 4,965,844                   | 52·3                       |
| 1917-1918   | 191             | 97,741                                     | 5,023,945                   | 51·4                       |
| 1918-1919   | 191             | 111,954                                    | 6,061,548                   | 54·1                       |

(a) Changes in Code which provided for a more extended course of instruction.

(b) Abolition of Fees.

(c) Uncertainty existed: Cockerton judgment.

(d) Re-imposition of fees to pupils over 16.

(e) Fee charged to pupils under 16 except in cases of poverty.

(f) Introduction of organised courses of instruction.

\*\* First year under scheme of reorganisation.

(g) First year under war conditions—9,000 students enrolled for Special Emergency Classes in First Aid.

CHAPTER IV.

*University Education.*

I.

*University of London.*

The Council works in close connection with the University of London, and makes considerable annual grants both to the University itself and to the schools of the University, including the Imperial College of Science and Technology. The total annual grants to the University and its schools amount at the present time to about £47,000. This sum includes provision for 19 professorial chairs in the following subjects:—Chemistry (2), Engineering (5), Education, French (2), Italian, German (2), History, Mathematics (2), Zoology, Russian, Commerce. The Council has decided to include in its grant to the University £4,100 for the purpose of raising the salaries of professors and readers to minima of £800 and £400, respectively, subject to the condition that the salaries of the other University professorships and readerships are increased to the same minima by means of increased grant from the Government. The Council also maintains a school of the University, The London Day Training College, at an annual cost of about £10,000, and is spending in 1919-20 about £13,000 in aid of university students, mainly in London, Oxford, and Cambridge. The total annual expenditure of the Council on university education thus amounts to about £70,000 at the present time. The Council has also from time to time voted substantial capital grants for the erection and improvement of the building of certain schools of the University of London. The most important of these grants are £30,000 to University College, voted in June, 1914, and £20,000 and £10,000 to Bedford College, voted in December, 1909, and May, 1911, respectively. The Council has also granted to the London School of Economics and Political Science the use at a peppercorn rent of land in Clare Market of a total value of £66,700.

## II.

*Imperial College of Science and Technology.*

The Imperial College of Science and Technology is the most important of the institutions providing technical instruction in London. It was founded as the result of a bequest from Messrs. Werner, Beit & Company, and the Council decided to assist financially in the maintenance of the College, as the result of a letter sent by the Earl of Rosebery to the Chairman of the London County Council on 30th June, 1903. The Council's resolution promising financial assistance to the College contemplated that the Council's grant should not exceed £20,000 a year. The College opened in 1907, under the control of a Governing Body, constituted as under :—

48 members in all appointed by :—

The Crown, 6; the Board of Education, 4; the University of London, 5; the London County Council, 5; the City and Guilds Institute, 5; the Royal Commissioners for the Exhibition of 1851, 2; the Royal Society, 1; the Professorial Staff of Imperial College, 4; the Institution of Civil Engineers, 1; the Institution of Mechanical Engineers, 1; the Institution of Electrical Engineers, 1; the Institution of Mining Engineers, 1; the Iron and Steel Institute, 1; the Institution of Naval Architects, 1; the Society of Chemical Industry, 1; the Institution of Mining and Metallurgy, 1; the Secretary of State for India, 1; the Government of the Dominion of Canada, 1; the Government of the Commonwealth of Australia, 1; the Government of the Dominion of New Zealand, 1; the Government of the Union of South Africa, 1; the Government of the Colony of Newfoundland, 1; the Secretary of State for the Colonies, 1; ex-officio (the Rector), 1.

Although the original scheme proposed to set up an entirely new institution modelled upon the lines of the technical college at Charlottenburg, and undertaking the most advanced work, the college was established with the old Royal College of Science, the Royal School of Mines belonging to the Government, and the Central Technical College belonging to the City and Guilds of London Institute, as the nucleus. The College is, however, developing on the lines originally projected, and the type of comparatively elementary students, who were found to be on the rolls in 1908 and subsequently, has practically disappeared.

The Government handed over to the Governing Body the site and buildings of the Royal College of Science and the Royal School of Mines, together with a site for the main building in Imperial Institute-road. The main building has been completed, together with extensions in Prince Consort-road for the Chemical Technology Department and the Imperial College Union; other extensions are in contemplation. The Central Technical College, although nominally one of the constituent parts of the Imperial College, has from the commencement been managed by a delegacy, upon which the Governing Body of the Imperial College and the City of Guilds are jointly represented.

Some idea of the growth of the work of the college and the amount of aid given by the Council may be seen from the following statement :—

| <i>Year.</i> | <i>Expenditure.</i> | <i>Income.</i> | <i>Council's Grant.</i>              |
|--------------|---------------------|----------------|--------------------------------------|
|              | £                   | £              | £                                    |
| 1907—8       | 30,216              | 32,047         | —                                    |
| 1908—9       | 38,371              | 35,718         | 5,000                                |
| 1909—10      | 44,031              | 39,654         | 8,000                                |
| 1910—11      | 48,551              | 37,693         | 8,000                                |
| 1911—12      | 78,667              | 79,924         | 8,000                                |
| 1912—13      | 83,937              | 87,890         | 13,000                               |
| 1913—14      | 89,267              | 90,979         | 13,000                               |
| 1914—15      | 82,695              | 81,267         | 13,000                               |
| 1915—16      | 76,979              | 79,093         | 13,000                               |
| 1916—17      | 78,708              | 81,948         | 13,000                               |
| 1917—18      | 79,802              | 84,841         | 13,000 (+ £918 for Technical Optics) |
| 1918—19      | 106,532             | 103,249        | 13,000 (£1,000 for Technical Optics) |

From 1911—12 Income and Expenditure includes City and Guilds (Engineering) College and the Imperial College.

In 1917 the Governing Body, at the request of the Council, opened a department of Technical Optics, which has hitherto been housed partly in the rooms occupied by the physics and chemical technology departments. It is hoped to provide a separate building for the department on the Lowther Lodge site.

The existing activities of the college include the following departments :—

Botany, chemical technology, chemistry, engineering (civil, electrical and mechanical), geology, mathematics and mechanics, metallurgy, mining, optical engineering and applied optics, physics, zoology, and aeronautics.

## CHAPTER V.

*Special Trade Investigations Conducted by the Council.*

The account given in the previous chapter of the activities of the London Authority between 1904 and 1918 would be incomplete without some account of its special surveys of technical

education as applied to industry. The following trades, among others, have been investigated by the Council, with special reference to (1) the training of boys, or girls, as the case may be, desirous of entering the trades: (2) the further education, both general and technical, of persons already employed in the trades. The trades in question are:—

- (i) The Building Trades.
- (ii) The Printing Trades.
- (iii) The Engineering and Metal Trades.
- (iv) The Optical Instrument Trade.

The Council has also investigated the circumstances under which cooks and waiters are employed, and has adopted a scheme for training employees in both professions.

A short summary of certain typical investigations is given below. For fuller details of the several reports reference should be made to the documents quoted in appendix V.

## I.

### *The Building Trades.*

The investigation included a detailed analysis of the number of persons employed in the building trades. The figures examined were decisive that the number of London boys entering the skilled branches of the building trades is very small, these branches of the trades being recruited almost entirely from the provinces. The training for the London building trades is obtained in the provinces at from 14 to 25 years of age, and there is considerable migration to London at about the age of 25, large numbers of young men from the provinces shutting out the London boys. The two principal reasons for this were stated by experts to be the decay of the apprenticeship system, and the value of the working space available in London. On the latter point there was a consensus of opinion that London employers could not afford to have boy learners in their works to the exclusion of profit-earning adults, and that the London building trades called for highly specialised skill. It was felt, therefore, that the Council should, at the outset, direct its efforts to training those likely to become in the future the better-class artisan or foreman, leaving the question of training the ordinary hands to be dealt with later. The principal proposals considered were as under:—

- (i) An apprenticeship scheme put forward by the Institute of Builders and the London Master Builders' Association.
- (ii) A report of the London Association of Master Decorators.
- (iii) Proposals for the re-organisation of the Building Department of the Northern Polytechnic.
- (iv) The institution of a Building Trade School at Hammersmith.
- (v) The formation of Consultative Committees in connection with the Building Trades.

As regards (i), the councils of the Institute of Builders and the London Master Builders' Association put forward a scheme, of which the underlying principle was a system of premium apprenticeship, but they were not prepared to make any variation in the scheme to allow of apprentices attending half time at day technical schools, or of the substitution of scholarships with maintenance grants for premiums payable to the employer. The London Authority was therefore unable to adopt the scheme, but it informed the councils that it was prepared to co-operate in a scheme for training boys at technical schools on two or more afternoons a week, and to arrange suitable classes and instruction.

As regards (ii), the London Association of Master Decorators proposed that day schools should be established for youths from 13 to 18 years of age, the schools to be confined exclusively to those intending to follow the trade, that evening classes should be held on three days a week during the months from October to February for improvers in the trade between the ages of 16 and 45, and that facilities should be given by employers to improvers attending evening classes for "time off" to attend one afternoon class a week in colour studies, without diminution of wages. The Association expressed the view that it was desirable to train 50 boys annually, but that the provision of the evening classes might be deferred until a suitable supply of youths had been trained in the day schools. The Council adopted in the main the proposals of the Association, and is training 30 boys at the Brixton School of Building, and 25 at the Northern Polytechnic. The Association has agreed to assist the Council in placing these boys with reputable firms on an approved scale of wages for a period of three years, and facilities for afternoon and evening classes are afforded whenever a suitable number of applicants is forthcoming.

As regards (iii), the Council at that time conducted a Building Trade School at the L.C.C. Hackney Institute. It was decided to transfer this building school to the Northern Polytechnic. The Northern Polytechnic now provides a junior day technical school for boys, and evening classes for adult employees in the building trades. Senior day technical courses are contemplated. The junior day technical school is general in character during the first of the three years, with specialisation in the second and third years in one of the following trades:—

- (a) Carpentry.
- (b) Plumbing.
- (c) Painting and Decoration.
- (d) Masonry and Bricklaying.
- (e) Architectural Drawing and Surveying.

As regards (iv), an analysis of the population in the three areas principally concerned with the building trades showed the number of persons employed in the trades to be, approximately, as follows :—

- (1) West London, over 20,000.
- (2) North and North-East London, over 20,000.
- (3) South-West London, over 30,000.

The policy of the Council is to make the three institutions—the Hammersmith School of Building, the Northern Polytechnic, and the Brixton School of Building—centres for these three areas. The two latter institutions are already in existence; the Hammersmith School of Building was about to be established by converting the premises used as the Hammersmith School of Arts and Crafts, but the project had to be suspended on the outbreak of war. It will be resumed as soon as practicable. The school is designed to comprise (a) a day school for boys intending to enter the building trades, (b) evening classes for improvers and others already employed in the trades.

As regards (v), the Council decided to establish at an early date consultative committees for the following :—

- (1) Painters' and Decorators' work.
- (2) Plumbers' work and Gas-fitting.
- (3) Carpentry and Joinery.
- (4) Brickwork, Masonry, and Plastering.
- (5) Architecture.

These consultative committees would have been established, following on the result of the investigation referred to, had not the war intervened. The consultative committees will be established in due course, when building operations have resumed their normal phase.

## II.

### *The Printing Trades.*

The Education Committee in March, 1914, considered a detailed report on the subject of "Training and Employment in the Printing Trades," and in July, 1917, as an outcome of this report, adopted a scheme for the organisation of Technical Education for the Printing Trades. The report\* makes a general survey of the whole situation from the point of view of the magnitude of the industry, of employment, of apprenticeship, and of technical education, and a detailed account is given of some French, German, American, and British Schools of printing technology. It is shown that, while London is the most important printing and publishing centre in the world, with an output of some £12,000,000 annually, the provision of technical instruction compares unfavourably, for example, with that of Paris or Leipzig. The book production trade, being concerned with work of a less urgent character, tends to move away from London to sites where accommodation and labour are cheaper, but for the urgent production of newspapers, magazines, prospectuses, advertisements, pamphlets, etc., London is certain to remain a printing centre of first importance.

The total number of male persons engaged in the papermaking, printing, and publishing trades in London was 63,767, according to the 1911 Census. A study of the 1907 Census under the Factory and Workshops Acts showed that in 2,831 factories and workshops in the County of London 82,226 persons were employed, of whom 54,664 were males. In Greater London there were employed in all 90,151 persons, that is to say, 7,925 persons were employed outside the County boundary.

The industry is shown to be highly centralised, the City itself employing over 3,000 printers per 100 acres. This is reflected again in the location of the places of residence of printers. There is a marked tendency to concentration in central London, and a noticeable absence of any great number of printers resident in the Western, South-Western, and South-Eastern areas. These features are also apparent in a map showing the residences of students actually attending printing classes. A marked tendency to the recruitment of the trade by migrants from the provinces, and a wastage of juvenile labour to other forms of employment, is demonstrated.

The report suggests "inter alia" the amalgamation of the printing classes at three centrally situated technical institutions, namely, St. Bride Foundation Institute, the Regent-street Polytechnic, and the Borough Polytechnic, in a single central printing school, and the further provision of subsidiary southern and northern printing schools at Camberwell and Islington. The Central School of Arts and Crafts, it is suggested, should find its function in the development of the highest type of artistic printing and allied artistic crafts.

The report was referred, in order to obtain the views of the various bodies concerned, to employers, employees, trade experts, and experts in technical instruction, and the Education Committee, after consideration of the report, and of the various views expressed upon it, authorised its publication, and adopted the general principles referred to (i) as to a central "School for Printing"; (ii) as to the subsidiary southern and northern schools, and (iii) as to the work suitable to the Central School of Arts and Crafts in relation to printing technology.

Since the date of the decisions referred to, the printing equipment of the Borough Polytechnic has, in fact, been transferred to the St. Bride Foundation Printing School. The Aldenham Institute and the printing school at the Regent-street Polytechnic have closed, and the students have been transferred for the most part to the St. Bride Foundation Printing School. Technical instruction in printing is now carried on centrally at the St. Bride Foundation Printing School and at the Central School of Arts and Crafts, and in the southern area at the Camberwell School of Arts and Crafts.

\* Training and Employment in the Printing Trades, published by P. S. King & Son.



## III.

*Engineering and Metal Trades.*

The Higher Education Sub-Committee in November, 1915, and in March, 1916, considered a comprehensive report on technical instruction in London for the engineering group of trades. The report contains a detailed statistical analysis of London's engineering industry, and demonstrates the extremely complex nature of the problem of suitable provision of technical education. The complexity is of two kinds. There is a very wide diversity in production, as, for example, from tunnelling to aircraft construction; and there is a further diversity in that the personnel employed in a particular type of production may vary from the highly-trained technical expert to the unskilled labourer. Maps were prepared indicating the location of factories of various sizes, the places of residence of workers in the metal trades as a whole and in particular branches of the engineering trades, the relative density of engineering population, and the places of residence of students actually attending courses of instruction in engineering subjects.

The Census of 1911 shows that in all nearly 177,000 individuals are employed in London in engineering and allied trades, and that of this number about 50,000 are under 25 years of age. From 1881 to 1911 the metal workers in London approximately doubled in number.

The area of highest concentration, according to residence, of engineering workers is that comprising Woolwich, Greenwich, Deptford, and Poplar. In Woolwich and Greenwich the density of engineering workers is over 6 per cent. of the whole population. This area is also one of high concentration of engineering workshops.

The middle north and the middle south form areas of density second in importance in respect of residence of metal workers. There is an outlying area of similar density in Hammersmith and Fulham in the west, extending over the river to Battersea. The areas of least density are in three large zones:—

- (1) From the riverside in Stepney northwards to the County boundary; (2) from the riverside in Westminster and Chelsea northwards to the County boundary; and (3) Wandsworth.

Greater London has very high density along the north-eastern and eastern margin.

The report made a number of important recommendations as to the delimitation of activity between the various institutions offering engineering instruction, and, although consideration of the formal adoption by the Council of the comprehensive scheme outlined was deferred until after the war, yet in effect, as a result of conversations between the Council and the various Governing Bodies concerned, the more important recommendations have already been adopted in practice. Engineering institutions may be classified under three main categories:—

- (1) Institutions of University rank giving professional training to day students; such institutions tend to fall into one of two types:—

The first type offers the highest kind of training to students who have had a good secondary education, and who either have time and money to spend on a three or four years' course, or show such exceptional ability as to warrant the award of appropriate scholarships. The Imperial College of Science and Technology, University College, King's College, and East London College are examples of this type.

At the Imperial College, in addition to preparation for degrees and diplomas, post-graduate instruction and research work are essential activities. Highly specialised work as, for example, in railway engineering, is undertaken, and a new department, under the direction of the Zaharoff Professor of Aviation, is now in process of formation to meet the needs of aeronautical technology. East London College meets the needs of the professional students of the extreme eastern area.

The second type offers an advanced course of professional training to students who have less money and less time available, and who, as a rule, have lower preliminary qualifications than those attending institutions of the first type. The second type is represented by the Finsbury Technical College, Battersea Polytechnic, and Northampton Polytechnic. In these three institutions full time day courses in preparation for engineering degrees or diplomas are held, and in addition the equipment is used for evening courses of an advanced type.

Formerly such day courses were conducted in some other institutions, but a progressive system of co-ordination and concentration has been worked out between the Council and the Governing Bodies of the institutions concerned, with the resulting limitation of day engineering colleges to those stated above.

- (2) Institutions offering supplementary technical instruction in the evening to students normally employed in the industry in the day.

The Battersea Polytechnic and the Northampton Polytechnic have already been mentioned. The Woolwich Polytechnic and the Goldsmith's College have important engineering departments, and are well placed geographically, meeting the needs of the south-eastern area. The Poplar School of Engineering and the Hackney Institute serve the east and north-east, while the Borough Polytechnic caters for the middle south, and is specially concerned with the evening technical education of the artisan engineers of its area. At the Poplar School of Engineering special attention is given to marine engineering. The Regent-street Polytechnic and the Paddington Technical

Institute serve the west central and north-western areas. At the Regent-street Polytechnic there is also a day secondary school of engineering. The Westminster Technical Institute has been allotted the special function of providing professional instruction in civil engineering, for which purpose its location is suitable.

(3) Junior day technical schools.—Junior day technical schools or Day Trade Schools of Engineering are accommodated in a number of technical institutes and polytechnics, forming a ring system within the area. At present 1,000 places are available for pupils between 14 and 16 years of age in six institutions: Beaufoy Institute, Borough Polytechnic, Woolwich Polytechnic, Poplar School of Engineering, Hackney Institute, and Paddington Technical Institute.

The extension of the provision of junior day technical schools and scholarships is referred to in a subsequent chapter.

#### IV.

##### *The Optical Instrument Trade.*

In 1911 and 1912 the Governing Body of the Northampton Polytechnic, Finsbury, submitted proposals for the erection and equipment of a monotechnic to provide instruction in advanced optics, but the proposals were postponed. In 1916, the question was again reviewed, and the Council conferred with the authorities of the Imperial College of Science and Technology and the leading manufacturers of optical instruments, and other scientific experts. The general trend of trade opinion was favourable to reform in regard to the training facilities available in the industry, and, in addition, special stress was laid by manufacturers on the importance of providing opportunities for consultation and advice, in order that the handicap under which small firms laboured in this respect might be removed. The Council accordingly adopted a scheme having as its main objects:—

- (1) The training of beginners.
- (2) The training of designers, lens computers, and managers.
- (3) The establishment of a consulting department.

As regards (1), junior evening classes in optics are provided at two of the Council's junior technical institutes, one in North London in Compton Street, Finsbury, the other in South London in Haselrigge Road, Clapham.

As regards (2), to meet the trade demand for highly trained technical assistants, senior day and evening technical courses are provided at the Northampton Polytechnic, for persons of 17 years of age and upwards. At the conclusion of these courses, the students can proceed to the Imperial College of Science and Technology. In addition, part-time day continuation classes are in course of provision at the Northampton Polytechnic.

As regards (3), post graduate and research work is conducted at the Imperial College of Science and Technology, for which purpose the Governing Body have established a separate department of technical optics, providing day and evening instruction of the most advanced character, under a separate departmental head. The head of this department is responsible for co-ordinating its activities with those of the Northampton Polytechnic, and for enlisting the co-operation of the best firms engaged in the industry. The department keeps in touch with the latest technical developments, and is open to the trade at all times for purposes of consultation. The department works under the supervision of an advisory council. The Council has made the following grants to the Imperial College of Science and Technology in respect of the department of technical optics; (i) a maintenance grant not exceeding £7,000 a year; (ii) an initial equipment grant of £750.

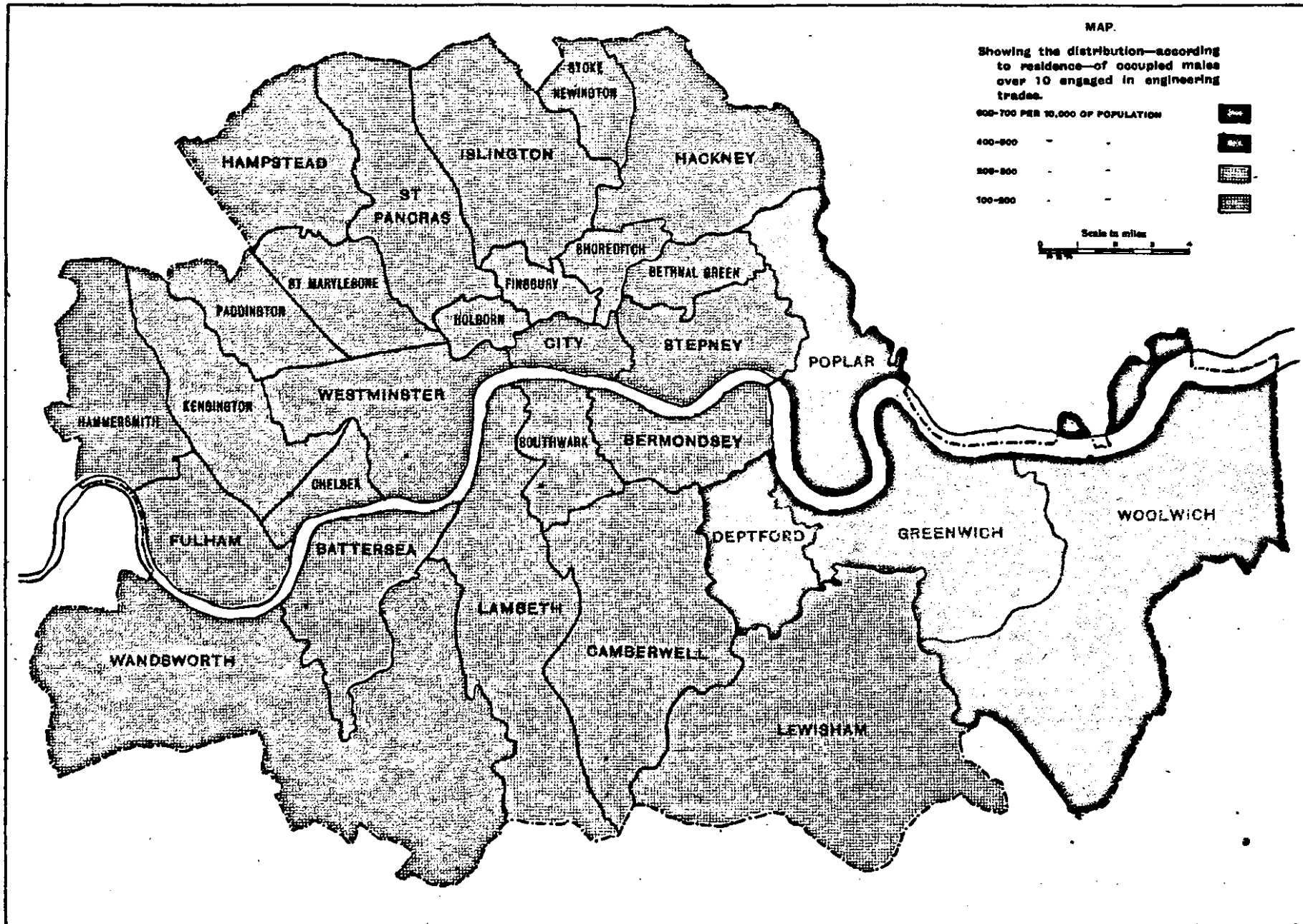
#### V.

##### *The Training of Cooks and Waiters.*

In 1909, at the instance of the Universal Cookery and Food Association, an enquiry was instituted into the possibility of establishing in London a school of professional cookery. The objects desired to be attained were:—

- (i) The apprenticing and training of youths in all branches of cookery, pastry-making, and confectionery.
- (ii) The provision of practical kitchens, where persons of either sex, already in service as cooks, might see scientific cookery, accompanied by explanation of the ingredients used.
- (iii) The establishment of a system of testing, and certifying as competent, persons seeking situations as chefs.

As regards (iii), it was decided not to proceed with the proposal, but as regards (i), inquiries made of the leading hotels and restaurants, and other bodies employing men cooks, made it clear that they were not in a position to take in cooks' apprentices, and that there were few opportunities in this country of learning the cook's profession, whereas on the Continent, notably in Belgium, Germany, and Switzerland, schools of professional cookery were established and successful. Acting on this advice, the Council conducts a school of professional cookery at the L.C.C. Westminster Technical Institute for youths between the ages of 14 and 16. The training provided covers a period of three years, and is not confined to professional instruction, but includes subjects of general education. The school is filled, partly by the Council's scholarship holders, partly by fee-payers. The fee charged to the latter is £9 9s. a year, but, where the income of the parent or guardian is less than £160 a year, admission is free. The accommodation available consists of 15 places. The Council offers five three-year trade scholarships, with maintenance grants not exceeding £21 a year, decreasing according



to the income of the parent or guardian. The consultative committee of the school includes persons of influence and experience in the catering world. The teaching staff, on the professional side, consists of trained chefs, and on the general education side of visiting teachers of French and other subjects. No difficulty is experienced in placing the youths trained at the expiration of the course.

In 1912, in connection with the above, the Council decided to establish a school for waiters, conducted on much the same lines. It was ascertained that at least 3,000 foreign waiters are placed annually in this country, and that the demand for trained English waiters largely exceeded the supply. The Incorporated Association of Hotels and Restaurants agreed to support a scheme for supplying trained waiters, and definite promises of employment, at the conclusion of the course of training, were obtained from several important hotel and restaurant proprietors. The school was accordingly opened in April, 1912, as an adjunct to the School of Cookery. About 12 youths between the ages of 14 and 16 are trained annually. The duration of the course is limited to one year. The Council offers 12 one-year scholarships with maintenance grants not exceeding £21, decreasing according to the income of the parent or guardian. Fee-payers are also admitted at a fee of £6 6s. a year. The teaching staff consists of one professional instructor of waiting, and teachers of English, French, and arithmetic. The school is under the supervision of the consultative committee of the Cookery School, and both schools have been equally successful.

## CHAPTER VI.

### *School Architecture.*

#### (i) *Elementary Schools.*

The modern planning of elementary school buildings in London has been in course of evolution since 1870. The most interesting development has been the introduction of a hall in each department, so planned that it can be used for assembly, singing, drill, etc., without causing disturbance to the classrooms in close proximity to the hall. In the early seventies there was little professional knowledge of the requirements of a good school, and the building rules prescribed by the code were as elementary as the schools to which they were applied. The defects in schools of that time were that the staircases were long, steep, narrow, and ill-lighted; cloakrooms were not provided or were insufficient; the lighting of the classrooms was chiefly from behind the children; and most of the rooms were used as a means of communication to others. In addition, the sites were small and the playgrounds inadequate. The dominant idea of the building was that of a central schoolroom holding several classes, supplemented by a moderate number of classrooms.

About 1878, the School Board for London adopted the policy of planning schools with separate classrooms to accommodate 60 children, as against the 80 then allowed by the code, and at this time also the Education Department raised the floor area in Senior Departments from 9 square feet to 10 square feet per child. The basis of school planning from that date was the provision of senior classrooms to accommodate 60 with a minimum area of 10 square feet per child.

The School Board had built one or two schools, which lent themselves to the arrangement of separate classrooms and a central hall, and experience of these schools pointed to the desirability of having more room outside the classrooms. An experiment was accordingly made in the direction of classrooms arranged on either side of a central corridor running practically the whole length of the building. In order to combine teaching with the occasional use of a large room for collective purposes, the School Board erected schools of two further types. In one of these there were large halls available for boys and infants; the other type was a development of the central corridor type, flanked by classrooms.

In 1884, the first three-storey school was opened, planned with halls for all three departments, and in 1885 32 schools were opened, nearly all of which were provided with halls, or so planned for enlargement that halls could be added at a later stage. In 1891, the Education Department recognised the desirability of a hall to the extent of recommending the Local Government Board to authorise a loan of £1 per square foot of the hall floor space. With this concession the School Board provided halls in all new elementary schools.

In 1883, the School Board began to build schools in which left-hand lighting was provided in the classrooms, and this is now regarded as essential.

In 1901, the School Board decided that, in order that no class should contain more than 50 scholars usually present, or 60 on the roll, in new schools, the rooms should be as a rule planned for 40, 48, 50, and that not more than one or two rooms should be planned for 56 and 60.

The principal characteristic of the schools erected by the School Board during its last few years, and of the schools erected by the Council between 1904 and 1909, may be described as compactness in planning, the hall being used as a means of communication with classrooms, and corridors being avoided as far as possible. Teachers' rooms were usually placed on mezzanine floors over the cloakrooms.

About 1910 various education authorities in the country were desirous of planning the halls so that their use for singing and drill would not disturb the work in the adjoining classrooms, and with this object schools were built in which no classrooms opened off the hall. The Board of Education supported this view both in respect to elementary and secondary schools, and in their regulations of 1914 urged that the hall should be so placed as not to disturb the work of the classrooms, and that, from the point of view of ventilation and freedom from dust, classrooms should not open directly

from the hall. At the same time, more careful consideration was given by the Council to the aspect of the classrooms, with the object of securing the access of direct sunlight. Teachers' rooms were also provided on the general floor level, and not on mezzanine floors. In addition, provision was made for alternative means of exit from all departments. A further development during recent years is the provision in boys' and girls' departments of "practical workrooms," in which elementary instruction in science, needlework, etc., is given. The changes indicated have resulted in a more extended type of building, of which the plan of Hillbrook-road School, Tooting, is given as an example. A photograph of this school is attached.

In 1912 an agreement was made with the Board of Education that maxima of 40 and 48 should be adopted in the Council's schools for senior and infants' departments respectively. All new schools are now planned to give effect to this agreement, and a number of old schools have been remodelled on these lines.

An important development in the planning of schools is the provision of classrooms on the "open-air" system. In a number of the Council's schools casement windows opening as doors to the floor level have been introduced, while other schools have been provided with windows specially designed to give a thorough circulation of air throughout the classrooms.

#### (ii) *Secondary schools.*

The planning of secondary schools has not shown as much variation as that of elementary schools, as the regulations under which secondary schools are built have remained fairly constant up to the present time. There has, however, been a change of view as regards the halls in secondary schools, similar to that in connection with elementary schools. The plan and photograph of the County Secondary School, Laura-place, Hackney, show one of the latest secondary schools erected by the Council.

#### (iii) *Technical institutes and schools of art.*

Technical institutes and schools of art have been erected in various situations in London, which have been designed for practical and theoretical instruction in professional and manual work. The planning of buildings of this special type is governed by the courses of instruction to be provided, and is not standardised as is that of elementary and secondary schools. The Central School of Arts and Crafts, Southampton-row, is an example of this class of building, of which a plan and photograph are given.

## PART II.

### - DEVELOPMENTS UNDER THE EDUCATION ACT, 1918.

It will be seen from a perusal of the preceding chapters that for some years prior to the Education Act, 1918, education in London had advanced progressively with public demands. Many of the developments foreshadowed by the Act, for example, those of sections 2, 13, 17, 23, 24, to specify only a few, had already been anticipated by the London authority. The following observations are directed to the educational programme of the next ten years or thereabouts, but, as this programme is to a large extent the continuation of policy already decided on, it should be understood that much matter, which would otherwise have been set out in detail, is omitted as being covered by the general survey in Part I.

#### CHAPTER I.

#### ELEMENTARY EDUCATION.

##### I.

##### *School architecture, including secondary schools.*

It is admitted that in recent years there has been a great increase in the cost of school buildings. It is reasonable to assume that this increase is attributable to two principal causes, (1) the development of educational methods and the higher standards of comfort and hygiene; (2) the rise in the price of materials and the cost of labour. Since the Education Act, 1902, great strides have been made in the erection of new buildings, but the war has created a new situation in regard to finance, and the problem of the most suitable building, having regard to all considerations, has assumed a different aspect. It may be taken, speaking generally, that the Council will proceed with the erection of schools which had to be placed on the postponed list at the outbreak of war, but the strictest economy in construction will have to be exercised; it is thought that this may be effected, to some extent, by the use of new and less expensive materials. Until recently, local bye-laws throughout the country have prevented any great changes either in method of construction or type of materials. Now, however, that school buildings are exempt from all bye-laws, the school architecture should benefit from the adoption of materials other than brick and stone. As regards the administrative county of London, the London Building Acts and Bye-laws as to construction and material do not apply to new school buildings.

##### *Novel forms of construction.*

The Government have given a lead in this direction by erecting during the war munition and other factories of new materials and under novel methods of construction. Prior to the war little was known of these experimental methods of construction, owing to the limited number of buildings erected at that time on novel lines. It is hoped that the Board of Education will now adopt a more liberal attitude towards the recognition of lighter forms of construction. In recommending the erection of school buildings built in such lighter forms, consideration has to be given to what is termed the "Useful" life of the building and how far it may be possible to make the "Structural" coincide with the "Useful" life. The standard of heating, ventilation, and sanitation no less than the size of classes, has undergone great and important changes in the immediate past. These higher standards have necessitated excessive re-modelling of school buildings, and many comparatively new schools are now out of date on that account; it may be necessary to expend a considerable sum of money in adapting these buildings to modern requirements.

##### *Future planning of Elementary School Buildings.*

It seems likely that the future planning of almost all types of schools will be influenced, not only by present-day economic conditions, but by the desire to afford facilities for open-air classes, and special features are being introduced in the design of new buildings to give effect to this principle. Schools on the outlying estates of the Council offer an opportunity, owing to freedom from the site restrictions obtaining in the more congested areas, of planning the buildings in such a way as to give as much open air as climatic conditions will allow. For the Bellingham and Roehampton Estates plans have been designed of a pavilion type, which approximates, so far as educational exigencies will admit, to the lines of a sanatorium. The central or administrative portions will contain the assembly hall, teachers' rooms, store rooms, etc., and the classrooms will extend laterally as wings. The suggestion is that the administrative portions should be of a permanent character, and that the classrooms should be of light construction, which can be altered, adapted, or even demolished with a minimum of expenditure, experience showing that educational requirements do not affect the administrative portions of the building to such an extent as the classrooms. The latter rooms have, for years, represented a variable factor, and it appears desirable to provide for possible developments, unknown at present, affecting this educational unit. Probably, the classrooms will be built in some form of slab construction rough-casted on the face, the intention being to have these rooms as simple as possible, without any glazed bricks or dados in the inside. The partitions between certain of the classrooms should be movable, and cross-ventilation should be obtained by windows on both sides of the classrooms and the external walls of the corridor. All cloakrooms will be cut off from the school and have cross-ventilation.

For some time past the construction of play-sheds as such has been considered of questionable value, in that the space provided in them is not nearly large enough to include the whole of the children attending a school. In substitution for these, especially in Infants' Schools, the central hall will be used (in addition to its normal function) as a playroom, and the side walls and windows will be made to open so that the effect of an open-air playshed will be obtained.

In the older type of plans, and up to the war, the offices were placed in outside buildings, and in wet weather the children had to cross the playground to reach them. This will be obviated in the new types of school proposed to be erected at Bellingham and Roehampton. There, the offices will be attached to the main building, but will be entirely segregated from the main building by cross-ventilated lobbies. The idea of placing the offices as far away as possible from the main building in schools of the earlier types was presumably due to the primitive sanitary arrangements then obtaining, but closets are now fitted with independent water apparatus, and their complete segregation is no longer necessary. Ample playground space will be provided for the children in these semi-open air schools—nearly double the minimum laid down by the Board of Education. In the central districts of the administrative county, however, where the cost of land is very considerable, it will probably be impracticable to provide the accommodation required otherwise than in three storey buildings.

#### *Secondary schools.*

In the case of Secondary Schools, there can be no ideal plan to suit all requirements, as the organisation of each school materially affects the arrangement of the buildings, and districts and centres vary to a large extent. It is considered, however, that certain economies can be effected in the construction of these schools. The Departmental Committee appointed a few years ago to deal with economies in school construction stated "that in building schools the gap between the best and worst is not very great, and the possible saving to be effected by particular devices must obviously be estimated, not by reference to the standard of extravagant or even moderately costly architecture, but by reference to the most economical work which is done under existing conditions or even to the most economical work which can be done without the adoption of these devices."

In the planning of Secondary Schools, no special rule can be laid down for fitting up the Science Rooms, as the size and character of the school must be carefully considered in determining the requirements, but there are certain general principles to be observed in laboratory planning, the neglect of which may lead to the production of a laboratory, apparently perfect on a cursory examination, yet so defective that the teaching of science is rendered a matter of considerable difficulty. In designing the laboratories of its secondary schools, the Council has regard to the following four considerations :

- (1) Laboratories should be capable of expansion and modification:
- (2) Fittings should be so disposed as to minimise the unavoidable movement of pupils.
- (3) The arrangement of benches, etc., should ensure ease of supervision on the part of the Instructor; and
- (4) The storage accommodation should be ample and wall space should be left for additional fixtures.

It is proposed that the laboratories shall be lofty, and either top-lighted, or the side windows so planned that the sill level is at least 6 feet from the floor. By this means, no wall space is wasted, and the light is better diffused. The walls, if wood panelled to a height of 6 feet, enable all partitions to be easily fixed and easily moved. Glazed tiles or bricks, so often employed, though admirable as far as light and ease of cleaning are concerned, are impracticable when change of fittings is required.

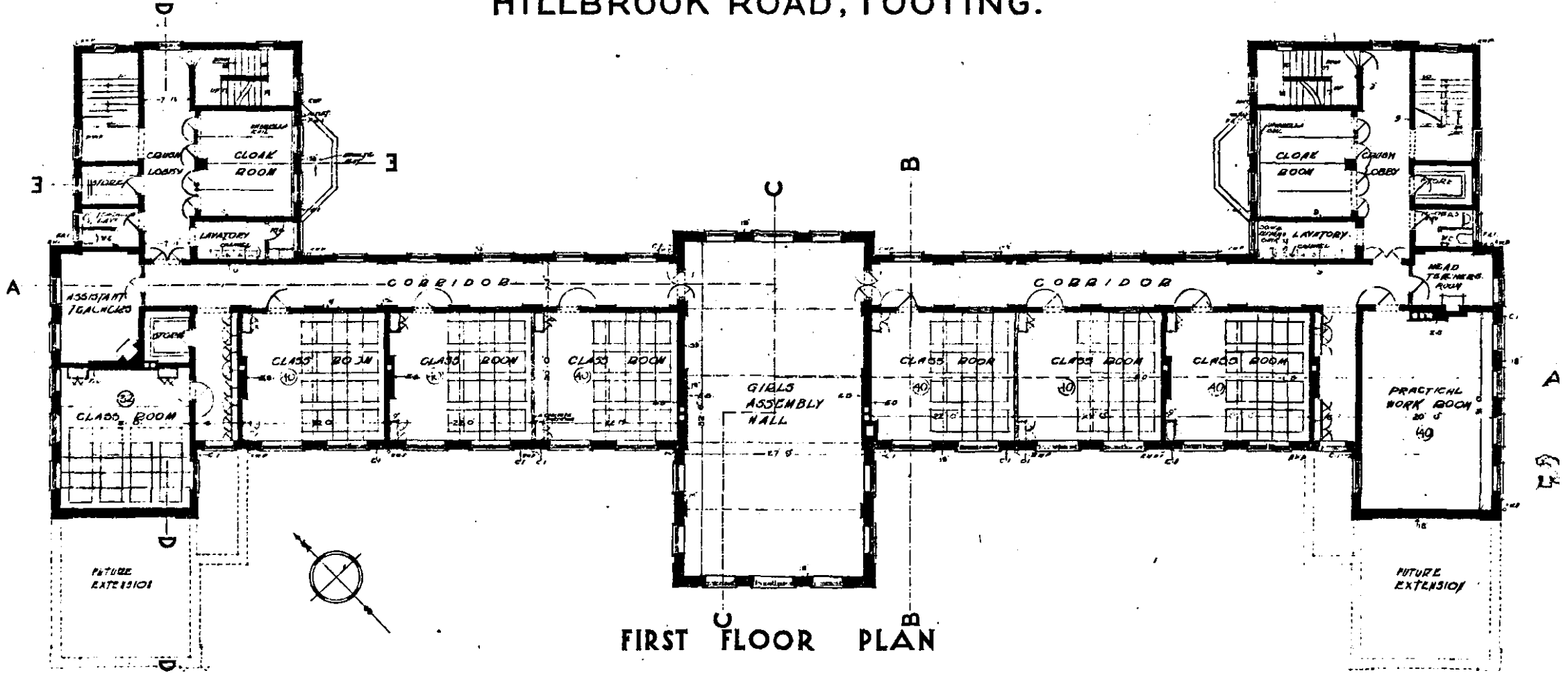
The main desideratum in a chemical laboratory is plenty of room for the students to work. The working benches are either single or double, but single benches have the advantage that all students face the same way and so are under better supervision. Wall benches are undesirable and are in all cases avoided. The benches where students work have intervening gangways of not less than 6 feet, but for a single row 4 feet is considered sufficient. In a physical laboratory, it is of course necessary to have tables free from vibration, and of sufficient width to allow of a student being able to place his apparatus in a proper position. The narrow single bench which many prefer in a chemical laboratory is avoided. Every physical laboratory contains a large stock of small drawers for the purpose of storing the numerous small appliances in constant use. Lever handles to the doors of the cupboards should be used as the ordinary pieces of hardware are often difficult to fasten, and liable to shake and perhaps injure the sensitive apparatus within the cupboard. All cupboards should have flat tops and glazed doors.

A few general observations may be added as to the Council's practice in the lighting and illumination of school buildings. As regards the former, the relation of window space to floor space is at least one to six; this is the minimum proportion required for defective eyesight. As regards the location of the light, left-hand lighting is the accepted system in the Council's schools.

Increasing attention is being given to the problems of artificial illumination, and a higher standard is being aimed at. This standard is the outcome of steady development of efficiency in the illuminants themselves as well as in the methods of application. The even distribution of light is the underlying principle which governs the correct application of artificial illumination. This is essentially so in schemes of interior lighting. To attain this end every effort is made to follow as far as possible the distribution and characteristics of daylight illumination, namely, downward and oblique direction, a broad diffusion in order to avoid sharp and deep shadows, without, however, seeking to entirely eliminate shadows, as these, by firm contrasts, are helpful, and materially assist the eye in its judgment of the form of objects. In all forms of ordinary illumination, the surface from which the light emanates is made as large as possible.



# L.C.C. ELEMENTARY SCHOOL HILLBROOK ROAD, TOOTING.



FIRST FLOOR PLAN



HARRISON & BROWN, ARCHITECTS, LONDON, W.

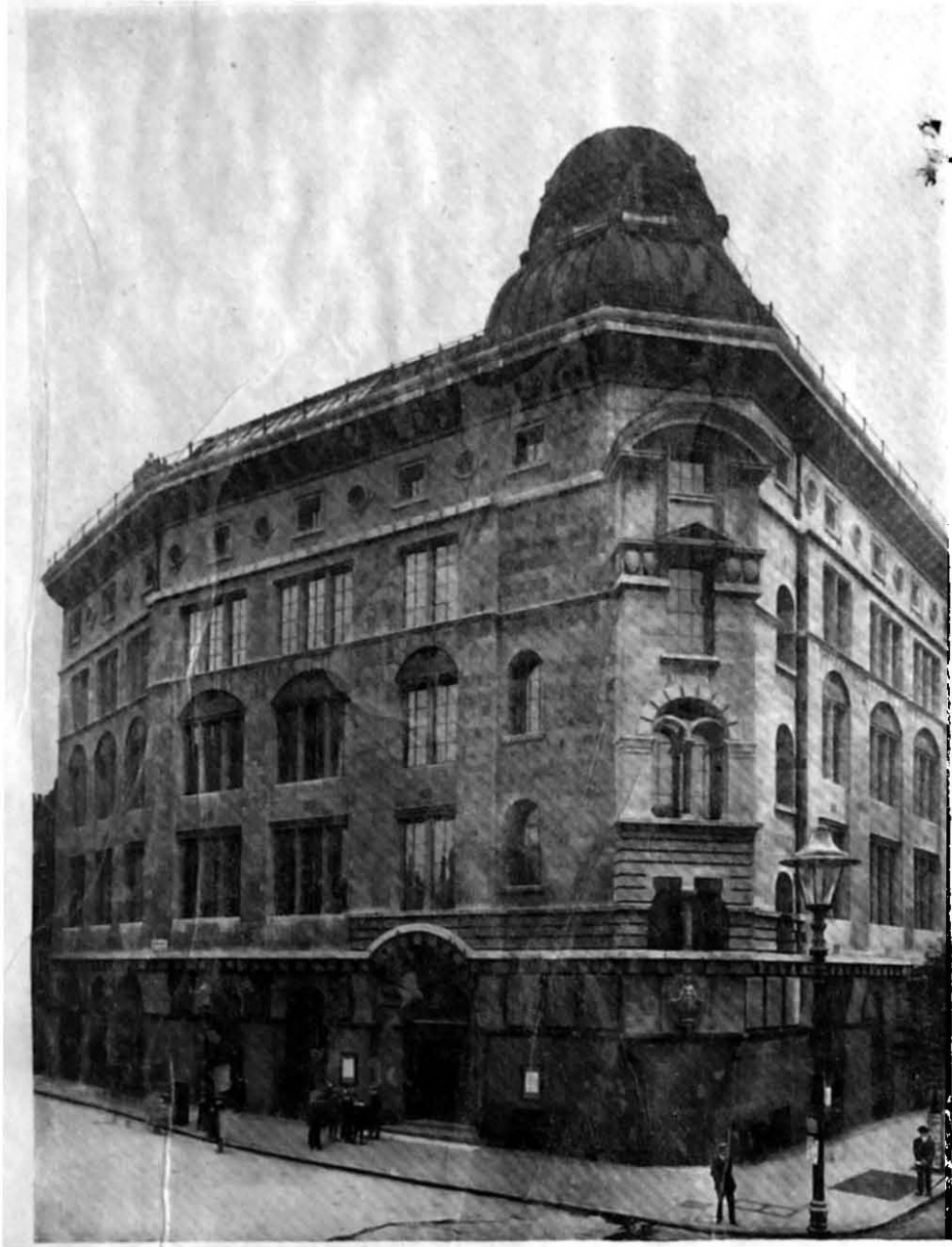




HILLBROOK ROAD ELEMENTARY SCHOOL, TOOTING.

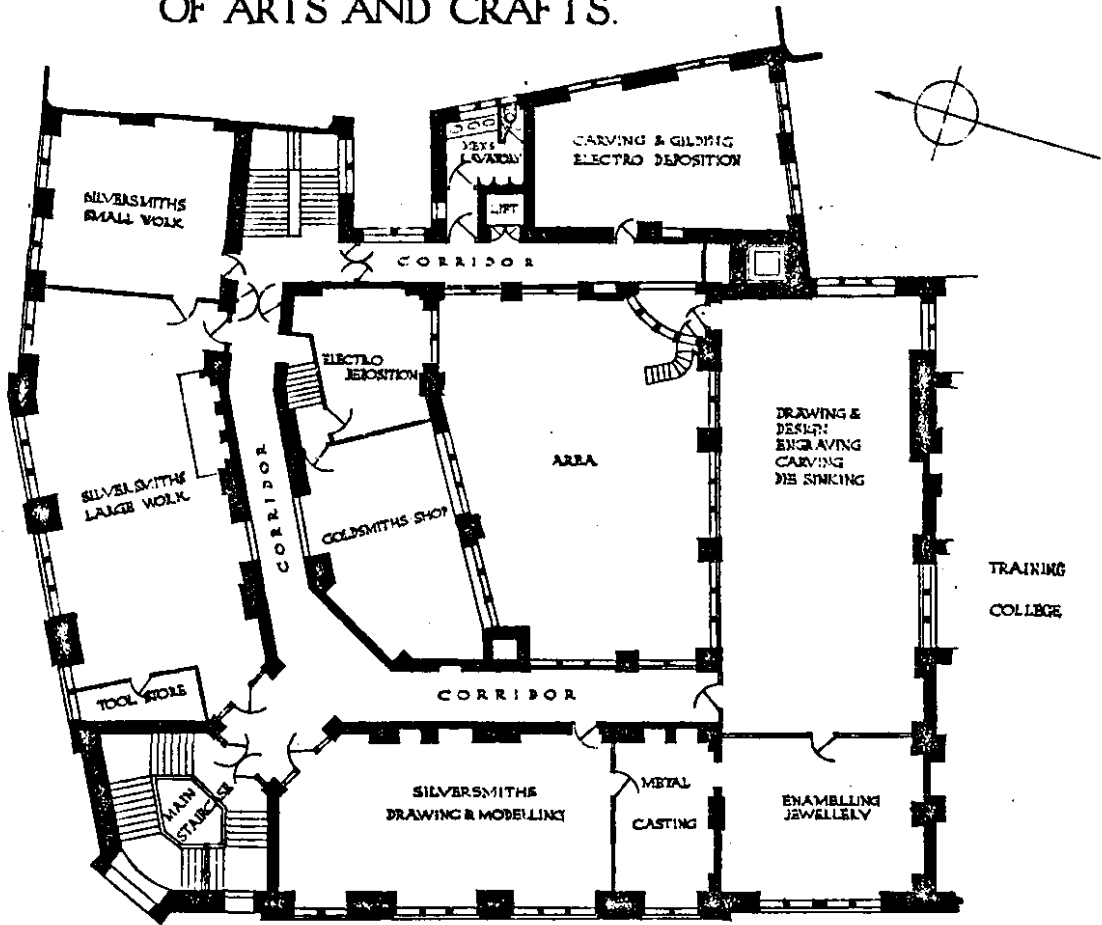






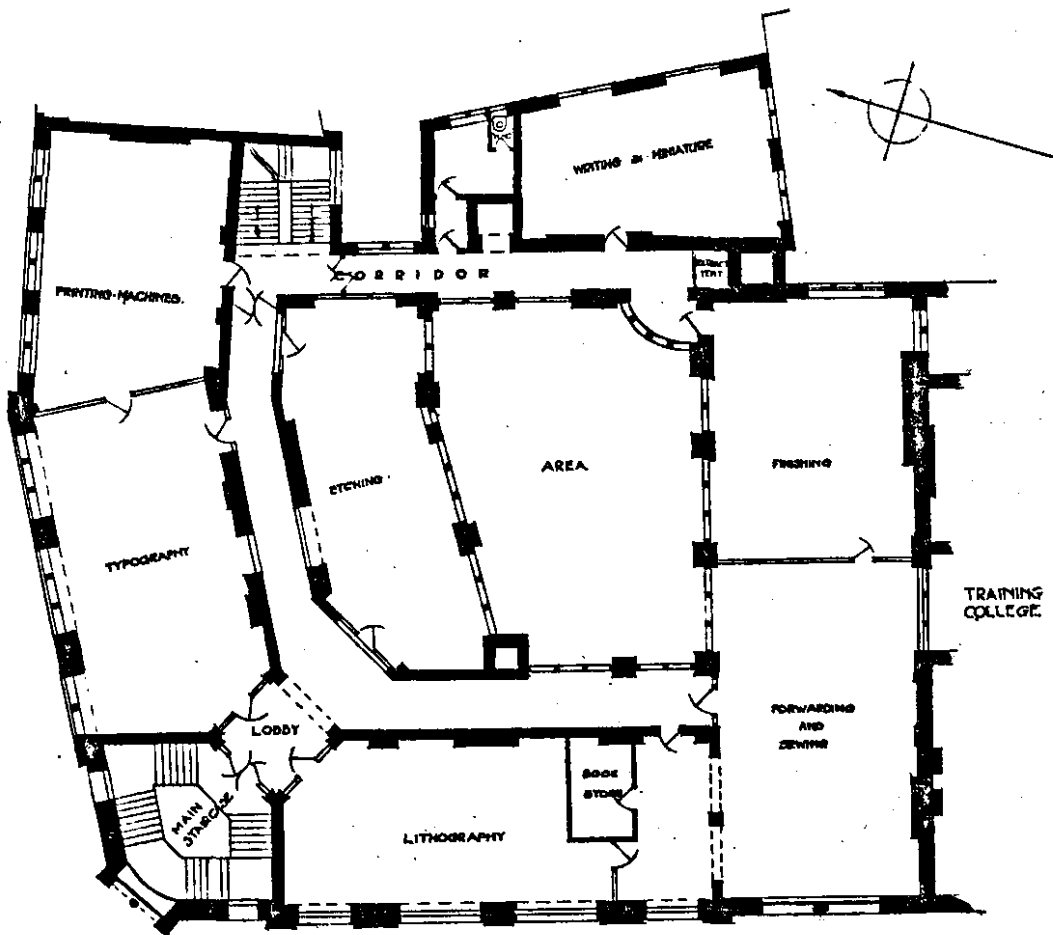
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, HOLBORN.

# L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS.



### FIRST FLOOR PLAN

SCALE OF 100 FEET.



### SECOND FLOOR PLAN

SCALE OF 100 FEET.  
HARRISON & BONS, LTD., 17, NORTON PLACE, W.C.

## II.

## "40 and 48" scheme.

Reference has already been made to the Council's scheme for the reduction of the size of classes to 40 in senior and 48 in infants' departments. The total number of new school places to be provided in connection with the scheme is estimated at 120,000, of which 32,000 have now been completed. There thus remain approximately 90,000 school places still to be provided by means of new schools or the enlargement of existing schools. In addition there still remain a considerable number of schools in which the structure needs to be brought into line with modern requirements by remodelling or complete rebuilding. Apart from any new schools which may be required as a consequence of housing activities, the "40 and 48" scheme constitutes practically the whole of the elementary school building programme to be undertaken in the immediate future. This programme has now been resumed, and building work is in progress at 9 schools, 4 of which are new schools, 2 enlargements of existing schools, and 3 cases of rebuilding. It should, however, be realised that under existing financial conditions the progress of the scheme is necessarily contingent on sufficient funds being available, and on the relative priority to be assigned to capital expenditure on education and other municipal work.

## III.

## Central Schools.

Since the inception in 1910 of the central school system, the Council, as stated in Part I, Chapter I, has established 51 central schools. It was originally contemplated to establish 60 such schools, but the provision of the remaining nine was deferred during the war, owing to the Treasury restrictions on capital expenditure. The 51 existing central schools, with a total accommodation of about 17,000 places, provide for the annual admission of about 5,000 boys and girls. The 60 schools would have provided for an annual admission of about 6,000.

When central schools were first established, a four years' course was contemplated, but it was known at the time that a very considerable proportion of the children would leave at the end of the third year. This fact was taken into consideration when the accommodation of the 60 central schools was calculated.

In the future it may be assumed that the central school course will extend over five years, and it is probable that there will be a growing tendency for pupils to remain to the age of 16, since such attendance will carry exemption from attendance at a day continuation school. It is clear, therefore, that the existing 51 central schools will not have sufficient accommodation for their pupils, even if they continue to admit only the same number of pupils as hitherto.

A very careful review of the position has been made in the light of the latest figures available, from which it appears that an additional 2,000 to 3,000 children require to be drafted annually from ordinary elementary schools to central schools. This will mean a total annual draft of from 8,000 to 9,000 children and it is calculated that 23,000 additional central school places will be required, making 40,000 places in all. The Council has accordingly decided to increase the number of central schools from 60 to 100, but, if it is found that the number of pupils proceeding to the fifth year of the course does not come up to what is anticipated, the number of places will be reduced *pro tanto*.

Opportunity will also be taken to ensure a better distribution of central school places. Many districts, of which Wandsworth is a striking illustration, have grown so rapidly that the present supply of central school places is quite inadequate to meet the needs of the districts. A careful survey is being made in order to ascertain where the need for additional places is greatest. It is thought, too, that there is every likelihood that the non-provided schools as a whole will come more fully into the scheme than has hitherto been the case, and, if this is so, it is obvious that this factor must be taken into account in the provision of central school places.

Speaking generally, it is anticipated that in any given year about 19 per cent. of the total number of children (74,000) between the ages of 11 and 12 proceed to some form of advanced instruction either in secondary, trade, or central schools. Of these 14,000 children, about 5,000 to 6,000 are admitted to secondary and trade schools, and it is anticipated that the remaining 8,000 to 9,000 will find places in central schools. This increased number, coupled with the consideration that in all probability pupils will make a longer stay in a central school, makes it necessary to provide the additional accommodation contemplated.

When the total accommodation is provided, it is anticipated that any child selected as suitable for central school instruction will be able to obtain admission to a school of the type (commercial or industrial), which he is best fitted to attend, within a convenient distance of his home. It may possibly be found necessary to pay travelling expenses in cases where the distance between school and home exceeds what a child might reasonably be expected to traverse by walking.

## IV.

## Upper classes in ordinary elementary schools.

## Instruction of children over 11 years of age in ordinary elementary schools.

Section 2 (1) of the Education Act, 1918, makes it the duty of a local education authority so to exercise its powers under Part III. of the Education Act, 1902, as—

(a) to make, or otherwise to secure, adequate and suitable provision by means of central schools, central or special classes, or otherwise—

(i) for including in the curriculum of public elementary schools, at appropriate stages, practical instruction suitable to the ages, abilities, and requirements of the children; and



(ii) for organising in public elementary schools courses of advanced instruction for the older or more intelligent children in attendance at such schools, including children who stay at such schools beyond the age of fourteen.

The Council's policy in regard to central schools has already been stated. In regard to the ordinary elementary schools the problem confronting the Council is to introduce new methods for teaching the great mass of children of 11 to 14 and over, who are not considered suitable for transfer to secondary and central schools, and who remain behind in the ordinary elementary schools.

It is now generally recognised that in elementary education there are three distinct phases, the first covering the period of a child's life from 5 to 7, the second from 7 to 11, and the third from 11 to 14 +, or even 15 + where the parents desire to retain their children to this later age. At about 11 the normal child should have learnt to read and write with ease, and he should have become familiar with the fundamental rules of arithmetic. It is in regard to the education of the children in the third phase, say, 80 per cent. or so of the total annual supply of elementary school children, who are left behind after the brighter ones have been drafted into the secondary, trade, and central schools, that the greatest difficulties present themselves.

It has long been felt that all has not been well in the upper part of the elementary school. Mr. Fisher, in introducing in the House of Commons on 10th August, 1917, the Education Bill, 1917, which was ultimately not proceeded with, said—

“ We propose to require local education authorities under Part III. of the Education Act, 1902, to make adequate provision, either by special classes or by means of central schools, for what may be termed higher elementary education. We desire to meet the objection which is commonly, and not without justification, advanced against so much of the work done in our elementary schools during the last two years—that the children are marking time, that their education is not bringing them on, and that it does not fit them for their future calling. We desire to change all that, and our bill provides not only for the introduction of practical instruction at appropriate stages, but for the preparation of children for further education in schools other than elementary and for their transference at suitable ages to such schools.”

In the report of the committee on juvenile education in relation to employment after the war, of which Mr. Herbert Lewis was the chairman, there occurs the following passage—

“ One reason why we have not recommended that ordinary elementary schools should be organised to keep children up to the age of 15 is the fact that many schools still require a good deal of reorganisation before they can be regarded as wholly satisfactory even for children between 12 and 14. We have even been conscious in the course of our inquiry that the almost universal desire for a leaving age of 14 is somewhat qualified by the consciousness that all is not quite well with the upper forms of elementary schools. Some of the criticism which has reached us is probably based on ignorance as to what actually takes place in the schools, or on misunderstanding as to what the measurable results of education at the age of 14 ought to be. Rightly or wrongly, however, the opinion is freely expressed that in many schools the upper standards are marking time; and if the critics are asked for a remedy, the suggestion is generally made that the educational methods are not practical enough. We feel little doubt that there is a considerable element of justice in such criticism. We do not take the demand for a more practical education to be a demand for a more directly vocational education. It is only a demand for a less bookish education. Education is a mental process, but the truth that, for many children, especially those who will live by their hands, the best avenue to the mind is through the hands, has not yet worked its complete revolution in the pedagogic methods of the nineteenth century. More manual instruction of various kinds is needed both for boys and girls in every type of school.”

These quotations show that the problem before the Council is universal. It might, perhaps, be thought that London, with its provision of central schools, a type recognised by the Act of 1918 as an indispensable part of a national system of education, and its general provision of instruction in handicraft for boys from about 12 to 14 years of age, and in domestic economy for girls of the same age, was not included in the criticism quoted, but the Council recognises that the London system is not free from some of the weaknesses indicated, and that at all events the time is ripe for effecting improvement. The Council desires at the outset to emphasise the view that there must be established in the curriculum a proper balance between the practical and the literary subjects, and it must not be understood that there is any proposal that the humanities should be neglected. The Council's view is that the teaching of the older children of the normal type left in the ordinary schools is a distinct problem, resulting from the removal of the brighter children, and that its solution requires a general introduction of those methods and means of organisation in which the better schools have led the way. Although the intelligence of certain children may be developed by means of handwork, it by no means follows that this development results in higher intelligence in other and different subjects. It does, however, often follow that enthusiasm, aroused by a successful appeal to a child through handwork, affects the interest of the child in other subjects, a knowledge of which is essential to a better understanding of the particular branch of handwork undertaken. Thus, while intelligence is not infectious, enthusiasm is. It is on this ground that practical work has been emphasised, some think unduly. Its limitations, however, have not been overlooked.

With the object of securing a better education for the older children in ordinary elementary schools, the Council proposes to indicate to teachers development of the curriculum on the following lines.

### A—Teaching staff.

#### (i) *The assistant teachers.*

Generally speaking, teachers allocated to the classes for older children should possess particular qualifications in one or more subjects of the curriculum.

#### (ii) *Specialisation by teachers.*

Specialisation by teachers should be the rule in classes for older children. It is not suggested, however, that complete specialisation is advisable. The potential head master or head mistress must know the whole school, and specialisation in the case of most assistants should not, as a rule, be effected to such an extent that the bond between teacher and class is broken. Partial specialisation would (in most cases) make for increased efficiency, without sacrificing those advantages which are incidental to the present system. Those schools which have adopted such partial specialisation are emphatic as to its value, and many who anticipated difficulties have found that, in actual practice, such difficulties do not arise. A teacher responsible for all subjects has little incentive to preparation, and his own standard of attainment in one or more subjects, though high in others, will, as a rule, not assist the progress of his pupils. The teacher who is master of one subject has many qualifications. Not only will he aim at a high standard in his special subject, but his own standard in others will tend to rise.

#### (iii) *Special courses for teachers.*

The present scheme of classes for teachers has already been described in Part I. Reform in the character of the instruction given to pupils over 11 will render necessary an enlargement of this scheme. Steps in this direction are being taken.

### B—Practical instruction.

#### (iv) *Practical arithmetic and geometrical drawing.*

In the boys' schools in particular there should be plenty of practical arithmetic and geometrical drawing. To enable this to be efficiently carried out, drawing boards and much better mathematical instruments, etc., must be provided by the Council. There should also be flat-topped tables in one or more rooms, such as should be found in a suitably equipped, practical workroom.

#### (v) *Teaching of drawing.*

Much greater attention must be given to drawing in all schools, especially in the use of the pencil. A report by the principals of the L.C.C. Central School of Arts and Crafts and the L.C.C. Camberwell School of Arts and Crafts, on the teaching of drawing in elementary schools, has been prepared for circulation to head teachers.

#### (vi) *In all schools practical instruction of an educational character should be on a much wider basis.*

Section 48 (i) of the Education Act, 1918, defines the expression "practical instruction" as instruction in cookery, laundrywork, housewifery, dairywork, handicrafts, and gardening, and such other subjects as the Board of Education declare to be subjects of practical instruction.

Facilities should be given for any form of practical work which has educational value, e.g., printing, book-binding, leadwork, millinery, etc., where head teachers submit suitable schemes and competent teachers can be secured.

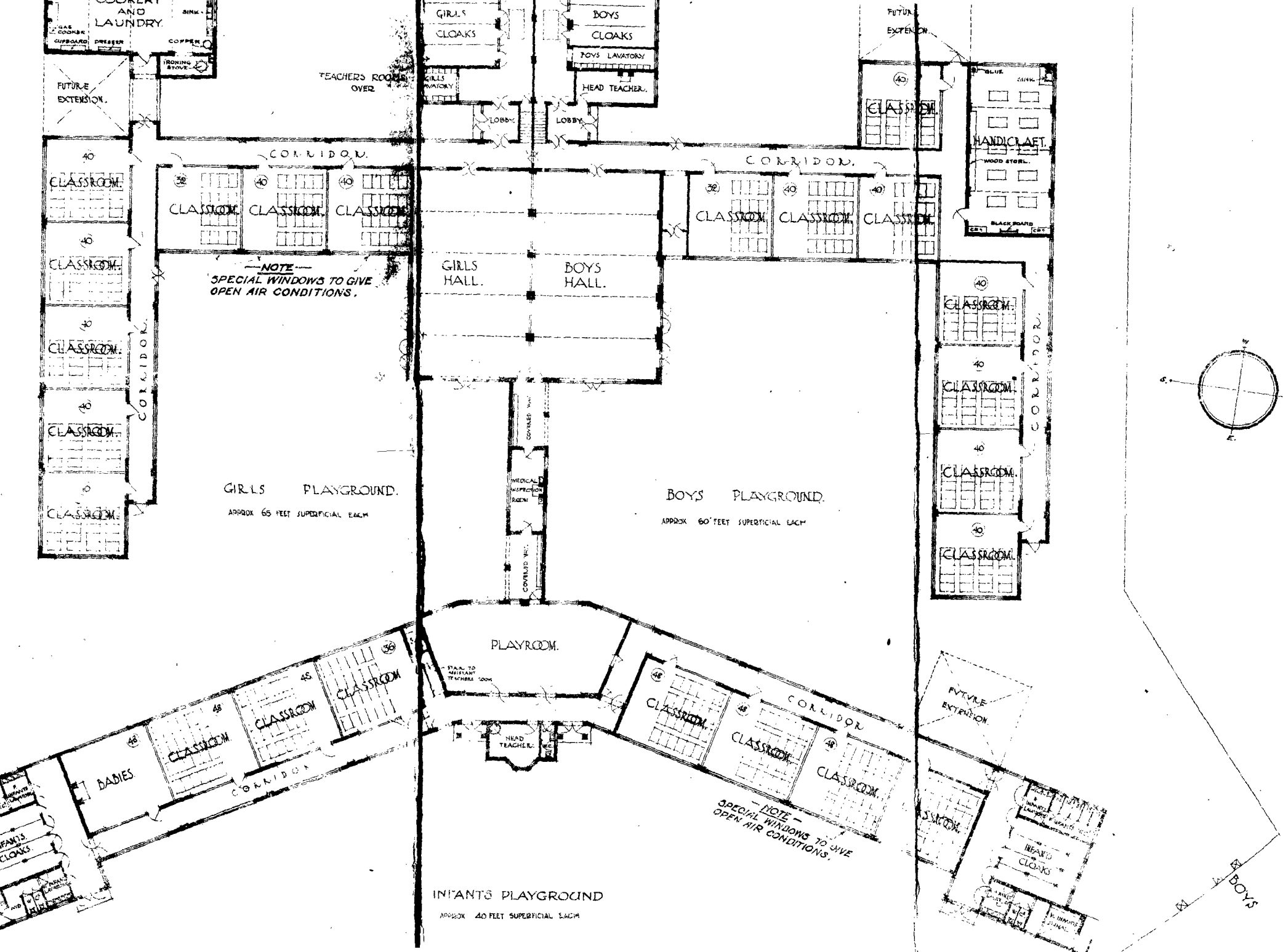
Up to the present, the practical work in the schools has, in the main, been confined to wood-work for boys (on somewhat academic lines—in recent years, however, there has been a steady breaking away from this) and to needlework, cookery, laundry, and housewifery for girls. There has also been a certain amount of practical work in elementary chemistry and physics, which in a few cases has developed in the direction of making simple working apparatus and models; and there have been a few experiments in other material than wood. In other parts of the country experiments in using such crafts as printing and lithography have been successful, and there would appear to be no reason why facilities should not be granted for working in any material, provided that suitable teachers are forthcoming, and that a satisfactory syllabus on educational, and not vocational, lines is prepared. Definite proposals must, however, come from the teachers, who may be relied upon to take up such work with enthusiasm, if they realise that the Council is ready to give them the necessary assistance. The school time-table may present some difficulties, but the proposals which are being made for its simplification and lightening in certain respects will probably offer the desired opportunities.

It must not be understood that it is suggested that any one school should take up two or three of these craft subjects in addition to handicraft or domestic economy. It is hoped that a head teacher will select that craft which, in his or her opinion, is best fitted to the needs of the pupils concerned, and for which a well-qualified teacher is available. There is danger in undertaking a number of crafts and doing none of them well—concentration on one is likely to produce much more lasting results. The Council's desire is that a wider view should be taken of the educational possibilities of practical instruction, as forming part of the general education of the pupils, than is afforded when the objective is limited to practical instruction in domestic subjects for girls and in woodwork for boys.

#### (vii) *More suitable arrangements should be made for practical science work and handwork of all kinds.*

At present, provision is made for practical instruction in two ways, (i) by centres for woodwork and domestic economy attended by children from neighbouring schools; (ii) by practical workroom counting in the accommodation for 40 places.





NOTE  
SPECIAL WINDOWS TO GIVE  
OPEN AIR CONDITIONS.

GIRLS PLAYGROUND.  
APPROX 65 FEET SUPERFICIAL EACH

BOYS PLAYGROUND.  
APPROX 60 FEET SUPERFICIAL EACH

NOTE  
SPECIAL WINDOWS TO GIVE  
OPEN AIR CONDITIONS.

INFANTS PLAYGROUND  
APPROX 40 FEET SUPERFICIAL EACH



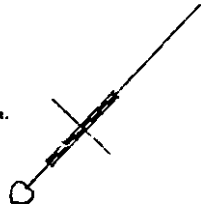
# COUNTY SECONDARY SCHOOL FOR GIRLS LAURA PLACE, CLAPTON.

SHEET NO 20  
W.G. DUFFY ARCHT.

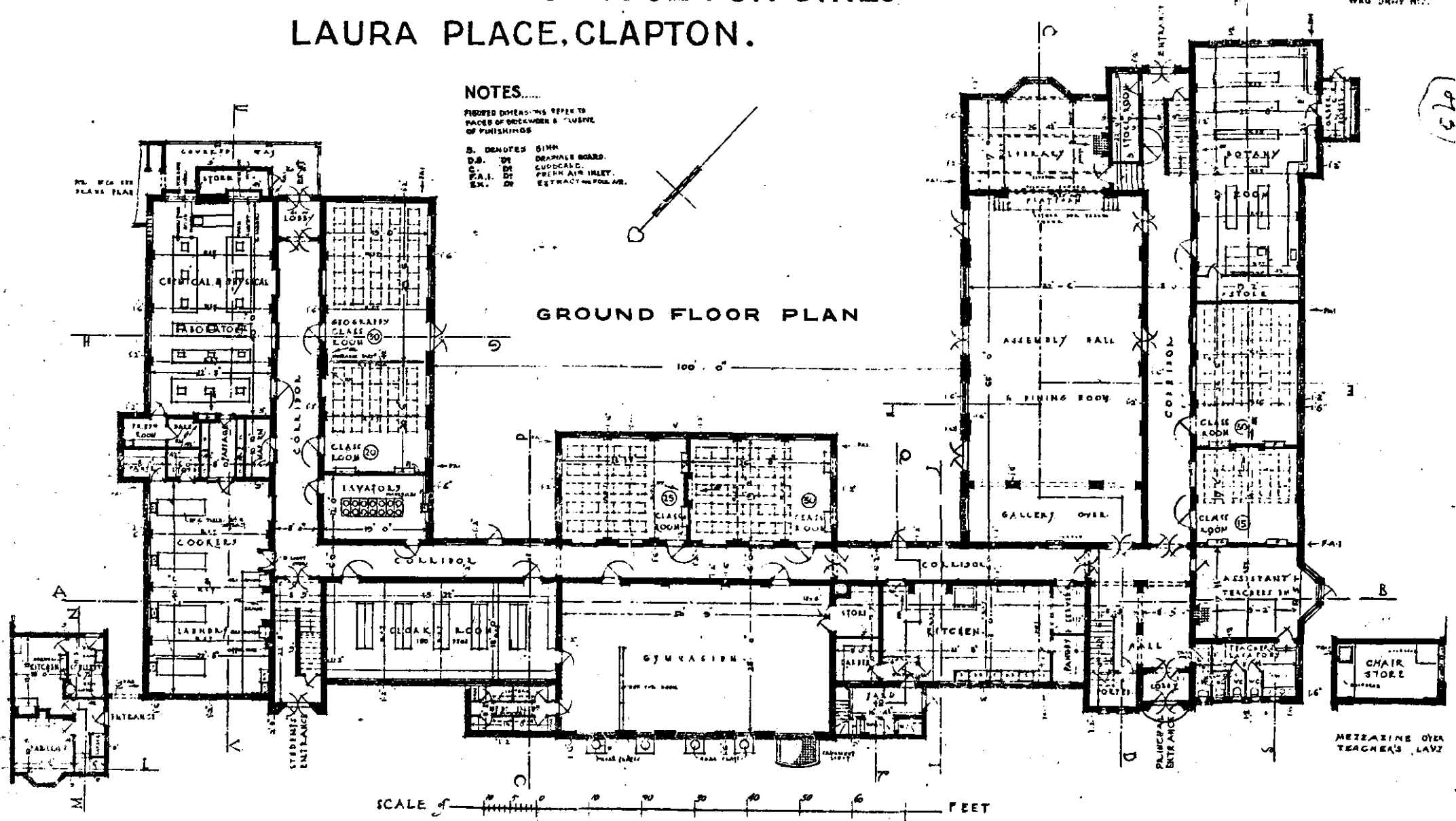
## NOTES.....

FROGDED DIMENSIONS REFER TO  
SPACES OF ONE-CENTIMETER & INCLUSIVE  
OF FINISHINGS

S. DENOTES SINK  
D.S. DB DRAINAGE BOARD.  
C.S. DB CUPBOARD.  
P.A.I. DI FRESH AIR INLET.  
EX. DI EXTRACT INFLOOR AIR.



## GROUND FLOOR PLAN



### C—The study of the humanities

#### (ix.) *Improvement in literary instruction.*

Considerable space has been devoted above to the subject of practical work, not because practical pursuits should be cultivated at the expense of the literary and academic, but because the practical way has been found to be the road by which culture most readily comes to a large number of children, and because in the final issue their interest in practical things has been found to react favourably on their interest in abstract studies.

But this is only half the contemplated process of reform. The practical side of the curriculum having been made more practical, it remains for the literary side to be made more stimulating and inspiring. It is with this object in view that, for the top of the school, teachers should possess particular qualifications in one or more subjects. It is not necessary to make the ordinary boy love the handling and constructing of things, for nature has done this for us; but it is, as a rule, necessary to evoke in him an interest in things of the mind. It generally requires a book-lover to make a book-lover. It needs a man steeped in history to make history a living thing to a class of children. There has, within recent years, been a distinct movement towards strengthening the appeal of literature, art, music, and drama by an imparting of the spirit rather than an insistence on the letter. Instead of parsing Shakespeare's plays, as was the practice a quarter of a century ago, the children now go to see them acted; and in a small measure act them themselves. Instead of listening to a recital of dry facts about Dickens and his writings, they read "David Copperfield" and "A Tale of Two Cities." This movement it is desired to accelerate. Even if the time devoted to literature, history, and geography had to be curtailed—and no such curtailment is contemplated—the schools would stand to gain by the newer method. For the main value of instruction in these subjects lies in the interest evoked, not in the actual knowledge acquired. In the past the teaching of the humanities has frequently been dull and perfunctory.

Apart from the capacity to appreciate great books, great causes, and great achievements, which the newer methods are meant to engender, a further improvement in composition is looked for. It is the common verdict that for the last dozen years English composition in London schools has been steadily improving. This is due, partly to extension of reading, partly to appropriation of ideas, in the sense of the ideas becoming the children's own ideas. The difference between the composition of children living in slum areas and that of children from good homes is just as much a difference of ideas as of language. If children have really something to say, they will find a way of saying it, and if they have read good books, they will find a fitting way of saying it. The Council anticipates with some confidence that, by the two means broadly indicated, the ideas of the children will become vivid and vital; and that knowledge will be imparted which has behind it on the one hand the motive power of instinct, and on the other of ideals.

#### (x) *Development of school libraries.*

Much has already been done in this direction by the development of the circulating scheme of school reading books. There is, however, great need for the establishment of a really good library in each school, for nothing is more likely to have real influence on the older children than to place at their disposal a wide range of stimulating literature. An outline of the Council's proposals to secure reform of the school library system is given below under "school libraries."

### D.—Miscellaneous.

#### (xi) *Development of backward classes.*

In many schools, especially those in the poorer districts, there is a considerable number of children who, while not mentally defective, are not capable of progressing at the same rate as normal children. These children require a modified and simplified curriculum.

Their difficulties arise very largely from home conditions, and are frequently due to migration, which leads to continual change of school, with the inevitable out-of-school periods. Illness and epidemics are also causes which lead to backwardness. There are at least two ways of dealing with the problem—(1) by the formation of special or central schools for backward children, to which suitable children would be drafted, just as mentally defective children are now passed on to special schools, or super-normal children transferred to central schools; (2) by the formation of backward classes in the ordinary elementary schools, or of "slow sides" in these schools. The first method has not been adopted in London, but it has been suggested by the Shoreditch Association of Care Committees. The second method has received the consideration of the Elementary Education Sub-Committee on several occasions, and it has been left to head teachers to work out suitable schemes to meet the needs of their respective schools. In smaller schools where the problem has been tackled, it is the practice to form one or two backward classes, and children are drafted to and from these classes as their development demands. In larger schools, where the number of classes permits of better organisation head teachers have formed a fast side for the normal children, and a slow side, consisting of three or four classes, for the sub-normal children. The great advantage of this method of dealing with sub-normal or backward children, as compared with that of creating special schools for them, is that they are not labelled as backward children, and, not being segregated, are able to mix with ordinary children. Further, it is much easier to transfer them to classes consisting of children at the normal stage of development, when, through improved health, steady attendance, or more appropriate methods of instruction, they are found capable of progressing at the normal speed. The Council's policy, therefore, is to encourage teachers to develop backward classes within their own

schools, rather than establish special backward schools. Valuable suggestions for conducting backward classes are contained in a memorandum on this subject by the education psychologist, which was issued to all schools in 1918.

Migration is mentioned above as one of the causes leading to backwardness. It is one of the greatest difficulties in connection with elementary education in London, and is spoiling much of the very best work done by teachers. A few years ago the chief inspector analysed the figures for the whole of London, and showed that in 208 departments the average length of time spent in a senior department was only 2·5 years, as compared with a possible 6 or 7 years. It is clear that, while such a state of affairs continues, ideal school conditions and the best of teaching must to a large extent be in vain. Educationally, it is impossible to prevent the disease of migration, and very little can be done to repair the ravages caused by the disease. Improved social conditions—employment, housing, wages—alone appear to be the remedy. In order to ascertain whether the schools are still suffering from migration as much as they were five years ago, and in order to obtain some sort of measure as to the extent to which migration is blighting the work of the teachers, an inquiry is in progress.

(xii) *Home-work rooms for elder boys and girls with paid supervisors (teachers).*

There is little doubt that home-work rooms would be exceedingly useful in most schools where the children come from homes ill-fitted for quiet work. Only in this way can children from poor homes obtain the same opportunities for private study as others more happily situated. 10 home-work rooms have been started as an experiment and have been successful. The Council has decided for the educational year 1920-21, to increase the number of home-work rooms to 20.

(xiii) *Encouragement should be given to individual work by pupils, private study, and sectional teaching, especially in the last year of elementary school life.*

It is proposed to send to all elementary schools, for the information of teachers, a copy of a memorandum on these points which contains many valuable suggestions.

(xiv) *It is most desirable that, as soon as possible, all classrooms for children over 11 years of age should be written down to 40 places.*

The "40 and 48" scheme, as at present planned, is based on the principle of writing down all the rooms of whole schools at one time. In the case of remodelling, this is, of course, necessary, and in building new schools naturally no rooms over 40 are provided in senior departments. It might, however, be possible, when new accommodation is provided, to write down three rooms in each of the four senior departments of two schools instead of six rooms in two departments of one school. This arrangement should be advantageous in connection with the developments outlined. It may be added that in the top class it is most desirable that a teacher should only have to deal with about 30 pupils. Provision for classes of this size is made in connection with the "40 and 48" scheme, where in senior departments of schools of medium size one room of the ordinary floor area is reckoned in the accommodation as providing 32 places only, while two such rooms are provided in large schools.

(xv) *The prefect system.*

The prefect system has already been introduced with success into a number of elementary schools, on the teachers' own initiative, and it is hoped that the number may be increased.

(xvi) *Minimum standard of attainment.*

There remains for consideration the important question whether it is desirable to lay down a minimum standard of attainment for the normal pupil who stays until the end of his elementary school career in the ordinary school.

The Council is aware both of the difficulty and danger of drawing up such a schedule, but it appears that sooner or later something must be done in this direction, otherwise those who are to be responsible for drawing up the curriculum in day continuation schools will not know what is the foundation on which they have to build. In past years, and indeed at present, this difficulty has been, and is being, felt, but, as there was often a gap of two or three years between the time when a boy or girl left an elementary school and went into a continuation class, it could always be argued that he or she had forgotten what they had learnt in the elementary school. Now that they will pass direct from the elementary school into the day continuation school, this point can no longer be made. There is therefore a far greater need for laying down this standard of attainment than ever existed previously.

The Council considers that there is now a sufficient body of expert opinion (including that of many teachers) in favour of the principle of laying down a minimum standard of attainment in respect of fundamental subjects, but the subjects themselves, the minimum standard which should be reached, and the methods which should be employed in assessing results for the purposes of such a standard should become matters for future consideration. In seeking for this minimum the Council is aware

of the many real difficulties involved, and of the fact that much of the work, perhaps the most important work, of the teachers is not measurable by any known standard, and cannot be stated in terms of minimum attainment. But it is believed that the inherent difficulties are not insuperable, and that, with the goodwill and co-operation of all concerned, such a standard could be drawn up and would prove of general educational value.

(xvii.) E—General.

There are two further points. The first is that teachers, in framing their time-tables, should leave themselves plenty of freedom in the upper classes, by not tying themselves down to sub-divisions of subjects such as spelling, dictation, grammar, writing, mental arithmetic, and so on, but by grouping the subjects under big headings such as English, arithmetic, etc. In certain subjects time may be saved, and better results produced, by intensive courses. Thus, in domestic economy very good results have been obtained by concentrating the work into the last year, or even the last three months, of school life. Valuable experience has been gained during the war in regard to intensive courses in training munition workers, interpreters, and wireless operators, to mention only three examples. It is quite possible that some of the school subjects might usefully be postponed till later in the school course, and then, by a short intensive course of several lessons a week, be taught more effectively, and with a great saving of school time.

The second point is that it is assumed in the foregoing observations that normal schools are being dealt with, and that at 11 years of age the children generally will have mastered the fundamental subjects of reading, writing, and arithmetic. It is obvious that in many of the more difficult schools this will not be the case, and that, while great emphasis is laid on many of the suggestions outlined, it will still be necessary to carry on formal instruction in these three subjects right up to the age of 14.

V.

*Nursery schools and classes.*

The Council has given careful consideration to the question of exercising the power conferred upon it by section 19 of the Education Act, 1918, to supply or aid the supply of nursery schools and classes for children over 2 and under 5 years of age. In the following paragraph the term "Nursery School," should be read, as defined in the Act, to include also "Nursery Class."

There are certain essential differences between the ordinary elementary school and the type of school proposed, *e.g.*, the children should remain at the nursery school all day, from about eight in the morning till six in the evening, and provision should be made for meals and for rest and sleep. Facilities for bathing the children should also be provided, and there should be ample opportunities for free movement and open-air life. It is understood that there is a very considerable number of London children between the ages of 2 to 5, who would be likely to need training in a nursery school, but the Council has decided, before establishing nursery schools for any given number of children, to proceed tentatively with 6 experimental schools of different types. It is proposed that three of these schools should be attached to the infants' departments of elementary schools, and that three should be maintained in detached buildings. The further question has been considered as to the extent to which the Council should assist financially non-provided nursery schools. At the present time seven such schools are recognised by the Council. The Council assists non-provided nursery schools, if recognised under the regulations of the Board of Education, by making a grant equal to 50 per cent. of their approved expenditure on maintenance, on condition that one-third of the managing committee of the school is appointed by the Council. In addition, the Council places at the disposal of the managers of non-provided nursery schools the Council's facilities for medical inspection and treatment. The ultimate provision of nursery schools will be determined by the results of the experimental stage referred to.

VI.

*Camp Schools, Organised Games, School Journeys.*

Prior to the Education Act, 1918, the Council had for some years past developed a system of "school journeys," under which groups of children are taken by teachers into interesting country localities for periods of a week or fortnight. Much valuable work had also been carried out by the Children's Country Holiday Fund and other similar organisations, in enabling a limited number of poor children to spend a fortnight or so in the country each year during the summer months. The Council had also from time to time arranged summer camps for children in attendance at Industrial Schools, either at the seaside, or in agricultural and fruit-picking districts, where the locality had use for boy labour. In extension of this general policy, the Council has now availed itself of its further powers under Section 17 of the Act, to establish two camp schools for delicate children, one at Bushy Park, Hampton-hill, the other at Wanstead House, Margate. The camp school at Bushy Park, known as The King's Canadian Camp School for London children, stands upon Crown property, which, during the war, was occupied as a camp by the Canadian Red Cross Society. The huts and equipment of the camp were presented to the Council through the generosity of the Canadian Red Cross Society, and His Majesty the King has been pleased to put the site of the camp at the disposal of the Council for a period of 10 years. The school has accommodation for about 300 children, and is confined to

boys over 10 years of age. The boys are selected by the School Medical Officer, as being children likely to benefit by an open air life, and are sent to the school for a month to six weeks at a time. Special arrangements are made for medical inspection and treatment. Very satisfactory reports have been received on the progress of the school, which accommodates during the year some 2,400 boys (8 batches of 300). The Council is also establishing a camp school at Margate, to be conducted on similar lines for girls. In this case the number of places is 64, and some 500 girls are sent there during the year for the same average periods. It is intended, as opportunity offers of securing other sites, to develop still further the camp school system.

As regards the "school journeys" referred to above, while the children are not selected solely on grounds of health, it may be said that "school journeys" enable a considerable proportion of weakly children to exchange unhealthy London conditions for country or seaside surroundings. During the year 1919, 124 "school journeys" were approved. Head teachers are given complete liberty in the selection of the destination. The majority, perhaps, select places in the neighbourhood of London and the nearer coast resorts, but towns as far distant as Stratford-on-Avon and Weston-super-Mare are visited. In all cases the improvement in the physique of the children is most marked. It is becoming increasingly clear, not less from a medical than from an educational standpoint, that, for the right type of child, the school journey, intelligently planned, is highly beneficial. A considerable extension of the policy of "school journeys" is about to be undertaken, and during the year 1920 there will be some 200 "school journeys." The following are the Council's administrative arrangements for "school journeys."

(i) The travelling expenses of the teachers (including the cost of one return journey for making preliminary arrangements) and the cost of their board and lodging to be borne by the Council. The maximum payment for board and lodging to be two guineas.

(ii) The schools to be classified into four groups (a), (b), (c) and (d), according to the financial position of the parents of children attending the schools, and grants towards board and lodging to be made by the Council as follows:—

15s. a week for each child attending from the (a) group.

11s. 3d. a week for each child from the (b) group.

7s. 6d. a week for each child from the (c) group.

3s. 9d. a week for each child from the (d) group.

(iii) The maximum number of children from each school undertaking an approved school journey, for whom the Council should provide assistance towards maintenance, to be 20 for grade I schools, 40 for grade II schools, and 60 for grade III schools. This restriction not to prevent a larger number of children participating in a school journey.

(iv) The duration of a school journey to be limited to a fortnight.

(v) All travelling expenses except those of the teachers to be borne by the school.

(vi) A financial statement to be prepared in connection with each school journey and to be submitted to the Council.

(vii) A sum of £5 per school journey to be allowed for special equipment.

(viii) The salary of any "supply" teacher engaged at the school during the absence of the teacher conducting the school journey to be paid by the Council.

Expenditure under headings (vii) and (viii) to be incurred through the Council.

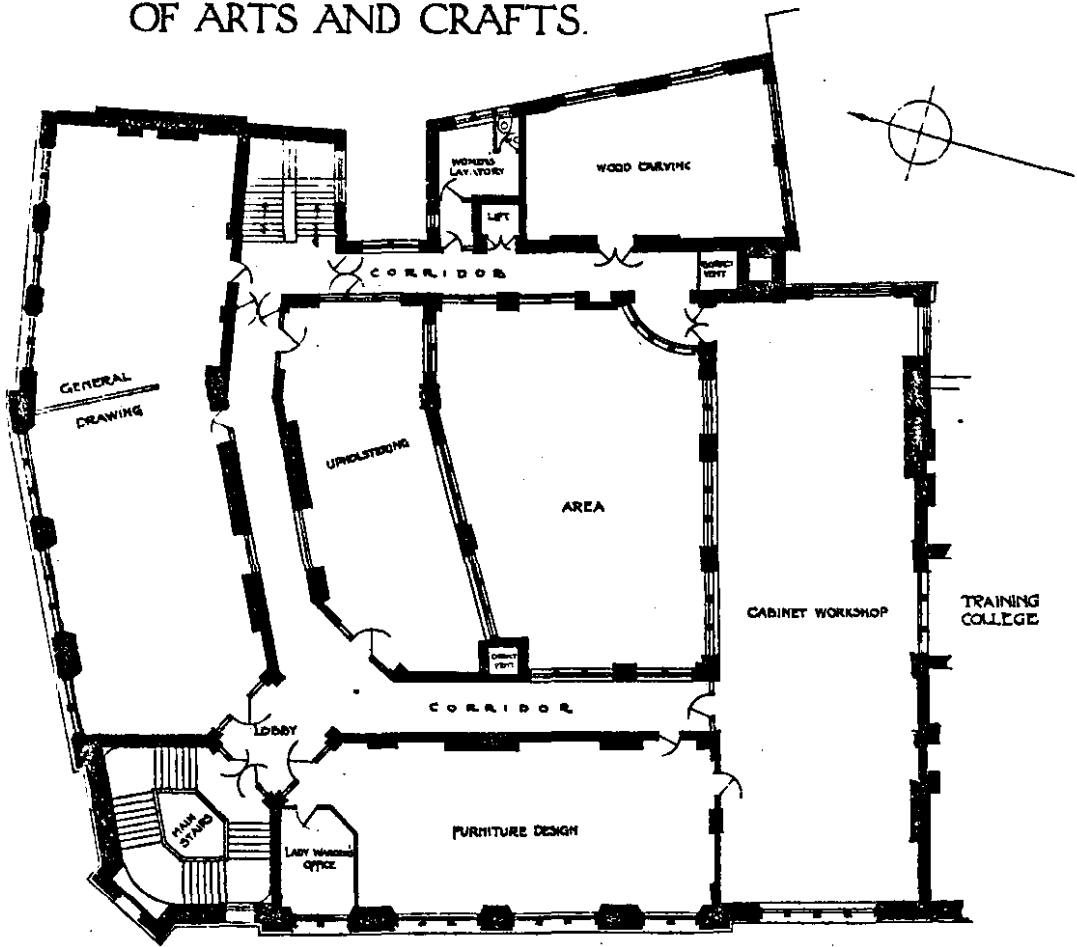
Hitherto school journeys have been conducted under Article 44 (g) of the Code, and children taking part in school journeys have been regarded as attending school. The Council is, however, advised that arrangements for school journeys fall more naturally within the scope of section 17 (c) of the Education Act, 1918, which empowers local education authorities, with the approval of the Board of Education, to provide "other facilities for social and physical training in the day or evening," for the purpose of supplementing and re-enforcing such training as is provided by the public system of education. It is proposed, therefore, in future to conduct school journeys under section 17 of the Act, rather than under section 26 (1), subject to a declaration that the selection of individual children to take part in school journeys shall not be determined directly or indirectly by the ability of their parents to contribute to the cost.

#### *Physical education.*

1.—Reference may be made here to the arrangements for physical education. Whenever the weather is favourable, physical exercises are taught in the playgrounds; in unfavourable weather use is made of the school halls. In the case of some non-provided schools, a hall in the vicinity of the school is hired by the managers. The syllabus used is that now generally endorsed by modern scientific opinion. In addition to the usual physical education, the Council authorises a special syllabus of remedial exercises for children suffering from minor physical ailments and general lack of muscle tone. Apart from this special syllabus, the physical exercises in infants' schools are not of a set character, but suitable occupations, involving the free use of eyes and hands, are substituted.

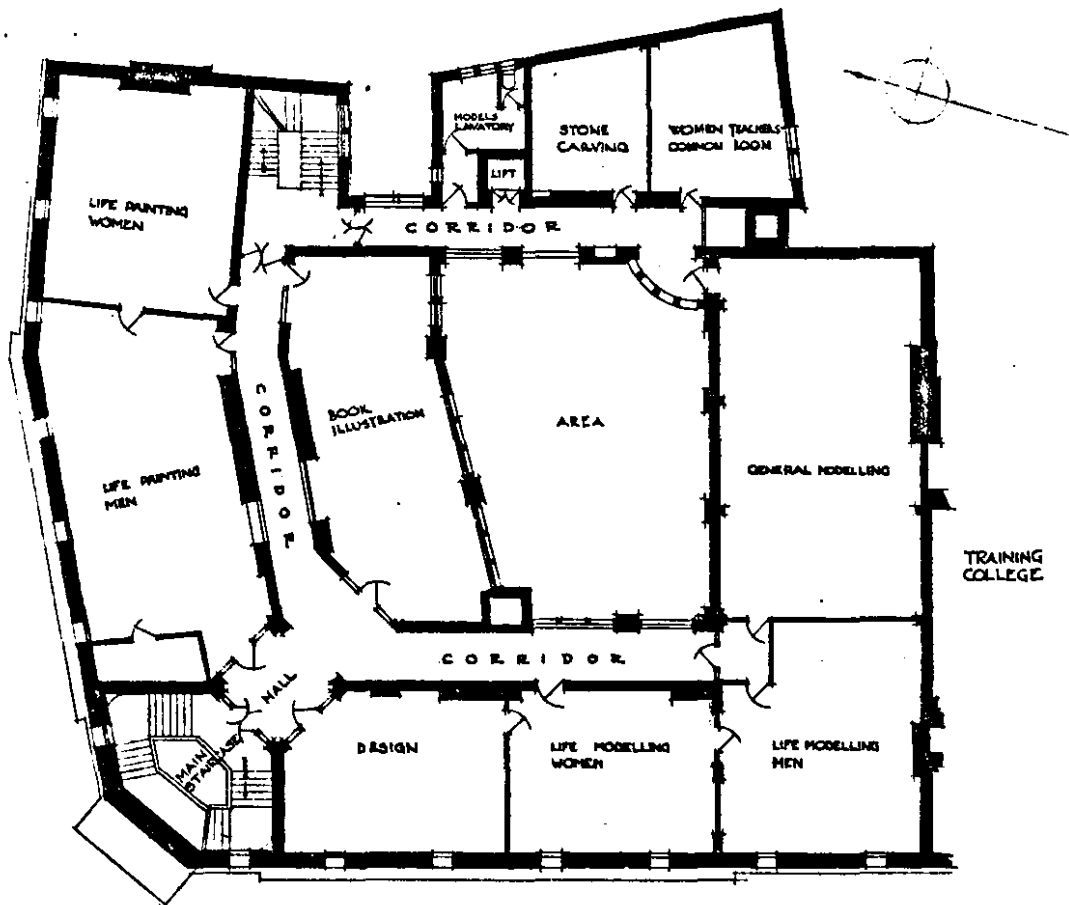
Organised games also form an important part of the physical education, and the Council's parks and open spaces, and the Royal parks and other London playing-fields, afford facilities for cricket, football, and other games, of which the fullest opportunity is taken. It is anticipated that the develop-

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ment of travelling facilities in the Metropolis generally will enable schools situated in districts poorly served in regard to playing fields to make more frequent use of organised games.

Instruction in swimming is also given from April to October, and, in approved cases, during the winter months. The number of swimming baths in use is 50; of these 39 are provided by Metropolitan Borough Councils, six by the Council, and five are privately owned. In promoting the extension of instruction in swimming, the Council has derived much assistance from the London Swimming Association.

2.—With a view to improving the qualifications of teachers of physical education, the Council has recently appointed an Organiser of Physical Education for boys and young men. It is proposed to institute courses of training for all London teachers, and short courses of training have already been established for some 5,000 elementary school teachers. Facilities for some part of this special training are available in various halls and gymnasias attached to polytechnics, but such accommodation can only be regarded as likely to satisfy part of the need for training facilities, and a central institution is required in which the work of training teachers of physical education can be concentrated. The Council has decided to provide a central institute of this type, and is in course of acquiring for the purpose the Broman Institute, Paddington. The institute will be available not only for training teachers, but also for the use of pupils attending day continuation schools.

## VII.

### *Shakespearean performances for children.*

The position of the movement for Shakespearean performances is as follows:—

(1) A large group of schools, numbering over 400, is working in connection with the Royal Victoria Hall, which is carried on by a governing body in close touch with the City Parochial Charities, and is also in receipt of a grant from the Carnegie Trustees. Shakespeare matinées for children are given at this hall, at least twice a week during the season, the children being brought to the performances through an organisation established by the teachers themselves under the rules laid down by the Council for the conduct of educational visits. The financial responsibility for the performances, and all arrangements for seating, devolve upon the authorities of the Victoria Hall. The supervision of the children, and the general working out of the arrangements for bringing them to and from the hall, are in the hands of the teachers, who act, in turn, as chief stewards at the performances.

(2) Last year an important development took place in connection with the performance of Shakespeare plays for children. Some of the teachers who had been connected with the work of the Victoria Hall were impressed with the desirability of arranging for similar work to be carried on in other parts of London, and a small local committee was established in Whitechapel, which made arrangements for Shakespeare matinées for children to be given at the Pavilion Theatre, Whitechapel-road. This new development proved very successful, and similar committees were established in Hackney, Chelsea, Hammersmith, Woolwich, Balham and Tooting, St. Pancras, Islington, and Paddington, so that at the present time there are nine local committees of teachers responsible for the organisation of Shakespeare performances for children in various parts of London. These performances are given by Mr. Ben Greet's Company, which was formerly associated with the "Old Vic.," but which is now working on an independent basis.

From the foregoing statement it will be seen that the organisation falls naturally into two parts—

- (1) That connected with a particular theatre (the "Old Vic.").
- (2) That connected with a particular company which visits different parts of London.

The principal difficulties in connection with the situation arose with respect to the second part of the organisation. The local committee of teachers had to make all arrangements for securing the use of a suitable theatre or hall, had to do all the booking of seats, and had to assume financial responsibility for selling enough tickets to enable it to pay the company. It was difficult to secure that sufficient profits were obtained from the performances to enable the company to be adequately paid. The Council understood, in fact, that, as matters stood last year, neither the number of performances given nor the amount realised from them was sufficient to give stability or permanence to the movement. It could not be expected that such arrangements should be continued permanently, and, in view of the extreme value to education of Shakespeare performances, it seemed desirable that the Council should take some action to place the movement on a sound and permanent basis. Several of the head teachers who had been closely connected with the movement were interviewed on the subject, and there was a decided opinion in favour of the Council giving financial assistance to a central organisation of teachers rather than to an individual theatre or an individual company.

A London Central Shakespeare Committee had recently been established, which comprised representatives from all localities outside the organisation of the "Old Vic.," in which Shakespeare performances are given. This central committee seemed to be a very suitable body for organising the work in the future in different parts of London.

As regards the "Old Vic." performances, it appeared to the Council desirable that a similar arrangement should be made, and that for the present any financial assistance afforded by the Council for the extension of the Shakespeare work at that theatre should be given to a committee of teachers, who would be responsible for making the detailed arrangements with the theatre authorities. This arrangement ensures that the performances are in all cases suited to the requirements of children.

The wider question of the structural and other improvements to be effected in the "Old Vic." building has for some time been under the consideration of the City Parochial Trustees, and it is understood that the Carnegie Trustees might be prepared to make an increased grant to the theatre, if a satisfactory scheme were put forward. In view, however, of the close proximity to the theatre of the Morley College, it is not possible to formulate any satisfactory plans, unless arrangements can be made for transferring the college to other premises.

In order to give effect to the above proposals, the Council decided for the year 1919-20, and subject to conditions to be drawn up later, to make a grant of £250 to the London Central Shakespeare Committee of Teachers, and a grant of £100 to the "Old Vic." Committee of Teachers, with a view to promoting Shakespearean performances for children. The Council also made a grant of £100 to the London Central Shakespeare Committee of Teachers towards the expenses connected with the organisation of evening performances. After these grants had been made, the question was raised as to whether the provisions of Section 26 (1) of the Education Act, 1918, which require that "no fees shall be charged or other charges of any kind made in any public elementary school" (except for meals or medical treatment), did not preclude the Council from making any charge to children for admission to Shakespearean performances. Counsel's opinion was accordingly taken in the matter, and he advised that it was not legal to charge children for admission fees or fares in connection with educational visits to Shakespearean plays. The Council, therefore, makes increased grants to the Shakespeare Committees of Teachers, in order to enable the work to be carried on, and a sum of £7,500 has been allocated to this purpose in the estimates for the year 1920-21.

### VIII.

#### *School Libraries.*

The system under which books are at present supplied to public elementary schools is the outcome of a long series of disconnected developments in elementary education. The following seven subdivisions give some indication of the principal types of books supplied and of the diversity of the method of supply :—

(1) Class books, text books, and reading books, whether in sets or in single volumes, are obtainable through the medium of the ordinary requisition lists, which are classified under "school subjects."

(2) Books for school lending libraries, in single volumes, are supplied on an expenditure basis of not more than  $\frac{1}{4}$ d. per head of the average attendance of the department, up to a maximum limit of 12s. a year, with certain exceptions.

(3) Books for reference libraries are supplied on a basis of £5 for initial expenditure and 7s. 6d. for annual upkeep; no standard list of books in use in reference libraries has hitherto been authorised.

(4) Books are issued under the Council's circulating system, a department receiving on the average, every half-year, about three sets of books for each of the upper standards, and four sets of books for each of the lower standards.

(5) Books bearing on the theory and practice of education are issued from the Education Library to teachers who are members of the library.

(6) In cases where teachers have made arrangements with local library authorities, books are circulated to schools from the local public libraries.

It will be seen from the above statement that there is an excessive subdivision of functions under the present organisation. The Council has given careful consideration to the best method of remedying this defect, and has arrived at the following conclusions :—

1. A unified school library to be organised in each department, to consist of :—

- (a) A classroom library.
- (b) A departmental library.
- (c) A teachers' library.

2. In lieu of the present numerous requisition lists, a single requisition list to be issued of books suitable for all school purposes, sub-divided under three main age-categories, Junior (up to 8 years of age), Middle (8 to 11 years of age), and Senior (from 11 years of age upwards).

3. The supply of books on the basis of differential rates per head to be abolished, and an inclusive sum authorised for the purpose, teachers to be allowed a wide discretion in the choice of books.

4. A standing advisory committee of head and assistant teachers to be constituted to advise the Council on the suitability of general reading books, the committee to consist of 18 members, of whom, with the exception of the first committee, one third shall retire annually.

5. An experiment to be tried in 10 selected schools of throwing the school library open to children, after school hours, from 5.30 p.m. to 7.30 p.m., under the supervision of teachers.

In addition to the foregoing reforms, the Council is taking steps to bring the public libraries into closer relation with the public system of education. The Council realises that some considerable efforts have already been made in this direction by library authorities. For example, juvenile departments of libraries have been established in eight metropolitan boroughs, and in many boroughs excellent schemes have been introduced for circulating reading books among the teachers and the children. In other cases, lectures for children have been arranged, or the elder children have been accustomed to the use of a library by means of educational visits to the public libraries under the

supervision of the head teacher of the school. The Council is impressed with the value of the work which has been done in these directions, and is anxious that the growing co-operation between the schools and the public libraries should be further strengthened. With this object, the Council has decided to approach the metropolitan library authorities with a view to securing throughout the London area :—

1. That children attending school within the area of the library authority shall be regarded as eligible to receive books, irrespective of the actual place of residence.
2. That the guarantee now required from head-teachers shall be discontinued.
3. That 11 years of age shall be taken as the minimum age for membership in all cases, but that individual children below that age shall be accepted on the specific recommendation of the head-teacher.

As regards the school libraries themselves, it is proposed to make the classroom library the basis of the organisation. Each class will have its own set of books, whether text books, or reading books, or books which may be borrowed from the classroom library. The departmental library will consist mainly of standard books of reference, and of such books of general interest, or works by specialists, as can best be located centrally. The teachers' library is intended for books on psychology and teaching methods. Within these limits, the policy of the Council is to leave to its head-teachers considerable freedom of individual organisation, and a large choice in the selection of the subject-matter to be included in the school library.

#### IX.

##### *Schools for the physically defective.*

The Council has decided to improve the classification of its schools for the physically defective, in which difficulties of organisation have long been apparent. There are 35 of these schools, of which 27 have hitherto contained less than five classes, the planning of the buildings in most cases precluding the possibility of enlargement. The schools for the physically defective include children from the age of 5 up to the age of 16, and it is not possible to organise efficiently in a small school children of such varied ages. It has, therefore, become imperative that steps should be taken to improve the classification of the children, and to provide teaching for the elder pupils adequate to their age and attainments. In this connection, the Council has considered a scheme for the organisation of the schools as junior mixed schools or senior schools, the latter to admit, with some exceptions, either boys or girls, to replace the existing system of self-contained mixed schools. It is in this direction that the solution of the problem is presumably to be found, but the Council is not prepared at the present time to re-arrange all the schools on these lines. The Council has, however, put the reclassification indicated into operation in 14 schools, and, if successful, it will be extended to a further 12 schools. The recognised accommodation will be increased by a number of places equal to the accommodation of the craft rooms. Hitherto these rooms have been used by children from contributory schools, and have not, therefore, been included in the accommodation, whereas now they will be used entirely by the children on the roll of the particular school. As regards curriculum, it is proposed, with a view to enabling physically defective children to earn a satisfactory living in after years, that the standard to be aimed at in the schools for the senior physically defective should be that of the central schools in English subjects, and of the trade schools in handicraft.

#### X.

##### *Special schools—After-care.*

The Council has had under consideration, having regard to the larger powers conferred on it by the Education Act, 1918, the financial position of the voluntary bodies which undertake the after-care of children in special schools. The need for thorough and systematic after-care work in connection with special schools has been increasingly insistent since the inception of these schools in 1893. The Elementary Education (Blind and Deaf Children) Act, 1893, and the Elementary Education (Defective and Epileptic Children) Act, 1899, which provided for the establishment of special schools, gave the education authority no powers as regards the after-school careers of the children, and the authority was unable to incur any expenditure on placing the children in suitable employment on leaving school, or on their supervision. The matter was, therefore, necessarily left in the hands of voluntary after-care associations. It is true that a scheme was subsequently approved by the Council under the Education (Choice of Employment) Act, 1910, by which children leaving the ordinary elementary schools are dealt with jointly by the Ministry of Labour and the Council, but this scheme includes no provision for children leaving special schools. Now that the age limit up to which the education authority may exercise its powers in respect of choice of employment has been raised from 17 to 18 by section 22 of the Education Act, 1918, the Council proposes to assist the voluntary after-care associations to put their work on a sounder financial basis,

#### (i)

*Blind, Deaf, and Cripple Children.*—The School Board for London approved the formation of a voluntary after-care committee to secure for blind and deaf children assistance from school managers, local workers, etc. Subsequently the need for the provision of a suitable mid-day meal in schools for the physically defective, and for the after-care for these children, led to the establishment of the

Cripple Children's Training and Dinners' Committee. These two committees were combined in 1905, to form the Blind, Deaf, and Cripple Children's After-Care Association. The following figures illustrate the steady growth of the work of the association :—

1911—289 cases on hand, 149 placed in employment ; 1912—282 on hand, 140 placed  
1913—322 on hand, 170 placed ; 1917—329 on hand, 236 placed.

Apart from voluntary subscriptions, the only income of the Association consists of a grant of £300 a year from the Ministry of Labour, the grant being made specifically for the "placing" of children referred to the Association by juvenile advisory committees. It is estimated that, in order to establish its work on a proper footing, the Association requires to have at its disposal an annual income of about £1,500. On the understanding that any grant made by the Council will rank as approved expenditure under section 44 of the Education Act, 1918, the Council is proposing to assist the Association by a grant increasing ultimately to £1,200 a year.

## (ii)

*Mentally Defective Children.*—The after-care of the mentally defective was originally provided for by a central committee, which assisted school managers and other local workers. This committee was, however, compelled to relinquish its activities, and, on its dissolution in 1910, the After-Care Association for Elder Mentally Defective Children was formed. After the passing of the Mentally Deficiency Act, 1913, the latter body was merged in the London Association for the Care of the Mentally Defective. The county is divided into four areas coinciding with the Council's school districts.

The number of cases reviewed by the Association between the years 1910 and 1919 is as follows :—

1910—11—288 cases on books, 196 in work ; 1912—711 on books, 463 in work ; 1913—1,198 on books, 865 in work ; 1917—1,749 on books, only 23 out of work, 510 cases dealt with during the year ; 1919—5,042 cases on books

As shown by these figures, the work is increasing. About 750 mentally defective children leave special schools each year, for whom after-care is required. The difficulties of the work will be emphasised during the post-war period, when the less efficient will be at a greater disadvantage in industry than was the case during the war.

The Association at present receives, apart from voluntary subscriptions, a grant of £1,150 a year from the Board of Control. Further grants, amounting in all to £750 a year, are received by the Association from various sources, but these are in respect of services entirely distinct from after-care work. The grant from the Board of Control is made under section 88 of the Mental Deficiency Act, 1913, and is not intended in any way to cover the after-care of children leaving special schools. The Association estimates that its expenditure will amount to £4,200 a year, as against a present income of some £1,700 applicable to special school purposes. The Council proposes to make a substantial grant in aid of this latter work, and to reconsider the position at the end of three years. It should be understood that, as in the case of the grant proposed for the after-care of the blind, deaf, and crippled, the Council's financial assistance will be conditional on the receipt from the Board of Education of 50 per cent. of its expenditure.

## XI.

*Mentally Defective and Physically Defective Children : Residential Accommodation.*

Under the Elementary Education (Defective and Epileptic Children) Act, 1899, which was optional not mandatory on school authorities, it was competent for the school authority to provide residential schools for mentally defective and physically defective children, but the provision chiefly contemplated by the Act was day schools. The Elementary Education (Defective and Epileptic Children) Act, 1914, made compulsory the education of mentally defective children, and the Education Act, 1918, made compulsory the education of physically defective and epileptic children. Moreover, Section 5 of the Act of 1914 substituted residential special schools in respect of cases previously committed to residential or day industrial schools under Section 12 of the Elementary Education Act, 1876. The Acts in question having by implication urged the necessity for residential schools in lieu of day schools, the Council has under consideration the question of providing residential schools to deal with the following types of cases :—

1. Children who, prior to the Elementary Education (Defective and Epileptic Children) Act, 1914, would have been committed to residential or day industrial schools.

2. Educable children who, in the absence of residential accommodation, are notified to the local authority, under Section 2 (2) of the Mental Deficiency Act, 1913, as "special circumstance cases."

3. Children who cannot conveniently attend as day pupils, owing to the distance of the day school from their homes.

4. Children who cannot be properly provided for in day schools, on account of ill-health.

Apart from the children referred to, who are either mentally defective or physically defective, as the case may be, there are a number of children medically certified as educable, who are suffering from combined defects. These children cannot be suitably educated in ordinary day special schools. Where one of the defects is deafness, provision is made at the Homerton School for the Defective Deaf, where children are partly residential, partly day pupils. It is found, however, that children living in their own homes benefit less than residential pupils. The question is, therefore, under

consideration as to providing residential accommodation for all children suffering from combined defects other than deafness. The Council is contemplating the establishment of a residential school for about 50 boys and 50 girls suffering from combined defects, exclusive of those cases provided for at the Homerton School.

The supply of the accommodation referred to will be considered, as soon as the financial circumstances of the time permit.

## XII.

### *Medical inspection and treatment.*

The arrangements detailed on pages 18, 19, and 20 will be continued as heretofore, and amplified as occasion requires, but the following changes will be introduced.

1. The Council, having regard to Section 18 (1) (iii) of the Education Act, 1918, which makes obligatory on the education authority the medical inspection of young persons attending day continuation schools, has reviewed the existing arrangements for the medical inspection of children attending elementary schools. As stated in Part I, Chapter I, children attending elementary schools are medically inspected under three main age-groups:—

- (i) Entrants.
- (ii) Children between the ages of 8 and 9.
- (iii) Children between the ages of 12 and 13.

It appears to the Council that the object of the Act of 1918 can best be secured by arranging for the medical inspection of all children attending elementary schools at the time of their leaving the elementary school. Not only will this medical inspection on leaving be of great value in connection with advice as to future employment, but it will also be the equivalent of a medical inspection on entrance to the day continuation school. It will then only be necessary to arrange for the re-inspection in the day continuation school of those children found to be defective at the leaving inspection in the elementary school. In the second year of attendance at the day continuation school, all young persons will be medically inspected.

The above proposals will necessitate some slight alterations in the ages at which children are at present medically inspected in the elementary schools. As from 1st January, 1921, the medical inspection of children attending elementary schools will take place at the following stages:—

- (i) On entry.
- (ii) At or about the age of 8 years, when retardation, dullness, or mental defect will be specially considered.
- (iii) At or about the age of 12 years.
- (iv) At the time of leaving the elementary school, when choice of employment will be specially considered. This inspection to be regarded as the equivalent of inspection on entrance to the day continuation school.

As from 1st January, 1921, the young persons to be medically inspected in day continuation schools will be:—

- (i) Those young persons in the first year of the course whose medical records in elementary schools show them to be suffering from some defect.
- (ii) All young persons in the second year of the course.

The Council has also decided to institute by degrees an earlier system of dental inspection. The present system, which has been in operation since 1910, provides that the first dental inspection in a school shall be of children aged 6, 7, and 8, and that the age group shall be advanced one year at each subsequent visit of the school dentist. This arrangement provides for the dental inspection ultimately of all children of the age of 6 years and over. The Council proposes to lower the age limit, and to arrange that the school dentist shall inspect all entrants to elementary schools. The change cannot be effected at once throughout the whole county, but it will be introduced in certain districts, and gradually extended.

2.—With regard to medical inspection in secondary schools, a slight modification in the procedure will be necessary in order to conform with the new regulations of the Board of Education.

The Council has already decided to extend the facilities for medical treatment at the treatment centres to children in secondary schools, and it is proposed that these facilities shall be made available in due course to young persons in day continuation schools.

3.—The necessary provision will be made for the conduct of medical examinations under the new By-laws referred to on page 9.

The Council's proposals with regard to anæmic and subnormal children and tuberculous children are set out on page 20, and those relating to the medical oversight of children in nursery schools and camp schools, and of children proceeding on school journeys, on pages 69 and 70.

## XIII.

### *Industrial and Reformatory Schools.*

The Council has had under consideration the report of the Departmental Committee appointed in 1918 by the Secretary of State for Home Affairs, but it is not possible at this stage to state in detail the effect of the recommendations of the Departmental Committee on the Council's industrial and

reformatory schools. In the meantime, the Council has decided that its industrial and reformatory schools shall be so organised that the children and young persons committed to them shall receive full schoolroom instruction or systematic practical training up to the age of 14 years, and that thereafter such children and young persons shall receive such instruction or systematic training for at least the same number of hours weekly as they would spend in a day continuation school, if they were not committed to an industrial or reformatory school.

It has also been decided that, notwithstanding the saving contained in section 10 of the Employment of Children Act, 1903, the hours of manual labour in a certified industrial or reformatory school shall not exceed the hours of employment laid down by the by-laws made in pursuance of section 13 of the Education Act, 1918, and the Employment of Children Act, 1903.

## CHAPTER II. HIGHER EDUCATION.

### I.

#### *Secondary schools.*

The Council has recently reviewed in full detail the accommodation available in London secondary schools. In doing so, the Council has had prepared statistical returns of the number of places, the number of pupils in attendance, the number on the waiting lists, and other information relating to all, or nearly all, the London secondary schools of different types. These comprise public secondary schools, private schools, and schools conducted by religious organisations.

The following is a statement of the accommodation and numbers in attendance at the several types of schools mentioned. The figures given are up to March 1919 :—

|  | Accommodation.      | Attendance.   | Accommodation.      | Attendance.   |
|--|---------------------|---------------|---------------------|---------------|
|  | Boys.               | Boys.         | Girls.              | Girls.        |
| Public schools .. .. .                   | 18,315<br>(18,857)† | 18,882        | 18,772<br>(18,230)† | 17,460        |
| Schools conducted by religious bodies .. | 1,175               | 1,702         | 5,195               | 3,468         |
| Private schools .. .. .                  | 13,875              | 11,482        | 18,215              | 15,813        |
| <b>TOTAL (other schools) .. .. .</b>     | <b>15,050</b>       | <b>13,184</b> | <b>23,410</b>       | <b>19,281</b> |
| <b>TOTAL (All schools) .. .. .</b>       | <b>33,365</b>       | <b>32,066</b> | <b>42,182</b>       | <b>36,741</b> |

In addition, it has been ascertained that 3,662 pupils resident in London are in attendance at boarding schools outside the County.

In determining the requirements of London in respect of secondary school accommodation, the Council has had regard to a number of important factors, of which the following may be mentioned :—

(i) Section 4 (4) of the Education Act, 1918, requires that no child or young person shall be debarred from receiving the kind of education from which he is capable of profiting, through inability to pay fees. In another portion of the scheme, the Council is submitting proposals involving a considerable extension of the existing financial aids to pupils, and it is anticipated that ultimately the new scholarship scheme will maintain about 16,000 scholars at secondary schools, as compared with the present number of 9,000.

(ii) As long ago as 1909, it was stated, in connection with certain proposals for the supply of secondary school accommodation, that no scheme for such provision could be regarded as meeting the needs of London which did not secure that secondary school places in *public or private* schools were provided for at least one per hundred of the population, viz., 45,000 places. The general expansion of knowledge and the demand for improved conditions of life, which were foreshadowed in 1909, have been recently accelerated, and the Council is satisfied that the time has now come when it should accept the principle that, in *publicly recognised* secondary schools, in the Administrative County of London, the provision of secondary school accommodation should be on the basis of one place per hundred of the population. In view, however, of the Council's financial commitments it is thought advisable to proceed cautiously in this direction.

The statistics prepared show that the secondary schools are, as a whole, extremely full, and that some are seriously overcrowded. The pressure is mainly felt on the south side of the Thames, and corresponds with the fact that the elementary schools situated on that side of the river provide a much larger proportion of the junior county scholarship holders than the schools situated on the north of the river.

† The figures in brackets give the revised accommodation if places filled by boys in girls' schools are reckoned in the boys' accommodation.

NUMBER (PER 1,000 OF THE POPULATION ) OF CHILDREN OF EACH BOROUGH ATTENDING SECONDARY SCHOOLS IN LONDON. BY BOROUGH.



MAP 4.



The proposals for the supply of additional accommodation are set out below. These will increase the accommodation for boys in public secondary schools from 18,315 to 21,009, and that for girls from 18,772 to 20,217. These figures fall short by about 1,500 and 2,300 of the estimate of one place per hundred of the population, but it should be explained that the proposals now put forward represent the minima which, in the opinion of the Council, should be undertaken without delay.

The proposals are as follows :—

1. A new school to be provided for 450 boys at St. Quintin Park (*Hammersmith, N.*).
2. St. Marylebone Grammar School (*St. Marylebone*) to be enlarged by 300 places to accommodate 450 boys.
3. The Paddington and Maida Vale High School for Girls (*Paddington*) to be enlarged by 150 places to accommodate 450 girls.
4. A new school to be provided for 450 boys in the Highbury district (*Islington, E.*), and the Northern Polytechnic Secondary School (280 boys) to be closed.
5. The County Secondary School, Holloway (*Islington, N.*), to be enlarged by 200 places to accommodate 500 boys.
6. The Highbury-hill High School for Girls (*Islington, E.*), to be enlarged by 130 places to accommodate 450 girls.
7. The County Secondary School, Brockley (*Lewisham, W.*), to be enlarged by 125 places to accommodate 450 boys.
8. A new school to be provided for 450 boys in the Woolwich district (*Woolwich*), and the Woolwich Polytechnic Secondary School (256 boys) to be closed.
9. A new school to be provided for 450 boys for the Camberwell and Sydenham districts.
10. A new school to be provided for 450 girls in the Eltham district (*Woolwich, W.*) to take the place of the existing County Secondary School, Eltham, (200 girls).
11. The County Secondary School, Sydenham (*Lewisham, W.*), to be enlarged by 125 places to accommodate 500 girls.
12. The County Secondary School, Peckham (*Camberwell*), to be enlarged by 200 places to accommodate 450 girls.
13. A new school to be provided for 500 boys in the Putney district (*Wandsworth*), and the Wandsworth Technical Institute Secondary School (540 boys) to be closed.
14. A new school to be provided for 500 boys in the Tooting district (*Streatham*).
15. A new school to be provided for 450 boys for the Battersea and Clapham districts (*Battersea and Clapham*) to take the place of the existing County Secondary School, Battersea, (300 boys).
16. A new school to be provided for 450 girls in the Wandsworth district (*Wandsworth*).
17. The Roan School (*Greenwich*) to be transferred to a new site, the new school to accommodate 500 boys instead of 375 boys.
18. A new school to be provided by the governors for 450 boys in the Lambeth district, to take the place of the existing Tenison's and Holborn Estate Schools (*Abbey, Westminster*), present accommodation 380 boys.
19. A new school to be provided by the governors for 300 girls in the Lambeth district, to take the place of the existing St. Martin's High School for 160 girls (*Abbey, Westminster*).

It will probably also be necessary at a later date to provide new schools for boys in the Roehampton and Eltham districts.

#### *Private schools.*

Section 28 of the Education Act, 1918, provides that the responsible person (*i.e.* the secretary to the governing body or, if there is no governing body, the head master or the head mistress), in respect of every school or educational institution not in receipt of grants from the Board of Education, shall supply the Board with information as to the name and address and short description of the school within three months of the appointed day, or, in the case of new schools, within three months of the day of opening. It also empowers the Board to obtain such further particulars as may be prescribed by regulation.

In connection with the survey of secondary school accommodation in London, information has already been obtained by the Council (independently of the Board) as to the numbers and ages of pupils in attendance at some 400 private schools, and at about 40 schools conducted by religious bodies. A further list has been received from the Board of some 140 schools from which information under section 28 has been received.

The relation of the Council to private schools within its area has been modified by the Act of 1918, in virtue of section 8 (3), relating to exemption from attendance at elementary schools, and sections 4 (3), 10 (2) (iii) (b), 10 (3) (i), and 10 (5), relating to exemption from attendance at day continuation schools. Having regard to these sections the Council proposes, in considering the question of inspection, to distinguish between (i) schools giving instruction to pupils beyond 14 years of age, and (ii) schools which have no pupils over 14 years of age, or only a few such pupils.

*Schools with pupils beyond 14 years of age.*—The Council proposes to prepare a list of schools recognised under sections 10 (2) (iii) (b) and 10 (3) (i) of the Education Act, 1918, and to use as the basis of such list (i) the list of public secondary schools in the County of London (which has been printed by the Council for its convenience); (ii) the Board of Education list of efficient secondary



schools. To these will be added the names of schools, which, after inspection, satisfy the Council that they provide suitable and efficient full-time instruction for pupils up to 16 years of age.

When the Council's scheme for day continuation schools comes into operation, it is probable that the authorities of some of the private schools will seek to qualify for a place on the Council's list of schools supplying "suitable and efficient full-time instruction" for the purposes of sections 10 (2) (iii) (b) and 10 (3) (i). The attention of the authorities of schools with pupils beyond 14 years of age, which have not applied to the Board of Education for inspection, will be drawn to these sections of the Act, and they will be informed that the Council will put the advice of its inspectors at their disposal, should they desire to seek to qualify for a place on that list.

*Schools with few or no pupils over 14 years of age.*—It is probable that some of these schools will desire to qualify under section 8 (3) of the Education Act, 1918, as schools providing efficient elementary instruction, while some may desire to be recognised by the Board of Education as preparatory schools, under article 52 (b) of the Board's regulations for secondary schools.

The attention of the authorities of private schools which have no pupils over 14 years of age, or only a few such pupils, will be drawn to section 8 (3) of the Education Act, 1918. They will be informed that the Council will put the advice of its inspectors at their disposal, should they desire the school to qualify, under section 8 (3) of the Act, as a school providing efficient elementary instruction; they will also be asked whether they propose to apply to the Board of Education for the recognition of the school as a preparatory school, under article 52 (b) of the Board's regulations for secondary schools.

## II.

### *Training colleges.*

The Council, in June, 1910, had before it proposals for providing additional training college accommodation. The following scheme was then approved—

| College.                  | Accommodation. |           | Annual output. |        |
|---------------------------|----------------|-----------|----------------|--------|
|                           | Existing.      | Proposed. | Men.           | Women. |
| London Day† .. .. .       | 350            | 350       | 50             | 50     |
| Avery-hill† .. .. .       | 320            | 320       | —              | 160    |
| Furzedown† .. .. .        | 250            | 250       | —              | 125    |
| Highgate-road† .. .. .    | (New)          | 250       | —              | 125    |
| College for men† .. .. .  | (New)          | 250       | 125            | —      |
| St. Quintin-park† .. .. . | (New)          | 250       | —              | 125    |
| Total output .. .. .      |                |           | 175            | 585    |
|                           |                |           | 760            |        |

† Four-year course.

† Two-year course.

Preparations were made to carry out this scheme, but, owing to protracted negotiations with the Board of Education in respect of the proportion of the cost of building to be received from the Board by way of grant, (which was ultimately settled to the satisfaction of the Council), very little progress had been made when war broke out, and expenditure on capital commitments became restricted. A suitable site in the Highgate-road district had, however, been secured, and tenders were being invited for the erection of the college. The Council was also in possession of a site at St. Quintin-park, Hammersmith.

The Council has now reviewed the whole question of the supply of training college accommodation, some aspects of which are discussed below.

(i) *Wastage.*—The number of certificated teachers employed in the London elementary school service is approximately 20,000, of whom rather less than one-third are men. Conditions have altered so much during the past few years that it is difficult to lay down a definite percentage of annual wastage. On the basis of the Board of Education's estimate of 6 per cent., the wastage among London teachers would be about 1,200 a year. Experience seems to show, however, that this percentage is too high, so far as London is concerned. A lower rate for London is more probable, due to the fact that practically the whole staff consists of certificated teachers. In the years before the war the number of teachers leaving the London service was as shown in the following table:—

| Year ending 31st March. | Fixed staff at the end of the year. | Died or left service. | Percentage.   |
|-------------------------|-------------------------------------|-----------------------|---------------|
| 1911-12 .. .. .         | 17,536                              | 803                   | 4.6 per cent. |
| 1912-13 .. .. .         | 17,912                              | 788                   | 4.4 ..        |
| 1913-14 .. .. .         | 18,122                              | 778                   | 4.3 ..        |
| 1914-15 .. .. .         | 18,289                              | 650                   | 3.5 ..        |
| 1915-16 .. .. .         | 18,524                              | 594                   | 3.2 ..        |
| 1916-17 .. .. .         | 18,269                              | 510                   | 2.8 ..        |
| 1917-18 .. .. .         | 18,305                              | 713                   | 3.9 ..        |
| 1918-19 .. .. .         | 18,451                              | 990                   | 5.3 ..        |

During the war many teachers remained in the service who would otherwise have retired, and the rate of wastage was accordingly abnormally low. The high rate for 1918-19 is in part due to the

accumulation of the years of war. The effect of the School Teachers (Superannuation) Act, 1918, will probably be to increase the rate of wastage permanently. The total annual wastage may, perhaps, be taken as from 900 to 1,000 during the next few years.

(ii) *Alterations in age limits of attendance at elementary schools.*—The present limits are—compulsory 5 to 14, voluntary 3 to 5 and 14 to 15. The Education Act, 1918, by section 8 (4), enables the lower age-limit of compulsory school attendance to be raised from 5 to 6, but, in considering any proposed by-law to this effect, the Board of Education must “have regard to the adequacy of the provision of nursery schools within the area.” It may, therefore, be assumed that any scheme for raising the lower compulsory age limit from 5 to 6 would be accompanied by provision for voluntary attendance at nursery schools from 2 to 6, and would, therefore, result in an increase, rather than a decrease, in the number of children attending school (including nursery schools) and in the number of teachers employed, though it might result in the replacement of a certain number of teachers holding the elementary school teachers’ certificate by those holding other qualifications. As, however, the nursery schools will in all probability be staffed, at any rate partially, by teachers holding qualifications similar to those now required in infants’ schools, the changes contemplated may result in an increase in the demand for trained certificated teachers, though it is not at present possible to give a numerical estimate of this increase.

Sub-section (2) of the same section gives the local education authority power to raise the upper age limit of compulsory school attendance from 14 to 15. If the Council were to decide to enforce the attendance at elementary schools of all children up to the age of 15, something like 60,000 children would be added to the roll, necessitating an aggregate initial increase of about 1,500 teachers and an annual increase of between 60 and 70 teachers to replace wastage. Apart, however, from any question of raising the age of compulsory school attendance, it is probable that there will be some increase in the numbers attending voluntarily beyond the age of 14. The average age of leaving is also slightly raised by the operation of section 9 (1) of the Act of 1918, requiring attendance to the end of the term in which the leaving age is reached.

(iii) *Reduction in size of classes.*—This will necessitate the appointment of about 200 new teachers to the London service, each year, for about 10 years, according to the rate at which the “40 and 48” scheme is brought into operation.

(iv) *Requirements of schools other than elementary.*—It is estimated that, during the first year of day continuation schools, 800 teachers will be employed, during the second year, 1,600, and in the ninth and succeeding years, when young persons from 16 to 18 years of age will have come under the Act of 1918, 3,200. The wastage in the staff of day continuation schools will be high, owing to the desirability of employing teachers with outside experience, who will tend to resume other employment, and to the higher average age of entry. The Board of Education’s wastage figure of 6 per cent. will probably be low rather than high for this class of school. During the first few years, it is probable that the staff of day continuation schools will be drawn to a large extent directly from the university, the workshop, or the office, after a special course of training, but, when the schools have become stabilised, they will have to rely to a greater extent on the output of the ordinary training colleges—including colleges providing a university course. It will be seen therefore, that, in calculating the amount of training college accommodation required, an appreciable increase must be allowed on account of the requirements of day continuation schools. A comparatively small (but probably an increasing) number of training college students will take up work in secondary and technical schools. Possibly the increase in the requirements due to these causes may be put at about 50 (additional output), when the day continuation schools are in full work. This is based on the assumption that about half the appointments to London day continuation schools are drawn from the London training colleges, with or without an intervening period in other schools.

(v) *Contributions to national as distinct from local requirements.*—This question can be looked at from two points of view—(1) the number of boys and girls resident in the area coming forward for the preliminary stages of training for the teaching profession; (2) the suitability of the area for the provision of training for students resident outside the area. As regards (1), the number of applicants from London has hitherto been quite insufficient, even for local needs. It is hoped that the new scholarship scheme may help to remedy this. The better conditions of service should also attract more boys and girls to the teaching profession. As regards (2), it is clear that London can offer better facilities for higher education than those available in the areas of the majority of the county and county borough authorities. If, therefore, the difficulties of financial adjustment can be overcome, London would appear to be an eminently suitable centre for the provision of training college accommodation beyond the needs of its own area.

The report of the Board of Education for 1918 shows that about 150 men and 4,000 women completed courses of training in that year in England. In the year 1914, the corresponding figures were about 2,000 men and 3,600 women. It may, perhaps, be taken that the normal output is about 6,000 (2,000 men and 4,000 women), assuming that existing colleges are restored by the military authorities, and that all colleges are full. Of the 6,000, rather less than 4,000 come from colleges not maintained by local education authorities, and rather more than 2,000 from colleges maintained by such authorities. The 2,000 includes about 450 from L.C.C. colleges. The normal output of 6,000 will not be attained till at least 1921, when the men released from war service complete their two years’ course.

*Summary of London's requirements.*

Taking the above considerations into account, it may be assumed that London's annual requirements are as follows—to replace wastage, 900 to 1,000, to reduce size of classes, 200, a total of 1,100 or 1,200. To this may be added an increased wastage of some 50 to provide for day continuation and other higher schools, and possibly another 50 or so for increase in the school leaving age. London's annual requirements may, therefore, be put at (say) about 1,200 to 1,250.

So far as the colleges maintained by local education authorities are concerned, London may reasonably expect to draw from all the colleges (including its own) a number equal to the output of its own colleges. It is not assumed that London would absorb all students from L.C.C. colleges and take none from other local education authorities' colleges, but that L.C.C. colleges may reasonably be expected to send to other areas approximately as many students as London takes from the colleges of other local education authorities.

As regards the "non-provided" colleges, London's fair share may be taken to be proportionate to the number of appointments of certificated teachers. London employs about one-sixth of the total number of certificated teachers in England and Wales, but the number of new appointments is not in proportion to the number employed. It is necessary in considering future appointments to bear in mind that, of the three factors in the increased demand for teachers as set forth by the Board of Education in their circular of 2nd August, 1919, relating to the supply of teachers, namely, the raising of the compulsory school age, replacement of supplementary and uncertificated teachers by certificated teachers, and decrease in size of classes, it is the last only which affects London to any considerable extent. As regards the raising of the compulsory school age, London, in common with the rest of the country, is empowered by section 8 (2) to raise the compulsory age to 15, but London is practically unaffected by section 8 (1), which requires the compulsory school age to be 14. Taking these considerations into account, the Council has come to the conclusion that it is a reasonable assumption that one-tenth of the appointments of certificated teachers in England and Wales will be to London schools, and that, therefore, London should expect to draw one-tenth of the output of non-provided colleges.

Assuming that London can draw one-tenth of the output of the colleges not maintained by the local education authorities—viz., 400—and that its own colleges should produce the number required by London in excess of this, it follows that the Council, in order to meet local needs, should aim at an output of at least 800 from its own colleges. This should be regarded as the minimum to be aimed at, and the number should be increased if London is to contribute to national as distinct from local requirements.

In view of the uncertainty of the position at the present time, the Council has decided to proceed with the scheme as drawn up in 1910—with very slight modification. The Shoreditch Technical Institute, which has for some time been used for training handicraft instructors, is now recognised for the training of certificated teachers specialising in handicraft. The only other modification suggested in the 1910 scheme is an increase of ten in the accommodation of each of the three new colleges. It is desirable, ultimately, to increase the proportion of resident students, and it is proposed for this purpose to provide 250 resident places at the Furzedown College, and 160 resident places, in the first instance, at each of the three new colleges.

The Council aims at ultimately securing a university course for all its teachers. The system of secondary education has, however, not yet reached the stage which would render this practicable. The existing colleges will in the meantime be organised in such a way as not to hinder their ultimate development into schools of the university. It is anticipated that the length of the training course will then be increased to three years, and that part of the academic work will be taken in the university, the number of resident and day students being adjusted so as to maintain the same output. The Council's proposals are as under—

| College.                            | No. of places. | Annual output (Men). | Annual output (Women). |
|-------------------------------------|----------------|----------------------|------------------------|
| London Day (in existence) ... ..    | 350 D          | 50                   | 50                     |
| Avery-hill (in existence) ... ..    | 300 R<br>20 D  | —                    | 160                    |
| Furzedown (in existence) ... ..     | 250 R          | —                    | 125                    |
| Highgate-road (site only) ... ..    | 260 *          | —                    | 130                    |
| St. Quintin-park (site only) ... .. | 260 *          | 130                  | —                      |
| College for women ... ..            | 260 *          | —                    | 130                    |
| Shoreditch ... ..                   | 70 D           | 35                   | —                      |
|                                     | 1,770          | 215                  | 595                    |
|                                     |                | 810                  |                        |

On the best estimates at present available, it is considered that these proposals will involve a capital expenditure of some £600,000. As a set-off against this expenditure, it should be mentioned that the Graystoke-place training college will ultimately be set free for other purposes.

\* 160 of these places will be resident places in the first instance.

## III.

*Scholarship scheme.**Introductory.*

One of the most important provisions of the Education Act, 1918, secures that children and young persons shall not be debarred from receiving the benefits of any form of education by which they are capable of profiting, through inability to pay fees (section 4 (4)). This section makes, however, no reference to maintenance grants. While, therefore, the Council's scheme must under statute secure that secondary and university education shall be available for all who are "capable of profiting thereby," but are unable to pay fees, it is not obligatory on the Council to provide maintenance grants for those who are "capable of profiting."

In framing its proposals the Council has had in mind that, while the words of the Act refer to profit accruing to the individual student, the encouragement of higher education is of vital importance to the community. This being the case, the Council is of opinion that, where the financial circumstances are such that the continuance of the student's education would involve considerable sacrifice on the part of the parent, part of the sacrifice should be borne by the community. The large proportion of fee-paying pupils who leave the secondary schools at or before the age of 16 confirms the view expressed by head masters and head mistresses that many parents whose incomes are above the present limits for scholarships cannot without great difficulty allow their sons and daughters to remain at school beyond that age. The Council considers an increase in the average secondary school-leaving age to be one of the most pressing educational needs at the present time, being, as it is, a condition precedent to the production of a due supply of persons fitted to proceed to higher education in the universities and higher technical colleges. For these reasons the Council has not interpreted the words "unable to pay fees" in an absolutely literal sense.

In framing its scheme the Council has considered the following questions—what test shall be required of capacity to profit by education of a particular type, what income limits shall be imposed as a condition of the award of free places, and on what principle candidates shall be selected for the receipt of maintenance grants (if any) in addition to free education.

Proposals as to aid for intending teachers are included in the scheme.

I.—*Conditions of Free Higher, Secondary, Commercial, and Technical Education.**Tests of capacity.*

It would be difficult to prove that any given individual was totally incapable of profiting by any particular type of education, but if the intention of Parliament had been that all higher education should be free to all poor students, this would have been clearly indicated, whereas, as a matter of fact, an amendment in favour of free secondary education was rejected by the House of Commons. It is therefore permissible for the Council to impose a test of "capacity to profit." It might appear at first sight that the only condition which can logically be imposed on the student who is unable to pay fees is the condition of admission which is applicable to fee-paying students. The present conditions of admission to secondary and technical schools and universities are, however, by no means so strict that all who satisfy them may be regarded as "capable of profiting" in the sense in which the words appear to be used in the Act.

In the universities and in certain secondary schools conditions of admission are not within the control of the Council; and if, in the institutions under its control, the Council were to attempt to raise the conditions of admission of fee-paying students, so as to exclude those not "capable of profiting," one result would be the division of schools into two classes, to one of which admission would be based on social status rather than on intellectual attainments.

The Council has therefore felt itself justified in applying a test for free higher education different from the ordinary admission test.

The Council considers that opportunity of transference from the elementary school to the higher school should be offered at the age of 11 +, and again at the age of about 13 +, and that opportunity for further education should be available beyond the secondary school-leaving age.

*Admission at age 11 +.* The Council's junior scholarship examination is used (in conjunction with reports from teachers) for the purpose of selecting for admission to secondary schools children who at the age of 11 + show evidence of marked ability. The same examination is used for the selection of children of good ability, but of less outstanding merit, for admission to a course of higher elementary education in central schools. At this stage some 1,600 children enter the secondary schools, and some 5,000 the central schools, each year; there is no admission at this stage to junior technical schools. The Council is of opinion that this selection should remain as at present, with such alterations as experience may suggest. The question of maintenance grants is dealt with below.

*Admission at age 13 +.* The next intake to secondary schools occurs at present at the age of 13 +, by means of supplementary junior scholarships (300), and probationer bursaries for intending teachers (150). At present these awards are made on the results of examinations held at the secondary schools, and there is no attempt to maintain uniformity of standard. There is an intake at about this age of both boys and girls to the junior technical schools. In the case of boys, two junior technical schools (the Borough Polytechnic and the Beaufoy Institute) accept pupils at the age of 12½ +, and certain schools (three in number) have a "lower" age limit of 14.

In order to fulfil its obligations under section 4 (4) as regards secondary and technical education for pupils up to the age of about 16, the Council proposes to offer free admission to secondary schools and, up to the limit of the available accommodation, to junior technical schools, at the age of 13 +, to all children "unable to pay fees," who satisfy its requirements as to intellectual attainments, and whose parents undertake to keep them at school at least until they have passed a recognised first examination, or until the age of 17 + in the case of secondary schools, and until the end of the course in the case of junior technical schools. This undertaking will be in legal form, and the parents will be liable to payment of a penalty in case of non-fulfilment. In the case of pupils of junior technical schools the parent will be required to sign an undertaking that the pupil shall enter the trade at the end of the course.

The Council has given careful consideration to the question whether the test of intellectual fitness should be a central test applicable to all candidates, such as is now applied in the case of scholarships tenable at junior technical schools, or whether each school should, as secondary schools do at present, impose its own conditions. Now that there is an obligation imposed by statute upon the Council to admit all who are "capable of profiting," it appears to be incumbent upon the Council to secure, so far as in it lies, that the standard of capacity to profit shall be uniform for all the candidates for the same kind of school. If this is admitted, it follows that the determination of the standard required cannot be left to the individual schools, and it will be necessary to have a central examination. The examination should be somewhat on the lines of the junior scholarship examination, with a higher standard, but should include questions on history and geography; for admission to junior technical schools a handicraft and drawing test should be compulsory. As in the case of the junior county scholarship examination, the reports of the teachers would be taken into account.

Pupils who pass this examination (and who satisfy certain conditions as to income to be dealt with below) will have the choice of admission, without fees, either to secondary schools or to junior technical schools, subject to the condition that the number admitted to junior technical schools must in certain cases be limited by considerations of the number which the trades can absorb. Pupils of central schools will not be debarred from entering for the examination, but they will not be recommended as candidates for secondary schools, unless their ability is such that they are likely ultimately to profit by an "advanced course" (age 16 + to 18 + or 17 + to 19 +) at a secondary school, and their parents are prepared to keep them at school for this course. A boy or girl who is to leave school at age 16 would do better to remain at the central school rather than change to a secondary school. This does not apply as regards the admission of central school pupils to junior technical schools.

*Length of tenure of free places.* In accordance with the regulations of the Board of Education a free place in a secondary school will be tenable for so long as the pupil remains in the school, unless the holder is required to leave under rules applicable to fee-paying students. A free place in a junior technical school will naturally be for the full course.

*Free education from age 16 + or 17 +.* In the case of secondary schools the course provides that the normal pupil shall take (at the age of 16 or 17) one of the examinations recognised by the Board of Education as a "first school examination," such as the London General School examination (equivalent to matriculation). Pupils who, after passing a first examination at 16 or 17 years of age, remain at school up to the age of 18 or 19, are, as a rule, expected to enter, at the conclusion of the course, for a recognised "second school examination," such as the London Higher School examination. The passing of a "first school examination" by the age of 17 + is regarded by the Council as a test of capacity to profit by a higher course. Those who pass this test, and are recommended by their teachers, whether originally admitted as fee-paying students or as holders of free places, will (subject to an income qualification) be entitled to further education without payment of fees. The Council proposes also to provide for the consideration by a board of assessors of candidates who do not pass the examination, but are strongly recommended by their teachers. In some cases the most suitable course of further education for pupils from the age of 16 + or 17 + will be a course of higher work in the secondary school; in others a course at a polytechnic or technical institution will be the more suitable, subject to the limitation as to the numbers which can be absorbed. Every care will be taken to make pupils and parents acquainted with the possibilities open to pupils who have passed through these technical courses. The choice of the course to be taken will be left to the pupil or his parents, subject to the approval of the head master. Students will not at this stage be offered free university education.

*University education.* The usual test of "capacity to profit" by university education should be the "second school examination," which will be taken normally at the age of 18 + or 19 +. It will, however, only be possible to use this examination for the purpose, in the event of the University of London accepting this examination as equivalent to the intermediate examination.

At this stage also, it is desirable to have a board of assessors empowered to consider cases of students who show evidence of capacity to profit, other than the passing of the examination. In the case of students of more mature years who are no longer in attendance at school, such as students of the Workers' Educational Association, no examination test will be imposed; such students will, however, require grants in addition to free places, and their case is dealt with below. Similar conditions will obtain in the case of adult candidates for scholarships for the commerce degree, who have ceased attendance at full-time day courses for a year or more.

The Council hopes that it may, in time, be possible to require a pass in a second examination in the case of intending teachers, but in view of the comparatively small number who are likely to reach this standard at present, and of the large number of candidates needed for the teaching profession, the Council proposes to give free education in training colleges to intending teachers who satisfy the requirements for admission to the course.

*Income limits for free education.*

As stated above, free secondary or technical education will be offered to pupils of 11 or 13 years of age, and to pupils of 16 or 17 years of age, and free university or higher technical education to pupils of 18 years and upwards, subject in each case to certain evidence of intellectual capacity and of inability to pay fees.

It is clearly impossible, in view of the large numbers involved, to enter into a minute examination of each individual case in order to prove whether the parent can reasonably be expected to pay fees for the continued education of his son or daughter, and it is therefore necessary to adopt the test of an income limit. This limit must be so determined that no one is excluded who can be regarded as incapable of paying fees.

At present there is no income limit in the case of the free places (as distinct from maintenance grants) for which the pupils from elementary schools compete at the junior county scholarship and supplementary junior county scholarship examinations. At the time when this regulation was introduced, it was perhaps, broadly speaking, true that parents who sent their children to elementary schools could not afford to pay the fees of secondary schools. This is, however, no longer the case, and the proportion of well-to-do children in elementary schools is increasing with the improvement of the schools and the approximation of social classes. The Council is of opinion that it is not possible any longer to justify a differentiation according to the schools attended, and the same limit will be imposed in all cases. The proposed limit is £450 in the case of all pupils (irrespective of the school previously attended) admitted to free places at secondary schools at the ages of 11 + or 13 + or to free places in junior technical schools at 13 +.

In the case of free education (secondary or technical) beyond the stage of the first school examination (i.e., from the ages of 16 + or 17 +) the limit will be £550 a year. For free university education the limit will be £750 a year.

In all these cases it is proposed that the income limit shall be increased by £50 for each child beyond the first. By "child" is meant a son or daughter who is (i) under school age or is (ii) pursuing a course of full time education. The effect of the proposed allowances for children is fully shown in the tables set out below.

**II.—Maintenance grants.**

*Scholastic requirements for grants.*

It has been pointed out above that, while the Education Act, 1918, requires that higher education shall be available to all capable of profiting thereby, if they are unable to pay fees, it does not refer to maintenance grants in this connection. It is therefore open to the Council to consider whether a higher intellectual standard (or other conditions) should be required for the payment of maintenance grants beyond "capacity to profit" by the education given. The Council is of opinion that the requirements of a higher standard are justified.

While the Act requires free education to be given to any poor student who will profit thereby, the Council before giving a grant in addition to free education may reasonably require evidence that the community (as well as the student himself) will benefit from the admission of the student to the particular type of education desired.

The cases in which this condition is satisfied are those in which the student possesses ability distinctly above the average, and those in which the student undertakes to perform special services which are required by the community.

It is necessary to consider the principles on which the candidates shall be selected for grants at the different ages. In all cases it is proposed that the payment of grants shall be subject to an annual income limit lower than that for free places.

*At age 11 +.* Children of this age are too young to pledge themselves to take up a particular profession. Those who are of good (but not exceptional) ability are admitted to the central school. Those who reach junior scholarship standard may be regarded as of exceptional ability, and, therefore, all may be regarded as being entitled, on educational grounds, to maintenance grants. No change in principle is therefore proposed at this stage, though changes in the amount of the maintenance grants and in the income limits are proposed.

*At age 13 +.* Maintenance grants will (subject to income limits) be payable to (i) those who reach a certain standard in the examination higher than that required for free places; (ii) those who reach the standard for free places and undertake to become teachers.

The intellectual standard for maintenance grants will be slightly higher than the present average standard for supplementary junior scholarships.

In the case of maintenance grants for junior technical schools, the present standard for the award of trade scholarships, with such modifications as experience may suggest, will probably be found to be sufficient. The alteration of income limits will increase the numbers. The limitations as to entry into the particular trades will tend to restrict the numbers.

In order to fulfil its obligations under section 4 (4) as regards secondary and technical education for pupils up to the age of about 16, the Council proposes to offer free admission to secondary schools and, up to the limit of the available accommodation, to junior technical schools, at the age of 13 +, to all children "unable to pay fees," who satisfy its requirements as to intellectual attainments, and whose parents undertake to keep them at school at least until they have passed a recognised first examination, or until the age of 17 + in the case of secondary schools, and until the end of the course in the case of junior technical schools. This undertaking will be in legal form, and the parents will be liable to payment of a penalty in case of non-fulfilment. In the case of pupils of junior technical schools the parent will be required to sign an undertaking that the pupil shall enter the trade at the end of the course.

The Council has given careful consideration to the question whether the test of intellectual fitness should be a central test applicable to all candidates, such as is now applied in the case of scholarships tenable at junior technical schools, or whether each school should, as secondary schools do at present, impose its own conditions. Now that there is an obligation imposed by statute upon the Council to admit all who are "capable of profiting," it appears to be incumbent upon the Council to secure, so far as in it lies, that the standard of capacity to profit shall be uniform for all the candidates for the same kind of school. If this is admitted, it follows that the determination of the standard required cannot be left to the individual schools, and it will be necessary to have a central examination. The examination should be somewhat on the lines of the junior scholarship examination, with a higher standard, but should include questions on history and geography; for admission to junior technical schools a handicraft and drawing test should be compulsory. As in the case of the junior county scholarship examination, the reports of the teachers would be taken into account.

Pupils who pass this examination (and who satisfy certain conditions as to income to be dealt with below) will have the choice of admission, without fees, either to secondary schools or to junior technical schools, subject to the condition that the number admitted to junior technical schools must in certain cases be limited by considerations of the number which the trades can absorb. Pupils of central schools will not be debarred from entering for the examination, but they will not be recommended as candidates for secondary schools, unless their ability is such that they are likely ultimately to profit by an "advanced course" (age 16 + to 18 + or 17 + to 19 +) at a secondary school, and their parents are prepared to keep them at school for this course. A boy or girl who is to leave school at age 16 would do better to remain at the central school rather than change to a secondary school. This does not apply as regards the admission of central school pupils to junior technical schools.

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*Free education from age 16 + or 17 +.* In the case of secondary schools the course provides that the normal pupil shall take (at the age of 16 or 17) one of the examinations recognised by the Board of Education as a "first school examination," such as the London General School examination (equivalent to matriculation). Pupils who, after passing a first examination at 16 or 17 years of age, remain at school up to the age of 18 or 19, are, as a rule, expected to enter, at the conclusion of the course, for a recognised "second school examination," such as the London Higher School examination. The passing of a "first school examination" by the age of 17 + is regarded by the Council as a test of capacity to profit by a higher course. Those who pass this test, and are recommended by their teachers, whether originally admitted as fee-paying students or as holders of free places, will (subject to an income qualification) be entitled to further education without payment of fees. The Council proposes also to provide for the consideration by a board of assessors of candidates who do not pass the examination, but are strongly recommended by their teachers. In some cases the most suitable course of further education for pupils from the age of 16 + or 17 + will be a course of higher work in the secondary school; in others a course at a polytechnic or technical institution will be the more suitable, subject to the limitation as to the numbers which can be absorbed. Every care will be taken to make pupils and parents acquainted with the possibilities open to pupils who have passed through these technical courses. The choice of the course to be taken will be left to the pupil or his parents, subject to the approval of the head master. Students will not at this stage be offered free university education.

*University education.* The usual test of "capacity to profit" by university education should be the "second school examination," which will be taken normally at the age of 18 + or 19 +. It will, however, only be possible to use this examination for the purpose, in the event of the University of London accepting this examination as equivalent to the intermediate examination.

At this stage also, it is desirable to have a board of assessors empowered to consider cases of students who show evidence of capacity to profit, other than the passing of the examination. In the case of students of more mature years who are no longer in attendance at school, such as students of the Workers' Educational Association, no examination test will be imposed; such students will, however, require grants in addition to free places, and their case is dealt with below. Similar conditions will obtain in the case of adult candidates for scholarships for the commerce degree, who have ceased attendance at full-time day courses for a year or more.



The Council hopes that it may, in time, be possible to require a pass in a second examination in the case of intending teachers, but in view of the comparatively small number who are likely to reach this standard at present, and of the large number of candidates needed for the teaching profession, the Council proposes to give free education in training colleges to intending teachers who satisfy the requirements for admission to the course.

*Income limits for free education.*

As stated above, free secondary or technical education will be offered to pupils of 11 or 13 years of age, and to pupils of 16 or 17 years of age, and free university or higher technical education to pupils of 18 years and upwards, subject in each case to certain evidence of intellectual capacity and of inability to pay fees.

It is clearly impossible, in view of the large numbers involved, to enter into a minute examination of each individual case in order to prove whether the parent can reasonably be expected to pay fees for the continued education of his son or daughter, and it is therefore necessary to adopt the test of an income limit. This limit must be so determined that no one is excluded who can be regarded as incapable of paying fees.

At present there is no income limit in the case of the free places (as distinct from maintenance grants) for which the pupils from elementary schools compete at the junior county scholarship and supplementary junior county scholarship examinations. At the time when this regulation was introduced, it was perhaps, broadly speaking, true that parents who sent their children to elementary schools could not afford to pay the fees of secondary schools. This is, however, no longer the case, and the proportion of well-to-do children in elementary schools is increasing with the improvement of the schools and the approximation of social classes. The Council is of opinion that it is not possible any longer to justify a differentiation according to the schools attended, and the same limit will be imposed in all cases. The proposed limit is £450 in the case of all pupils (irrespective of the school previously attended) admitted to free places at secondary schools at the ages of 11 + or 13 + or to free places in junior technical schools at 13 +.

In the case of free education (secondary or technical) beyond the stage of the first school examination (i.e., from the ages of 16 + or 17 +) the limit will be £550 a year. For free university education the limit will be £750 a year.

In all these cases it is proposed that the income limit shall be increased by £50 for each child beyond the first. By "child" is meant a son or daughter who is (i) under school age or is (ii) pursuing a course of full time education. The effect of the proposed allowances for children is fully shown in the tables set out below.

II.—*Maintenance grants.*

*Scholastic requirements for grants.*

It has been pointed out above that, while the Education Act, 1918, requires that higher education shall be available to all capable of profiting thereby, if they are unable to pay fees, it does not refer to maintenance grants in this connection. It is therefore open to the Council to consider whether a higher intellectual standard (or other conditions) should be required for the payment of maintenance grants beyond "capacity to profit" by the education given. The Council is of opinion that the requirements of a higher standard are justified.

While the Act requires free education to be given to any poor student who will profit thereby, the Council before giving a grant in addition to free education may reasonably require evidence that the community (as well as the student himself) will benefit from the admission of the student to the particular type of education desired.

The cases in which this condition is satisfied are those in which the student possesses ability distinctly above the average, and those in which the student undertakes to perform special services which are required by the community.

It is necessary to consider the principles on which the candidates shall be selected for grants at the different ages. In all cases it is proposed that the payment of grants shall be subject to an annual income limit lower than that for free places.

*At age 11 +.* Children of this age are too young to pledge themselves to take up a particular profession. Those who are of good (but not exceptional) ability are admitted to the central school. Those who reach junior scholarship standard may be regarded as of exceptional ability, and, therefore, all may be regarded as being entitled, on educational grounds, to maintenance grants. No change in principle is therefore proposed at this stage, though changes in the amount of the maintenance grants and in the income limits are proposed.

*At age 13 +.* Maintenance grants will (subject to income limits) be payable to (i) those who reach a certain standard in the examination higher than that required for free places; (ii) those who reach the standard for free places and undertake to become teachers.

The intellectual standard for maintenance grants will be slightly higher than the present average standard for supplementary junior scholarships.

In the case of maintenance grants for junior technical schools, the present standard for the award of trade scholarships, with such modifications as experience may suggest, will probably be found to be sufficient. The alteration of income limits will increase the numbers. The limitations as to entry into the particular trades will tend to restrict the numbers.



*At age 16 + or 17 +.* Those who satisfy the requirements for free places, and who intend to become teachers, will have maintenance grants. It may be necessary also, for some years, to continue the present practice of awarding bursaries to intending teachers before they pass a first examination, on the understanding that they will probably pass such an examination during the bursary year. The grants for bursars will be the same as for other scholars of similar age. As for the others, grants should be given, irrespective of the candidate's intention to become a teacher, to those who (i) at the age of 16 + pass a recognised first examination, or (ii) at the age of 17 + reach a higher standard than a mere "pass."

*At age 18 + or 19 +.* Maintenance grants in addition to free places will be available for (i) intending teachers who satisfy the conditions of admission to courses of training, and (ii) students who show evidence of higher capacity than that of an ordinary "pass" in a second school examination. As the number of candidates under (ii) will not be large, each application will be considered on its merits, and other evidence of exceptional ability will be accepted, apart from that of a high position in the recognised second examination; and students who have not taken the second examination will be regarded as eligible, if they have won a university scholarship. There is, however, another class at this age for whom provision has been made under the Council's scholarship scheme—a class who have not necessarily passed through the secondary schools, who have been in technical schools and have passed out into the trade, and who are at present catered for by means of the Council's scholarships in art and technology. This provision will still remain, and the method of the awards will be as at present. The number will require to be varied according to experience of the demand.

Provision will also be made for students who have ceased full-time attendance at school, but who show by their work in a continuation school, or in classes of the Workers' Educational Association, or by other evidence, that they are worthy of assistance to pursue a university course.

#### *Annual income limits and amounts of grants.*

The following will be the annual income limits for maintenance grants where there is no dependent child except the scholar—

|   | £   |
|---|-----|
| <i>Secondary, trade, and technical schools—</i>                     |     |
| Age 11 + to 14 + (or to the elementary school leaving age) .. .. .  | 250 |
| Age 14 + (or elementary school leaving age) to 16 + or 17 + .. .. . | 350 |
| From age 16 + or first examination .. .. .                          | 450 |
| <i>University and higher technical education—</i>                   |     |
| From age 18 + .. .. .   | 650 |

As in the case of free places, the income limit will be increased by £50 for each additional child.

*Amounts of grant.*—The annual amounts of grant which the Council proposes, according to the number of children and the annual income, are set out in resolution (xiii) (below).

The annual grants for intending teachers will be the same as those for other students of similar age and standing.

The Council's resolutions apply to day students who are dependent upon their parents (or guardians).

Where students attend residential institutions, the grants will be assessed in accordance with the individual circumstances. In all cases (day or residential) any other scholarships held by the student will be taken into account. In the case of scholars who have won open scholarships at a residential university, the maximum annual grant from the Council will be £120, in addition to tuition fees. In the case of scholars who have been self-supporting, the maximum will be £160 a year in addition to tuition fees.

#### *III.—Residential qualifications.*

It will be a condition of award of the Council's scholarships (including those for intending teachers) that the parents or guardians of the candidate shall be ordinarily resident in the administrative county of London at the time of application and award. In the case of training colleges maintained by the Council, day students are at present admitted without payment of fee, irrespective of their place of residence, and it is not proposed to alter this.

#### *IV.—Date of introduction of the new scheme and connection with awards already made or announced.*

The Council proposes that the new scheme shall come into operation in connection with awards to be made after 31st August, 1920. These awards will, for the most part, be tenable as from August, 1921, but in some cases from April, 1921.

Awards already held, or to be made while the present conditions remain in force, will continue throughout their tenure to be subject to the conditions under which they were originally awarded (with the 50 per cent. increase in grant recently given).

#### *V.—Estimate of cost.*

It will be noticed that at no stage is any definite limit prescribed as to the number of scholarships or free places to be awarded. The framing of a financial estimate is therefore a matter of considerable difficulty. The following estimate is based upon what appear to be the most probable assumptions in accordance with the available evidence as to (a) the number of children or young persons who will reach the standard for free places or scholarships; (b) the distribution of income among the parents

and (c) the size of the families. On these assumptions the estimated ultimate total gross cost to the Council of the proposed scheme, including the cost of examinations, is £1,178,000, made up of £730,000 for education, and £448,000 for maintenance grants. The ultimate maximum cost will be reached about 1931.

The following is the scheme, as approved by the Council, which will be applicable to awards made after 31st August, 1920—

(i) The Council is prepared to offer free admission to approved institutions of higher education to children and other persons at the ages of 11, 13, 16 or 17 and 18 and upwards (1) whose parents are ordinarily resident in the administrative County of London, and (2) who show by satisfying the required tests that they are capable of profiting by the education offered and whose parents' annual income is within the approved limits.

(ii) The Council is prepared to offer scholarships to students (1) whose parents are ordinarily resident in the administrative County of London and (2) who show that they are of exceptional ability, higher than that required for free education, or enter into an undertaking to become teachers in approved schools and who satisfy the conditions for free places.

(iii) Where the parents' annual income is within the approved limits maintenance grants according to the approved scale shall be attached to the scholarships.

(iv) Scholarships tenable in secondary schools until the end of the school year in which a scholar passes an approved "first" examination, or reaches the age of 17, shall be awarded annually to candidates between the ages of 11 and 12 years on the result of the junior county scholarships examination.

(v) Scholarships and free places in secondary and junior technical schools shall be awarded annually to candidates between the ages of 13 and 14, on the result of an examination conducted by the Council in the subjects of English, arithmetic, history, and geography, considered by assessors, together with reports by the candidates' teachers. Candidates for junior technical schools shall also be examined in the subjects of handicraft (boys, woodwork or metal work; and girls, needlework) and drawing. The standard of the examination for scholarships shall be higher than that for free places. Parents shall be required, as a condition of the award of scholarships or free places, to enter into a legal undertaking, under a penalty, to keep their children in attendance until they have passed an approved "first" examination, or until the end of the school year in which they attain the age of 17, in the case of secondary schools, and until the end of the course in the case of junior technical schools.

(vi) Free places and intermediate scholarships tenable at secondary schools or technical institutes shall be awarded to candidates of the age of 16 + and 17 + on the result of an approved "first" examination, or on reports by assessors in special cases. The standard for a free place shall be a "pass" in the examination. In the case of candidates aged 16 + at the time of the examination, a "pass" in the examination shall be the standard required for a scholarship; in the case of candidates aged 17 + a higher standard than a "pass" shall be required for a scholarship, but scholarships shall be awarded to intending teachers who pass the examination either at the age of 16 or 17.

(vii) The practice of awarding bursaries to approved candidates aged 16 to 18 years, who are regarded as likely to pass an approved first examination within a year, shall be continued until further order.

(viii) Free places at institutions of university rank shall be awarded annually to candidates of not less than 18 years of age on 1st August in the year of award, who pass an approved second school examination, provided that such examination is recognised by the University of London as equivalent to the intermediate examination for a degree.

(ix) Senior county scholarships shall be awarded annually to candidates of not less than 18 years of age on 1st August in the year of award, after consideration of the candidate's attainments (including their position in the second school examination or other approved examination), and of the reports of their teachers.

(x) Free education at approved courses of training, with maintenance grants in accordance with the approved scale, shall be awarded to candidates for the teaching profession who satisfy the requirements for admission to the course of training.

(xi) Scholarships in art, science, commerce, and technology shall be awarded annually to candidates of not less than 18 years of age, after interview and consideration of the record of candidates.

(xii) The following shall be the limits of annual income of parents of candidates for free places in cases where there is no other child—

(1) For free places in secondary and junior technical schools awarded at the age of 11 + or 13 +, £450 a year.

(2) For free places in secondary schools and technical institutes awarded at the age of 16 or 17 years, £550 a year.

(3) For free university and other higher education at the age of 18 and upwards, £750 a year. These limits shall be increased by £50 for each child other than the applicant.

(xiii) In the case of day students who are dependent on their parents, the following shall be the annual maintenance grants attached to the Council's scholarships and the limits of annual income in connection therewith—

*Secondary schools ; junior technical schools.*

The number of children means the number inclusive of the scholar in each case.

0 means ineligible ; † means free place only.

Age 11 + to 14 +.

| Annual income not in excess of |     |     | Number of children.     |    |    |    |    |    |    |    |
|--------------------------------|-----|-----|-------------------------|----|----|----|----|----|----|----|
|                                |     |     | 1                       | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|                                |     |     | Amount of grant in £'s. |    |    |    |    |    |    |    |
| £150                           | ... | ... | 12                      | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| £200                           | ... | ... | 9                       | 9  | 12 | 12 | 12 | 12 | 12 | 12 |
| £250                           | ... | ... | 9                       | 9  | 9  | 12 | 12 | 12 | 12 | 12 |
| £300                           | ... | ... | †                       | 9  | 9  | 9  | 12 | 12 | 12 | 12 |
| £350                           | ... | ... | †                       | †  | 9  | 9  | 9  | 12 | 12 | 12 |
| £400                           | ... | ... | †                       | †  | †  | 9  | 9  | 9  | 12 | 12 |
| £450                           | ... | ... | †                       | †  | †  | †  | 9  | 9  | 9  | 12 |
| £500                           | ... | ... | 0                       | †  | †  | †  | †  | 9  | 9  | 9  |
| £550                           | ... | ... | 0                       | 0  | †  | †  | †  | †  | 9  | 9  |
| £600                           | ... | ... | 0                       | 0  | 0  | †  | †  | †  | †  | 9  |
| £650                           | ... | ... | 0                       | 0  | 0  | 0  | †  | †  | †  | †  |
| £700                           | ... | ... | 0                       | 0  | 0  | 0  | 0  | †  | †  | †  |
| £750                           | ... | ... | 0                       | 0  | 0  | 0  | 0  | 0  | †  | †  |
| £800                           | ... | ... | 0                       | 0  | 0  | 0  | 0  | 0  | 0  | †  |

*Secondary schools ; junior technical schools.*

Age 14 + to 16 + (or time of passing first examination).

| Annual income, not in excess of |     |     | Number of children.     |    |    |    |    |    |    |    |
|---------------------------------|-----|-----|-------------------------|----|----|----|----|----|----|----|
|                                 |     |     | 1                       | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|                                 |     |     | Amount of grant in £'s. |    |    |    |    |    |    |    |
| £150                            | ... | ... | 21                      | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| £200                            | ... | ... | 15                      | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| £250                            | ... | ... | 15                      | 15 | 21 | 21 | 21 | 21 | 21 | 21 |
| £300                            | ... | ... | 9                       | 15 | 15 | 21 | 21 | 21 | 21 | 21 |
| £350                            | ... | ... | 9                       | 9  | 15 | 15 | 21 | 21 | 21 | 21 |
| £400                            | ... | ... | †                       | 9  | 9  | 15 | 15 | 21 | 21 | 21 |
| £450                            | ... | ... | †                       | †  | 9  | 9  | 15 | 15 | 21 | 21 |
| £500                            | ... | ... | 0                       | †  | †  | 9  | 9  | 15 | 15 | 21 |
| £550                            | ... | ... | 0                       | 0  | †  | †  | 9  | 9  | 15 | 15 |
| £600                            | ... | ... | 0                       | 0  | 0  | †  | †  | 9  | 9  | 15 |
| £650                            | ... | ... | 0                       | 0  | 0  | 0  | †  | †  | 9  | 9  |
| £700                            | ... | ... | 0                       | 0  | 0  | 0  | 0  | †  | †  | 9  |
| £750                            | ... | ... | 0                       | 0  | 0  | 0  | 0  | 0  | †  | †  |
| £800                            | ... | ... | 0                       | 0  | 0  | 0  | 0  | 0  | 0  | †  |

*Secondary Schools, technical institutes, etc.*

Age 16 + (or time of passing first examination) to 18 or 19.

| Annual income not in excess of |     |     | Number of children.     |    |    |    |    |    |    |    |
|--------------------------------|-----|-----|-------------------------|----|----|----|----|----|----|----|
|                                |     |     | 1                       | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|                                |     |     | Amount of grant in £'s. |    |    |    |    |    |    |    |
| £200                           | ... | ... | 39                      | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| £250                           | ... | ... | 39                      | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| £300                           | ... | ... | 30                      | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| £350                           | ... | ... | 30                      | 30 | 39 | 39 | 39 | 39 | 39 | 39 |
| £400                           | ... | ... | 18                      | 30 | 30 | 39 | 39 | 39 | 39 | 39 |
| £450                           | ... | ... | 18                      | 18 | 30 | 30 | 39 | 39 | 39 | 39 |
| £500                           | ... | ... | †                       | 18 | 18 | 30 | 30 | 39 | 39 | 39 |
| £550                           | ... | ... | †                       | †  | 18 | 18 | 30 | 30 | 39 | 39 |
| £600                           | ... | ... | 0                       | †  | †  | 18 | 18 | 30 | 30 | 39 |
| £650                           | ... | ... | 0                       | 0  | †  | †  | 18 | 18 | 30 | 30 |
| £700                           | ... | ... | 0                       | 0  | 0  | †  | †  | 18 | 18 | 30 |
| £750                           | ... | ... | 0                       | 0  | 0  | 0  | †  | †  | 18 | 18 |
| £800                           | ... | ... | 0                       | 0  | 0  | 0  | 0  | †  | †  | 18 |

*Institutions of university rank, training colleges, schools of art, and technical institutes.*

Age 18 and upwards.

| Annual income not in excess of |     |     | Number of children.     |    |    |    |    |    |    |    |
|--------------------------------|-----|-----|-------------------------|----|----|----|----|----|----|----|
|                                |     |     | 1                       | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|                                |     |     | Amount of grant in £'s. |    |    |    |    |    |    |    |
| £300                           | ... | ... | 90                      | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| £350                           | ... | ... | 90                      | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| £400                           | ... | ... | 70                      | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| £450                           | ... | ... | 70                      | 70 | 90 | 90 | 90 | 90 | 90 | 90 |
| £500                           | ... | ... | 50                      | 70 | 70 | 90 | 90 | 90 | 90 | 90 |
| £550                           | ... | ... | 50                      | 50 | 70 | 70 | 90 | 90 | 90 | 90 |
| £600                           | ... | ... | 30                      | 50 | 50 | 70 | 70 | 90 | 90 | 90 |
| £650                           | ... | ... | 30                      | 30 | 50 | 50 | 70 | 70 | 90 | 90 |
| £700                           | ... | ... | †                       | 30 | 30 | 50 | 50 | 70 | 70 | 90 |
| £750                           | ... | ... | †                       | †  | 30 | 30 | 50 | 50 | 70 | 70 |
| £800                           | ... | ... | 0                       | †  | †  | 30 | 30 | 50 | 50 | 70 |
| £850                           | ... | ... | 0                       | 0  | †  | †  | 30 | 30 | 50 | 50 |
| £900                           | ... | ... | 0                       | 0  | 0  | †  | †  | 30 | 30 | 50 |
| £950                           | ... | ... | 0                       | 0  | 0  | 0  | †  | †  | 30 | 30 |
| £1,000                         | ... | ... | 0                       | 0  | 0  | 0  | 0  | †  | †  | 30 |



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Provided that these tables shall be extended, when the number of children exceeds 8, by increasing the income limit by £50 for each additional child, and that in items (xii) and (xiii) the expression "child" shall mean a son or daughter who (1) is under school age, or (2) is pursuing his or her education as a full-time student, and the expression "parent" shall include legal guardian.

(xiv) In the case of students attending residential institutions, and in that of candidates over 18 years of age who are self-supporting, annual maintenance grants shall be assessed in accordance with the individual requirements of the scholar, subject to the following limits—

The maximum annual maintenance grant shall be £120 in the case of students who have won an open scholarship at a residential university, and £160 in the case of students who have been self-supporting before taking up the award.

(xv) In assessing the amount of annual maintenance grant, any other scholarships held by students shall be taken into account. Grants paid for the student's maintenance by the Board of Education are regarded as scholarships for the purpose of assessing such grant.

(xvi) Scholarships awarded prior to the introduction of the new scheme (that is, up to 31st August, 1920) shall continue to be paid until the normal date of lapse under the conditions on which they were awarded (as modified in any subsequent decisions applicable thereto), but no further allowances shall be made as a result of any Finance Act subsequent to that of 1919.

#### IV.

##### *Training of teachers of special subjects (art, domestic subjects, handicraft, physical exercises).*

The scholarships for intending teachers will be available for those intending to teach any of the above subjects.

(i) Art. The Council in 1912 approved in principle the following scheme for the training of art teachers, based on the Board of Education's circulars 775 of 29th June, 1911, and 786 of 11th December, 1911:—

(a) That the principles embodied hereunder in regard to the training of art teachers in accordance with the provisions of circular 786 issued by the Board of Education, be approved:—

(i) The professional side of the training of art teachers (*i.e.*, all work pertaining to pedagogy and teaching practice) shall be undertaken at the London Day Training College.

(ii) The art work (*i.e.*, the instruction necessary to enable the students to pass the examinations in drawing, painting, modelling, etc.) shall be undertaken at such schools of art in the county as may be subsequently selected for the purpose.

(iii) The art departments of one or two secondary schools, schools of art, trade schools, and elementary schools (hereafter to be selected) shall be attached to the London Day Training College as practising schools.

(iv) The course of instruction in art work and in professional training in teaching shall extend over a period of three years after the examination in drawing has been passed, the first year to be devoted entirely to art instruction, and the second and third years to a combined professional (or pedagogic) and art course.

(v) A part-time master of method and a part-time assistant art teacher shall be employed at the London Day Training College.

Some delay occurred in putting the scheme into operation, and no students had presented themselves for the course, when all further action was rendered impossible by the outbreak of war.

It is now proposed to bring the scheme into operation, and a recommendation will be submitted as to the schools to be selected under (ii).

(ii) Domestic Subjects. The Council gives substantial grants in aid of the three recognised training schools of domestic subjects situated within its area. No change in principle is contemplated

(iii) Handicraft. Shoreditch Technical Institute (maintained by the Council) is recognised by the Board of Education as a Training College for Teachers of Handicraft. It is the intention of the Council that the students, after holding pupil teacherships of handicraft, should take a modified form of the Board's Preliminary Certificate Examination, and enter on a two years' course of training somewhat similar to that of two-year students in an ordinary training college, but with specialisation in handicraft (woodwork). On the successful completion of this course, and on passing the Board's examination, the students will be recognised as certificated teachers.

(iv) Physical Exercises. The provision for the training of teachers of physical exercises has hitherto been inadequate both in respect of the needs of the area and in comparison with that made for other subjects. The Council has recently appointed a full-time organiser of physical education for boys and men, in addition to one man and four women previously employed. It is proposed to appoint five men and five women full-time instructors, for the purpose of training the teachers already in the Council's service, and those applying for work in day continuation schools. The Council has recently acquired a fully-equipped institute of physical education, which will serve as the headquarters for this work.

#### V.

##### *Supply of Teachers.*

The principle underlying the Council's proposals as to scholarships is that, subject to an income qualification, free places shall be offered to all who reach a certain educational standard, and that maintenance grants in addition to free places shall be offered, subject again to an income qualification,

to all who either reach a standard higher than that required for free places, or who undertake to become teachers and reach a standard as nearly as possible equal to that required for free places. It is contemplated that, as a rule, intending teachers shall receive their education at secondary schools up to the age of 17 + or 18 +, the age of admission, in the case of scholars, being 11 + or 13 +, and in the case of fee payers not being determined.

In order to supplement the supply of teachers through the usual channel of the secondary schools the Council has under consideration two further suggestions. One proposal is to allow the central schools (subject to the approval of the Board of Education) to retain their pupils till 16 + and to prepare them for the Oxford senior local or other examination qualifying for admission to a training college. The boys and girls would then be eligible under the new scholarship scheme for intermediate county scholarships, and should enter a secondary school with a view to taking a course of two years' work beyond the "first examination." As there is in most cases room at the top of the secondary schools, it is not anticipated that there would be any serious difficulty as to accommodation. At the age of 18 + these students would enter a training college. As the central school year ends at Easter and the secondary school year begins in September, it may be convenient that the students should spend the intervening term in practice in an elementary school. During this period they would receive maintenance grant at the rate for intermediate county scholars.

The other proposal for increasing the supply of teachers has been brought forward in consequence of the view expressed by certain experienced head mistresses of secondary schools, to the effect that a girl who has spent all her life at school is urged by the spirit of adventure to seek some other environment, that those who have obtained other work do not always find that it fulfils their expectations, and that many would be willing to come back to the idea of teaching after some few years in other occupations. In order to see whether there is any truth in this suggestion, it is proposed to offer to persons, aged not less than 21, an opportunity of attending classes for about one year in preparation for an examination qualifying them for admission to a training college, with the maintenance grants applicable under the new scholarship scheme for senior county scholarships. This is really an extension of the scheme which the Council has already put into operation in regard to demobilised men and women, the difference being that the offer now made would not be limited to those who have lost their employment owing to the termination of the war, and that it would not be limited to those who are already qualified for admission to a training college. The Council, shortly after the armistice, decided to offer annual grants of £104 (men) and £90 (women) with free tuition to demobilised men and to women who had lost their employment owing to the cessation of hostilities. The scheme for men has been merged in the wider scheme subsequently adopted by the Government. That for women was at first a comparative failure (only 25 women taking advantage of the offer), owing to the fact that very few of the women had passed a qualifying examination in the subjects required for admission to a training college. The Board have, however, now relaxed this condition in the case of certain women who were employed by the Council during the war to teach children under five years of age.

It is anticipated that the majority of intending teachers who are able to take an advanced course of two years beyond the stage of the recognised "first examination" will proceed direct to a training college, which in their case will usually be in connection with a University. Others will take up a year's student teachership after completing the course at the secondary school up to the stage of the "first examination." The student teachers will be allocated to selected elementary schools, and will attend, as a rule, at their secondary schools for two half-days a week.

As regards the method of making known to parents and others the prospects of the teaching profession, a handbook of the Council's scholarship scheme is published annually. Copies can be bought by the public at elementary schools and through booksellers. The heads of elementary and secondary schools are asked to explain to possible recruits for the teaching profession the facilities for training and the salaries offered by the Council. A brief statement as to the scholarship scheme is printed on the covers of some of the exercise books used in elementary schools.

The Council has also published a handbook entitled "The Teaching Profession," setting out the prospects of the profession and local opportunities of entering it. Copies are distributed without charge to parents and others through the head masters and head mistresses of secondary and elementary schools, the juvenile employment committees, and the local children's care committees.

The Council will give maintenance grants up to the limit of £90 a year\* tuition fees to students resident within the county who enter training colleges for teachers in September, 1921, and subsequently. These grants will be payable not only to those who take a course in preparation for teaching the ordinary "academic" subjects, but also to intending teachers of art, domestic subjects, handicraft, or physical exercises.

## VI.

### *Technical Education.*

The general lines of policy by means of which the Council is providing for the co-ordination of all forms of education within the area have already been indicated in Part I. The general principles governing the immediate future proposals in respect of Technical Education may be briefly summarised.

\* This sum is inclusive of any grant which the student may receive from the Board of Education.

The policy of the Higher Education Sub-Committee in its recommendations to the Council has in recent years been guided by two main principles—(1) That as far as possible each institution should fall into line with a general policy of education in London; (2) that financial assistance should be given to such an extent and under such conditions that, while avoiding unnecessary expenditure, the schools are kept efficient. Subject to these governing principles, the conditions of aid are such as to enable aided institutions to conduct their operations in an approved programme on a scale exactly similar to that of the Council's maintained institutions. In respect of salaries paid to staff, the Council has invited the Governors of aided institutions to adopt the Council's own scales, and has provided the necessary additional funds to enable these scales to be applied. Generally speaking, these salary scales have been accepted, and in consequence there is now comparatively little competition between maintained and aided institutions to secure the services of teachers. No deviation from this practice is proposed.

Similarly, in the case of buildings and equipment, the Council will make building and equipment grants to aided institutions so that a proper standard of efficiency may be secured, irrespective of the mode of government of the institution concerned.

New developments will be dealt with either in maintained or aided institutions according to the most suitable and economical policy. As examples of recent action, the Council has encouraged such developments as education for "Technical Optics," "Pianoforte manufacture," and "Flour milling," in institutions which are not maintained, but which seemed, in view of the whole London problem, to be most suitably situated and equipped for undertaking such work.

Again, in respect of scholarships, no line of demarcation is proposed between the facilities offered to students in maintained or aided institutions. Scholarships not specifically allocated to institutions may be made tenable at any institution providing instruction of a suitable standard, whilst scholarships allocated to specific industries such as engineering, building, etc., are divided, where both maintained and aided institutions have departments, according to geographical distribution and capacity of institutions.

Outside the London County Council area are the residences of vast numbers of workers who travel daily to their employment within the area. The Council's educational facilities are available to such persons in day and evening classes, with, in certain cases, some small additional charges for instruction. It may be necessary, in the near future, to reconsider the basis of such additional charges in view of the increasing financial burdens on local educational authorities. Such reconsideration will involve negotiations with neighbouring authorities, and, broadly speaking, it may be considered desirable that some "per capita" charge should be made in respect of students receiving technical or continuation education in London, but residing outside. Such charge would appear to be most equitably borne by the Board of Education and the local education authority of the area in which the student resides, rather than by the individual student. The Council does not contemplate the exclusion of extra-county students from the various educational institutions within its area, but is anxious, rather, that the unequalled facilities afforded by the London educational system should be utilised by such students to the very fullest extent, provided that adequate financial arrangements can be made with the extra-metropolitan authorities. It would obviously be unwise and uneconomical to endeavour to duplicate within range of London certain of the specialised institutions now existing.

*Training for specific industries.*—Reference has been made in Part I to certain trade investigations which have led to a definite policy in respect of particular industries and to the allocation of work between existing and projected institutions.

In addition, the whole provision for the chemical industries is now receiving consideration, but as the facilities are generally adequate, the review is likely to take the form of allocation of specific fields of activity rather than extensions of existing premises and equipment. For example, the subject of pharmaceutical chemistry has recently been under consideration, and it is clear that any provision made in connection with the local education authority's scheme must take cognisance of the School of Pharmacy, an independent institution which does not receive grants from the Council.

The subject of education in aeronautics has also been under consideration, and the report of the Committee on Education and research in Aeronautics (Cd. 554), recently issued, indicates clearly the need for concentration of activities in higher work at the Imperial College of Science and Technology, so far as London is concerned. A Sub-Committee of the Council have adopted the findings of this Committee as the basis on which any grants in aid of higher instruction in aeronautics will be made. Instruction in connection with aeronautics at approved institutions other than the Imperial College will be assisted up to, but not beyond, the standard of the University degree in engineering, the Imperial College being recognised as the centre for the highest form of instruction in aeronautics.

The inter-relation of institutions teaching the same or allied subjects will be reviewed periodically in connection with the assessment of block grants and equipment grants, and the necessary adjustments or limitations made.

The field of operations indicated above is extremely wide, and it is necessary to bear in mind that the provision of facilities is a power, but not a duty, of the Council as defined by the Act. The attitude of employers, trade unions, and workers has largely swung round from a former condition of apathy to one of anxious endeavour to secure the utmost educational facilities in respect of their trades. During the past year, a further sustained effort in connection with the proposed establishment of day continuation schools has brought the Council and the great groups of London employers into further conference with a view to still closer co-operation. In all these endeavours, the Council has become increasingly conscious that only by a combined effort on the part of both the education



authority and employers can the needs of the community be adequately met and the promise of the Education Act, 1918, realised. And it may equally be said that the employers, on their side, have become increasingly conscious of the advantages of continued education. In this connection, the assistance of the Workers' Educational Association and of the trades unions should not be overlooked. By these means, supported by a general advance in public opinion as to the value of education, a very great change in the educational attitude of employers and employed has been effected. Not many years ago, the employed were indifferent, trades unions critically observant, and the majority of employers intolerant of the alleged possibilities of the specific value of education in industrial and commercial concerns. Employment itself was the only schoolmaster in whom they placed confidence. The lessons and the consequence of the war have turned the scale. Recently, a large and imposing deputation, composed of employers and trade union representatives from one of the most extensive of London's industries was heard by the Higher Education Sub-Committee, almost demanding facilities for their boys and girls, for their skilled operatives, and for the *masters themselves*. In the Report of 1913, difficulty was found in compiling a list of some dozen examples of firms associated with the Council in educational work; and at that time consultative and advisory committees were in their infancy. To-day, hundreds of London firms are in close association with the Council, offering in some cases premises for schools, in others facilities or encouragement to their young workers.

Arising from this it is natural to expect that many demands will be made on the Council for the provision of extended educational facilities during the next ten years. The Council has always had regard to the attitude of the trade or industry concerned, and has provided facilities often far in advance of the expressed needs of the trades and industries. It is felt, however, that in the future it will be increasingly necessary to rely upon the sympathetic co-operation of the various employers and workers and trade unions. Considerable activity has been manifested in connection with apprenticeship schemes in industry, and the Council has on several occasions been asked for advice in the drawing of indentures and in the matter of providing educational facilities as an integral part of such apprenticeship schemes. This phase of activity seems worthy of the greatest possible support, and it is proposed to continue to provide such educational instruction as is necessary in connection with suitable schemes, which may involve a few hours weekly or, as in the case of pianoforte manufacture, as much as half of the weekly time in the earlier years.

*Arts and crafts.*—The provision in this respect may be broadly described as falling into two groups—fine art schools and schools of arts and crafts—although the lines of demarcation are not always very clearly defined.

The more advanced education in art is provided for in London at the Royal College of Art, the Royal Academy and the Slade Schools, whilst the L.C.C. Central School of Arts and Crafts has recently had a definite field of activity allocated to it, and its relations to other schools defined. The following extract from the articles of its constitution will indicate its scope:—

1. The Central School of Arts and Crafts is intended to be a school solely for the training of art and craft workers.

2. With this end in view the following departments (to be called, generally, schools) should be conducted at this institution—

- (1) Silversmiths' work and allied crafts.
- (2) Textiles, including tapestry.
- (3) Stained glass and mosaic.
- (4) Painted and sculptural and architectural decoration.
- (5) Book-production.
- (6) Furniture.
- (7) Dress design.
- (8) Engraving.

In connection with all these schools, the ancillary drawing, painting, design, and modelling shall be provided.

3. These schools shall be conducted in conformity with the Council's general policy in relation to the art and craft work in other institutions, which may be, for the time being, expressed thus—

(a) That classes in the eight subjects referred to, and now existing at other schools of art, shall be continued only so long as in the opinion of the Council they are justified by local demand or general public requirement.

(b) That no new classes in these subjects shall be opened at other institutions under the Council's control, unless it can be shown that there is a real demand for them which cannot so well be met by the Central School of Arts and Crafts, and that there is reasonable probability of their being conducted efficiently.

(c) It should be understood that in painting, illustration, and similar subjects the work should be distinctly decorative in aim, and that students whose aim is portrait painting on the realistic type of book illustration should be referred to other schools.

4. In these departments the Central School of Arts and Crafts should be a central school in the highest sense, provided with facilities for doing the most advanced work; and all suitable students of other schools of art seeking education in these subjects should be advised, as occasion offers, but subject to the provisions of 3 (a), (b) and (c), to continue their studies at the Central school.



5. Training of teachers or of professional architects is not a function of the school. It does not follow that the professional teacher, or the architect, or the student in training for either profession, is to be refused admission to the Central school. Such students or teachers or architects will find in the Central school facilities for the study of certain branches of art and craft work, but not facilities for professional training.

The development of art schools and departments since 1904 has been largely in the direction of allocating specific functions to each school, and, though extensions of existing departments may now be necessary, the institution of new schools is not contemplated, as the provision made is regarded as ample. Special consideration is now being given to the organisation of courses for junior art students, and to provision for the study of English in art schools.

*Commercial Education.*—The London School of Economics and Political Science forms the apex of the system of commercial education on the academic side, and provides courses of study leading to degrees in economics and commerce. The school has received aid from the Council in the form of ground for building and grants in aid of professorial staff.

The City of London College is designed to be the chief centre for commercial instruction directly related to the practical work of the City, and it has a large field of effort which the School of Economics does not touch.

The policy of the Council has been to set free the valuable premises of polytechnics and technical institutions from commercial classes, and to provide instruction in evening commercial institutes conducted in the premises of central and elementary schools. The only polytechnics, apart from the City of London College, in which a department of commerce is now recognised by the Council are the Regent-street Polytechnic and the Northern Polytechnic.

The system of evening institutes has already been detailed in Part I. Chapter III; the provision for junior students in junior commercial institutes, and for senior students in commercial institutes, is sufficiently elastic to be extended, should new requirements have to be met in the near future.

The large number of central schools with a commercial bias provides a suitable avenue of training for pupils coming forward from elementary schools. When the Council's scheme for the provision of these schools is in complete operation, there will be 100 such central schools, and it may be anticipated that the majority will have a commercial bias.

In the case of secondary schools, provision is made on the modern and commercial sides for the training of those intending to enter commerce. Two schools—Hackney Downs and Holloway—have specialised particularly in this direction, and special scholarships are allocated to them.

*Evening instruction.*—The vast amount of educational work carried on in the evenings is an indication of the widespread desire for vocational knowledge, culture, physical excellence, and a right use of leisure.

The provision now made for evening work reaches from university classes and research facilities to very elementary instruction for young persons leaving the day schools. The burden of evening attendance imposed in the past on young persons anxious to secure knowledge, will gradually be relieved as the operations of the compulsory day continuation schools become effective, and consequently it may be anticipated that the number of students of ages 14 to 16 in the evening institutes will gradually diminish during the next seven years. A larger percentage of pupils in full-time day courses up to the age of 16 may also be expected to reduce the attendance at evening classes. This change, will, however be spread over at least two years and will give opportunity for any necessary adjustments.

On the other hand, it may be expected that the wider foundations given in training will lead to an increased demand for more advanced work in all types of institutes; this will be reinforced by the increased leisure time given through reduced working hours.

The existing scheme of Evening Institutes is regarded as suitable for present requirements, and as sufficiently elastic in its methods to permit of expansion when required. Whatever may be the disadvantages of evening instruction for young persons, it is clear that very ample provision for all types of education must continue to be made in the evening for students of 16 years and upwards. The war has depleted industry of a large percentage of young skilled craftsmen, and the standard of craftsmanship throughout the country is now seriously affected in consequence. One of the main problems confronting technical institutes is the provision of highly efficient courses of instruction, in well-equipped workshops, drawing offices and classrooms, for those engaged during the day in industrial occupations. This problem will remain for many years to come.

A considerable amount of attention has recently been devoted to the question of cultural education for adults and university extension lectures. Suitable homes for this type of effort are found in the various colleges, in the polytechnics, and in the evening literary institutes, and considerable developments may be looked for. The work of the university settlements is a distinctive feature in London life.

*Building programme.*—The building programme of the Council is limited in respect of educational developments by the very urgent demands for main drainage, housing, and other building schemes, and the requirements of technical education have to be dealt with in relation to the demands for elementary, central, and secondary school accommodation. A programme of urgency has, however, been prepared and is set out below. The order in which items will be dealt with is subject to variation owing to changing circumstances and conditions in respect of particular localities and special trades.

*Group I (First order of urgency).*

L.C.C. Hackney Institute—Extension.  
 L.C.C. Beaufoy Institute—Extension.  
 L.C.C. Hammersmith School of Building—New Institute.  
 Northampton Polytechnic—Extension.  
 South-East London Technical Institute—New Institute.  
 Cordwainers' Technical College—New building.  
 Central Printing School—New Institute.

*Group II.*

L.C.C. Poplar School of Engineering and Navigation—Extension.  
 L.C.C. Paddington Technical Institute—Extension.  
 North-Western Polytechnic—New institute.  
 Wandsworth Technical Institute—New building.  
 Birkbeck College—New building.  
 L.C.C. Barrett-street Trade School for Girls—Extension.

*Group III.*

Morley College—Rebuilding.  
 St. Martin's School of Art—Extension.  
 Northern Polytechnic—Extension.  
 Imperial College of Science and Technology—New building for institute of technical optics.  
 Woolwich Polytechnic—Additional buildings.  
 L.C.C. Westminster Technical Institute—Demolition of old buildings and remodelling.  
 L.C.C. School of Building—Extension.  
 Borough Polytechnic—Rebuilding.  
 Belvedere-place (annex to Borough Polytechnic)—Extension.  
 South-Western Trade School for Girls—New Institute proposed.  
 North-Eastern Trade School for Girls—New Institute proposed.  
 Battersea Polytechnic—Extension.  
 L.C.C. Clapham School of Art—Extension.

*Provision of new Technical Institutes.*—From the building programme set out above, it will be noted that in the greater number of cases extensions of existing institutions are contemplated, or new buildings are proposed to replace old.

Reference may be made to those cases which do not fall under either of the above categories, where the provision of new institutes is contemplated, viz., the Hammersmith School of Building, the South-East London Technical Institute, the North-Western Polytechnic, the Central Printing School, the South-Western Trade School for Girls, and the North-Eastern Trade School for Girls.

In the general provision of facilities for technical education in London, there is little room for new institutions which would not in some way or other overlap with existing institutions, and future developments will tend to be increasingly in the direction of monotechnic institutions, where a branch of the parent institution has grown to need wider scope and greater freedom for development than is to be found in one department of a large institution. After the survey of the building trades in 1913, it was decided that technical instruction for these trades should be concentrated mainly at three centres, related geographically to the distribution of the workers in the building trades, and to the traffic facilities, viz., at Holloway, Brixton, and Hammersmith. The first two have been in existence for a considerable time, one as a department of the Northern Polytechnic, the other as the L.C.C. Brixton School of Building.

The success of the latter, a monotechnic, has made it clear that a similar institute at Hammersmith would serve most usefully the needs of the area. At Hammersmith two institutions already exist under separate staffs on a large piece of ground set aside for educational purposes; one a school of arts and crafts, the other a girls' trade school. It is proposed to erect a new school of arts and crafts, and to convert the existing school with suitable extensions and modifications into a school of building, which will be separately staffed.

A technical institute in the south-eastern area has been regarded as a necessity for many years, and a site was obtained for such an institution and plans were prepared. Owing partly to the war, partly to the anticipation that the necessary departments might be suitably housed in the Goldsmiths' College, which occupies a most suitable central position for this purpose, the steps taken for the provision of the new institute were arrested. The Senate of the University of London to which the Goldsmiths' College belongs, have now finally decided to carry on the Training College for teachers as the main line of development, and it has consequently become necessary to revert to the previous proposal to establish a South-East London Technical Institute. In the last report of the Technical Education Board (1903-1904) the following reference is made to the Goldsmiths' College:—

“ A committee, presided over by Mr. Evan Spicer, was established to secure the foundation of three institutions in the south of London, their proposal being to establish polytechnics at Battersea, in the Borough, and at New Cross. The Goldsmiths' Company then came forward with the offer to take upon itself the whole of the cost of the establishment and maintenance

of a polytechnic at New Cross, and thus relieved the committee of any further responsibility with regard to that institute. The Company purchased the Naval School and converted it into the Goldsmiths' Institute."

Subsequently, the Goldsmiths' Company handed over the institution to the University of London, which established in it a training college for teachers.

The departments which it is proposed to include in the South-East London Technical Institute are: Engineering and Building, Art, Domestic Art, and Social Science. The site is situated very favourably, and the surrounding area is likely to produce a considerable number of students of the most suitable type, so that this should ultimately become one of the most successful institutions in London.

The North-Western Polytechnic was proposed as a unit in the general programme for the provision of polytechnic institutions. A scheme was provided, some subscriptions were obtained, and an excellent site was purchased at the corner of Prince of Wales-road and Kentish Town-road. Owing to difficulties in securing the occupation leases, and to the fact that the accumulated income was not sufficient to enable the scheme to be commenced, operations could not be begun, as it was not found possible to deal with the site piecemeal. Accordingly, in 1904, the scheme was still pending, and a sum of £500 annually was accumulating towards the building fund. Immediately prior to the war, the possibility of erecting a building materialised; and a schedule of accommodation was drawn up, competitive designs for the building were invited, and one of these was selected. Operations were then postponed by the outbreak of war and by the fact that the available funds were found to be insufficient to cover the estimated cost of the building. The governors and the local councils are now anxious that the building should be proceeded with immediately. The great increase in the cost of building again render the funds of the governors insufficient, and additional financial aid from the Council is asked for, but the provision required must receive consideration in conjunction with the other pressing demands for capital expenditure.

Printing is one of London's chief industries, and provision was made for technical instruction at a number of centres, the largest of which was the St. Bride Foundation Printing School. The demands for improved equipment and extensions generally led to a reconsideration of the whole question in 1914, and it was then proposed to establish a Central School of Printing with subsidiary schools in the north and south of London. Operations were suspended during the war, and meantime the St. Bride Foundation Printing School has developed so largely that it has been unable to accommodate adequately the students seeking for instruction.

Negotiations with the representatives of the printing trade have led to an agreement on the urgent need of a new institution, as the possibility of further expansion at the St. Bride Institute has been exhausted. A central building has been tentatively selected, and negotiations for its acquisition are in progress. It is intended that this shall be thoroughly equipped for up-to-date instruction, working in close co-operation with the L.C.C. School of Photo-Engraving and Lithography. The subsidiary school in South London is a department of the L.C.C. Camberwell School of Arts and Crafts, and shows an increasing number of students. In the north, the Aldenham Institute, which was regarded as the nucleus of the subsidiary school to be established in the North-Western Polytechnic, ceased during the war, and further steps for a subsidiary school in the north are dependent on the erection of the North-Western Polytechnic.

The proposals for Trade Schools for Girls in the south-west and north-east are the outcome of the successful development of similar schools in other parts of London. No definite steps have, as yet, been taken to secure sites or buildings, and these proposals have to take their place in the already considerable list of urgency items.

*Polytechnics and Technical Institutes.*—The account of these institutions already given in Part I., Chapter II has made it clear that the various types of work are interwoven in a singularly complex manner, but that definite functions in the educational system have gradually been allocated to each. This process is not yet complete. In a few cases secondary schools still remain housed in polytechnic or technical institute premises, amongst others the Northern Polytechnic, the Regent-street Polytechnic, and the Wandsworth Technical Institute. As the programme of the provision of secondary schools is gradually worked out, such premises will be set free for definitely technical purposes, and the development of further day courses of instruction of a senior type will be possible. This will lead to an increase in the whole-time staff employed, who will be required to work jointly in day and evening classes, and will permit of an extension of specialised work. Certain provision of premises, which cannot well be utilised during the day, is necessary for evening classes, and the margin required in this way is likely to remain, whatever developments may take place.

Another field of development capable of considerable expansion is that of part-time day technical or continuation classes for young persons engaged in industry and commerce, who are beyond the immediate age requirements of compulsory day continuation schools, viz., 14-16. Some courses of this nature are already in operation, but there is room for development in connection with many of the skilled industries, and it is hoped that the technical institutes may be able to anticipate to some considerable extent the compulsory day continuation schools for young persons of 16 to 18. The Council has already made provision for extending the requirements of the Act to all apprentices up to the age of 18 employed at the Greenwich Tramways Repair Depot, and courses are conducted at the depot under the supervision of the Principal of the L.C.C. School of Engineering and Navigation.

*Junior Day Technical or Trade Schools for Boys and Girls.*—The concentration of population in the London area and the diversity of occupation of its inhabitants has rendered possible a considerable amount of specialisation in junior technical schools, which is not to be expected elsewhere. It is beyond question that such specialisation, where it can be effected, is in the best interests of the students concerned, as the general tendency of such schools conducted on an unspecialised trade basis is to drift into the engineering type. Such preparatory trade schools are undoubtedly of very great value, but they do not tend to help the provision of suitable trainees in occupations other than engineering, and although the numbers required may be small, the advantage of thorough training would be most helpful to the various industries. So far as London is concerned, it may be said that the Central Schools with an industrial bias make, or will make in the future, adequate provision of the unspecialised trade or technical type of instruction. The development of junior technical or trade schools is therefore expected to be of a definitely vocational type, both for boys and girls.

The following provision is being considered by the Council as an outline of developments for the next few years, which will be put into operation gradually:—

|   |         | (i) Boys. |    |    |    |    |    | Present               | Proposed              |
|---|---------|-----------|----|----|----|----|----|-----------------------|-----------------------|
| <i>School and Trade.</i>  |         |           |    |    |    |    |    | <i>accommodation.</i> | <i>accommodation.</i> |
| <i>Engineering—</i>   |         |           |    |    |    |    |    |                       |                       |
| Woolwich Polytechnic  | .. .. . | ..        | .. | .. | .. | .. | .. | 60                    | 250                   |
| (South-East London Technical Institute)                                   | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 200                   |
| Borough Polytechnic   | .. .. . | ..        | .. | .. | .. | .. | .. | 250                   | 300                   |
| L.C.C. Beaufoy Institute  | .. .. . | ..        | .. | .. | .. | .. | .. | 110                   | 230                   |
| L.C.C. Paddington Technical Institute..                                   | .. .. . | ..        | .. | .. | .. | .. | .. | 105                   | 300                   |
| L.C.C. Hackney Institute  | .. .. . | ..        | .. | .. | .. | .. | .. | 110                   | 300                   |
| L.C.C. School of Engineering and Navigation                               | .. .. . | ..        | .. | .. | .. | .. | .. | 120                   | 250                   |
| <i>Building—</i>  |         |           |    |    |    |    |    |                       |                       |
| L.C.C. School of Building   | .. .. . | ..        | .. | .. | .. | .. | .. | 150                   | 200                   |
| Northern Polytechnic  | .. .. . | ..        | .. | .. | .. | .. | .. | 120                   | 120                   |
| (L.C.C. Hammersmith School of Building)                                   | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 200                   |
| (Plumbing)  | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 50                    |
| <i>Furniture—</i>   |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Shoreditch Technical Institute                                     | .. .. . | ..        | .. | .. | .. | .. | .. | 120                   | 200                   |
| School of Art Woodcarving   | .. .. . | ..        | .. | .. | .. | .. | .. | 20                    | 20                    |
| <i>Carriage and Motor Body Building—</i>                                  |         |           |    |    |    |    |    |                       |                       |
| Regent Street Polytechnic   | .. .. . | ..        | .. | .. | .. | .. | .. | 12                    | 20                    |
| <i>Book Production—</i>   |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Central School of Arts and Crafts                                  | .. .. . | ..        | .. | .. | .. | .. | .. | 75                    | 90                    |
| <i>Printing—</i>  |         |           |    |    |    |    |    |                       |                       |
| (Central Printing School)   | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 120                   |
| <i>Photo-Engraving—</i>   |         |           |    |    |    |    |    |                       |                       |
| L.C.C. School of Photo-Engraving and Lithography                          | .. .. . | ..        | .. | .. | .. | .. | .. | 54                    | 54                    |
| <i>Silversmithing, Art Metalwork, Lithographic Drawing, Design, etc.—</i> |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Central School of Arts and Crafts and other schools                | .. .. . | ..        | .. | .. | .. | .. | .. | 45                    | 90                    |
| <i>Cookery—</i>   |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Westminster Technical Institute                                    | .. .. . | ..        | .. | .. | .. | .. | .. | 45                    | 90                    |
| <i>Professional Writing—</i>  |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Westminster Technical Institute                                    | .. .. . | ..        | .. | .. | .. | .. | .. | 24                    | 60                    |
| <i>Boot and Shoe Manufacture—</i>   |         |           |    |    |    |    |    |                       |                       |
| Cordwainers' Technical Institute  | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 30                    |
| <i>Tailoring—</i>   |         |           |    |    |    |    |    |                       |                       |
| Regent Street Polytechnic   | .. .. . | ..        | .. | .. | .. | .. | .. | 30                    | 60                    |
| <i>Musical Instrument Making—</i>   |         |           |    |    |    |    |    |                       |                       |
| Northern Polytechnic  | .. .. . | ..        | .. | .. | .. | .. | .. | —                     | 120                   |
| Totals (Boys)   |         | ..        | .. | .. | .. | .. | .. | 1,420                 | 3,324                 |
| (ii) Girls.   |         |           |    |    |    |    |    |                       |                       |
| L.C.C. Bloomsbury Trade School  | .. .. . | ..        | .. | .. | .. | .. | .. | 160                   | 160                   |
| L.C.C. Barrett Street Trade School  | .. .. . | ..        | .. | .. | .. | .. | .. | 120                   | 275                   |
| L.C.C. Hammersmith Trade School   | .. .. . | ..        | .. | .. | .. | .. | .. | 200                   | 200                   |
| L.C.C. Paddington Technical Institute                                     | .. .. . | ..        | .. | .. | .. | .. | .. | 40                    | 40                    |
| L.C.C. Shoreditch Technical Institute                                     | .. .. . | ..        | .. | .. | .. | .. | .. | 120                   | 120                   |
| Borough Polytechnic   | .. .. . | ..        | .. | .. | .. | .. | .. | 230                   | 230                   |

(ii) *Girls*—(continued).

| <i>School and Trade.</i>                                     | <i>Present accommodation.</i> | <i>Proposed accommodation.</i> |
|--|-------------------------------|--------------------------------|
| Woolwich Polytechnic .. .. .                                 | 120                           | 150                            |
| Newcomen Trade School .. .. .                                | 90                            | 90                             |
| (North-Western Polytechnic) .. .. .                          | —                             | 160                            |
| (East London Trade School) .. .. .                           | —                             | 100                            |
| (North-East London Trade School) .. .. .                     | —                             | 100                            |
| (South-West London Trade School) .. .. .                     | —                             | 200                            |
| (Additional Trade Schools for Domestic Service (2) ) .. .. . | —                             | 400                            |
| Cordwainers' Technical College .. .. .                       | —                             | 50                             |
| <b>Totals (girls) .. .. .</b>                                | <b>1,080</b>                  | <b>2,275</b>                   |

(iii) *Total for Boys and Girls.*

|                                 |              |              |
|---------------------------------|--------------|--------------|
| Accommodation for Boys .. .. .  | 1,420        | 3,324        |
| Accommodation for Girls .. .. . | 1,080        | 2,275        |
| <b>Total .. .. .</b>            | <b>2,500</b> | <b>5,599</b> |

*Lesser-aided Institutions.*—This group of institutions provides a miscellaneous set of activities. In granting them financial assistance the Council is concerned to see that their efforts do not overlap with those of other institutions, and that the instruction is efficient. Variations in their activities are likely to take place in the future, just as they do now, as a result of the growth of larger, more concentrated, and better-equipped institutions, as well as from alterations in the residences of students and changes in localities. There are certain institutions with a very definite objective which, so far as can be judged at present, it will be wise to conserve and assist as far as possible. Of this type is the School of Woodcarving, South Kensington. The work carried out is allied to the activities of Schools of Arts and Crafts, in some of which classes in woodcarving are provided, but the South Kensington School has created its own traditions, and has specialised in such a manner as to become remarkably successful in the limited field which wood carving affords. Of another type is the Working Men's College, Camden Town, in which is conducted a group of classes related rather to the cultural development of the students than to their professional activities. Such an institution is likely to feel in an increasing degree the attraction of its students to literary institutes, to commercial institutes, to the School of Economics, or the City of London College, and to the various technical institutes. It is therefore to be anticipated that changes in its educational programme will take place, but with this and similar types of institution there is always ample scope for effort, provided that provision of other education is properly kept in view and adjustments made accordingly.

In a great centre of population like London there is always room for pioneering or missionary effort, and some of the most flourishing institutions of to-day have arisen from very small beginnings. It is desirable, therefore, to sustain, as far as is consistent with the efficient expenditure of public moneys, the work of such small institutions as possess character or tradition of their own. The danger to which they are subject is that of taking too narrow a view of the educational operations of London as a whole, and, consequently, of expending effort on ground already covered.

*Scholarships.*—The general conditions of scholarship awards, and the amount of grants given, which vary with the type of instruction, the age of the student, and the family circumstances, are dealt with elsewhere.

The particular provision for technical education is of such a nature that complete ladders are provided by which students of suitable ability may reach the highest types of education. On the one hand, the scholastic ladder provides, through the medium of junior, intermediate, and senior county scholarships, for continuous training to the completion of the University course, the scholar proceeding from the elementary to the secondary school, and thence to the University, without break, the county scholarships being available for certain technical courses. On the other hand, the Council's system of trade and technical scholarships enables a scholar to proceed to a trade school from the elementary school, for a 2-year full time course to the age of 16. During this period those who have left the elementary schools and taken up work in industrial occupations are enabled by a system of evening exhibitions to attend evening technical classes, without payment of fees, by the assistance of small maintenance grants. At the completion of the trade-school courses, it is expected that trade scholars shall take up industrial employment, and evening exhibitions are offered to them to encourage them to attend evening classes. The system is completed by senior scholarships in science, art, and technology, open to students of both the types set out above, who are over 18 years of age, have been in industrial employment for at least two years, and desire to take up full time day technical courses at technical institutions of University rank.

The value of the system of full time technical scholarships offered to adult students, who have been for two years or more in actual industrial employment, has long been recognised, more particularly in engineering, through the Dockyard Schools, than in any other line of industry, and many distinguished men, of whom the late Sir William White may be cited as an example, have passed successfully

through such a system. Woolwich Arsenal, with its scheme by which trade lads receive education at the Woolwich Polytechnic, has provided a continuous stream of candidates of a similar type, who have mainly pursued their higher education at the Imperial College of Science and Technology, and have formed a very satisfactory group of students.

The provision of scholarships more directly related to technical education may be summarised as follows :—

|                                       | Present number<br>of awards. | Proposed number<br>of awards.     |
|---------------------------------------|------------------------------|-----------------------------------|
| Trade scholarships for boys .. .. .   | 263*                         | { 1,200, plus 350<br>free places. |
| Trade scholarships for girls .. .. .  | 324*                         |                                   |
| Evening exhibitions .. .. .           | 360                          | 360                               |
| Senior technical scholarships .. .. . | 25 (science)<br>23 (art)     | 25 (science)<br>23 (art)          |

\* Plus free places.

The number of senior technical scholarships provided has, during the past few years, been more than adequate for the candidates coming forward, and the provision in the meantime appears ample.

Apart from these well-defined and recognised lines of scholarship, the Council has now decided to award intermediate technical scholarships to secondary school pupils of 16 to 18 years of age, such scholarships being specifically allocated for technical training. It has been found in the past that the intermediate county scholarships awarded to secondary school pupils were generally held at the same school, and that, while large numbers of pupils wished to secure technical training, they rarely found their way to specialised institutions, which are not seldom a more suitable avenue to a career than an extended secondary school course. Not more than 100 such intermediate technical scholarships will be awarded annually, and ordinarily they will be tenable for three years at full time day technical courses.

The following allocation of scholarships for intermediate technical training is proposed in the first instance :—

- Engineering.
- Building (including architecture).
- Chemical trades (general).
- Chemical trades (special).
- Musical-instrument making.
- Instrument making.
- Fermentation trades.
- Printing trades.
- Photo-engraving.
- Boot and shoe and light leather manufacture.
- Furniture trades.

*Expansion of Technical Education.*—In the foregoing sections the general principles of action have been indicated. The Council is now faced with new developments in practically every direction: institutions are spreading their departments in respect of subjects taught, staffing, and equipment. The immediate limitations are those of buildings and finance.

It is not possible to detail here the various proposals put forward, as the result of communications with all the Governing bodies and advisory committees. The proposals made will be the subject of careful consideration by the Council on the general lines of policy already set out. Throughout the whole system it appears to be realised that expansion of existing functions is necessary, and there is a general tendency to regard the definite limitation of activities to specific branches of study as not only inevitable but desirable. There is also an immediate reconstruction in progress to make good the stoppages and deterioration brought about by the war. Buildings are being overhauled, laboratories refurnished, and staff strengthened. The demands of commerce and industry have, however, drawn away a considerable proportion of the experienced teaching staff, and their loss will be felt for some years to come.

The general recognition of the importance of adequate educational facilities by students, employers and employees, lays upon the local education authority a heavier task than at any previous time in its history. The outlook is nevertheless full of promise, and public opinion is steadily accepting the view that there is no finality in education.

## VII.

### *Original research.*

In the report by the Education Officer on eight years of technical education published in 1912, an account was given of the original research carried on in polytechnic institutions during the period 1902 to 1909. It was pointed out in this memorandum what an enormous advantage the polytechnics had derived from their connection with the University of London in the direction of the promotion of research. The conditions of the recognition of teachers by the University has not only resulted in great stress being laid upon research qualifications in the selection of candidates for important positions in polytechnics, but also, by refusing to recognise teachers who were engaged in actual teaching for more than a specified number of hours per week, the University made it possible for teachers to carry on original research for which they had proved themselves to be well qualified. The stimulus thus given to original work had not only a good effect upon the teachers, but also upon advanced students, who, for the first time at polytechnic institutions, could obtain the necessary guidance and training in methods of research.

The volume and quality of the original investigations recorded in 1912 gave unmistakable evidence that some of the polytechnics had responded with enthusiasm to the new opportunities afforded them; and it might well have been considered satisfactory if the standard then reached had been maintained. The result of a survey of the amount and quality of the original work carried on during the period from January, 1913, to January, 1915, showed, however, that a reasonable advance had taken place, and that in some institutions the output of original research during this period equalled the total amount carried on up to the commencement of 1913.

During the war the advanced students of the polytechnic and technical institutes naturally joined the Forces of the Crown, but the reputation of the institutions as important centres of research work led to their utilisation for the solution of important problems, chiefly in the domains of chemistry, physics, and mechanical and electrical engineering, in matters concerning the various departments of the science of warfare. The more prominent members of the staff who had given evidence of powers of original investigation were entrusted with researches of great national importance, with results which fully justified the wisdom of their selection. When the full record of scientific war research is written, the work of polytechnics and technical institutes will hold a position of which London may well be proud.

To give some idea of the amount of original work carried on in polytechnic institutions, it may be stated that in the Sir John Cass Technical Institute alone no less than 100 papers have been contributed by students and members of the staff to recognised scientific journals. The Birkbeck College, the Northampton Institute, and the South-Western Polytechnic, must also be mentioned as important centres of original research.

The Act of 1918 now gives power to the local education authority to make specific provision in aid, so that persons may be appointed solely for research, or jointly for teaching and research. It may be of interest to note in this connection that provision has been made by the Council in its scales of salaries for technical staff for six months' leave of absence after each six years of satisfactory service. It is expected that this period will be utilised by a number of lecturers in research work related to their particular subject.

A recent survey (1920) of the research now being carried on in polytechnic institutions gives unmistakable evidence that one of the results of the war has been to stimulate in a very marked degree the desire for original scientific investigation, and that it will be necessary for the Council to provide additional facilities and increased accommodation to meet this urgent demand.

As examples of the value of research in connection with trade processes the following may be quoted—

(i) *Photo-Engraving and Lithography.*

The work done by the L.C.C. School of Photo-Engraving and Lithography, Bolt-court, has had a direct influence on general practice in photo-engraving, principally in connection with the three-colour process. The school was the first in England to use the modern means of colour sensitising dry plates; and the methods taught at the school of using bathed dry plates have led to the manufacture and increasing use of such plates. The school has also investigated the theory and performance of colour filters. Filters having the absorptions recommended by the school have been generally adopted. The school has also published tests of colour sensitive plates, and has done much work on the standard specifications of three-colour inks. In 1918, after consultation with the Department of Scientific and Industrial Research and two representatives of well-known firms in the printing trades, the school undertook further research in connection with photo processes. The evidence of the trade representatives was in favour of research in connection with rotary photogravure. In addition to this the school is undertaking experimental work on the half-tone process, three-colour printing, and the application of process methods to litho-offset. The Council agreed with these conclusions, and appointed full-time experts in photogravure, lithography, and black-and-white etching, and a technical consultant for photogravure. It is expected that the further research work undertaken will have considerable influence on these four branches of the printing trades.

It is probable that similar developments will take place in other institutions, in so far as they do not encroach on ground already covered at the Imperial College of Science and Technology, or elsewhere, on the general line of policy that assistance for research should be given only when it is shown that the work to be done will be of value to the trade concerned—in other words, that the research to be aided will be for the purposes of applied science, leaving the developments of pure science research to the University.

Another example of applied science research is to be found in the Leathersellers' Company's Technical College, which has a field of activity of its own, and which attracts students not only from London and the provinces, but from abroad.

(ii) *The Tanning Industry.*

In 1911, in conjunction with the Leathersellers' College, Bermondsey, investigation was made of the part played in the tanning industry by non-tanning matters contained in tanning materials. The published results have been received with a good deal of interest, and there is no doubt that they have had an important bearing on tanning practice. The relation of anthrax to skins was also investigated and results published. A process was invented which seems likely to be an effective safeguard against the infection conveyed by imported skins, and several minor precautions were suggested for minimising the risk in handling skins. Investigation was also made into the changes



taking place during the process of liming skins prior to tanning. The work was undertaken in co-operation with 12 important firms in the tanning industry, and was carried out partly at the Leathersellers' College, partly on the premises of the firms. There is satisfactory evidence that the investigations in question have been of considerable service to the industry as a whole.

### VIII.

#### *Day Continuation Schools.*

##### (i.)

The Council has given very close and prolonged consideration to the problems arising out of the powers and duties imposed upon it by sections 3 and 10 of the Education Act, 1918. In its demands on the working hours of juvenile labour, this great new experiment in national education will have far-reaching effects on the industrial and commercial world. With a view, therefore, to preparing employers and employees to meet the requirements of the Act, important meetings have been convened, and representatives of various trades, industries, and associations, both on the employers' and on the employees' sides, have been interviewed. The sections of the Act concerning compulsory day continuation schools have been explained in detail, and the views of both sides have been sought as to the most satisfactory bases on which to establish these schools with the least resulting dislocation to industry and commerce.

As regards the curriculum of these schools, the Council is strongly of opinion that, for young persons between 14 and 16 years of age, the education should, as a rule, be of a general character, and enquiries have shown that this view receives considerable support among the widely diverse interests concerned. The curriculum should embrace such subjects as English (including history), geography, economics and civics, mathematics, general elementary science, drawing, domestic instruction for girls, manual instruction for boys, and particularly physical training, which is compulsory under the Act. As regards the young persons from 16 to 18 years of age, the education given might have a vocational bias, and include the underlying principles of various technical subjects for those coming from the factory and the workshop, and of some of the higher branches of commercial education—economics, banking, commercial law—for those whose work lies in banks and offices.

With shorter hours of labour, one of the great problems will be to train young persons to utilise satisfactorily their leisure hours, and one of the aims of these schools should be to provide this very important training. It is hoped that the corporate life of these schools will be fostered by the development of many extraneous social activities, and that sports and games clubs, recreational and social organisations, visits to places of educational interest, etc., will become established. The schools should eventually become in the evening centres of vigorous social life.

##### (ii.)

The Council has approved the following general principles :—

(i) With some exceptions, young persons should attend day continuation schools for two half-days of four hours each week.

(ii) Day continuation schools should be established near the place of employment rather than near the place of residence.

(iii) The curriculum should, as a rule, provide general education for the 14 to 16 age groups, with at least a vocational bias for the 16 to 18 age groups, and, in some cases, education of a definitely technical or commercial character.

(iv) Except in the case of seasonal trades, facilities for instruction should be continuous throughout the year, that is to say, the schools should be open practically all the year, and on Saturday mornings.

##### (iii.)

As regards the "appointed day" for day continuation schools, the President of the Board of Education has stated that he contemplates some date in the autumn of 1921 as the date by which all local education authorities should have made some provision for obligatory attendance, but that he would welcome any efforts on the part of local education authorities to anticipate this date, and to establish schemes of their own prior to the general establishment of such schools. The problem, so far as London is concerned, is bound up with the arrangements to be made by the local education authorities contiguous to the Administrative County of London. Conferences with these authorities, on this and other questions of common interest, have been held, and it has been agreed, in principle, that it is desirable that there should be a common "appointed day" and date of opening of compulsory day continuation schools for London and the adjoining education authorities. The Council is aiming at 1st January, 1921, as the date on which its first group of compulsory day continuation schools should open. While certain of the neighbouring local education authorities are doubtful whether their own schools will be ready by this date, they are agreed that, as regards those young persons who come to work in London and attend compulsory day continuation schools in the London County area, 1st January, 1921, would be a suitable date of opening. The principle of payment to the Council for the education in London schools of young persons residing in the areas of other education authorities has also been accepted by the authorities concerned.

On the basis that the schools open on 1st January, 1921, and assuming that the elementary schools continue to have four terms yearly as at present, the first day (27th October, 1920) of the school term ending at Christmas, 1920, should be fixed as the "appointed day." The Council's first group of compulsory day continuation schools will then open with about 15,000 young persons. A further



15,000 will be added to the total enrolment every three months for a period of two years from the date of opening. Subsequently, for five years, approximately as many young persons will leave day continuation schools on attaining 16 years as enter on attaining 14 years, so that an approximately steady maximum of 120,000 will be attained. At the end of a period of seven years from the "appointed day," young persons between the ages of 16 and 18 will come under the obligation to attend these schools, but only those who have not attained the age of 16 before the expiration of that period; a further 15,000 every three months for two years will then be added to the total enrolment. At the end of the ninth year from the date of opening, an approximately steady maximum of 240,000 young persons will be reached.

## (iv.)

In anticipation of the establishment of compulsory day continuation schools, a number of large business houses have instituted voluntary day continuation schools for their own employees. The Council considers that this phase of development should be approved during the present year, wherever suitable arrangements can be made, and the necessary teaching staff and accommodation secured.

When attendance at day continuation schools becomes compulsory, it is more than probable that those employers who have anticipated the Act by establishing day continuation schools for their own employees will desire their schools continued in accordance with the Act. Other employers may desire the Council to conduct and maintain day continuation schools in accordance with the Act in premises which they are prepared to place at the Council's disposal. Further, religious organisations and other bodies may desire the Council to conduct and maintain schools in premises which they may place at the Council's disposal, or they may desire to establish "non-provided" compulsory day continuation schools, or, in exceptional cases, they may themselves desire to establish their own independent compulsory day continuation schools. The Council has laid down the conditions on which it is prepared to maintain (i) schools provided by religious organisations or other bodies, (ii) schools held at or in connection with places of employment. In framing these conditions the Council has followed the general structure of section 7 of the Education Act, 1902, relating to non-provided elementary schools.

The conditions referred to are appended :—

(i) The Council shall maintain the school and keep it efficient, so long as it is necessary to the provision of the area, and shall have the control of all expenditure required for that purpose, other than expenditure for which, under (v) below, provision is to be made by the managers. The maintenance charges payable by the Council shall include the salaries of the teaching staff and a suitable proportion, to be agreed with the managers, of the charges in respect of water, lighting, heating, and cleaning.

(ii) The managers of the school shall carry out any directions of the Council as to the instruction to be given in the school, including any directions with respect to the educational qualifications of the teachers to be employed.

(iii) The Council shall have the right of inspection.

(iv) The consent of the Council shall be obtained to the appointment and dismissal on educational grounds of all teachers, including the principal of the school. All vacancies for principals shall be advertised.

(v) The managers shall provide the school building free of any charge to the Council, shall keep the same in good repair, and shall make such alterations and improvements in the building as may reasonably be required by the Council, provided that such damage as the Council considers to be due to fair wear and tear in the use of any room in the building for the purpose of a compulsory day continuation school shall be made good by the Council.

(vi) The arrangements shall be subject to 18 months' notice on either side for their termination.

(vii) The Council shall be adequately represented on the body of managers.

## (v.)

One of the most difficult problems connected with the establishment of the Council's compulsory day continuation schools is to secure the necessary accommodation. Preliminary arrangements are being made to find suitable premises, and it is proposed that, as a first provision, 22 compulsory day continuation schools shall be established, to serve the following districts—Hammersmith-broadway; Notting-hill; Edgware-road; Tottenham Court-road; Horseferry-road; Euston-road; Holloway-road; City-road; Shoreditch or Bethnal-green; City of London; Whitechapel; South Hackney or Homerton; Stepney; Woolwich; Deptford and Greenwich; Bermondsey; Old Kent-road; Peckham and Camberwell; Elephant and Castle; Brixton; Battersea; Clapham-junction.

It is proposed that each of the 22 schools shall provide 360 school places. As each pupil will attend for only two out of the ten sessions during which the school will be open each week, this will allow of an enrolment of 1,800 pupils. The schools will be open for at least 44 weeks a year, and, if necessary, for not more than 48 weeks a year.

Following the Council's usual practice, day continuation schools will be sub-divided under three grades, according to the accommodation recognised. The salary of the principal of the school will

be contingent on its grade. The grades and their respective accommodation, and the salaries proposed, are given in the following table:—

| Grade.  | Full-time places. | Roll.    | Annual salary.                          |
|---------|-------------------|----------|---|
| I. ..   | 120 ..            | 600 ..   | Men £500-£25-£600. Women £400-£20-£475. |
| II. ..  | 240 ..            | 1,200 .. | „ £500-£25-£650. „ £400-£20-£510.       |
| III. .. | 360 ..            | 1,800 .. | „ £500-£25-£700. „ £400-£20-£550.       |

As regards the cost involved in the establishment of the first group of 22 schools, it is estimated that the total cost during the financial year 1920-21 will be £131,000 on capital account and £116,500 on maintenance account. The ultimate annual expenditure on these 22 schools may be estimated at £317,000, including loan charges.

## (vi.)

It is estimated that, during the first year of these schools, 800 full-time instructors will be required, and a further 800 instructors during the second year. During subsequent years, and until the need arises to provide instructors for students from 16 to 18 years of age, who will ultimately come under the operation of the Act, only the normal wastage will require to be met.

The persons requiring training will be of widely differing types; some possessing teaching experience will need business or commercial experience, while others, who have this latter experience, will lack the necessary teaching qualifications. Many will also require some training in social welfare activities. The courses of training will vary in duration and scope according to the varied types of persons who may come forward. The Council has established special machinery for dealing with this aspect of the problem. An adviser of studies has been appointed, who will organise training courses, and will at the same time maintain such relations with the industrial and commercial world as will secure that adequate facilities are available for teachers to acquire industrial and commercial experience.

## (vii.)

It has already been indicated above that these proposals constitute a first provision. Further schools will be necessary to provide for the ultimate accommodation, at the end of two years' working, of 120,000 pupils, or 24,000 places.

It is estimated that the ultimate annual cost for a single age group, 14-15 years, will be £500,000 a year, and for the two age groups, 14-15 years and 15-16 years £1,000,000 a year. Five years later, when young persons from 16-18 years of age have to be dealt with, the cost may be doubled.

## IX.

*Adult education.*

One of the most significant features of the present time is the growing demand for Adult Education. The final report (October, 1919) of the Adult Education Committee called attention to the rapid expansion which was taking place in the provision for adults, especially in connection with the Workers' Educational Association. The students in the tutorial classes of this Association—i.e., classes taking courses extending over three years—numbered 3,000 in 1913-14, and, over and above this, the Association has spread a network of shorter classes, reading circles, and courses of lectures over many districts, and in 1914 had united some 2,555 societies, including 952 trade unions, trades councils, and branches, and 388 co-operative societies and other organisations, in a popular educational movement. The Council recognises the great value of the work done by the Association, and makes grants in aid of its work through the University of London. The report of the Adult Education Committee anticipates that the further expansion of the tutorial classes associated with the Universities will be an important feature in the developments to take place under the Education Act, 1918. "The Universities of Great Britain," it is stated, "are still only on the threshold of the work which new conditions demand of them. Their influence will depend in part on their ability to keep in close touch with the changing currents of social life outside them." The far-reaching influence of the work is emphasised in the preface to the report written by the Chairman of the Committee, the Master of Balliol, who points out "that adult education must not be regarded as a luxury for a few exceptional persons here and there, nor as a thing which concerns only a short span of early manhood, but that adult education is a permanent national necessity, an inseparable aspect of citizenship, and therefore should be both universal and lifelong." The Council is in agreement with this view, and proposes to support the movement through the University of London.

## CHAPTER III.

*University Education.*

In connection with the question of the Council's policy with regard to university education, it is necessary to consider the relations between the functions of the University as defined by the University of London Act (1898) and those of the Council as defined by the Education Act (1918). Under the Act of 1898, the University is required to "promote research and the advancement of science and learning, and to organise, improve, and extend higher education within the appointed radius." The appointed radius is one of thirty miles from the central office of the University. Under

the Education Act, 1918, the Council is charged with the duty of "providing for the progressive development and comprehensive organisation of education in respect of its area," and under the Acts of 1902-3 it is required to "promote the general co-ordination of all forms of education."

At first sight it might appear that there is some danger of overlapping between two authorities, one of which is charged with the duty of organising, improving, and extending higher education within a certain area, and the other with that of providing for the comprehensive organisation of all kinds of education within part of the same area. In practice, however, no difficulty need arise, and it will be generally agreed that it is the business of the University to organise university education from the inside and to see that the different branches of university education are co-ordinated among themselves, while it is the business of the local education authority to secure the co-ordination of other forms of education with university education, and to see that facilities for university education are reasonably accessible to all suitable students within its area.

While the Council recognises that the Senate of the University of London is the body responsible for the organisation of university education in the county area, it cannot, as local education authority, consistently with its duty of providing for the comprehensive organisation of education, be indifferent to the manner in which the problem of the organisation of university education is treated.

The report of the Royal Commission on University Education, 1913 (p. 2), summarises the then existing position as follows—

"After the most careful enquiry we have been able to make into the whole organisation of the University, we have come to the conclusion that it is fundamentally defective, and as at present constituted is not calculated to promote the highest interests of university education in London; nor do we think it is capable of developing on the present lines into a University such as London ought to have.

The two main grounds of the defective organisation appear to us to be—

(1) The present relations of the Internal and External sides of the University.

(2) The existing combination in the University of a large number of institutions differently related to it, and of different educational standard and aims—incorporated colleges; independent schools of the University, both general, professional, and technological; and "mixed" institutions in which a limited number of the teachers are recognised for University purposes.

In addition to the difficulties which arise from these two main grounds, a number of defects in the present machinery of government have been brought to our notice which lead to difficulty and delay in carrying on the business of the University.

The want of money is not exactly a defect of organisation, but it is clear that some of the difficulties which arise from the second main ground we have mentioned might have been overcome, or at least greatly reduced, if the University had been in possession of substantial funds, and had wisely administered them with these ends in view."

The Education Committee in 1913-14 gave long and careful consideration to the Report of the Royal Commission, and on 8th July, 1914, arrived at certain conclusions, which were, in the main, in agreement with the general principles of the Commission's Report. Further consideration of the matter was, however, cut short by the outbreak of war, and the resolutions of the Education Committee were not submitted to the Council.

It is of urgent importance first that the University shall be so reorganised as to remedy the defects pointed out in the extract from the Report of the Royal Commission quoted above, and secondly that the governing body of the reconstituted University should have at its disposal sufficient funds to enable it adequately to fulfil its functions of promoting research and the advancement of science and learning, and of organizing, improving, and extending higher education within the appointed radius.

With a view to assisting the reorganization of the University, the Council will have to consider whether it should be a condition of future grants that all applications from schools of the University should be sent through the Senate and forwarded by them, with a report as to the relative urgency of the needs of the various institutions and subjects of study.

As regards the question of the provision of funds for the reconstituted University, it should be borne in mind that London University fulfils a national and an imperial as well as a local function, and, further, that in so far as it is local, it is not local in the sense of being confined to the Administrative County of London, but is local in the sense of meeting the needs of the residents in an area included in a radius of some 30 miles.

An informal conference of representatives of neighbouring, Part II, local education authorities, which has been convened to discuss problems arising out of the Education Act, 1918, has had its attention drawn to the question of the assistance from the rates which should be given to the University of London, and of the proportion in which the cost of such assistance should be borne by the different authorities.

It is hoped that at a later date it may be possible to arrive at an agreement as to the proportion which should obtain between the contributions from national and from local sources (a) in the case of those parts of the work of the University which may be regarded as mainly national or world wide; (b) in the case of work which is mainly of local importance.

Pending the settlement of the questions referred to above, the Council will continue in principle during the triennium 1920-23 the system of grants described in Part I, Chapter IV. The grants for the triennium 1917-20 were as under :—

|   | £      |
|---|--------|
| University (including the incorporated colleges) .. .. .      | 29,530 |
| Non-incorporated schools of the University—                   |        |
| Imperial College (including Department of Technical Optics).. | 14,000 |
| Bedford College .. .. .                                       | 500    |
| School of Economics .. .. .                                   | 800    |
| East London College .. .. .                                   | 550    |
| School of Oriental Studies .. .. .                            | 1,333  |

The Council has recently received applications for building and equipment grants from the University and its Schools, and has decided to ask the Senate to consider them together and to re-submit them with a report as to their relative importance and urgency. This course has been taken, partly because the large demands upon the Council for capital expenditure for all purposes render it necessary for an order of priority to be arrived at as regards educational and other objects (and as regards educational objects among themselves), and partly because the Council desires to emphasize by every means in its power the responsibility of the Senate for the organization of University education in London.

#### *Research in Education.*

Encouragement to aid research in education is given to Local Education Authorities by Clause 23 of the Education Act, 1918, which reads as follows :—

“ With a view to promoting the efficiency of teaching and advance study, a Local Education Authority, for the purposes of Part II of the Education Act, 1902, may aid teachers and students to carry on any investigation for the advancement of learning or research in or in connection with an educational institution, and with that object may aid educational institutions.”

In recent years a vast amount of research has been carried on in various departments of educational activity, especially in France, Germany, and the United States of America, but in the publications bearing on these activities the references to English observers are regrettably infrequent. Now that power is given under the Act of 1918 to endow research in experimental pedagogy, this should be remedied.

London is without doubt the most promising field in the world for research in Education, as it has 800,000 school children and 20,000 teachers under one authority. The opportunities for statistical work and the establishment of reliable standards are unlimited. This great natural advantage alone should make London the chief centre of the world for the carrying out of mass tests in education, both physical and mental. Every type of educational institution is open to the research student, and almost every type of child is available for study in large numbers. Where, under normal conditions, the student would have to work with a few examples of the special subject of his research, he can, in London, not only make his own selection of appropriate material, but secure in addition adequate control groups.

Among the teachers in the London service there is a large body of very keen observers, many already trained in psychological method, who, if appropriate problems were put before them by those engaged in educational research, could collect and supply information which would be of the greatest value. Others have marked originitive ability, and these should be given an opportunity of spending some time in a research laboratory. Such experience would be much appreciated by the teachers, and would increase their teaching efficiency by giving them a scientific attitude towards their daily work. In order to make the best possible use of the opportunities offered, it is proposed to organise educational research so that the teacher may come into effective relation with the research expert, and that investigations may be concentrated on those problems of the class room which are most in need of solution. The work in the research laboratories will be vivified by contact with the schools, and the teacher will by expert advice be spared the pitfalls and disappointments associated with inexperience of scientific methods of procedure.

The ordinary training in experimental psychology should be left to University College and King's College, which are provided with well-equipped laboratories for the work. At these colleges teachers of proved ability and interested in the scientific aspects of education should be granted research studentships. As regards intending teachers, it is proposed that in the London Training Colleges provision should be made for practice work in experimental pedagogy, similar to that provided for this purpose in the newer training colleges in Scotland. The laboratories should be equipped with inexpensive apparatus which will give the students opportunities of carrying on simple experiments for the solution of pedagogical problems, and thus give them the necessary scientific methods of approach in comparing rival methods of teaching the various subjects of instruction.

The value of the psychologist in connection with industrial efficiency and vocational guidance in the scientific management of business concerns is fully established. As pointed out in Part I, the Council has already appointed a psychologist on the education officer's staff to investigate the mental development of sub-normal children, but much research is needed in vocational psychology to determine the class of employment most suitable for children on leaving school. The discovery of the mental qualities required for success in various types of occupations, and a knowledge of the mental qualities possessed by the applicants for employment is all important. No

child should leave school without a statement of the type of calling for which he is best fitted. Valuable work of this nature can be carried out efficiently only by the research expert and the trained observer. American Psychological Clinics and Educational Research Bureaux are being established at important centres all over the United States.

The number of educational questions which await solution is practically unlimited. The problems of research in education fall under two main heads :—

- (1) The study of the mental development of the individuals to be educated.
- (2) The study of the teaching methods that can most effectually be employed in educating them.

The study of the teaching methods may at first sight appear to be the more urgent and more profitable enquiry, but the experience of investigators shows that such enquiry always demands a knowledge of individuals and of their capacities at different ages, and presupposes the existence of reliable tests and reliable standards of attainment wherewith to compare the results obtained by experimental changes in teaching methods.

• Valuable investigations may be made on such problems as :—

- (1) The intensive study of delinquents, backward, unstable, and defective children.
- (2) The guiding principles to be observed in the framing of curricula for backward classes.
- (3) The value of tests for intelligence in school life.
- (4) The value of teaching apparatus in infants' and senior departments of schools.
- (5) How far the ordinary principles of promotion should be modified to suit the older and duller children.
- (6) The advisability of instituting special classes for super-normal children.

There are, moreover, numerous problems underlying the whole theory of education which call for special research. One of the most important is the question of "transfer"; i.e., how far practice in one subject carries with it a general improvement in mental capacity as a whole. It would be difficult to over-estimate the value of an authoritative decision on this matter.

From time to time general reforms in method or administration, such as the Montessori or the Gary systems are widely advocated; new features such as eurhythmics are recommended for introduction into the curriculum; others are perhaps decried as relatively worthless. All such suggestions need thorough investigation by means of special experiments, scientifically controlled, before their claims can be justified or disproved.

The value of original research in all departments of industrial activity is now fully appreciated, as is evidenced by the increasing demand for research students in all branches of science. Education is admittedly the "key" to all original investigation, and research in the science of education becomes the most pressing need in connection with the national movement for reconstruction. The value of research in education is beyond question. No sphere of human activity offers such a variety of problems of paramount importance for solution. The advantages of the scheme suggested will, in the increased efficiency and greater economy of educational procedure, be out of all proportion to the cost involved. The expenditure on national education is increasing at an enormous rate, but in no department is there so little expenditure on original research.

#### CHAPTER IV.

##### Finance.

The foregoing analysis of the past and future activities of the London Education Authority may be supplemented by a brief statement of the expenditure in past years, and of the source from which the funds were derived to meet that expenditure. The outstanding feature is the rapid growth of the demands made by this service on both the national and local exchequers.

The annual expenditure on public education in London is met from three sources (1) fees and other receipts, (2) Government grants, (3) the education rate. The following tables show the expenditure incurred in each of the years enumerated, and how the amount in each year was provided.

##### Elementary education.

| Year.         | Expenditure. | How met.                                      |              |                    |              |                 |              |
|---------------|--------------|---|--------------|--------------------|--------------|-----------------|--------------|
|               |              | Fees and other receipts (including balances). | Per-centage. | Government grants. | Per-centage. | Education rate. | Per-centage. |
| (1)           | (2)          | (3)   | (4)          | (5)                | (6)          | (7)             | (8)          |
|               | £            | £   |              | £                  |              | £               |              |
| 1883-4 ...    | 1,115,671    | 86,949  | 8            | 227,512            | 20           | 801,210         | 72           |
| 1893-4 ...    | 2,043,102    | 41,963  | 2            | 577,046            | 28           | 1,424,093       | 70           |
| 1903-4 ...    | 3,372,203    | 24,476  | —            | 841,738            | 25           | 2,554,941       | 75           |
| 1908-9 ...    | 4,368,102    | 20,217  | —            | 1,356,176          | 31           | 2,991,709       | 69           |
| 1913-4 ...    | 5,172,620    | 154,225                                       | 3            | 1,361,052          | 26           | 3,657,343       | 71           |
| 1920-1 (est.) | 9,351,294    | 316,556                                       | 3            | 4,566,330          | 49           | *4,468,408      | 48           |

\* Excluding £173,942 taken from balances, but including expenditure of £75,420 which does not rank for Government grant.

*Higher education.*

| Year.                | Expenditure. | Fees and other receipts (including balances). | Per-centage. | Government grants including beer and spirit duties. | Per-centage. | Education rate. | Per-centage. |
|----------------------|--------------|---|--------------|---|--------------|-----------------|--------------|
| (1)                  | (2)          | (3)   | (4)          | (5)   | (6)          | (7)             | (8)          |
|                      | £            | £   |              | £   |              | £               |              |
| 1903-4 ...           | 305,213      | 86,550  | 28           | 218,663   | 72           | —               | —            |
| 1908-9 ...           | 996,636      | 97,220  | 10           | 393,126   | 39           | 506,290         | 51           |
| 1913-4 ...           | 1,076,205    | 37,329  | 3            | 382,430   | 36           | 656,446         | 61           |
| 1920-1 ...<br>(est.) | 2,360,085    | 247,007*                                      | 11           | 1,067,280   | 45           | †1,045,798      | 44           |

\* Including £147,905 estimated to be received from the Board of Education, the National Relief Fund, the Ministry of Labour, and the War Office for payment in full by the Council, and not treated as Government grant in respect of education.

† Viz., one half, as in column (5), of the approved net expenditure, less £21,482 taken from balance.

*Total amounts raised in rates and equivalent rate in £.*

| Year.                | Amount raised in rates. |           |           | Equivalent rate in £. |         |        | Assessable value of administrative County of London. |
|----------------------|-------------------------|-----------|-----------|-----------------------|---------|--------|--|
|                      | Elementary.             | Higher.   | Total.    | Elementary.           | Higher. | Total. |  |
|                      | £                       | £         | £         | d.                    | d.      | d.     | £  |
| 1883-4 ...           | 801,210                 | —         | 801,210   | 6-86                  | —       | 6-86   | 28,012,248   |
| 1893-4 ...           | 1,424,093               | —         | 1,424,093 | 10-20                 | —       | 10-20  | 33,492,853   |
| 1903-4 ...           | 2,554,941               | —         | 2,554,941 | 15-18                 | —       | 15-18  | 40,360,605   |
| 1908-9 ...           | 2,991,709               | 506,290   | 3,497,999 | 16-25                 | 2-75    | 19-00  | 44,247,706   |
| 1913-4 ...           | 3,657,343               | 656,446   | 4,313,789 | 19-50                 | 3-50    | 23-00  | 45,001,898   |
| 1920-1 ...<br>(est.) | 4,468,408               | 1,045,798 | 5,514,206 | 23-50                 | 5-50    | 29-00  | 45,634,817   |

Commencing with the year 1919-20, the new basis of Government grants, viz., 50 per cent. of the net expenditure in the case of London, has afforded some relief to the amounts to be raised in the rates, but the developments foreshadowed in this scheme point to substantially higher rates being necessary in future years, if efficient education is to be brought within the reach of all who can be regarded as capable of profiting thereby. Very large expenditure is also involved in carrying out and completing the various projects to which the Council is already committed, including the scheme for the reduction in the size of classes in elementary schools to 40 places in senior departments and 48 places in infants' departments, and in applying to the Council's scales of salary for elementary school teachers the principles embodied in the report of the Burnham Committee.

It is not within the scope of this scheme to attempt to forecast the financial results of the carrying out of programmes of work already approved, but there can be no doubt that the annual requirement, falling jointly on the National Exchequer and local rates, will involve very considerable additions to the existing burdens. It is difficult to estimate the amount of the additions with precision, but an approximate estimate has been prepared which shows that 10 years hence, if normal progress is made during that period in the carrying out of the existing programmes of work, the additional annual cost will be about £4,500,000, and, after deducting 50 per cent. for Government grant, the charge on the rates will be about 1s. 0d. in the pound over and above the existing rate for education purposes of 2s. 5d. in the pound. Superimposed on this large increase will be the cost of the various items arising out of the Education Act, 1918, and included in the programme for the next few years set out in this scheme. An approximate estimate of the expenditure on these new developments is given in the table on page 105. It shows a total estimated expenditure 10 years hence of £3,037,500; and assuming a Government grant of 50 per cent., the other half falling upon the rates will require a rate of 8d. in the pound. The total result foreshadowed is additional expenditure amounting to, in round figures, £7,500,000, one half of which represents an additional charge on the rates of about 1s. 8d. in the pound on the present assessable value.

The question of the progress which can be made from year to year in carrying out the various sections of this programme is largely one of finance; such progress must necessarily be affected by the requirements of the Council in other directions (e.g., housing and main drainage), and by the resources available for raising money to meet the large expenditure involved in the many important schemes to be undertaken by the Council during the next few years. It is certain that the financing of these schemes will be attended with difficulty, owing to the very large sums required and the world-wide demand for credit, and, until conditions become more normal, it is impossible to forecast, with any degree of accuracy, what progress can be made with the educational programme; but, as an approximate estimate, it may, perhaps, be assumed that it will take about ten years to give full effect to the proposals, so far as capital expenditure is concerned.

The difficulties attendant upon the raising of money on capital account make it equally uncertain how the incidence of the annual expenditure arising out of the new programme will fall from year to year. The table appended has been prepared on the assumption that more or less steady progress will be maintained during the suggested period of ten years.

APPROXIMATE FORECAST OF EXPENDITURE ON PROPOSALS ARISING OUT OF THE EDUCATION ACT, 1918

(01274)

|  | 1920-1.                     | 1921-2.   | 1922-3.   | 1923-4.   | 1924-5.   | 1925-6.   | 1926-7.   | 1927-8.   | 1928-9.   | 1929-30.  | 1930-1.   |
|--|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | £                           | £         | £         | £         | £         | £         | £         | £         | £         | £         | £         |
| Maintenance expenditure—   |                             |           |           |           |           |           |           |           |           |           |           |
| Day continuation schools ... ..  | 116,000                     | 450,000   | 900,000   | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,150,000 | 1,450,000 | 1,900,000 | 2,000,000 |
| Scholarships (including cost of maintenance of the necessary additional school places) ... ..      | —                           | 48,000    | 132,000   | 222,000   | 292,000   | 342,000   | 392,000   | 442,000   | 492,000   | 532,000   | 578,000   |
| Central schools—   |                             |           |           |           |           |           |           |           |           |           |           |
| Maintenance ... ..   | —                           | 27,000    | 54,000    | 81,000    | 108,000   | 135,000   | 162,000   | 189,000   | 216,000   | 243,000   | 270,000   |
| Exhibitions ... ..   | —                           | 950       | 1,900     | 2,850     | 3,800     | 4,750     | 5,700     | 6,650     | 7,600     | 8,550     | 9,500     |
| Nursery schools ... ..   | In experimental stage only. |           |           | —         | —         | —         | —         | —         | —         | —         | —         |
| Camp schools ... ..  | " " " "                     |           |           | —         | —         | —         | —         | —         | —         | —         | —         |
| Additional gross maintenance expenditure ... ..  | 116,000                     | 525,950   | 1,087,900 | 1,305,350 | 1,403,800 | 1,481,750 | 1,559,700 | 1,787,650 | 2,165,800 | 2,683,550 | 2,857,500 |
| Additional debt charges (say) ... ..   | —                           | 32,000    | 60,000    | 70,000    | 80,000    | 90,000    | 100,000   | 110,000   | 140,000   | 170,000   | 180,000   |
| Total ... ..   | 116,500                     | 557,950   | 1,147,900 | 1,375,350 | 1,483,800 | 1,571,750 | 1,659,700 | 1,897,650 | 2,305,800 | 2,853,550 | 3,037,500 |
| Board of Education grant, 50 per cent. ... ..  | 58,250                      | 278,975   | 573,950   | 687,925   | 741,900   | 785,875   | 829,850   | 948,825   | 1,152,800 | 1,426,775 | 1,518,750 |
| Net additional charge on rates ... ..  | 58,250                      | 278,975   | 573,950   | 687,925   | 741,900   | 785,875   | 829,850   | 948,825   | 1,152,800 | 1,426,775 | 1,518,750 |
| Equivalent rate on £ based upon present assessable value (£45,634,817: 1d. rate = £190,145) ... .. | d.<br>0·3                   | d.<br>1·5 | d.<br>3·0 | d.<br>3·6 | d.<br>3·9 | d.<br>4·1 | d.<br>4·4 | d.<br>5·0 | d.<br>6·0 | d.<br>7·5 | d.<br>8·0 |

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Note.—The figures in the above table are confined to the programme of new developments to be carried out in the next few years, as set out in this scheme. They do not include the large additions to the present expenditure which are involved in the carrying out of programmes of work already approved, and which are estimated to cost approximately £4,500,000, involving a rate (after deducting government grant of 50%) of about 1s. in the pound, over and above the existing rate of 2s. 5d. in the pound.

## APPENDIX IV.

The following are the Standing Sub-Committees of the Education Committee referred to on p. 5 :—

- (a) Accommodation and Attendance Sub-Committee (12 members).
- (b) Books and Apparatus Sub-Committee (5 members).
- (c) Buildings Sub-Committee (12 members).
- (d) Central Care Sub-Committee (12 members).
- (e) Elementary Education Sub-Committee (14 members).
- (f) General Purposes Sub-Committee (15 members).
- (g) Higher Education Sub-Committee (18 members).
- (h) Special Schools Sub-Committee (12 members).
- (i) Teaching Staff-Sub-Committee (12 members).

## APPENDIX V.

The following references may be consulted in support of the narrative of the text. The letters "C.M." or "E.C." denote, respectively, the minutes of the Council or of the Education Committee.

|                                       |     |  |  |
|---------------------------------------|-----|--|--|
| Education Committee...                | ... | Constitution and Statutory Scheme        | C.M., 13th November, 1906 (pp. 1136-1142).<br>C.M., 30th July, 1907 (pp. 393-397).<br>C.M., 3rd December, 1907 (pp. 1254-1255).<br>C.M., 31st March, 1908 (pp. 763-765).<br>C.M., 14th April, 1908 (p. 905).   |
|                                       |     | Orders of Reference ...                  | C.M., 7th July, 1914 (p. 14).<br>C.M., 15th October, 1918 (p. 866).<br>C.M., 12th November, 1918 (p. 1039).  |
| Standing Sub-Committees               | ... | Constitution and Orders of Reference     | E.C., 20th April, 1910 (pp. 1458-1459).<br>E.C., 4th December, 1918 (p. 660).  |
| Elementary Education                  | ... | School Accommodation                     | Tables relating to Accommodation and Attendance, 1914 (Elementary Schools).  |
|                                       |     | School Attendance                        | Annual Report of the Council, 1914 (Vol. IV).  |
|                                       |     | Employment of Children (By-Laws)         | C.M., 21st December, 1909 (pp. 1458-1459).<br>C.M., 3rd February, 1920 (pp. 111-115).<br>C.M., 2nd March, 1920 (pp. 322-324).<br>C.M., 4th May, 1920 (pp. 903-904).  |
|                                       |     | "40 and 48" Scheme                       | C.M., 5th March, 1912 (pp. 502-506).<br>C.M., 23rd July, 1912 (pp. 360-361).<br>C.M., 6th May, 1913 (pp. 1048-1061).<br>C.M., 26th May, 1914 (p. 1314).<br>E.C., 30th June, 1915 (p. 819 and pp. 821-838).<br>C.M., 18th May, 1915 (pp. 817-818).<br>C.M., 30th March, 1920 (pp. 663-664). |
|                                       |     | Central Schools                          | C.M., 1st March, 1910 (pp. 436-442).<br>C.M., 27th April, 1920 (p. 759).   |
|                                       |     | Nursery Schools                          | C.M., 29th July, 1919 (p. 995).<br>C.M., 2nd March, 1920 (p. 316-317).   |
|                                       |     | School Camps...                          | E.C., 10th March, 1920 (pp. 242-244).  |
|                                       |     | School Journeys                          | C.M., 23rd March, 1920 (pp. 576-577).  |
|                                       |     | Educational Visits, etc., School Charges | C.M., 23rd March, 1920 (pp. 574-576).<br>C.M., 30th March, 1920 (p. 676).  |
|                                       |     | Industrial and Reformatory Schools       | C.M., 24th February, 1920 (pp. 288-291).   |
|                                       |     | School Libraries                         | C.M., 30th March, 1920 (p. 671).<br>C.M., 19th December, 1919 (pp. 1726-1730).   |
|                                       |     | Teaching Staff, Scales of Salary         | C.M., 14th May, 1918 (pp. 533-550).<br>C.M., 22nd July, 1919 (pp. 930-941).<br>C.M., 19th December, 1919 (pp. 1732-1735).<br>C.M., 2nd March, 1920 (pp. 324-331).<br>C.M., 15th June, 1920 (pp. 1116-1128).  |
| Child Welfare and School Medical Work | ... | Provision of Meals                       | C.M., 22nd December, 1908 (p. 1475).<br>C.M., 17th November, 1914 (p. 781).<br>C.M., 30th October, 1917 (p. 901).  |
|                                       |     | School Care Committees                   | C.M., 30th July, 1907 (p. 422).<br>C.M., 6th April, 1909 (pp. 855-856).  |
|                                       |     | Choice of Employment                     | C.M., 23rd July, 1918 (pp. 735-736).   |
|                                       |     | Medical Inspection                       | C.M., 1st November, 1910 (pp. 801-804).<br>C.M., 21st January, 1919 (pp. 8-9).   |
|                                       |     | Medical Treatment                        | C.M., 27th July, 1909 (pp. 353-356).<br>E.C., 26th November, 1919 (pp. 831-838).   |
|                                       |     | Cleansing Scheme                         | C.M., 13th December, 1910 (pp. 1393-1394).<br>C.M., 27th May, 1919 (p. 571).   |



|                  |     |     |                               |     |     |   |
|------------------|-----|-----|-------------------------------|-----|-----|---|
| Higher Education | ... | ... | Secondary Schools             | ... | ... | C.M., 2nd March, 1920 (pp. 318-319).<br>C.M., 30th March, 1920 (p. 674-675).  |
|                  |     |     | Training of Teachers...       | ... | ... | C.M., 16th March, 1920 (pp. 470-471).   |
|                  |     |     | Training Colleges             | ... | ... | C.M., 10th February, 1920 (pp. 188-189).  |
|                  |     |     | Scholarships                  | ... | ... | C.M., 23rd March, 1920 (pp. 589-597).   |
|                  |     |     | University Education          | ... | ... | C.M., 30th May, 1905 (p. 2160).<br>C.M., 21st December, 1909 (pp. 1439-1440).<br>C.M., 30th June, 1914 (pp. 1562-1563).<br>E.C., 8th July, 1914 (pp. 72-74).<br>C.M., 6th July, 1915 (pp. 6-7).<br>C.M., 19th December, 1919 (pp. 1738-1739). |
|                  |     |     | Evening Institutes            | ... | ... | C.M., 3rd June, 1913 (pp. 1156-1170).   |
|                  |     |     | Technical Education...        | ... | ... | C.M., 26th July, 1910 (p. 304).<br>C.M., 30th-31st July, 1912 (pp. 666-672).<br>E.C., 11th July, 1917 (pp. 401-410).<br>C.M., 16th December, 1919 (p. 1639).  |
|                  |     |     | Day Continuation Schools      | ... | ... | C.M., 2nd March, 1920 (pp. 322-323).<br>C.M., 16th March, 1920 (pp. 470-471 and pp. 474-477).<br>C.M., 4th May 1920 (p. 888).   |
| Miscellaneous    | ... | ... | Special Trade Investigations  | ... | ... | C.M., 27th-28th February, 1912 (pp. 444-445).<br>C.M., 17th-18th December, 1912 (pp. 1591-1597).<br>C.M., 1st August, 1916 (pp. 792-794).   |
|                  |     |     | Inspection of Private Schools | ... | ... | C.M., 30th March, 1920 (pp. 661-662).   |

## APPENDIX VI.

## ELEMENTARY SCHOOL TEACHERS: SCALES OF SALARY.

*Certificated assistant teachers.**Assistant masters.*

Minimum, £200; annual increment, £12 10s.;  
maximum, £425.

*Assistant mistresses.*

Minimum, £187 10s.; annual increment, £12 10s.;  
maximum, £340.

*Head teachers.*

For the purpose of head teachers' salaries, schools are graded according to accommodation, as follows:—

- Grade I.—Not over 120 in accommodation.  
Grade II.—Over 120 but not over 240 in accommodation.  
Grade III.—Over 240 but not over 400 in accommodation.  
Grade IV.—Over 400 but not over 560 in accommodation.  
Grade V.—Over 560.

The annual increment for head masters and head mistresses is £15 in the case of Grade I, and £25 for head masters and £20 for head mistresses in the case of Grades II to V.

The maxima of the respective grades are:—

|                     | Grade I.  | Grade II. | Grade III. | Grade IV. | Grade V. |
|---------------------|-----------|-----------|------------|-----------|----------|
| Head masters ...    | £487 10s. | £510      | £552 10s.  | £600      | £650     |
| Head mistresses ... | £374      | £408      | £442       | £480      | £520     |

(a) *Commencing salaries—Teachers in the London service.*—An assistant master or departmental head on his appointment to a head mastership, or a head master on his promotion to a higher grade, has his existing salary increased by a promotion increment of £25 per grade, provided that the maximum of the appropriate scale is not exceeded.

An assistant mistress or departmental head on her appointment to a head mistressship, or a head mistress on her promotion to a higher grade, has her existing salary increased by a promotion increment of £20 per grade, provided that the maximum of the appropriate scale is not exceeded.

(b) *Teachers outside the London service appointed head teachers.*—A master outside the London service receives on his appointment to a head mastership a commencing salary in accordance with the scale for assistant masters, and in addition a promotion increment of £25 per grade.

A mistress outside the London service receives on her appointment to a head mistressship a commencing salary in accordance with the scale for assistant mistresses, and in addition a promotion increment of £20 per grade.

*Central schools.*

| Grade. | Accommodation. | Head masters. | Head mistresses. |
|--------|----------------|---------------|------------------|
| I.     | Under 201.     | £525-£25-£625 | £420-£20-£500    |
| II.    | 201-400        | £525-£25-£675 | £420-£20-£540    |
| III.   | Over 400       | £525-£25-£725 | £420-£20-£580    |

*Departmental heads—Masters*—Salary of assistant masters in central schools plus a promotion increment of £30, rising to a maximum of £480 a year by annual increments of £12 10s.

*Mistresses*—Salary of assistant mistresses in central schools plus a promotion increment of £25, rising to a maximum of £385 a year by annual increments of £12 10s.

*Assistant masters.*—Promotion increment of £25 on appointment, rising by annual increments of £12 10s. to £450.

*Assistant mistresses.*—Promotion increment of £20 on appointment, rising by annual increments of £12 10s. to £360.

*Assistant teachers in demonstration schools.*

*Masters and mistresses.*—£12 10s. more than salary for assistant masters and mistresses, rising to £12 10s. above the maxima of the scale.

*Teachers of modern languages and drawing.*

Salary in accordance with the scale for certificated assistant teachers.

*Domestic economy instructresses.*

Salary in accordance with the scale for certificated assistant mistresses.

*Handicraft and trade instructors.*

*Instructors.*—Minimum, £225; annual increment, £12 10s.; maximum, £375; plus authorised emoluments.

*Assistant instructors.*—Minimum, £175; annual increment, £12 10s.; maximum, £300; plus authorised emoluments.

Trade instructors are required to produce certificates, diplomas, or possess qualifications satisfactory to the Council.

Instructors and assistant instructors who qualify as certificated teachers, or who obtain one of the certificates of proficiency in the theory and practice of teaching set out in the Board of Education Code, 1912, schedule I. A1 (v), and other qualifications accepted by the Council, will be placed on the scale for certificated masters.

*Teachers of needlework, dressmaking, knitting and basket work, and gardening.*

Minimum, £175; annual increment, £12 10s.; maximum, £300.

Teachers who obtain one of the certificates of proficiency in the theory and practice of teaching set out in the Board of Education Code, 1912, schedule I. A1 (v), and other qualifications accepted by the Council, will be placed on the scale for certificated teachers.

*Head teachers of day special schools and open air schools.*

*Number of classes.*

*Scale.*

- |              |  |
|--------------|--|
| 1.           | As assistant in ordinary school plus one increment to be carried beyond maximum. |
| 2.           | As Grade I head teacher of ordinary school.                                      |
| 3-4.         | As Grade II head teacher of ordinary school.                                     |
| 5-9.         | As Grade III head teacher of ordinary school.                                    |
| 10 and over. | As Grade IV head teacher of ordinary school.                                     |

*Head teachers of residential special schools.*

Same scale as for Grade II head teacher of ordinary school plus authorised emoluments.

*Superintendents of industrial and reformatory schools.*

*Accommodation.*

*Scale of salary.*

- |              |   |
|--------------|---|
| Not over 60. | As Grade I head teacher of ordinary school, plus authorised emoluments.   |
| 61-120.      | As Grade II head teacher of ordinary school, plus authorised emoluments.  |
| 121-200.     | As Grade III head teacher of ordinary school, plus authorised emoluments. |

*Assistant teachers, handicraft instructors and instructresses of domestic economy in day special schools, open air, and camp schools.*

Certificated assistant teachers, handicraft instructors, and instructresses of domestic economy in day special schools, open air schools, and camp schools, receive one increment more than they would receive in an ordinary school, such allowance not to be carried beyond their respective maxima.

*Assistant teachers qualified to teach the deaf or blind only.*

Assistant teachers qualified to teach the deaf or blind only receive salary in accordance with the scale of salary for certificated teachers in ordinary schools, plus authorised emoluments.

*Assistant teachers and instructors in residential special schools.*

Certificated assistant teachers, domestic economy instructresses, and handicraft instructors in residential special schools, receive the scale of salary for certificated assistant teachers, domestic economy instructresses, and handicraft instructors, respectively, in day special schools, plus authorised emoluments. Trade instructors receive the special scale of salary for trade instructors, plus authorised emoluments.

*Assistant teachers and instructors in industrial and reformatory schools and places of detention.*

Certificated assistant teachers and handicraft and trade instructors in industrial and reformatory schools and places of detention receive the scale salary for such teachers and instructors in ordinary schools, plus authorised emoluments.

*Previous approved service.*

All previous approved service (including, in the case of handicraft and trade instructors and assistant instructors, teachers of needlework, dressmaking and other trade instructresses, workshop experience up to six years after attaining the age of 21), wherever rendered, is counted for the purpose of assessing a teacher's or instructor's or instructress's salary, as if he or she had been in the London service throughout his or her career, provided that periods of less than one month's continuous service shall not be counted, and that in the total period of service to be counted odd days in excess of the total number of months shall be ignored.

For this purpose approved service, other than trade experience, shall be service "recognised" by the Board of Education for the purposes of the School Teachers' (Superannuation) Act, 1918, and service rendered in state schools in the Dominions and Colonies.

*Allowances for degree and additional training—*

(a) An additional allowance of £12 10s. a year is paid to certificated assistant teachers who have completed a "third" year's training which has been recognised as satisfactory by the Board of Education, and to instructresses in domestic economy who satisfactorily complete an approved course of three years' training.

(b) An additional allowance of £12 10s. a year is paid to certificated teachers who have undergone one or two years' training, or who are untrained, and have obtained a degree of a recognised university.

(c) An additional allowance of £25 a year is paid to certificated assistant teachers who have undergone a three or four years' course of training, or who have been three years in residence at a university and are trained for one year, and have obtained the degree of a recognised university.

(d) Teachers who, after residence at a recognised university, have obtained a degree, or have qualified by examination for a degree, and are subsequently recognised as certificated, are paid an allowance of £12 10s.

(e) An additional allowance of £12 10s. is paid to assistant teachers who have undergone three or four years' training and who, although they have been unsuccessful in passing their examination for a degree, are recognised by the Board of Education as permanently certificated teachers.

(f) The allowances payable under (a) (b) (c) (d) and (e) above are not carried beyond the ordinary maxima of the scale.

CYRIL S. COBB,

*Chairman of the Education Committee.*

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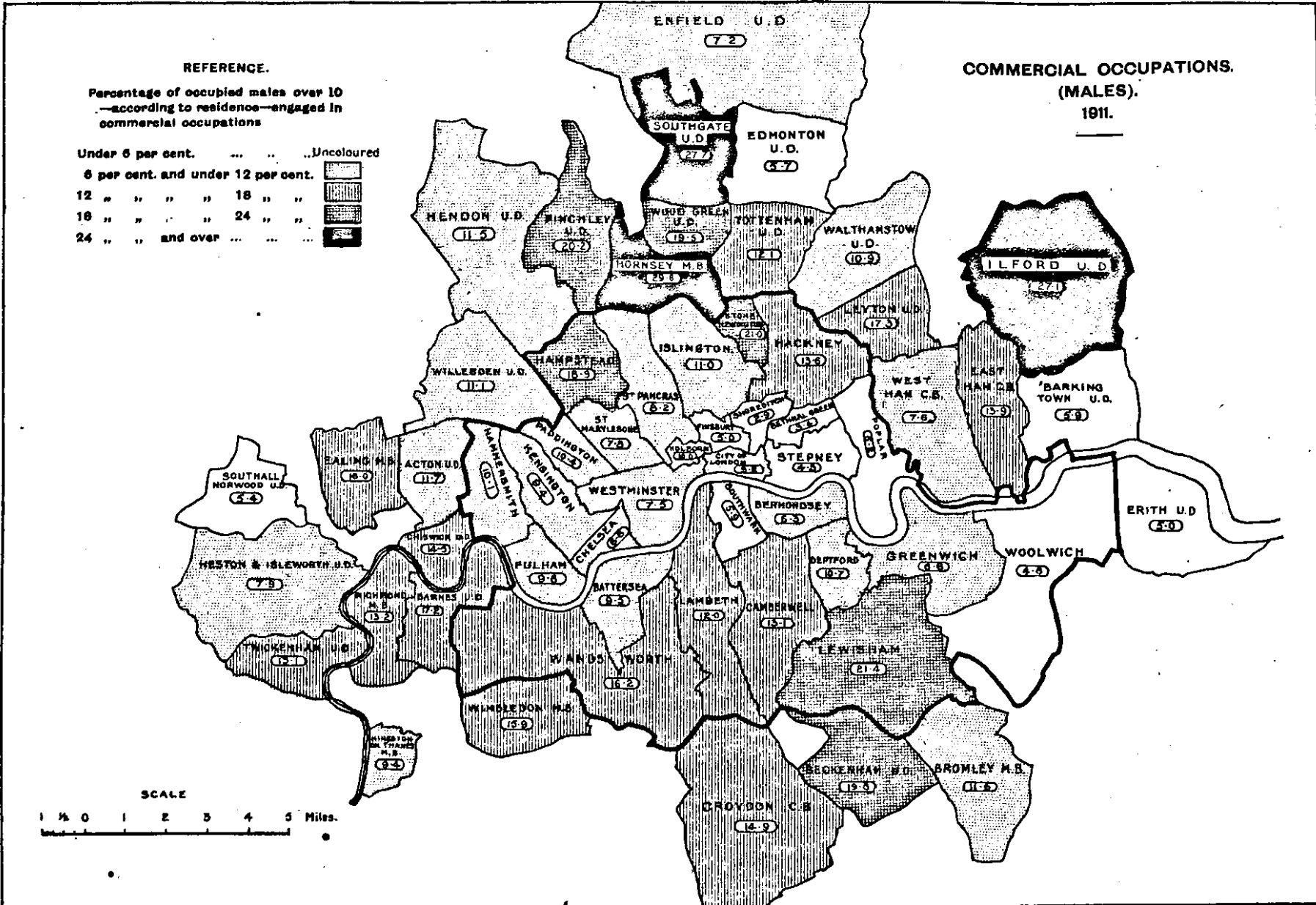
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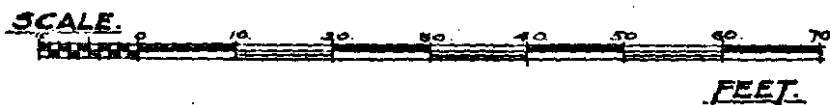
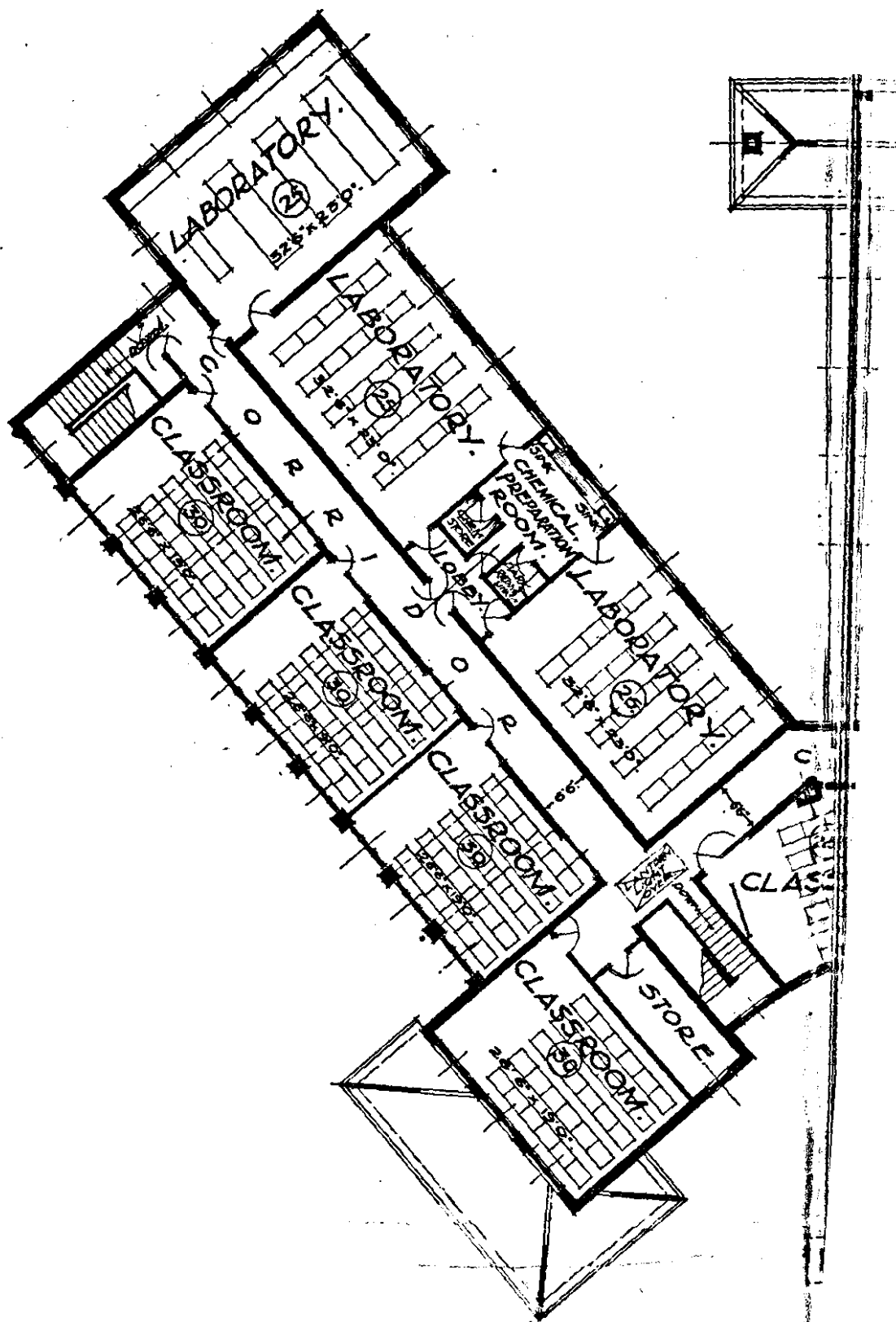
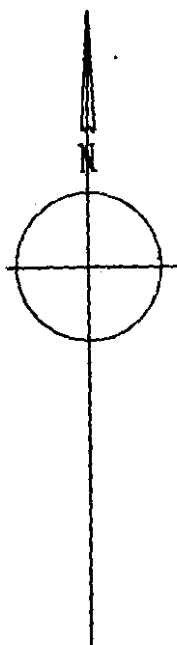
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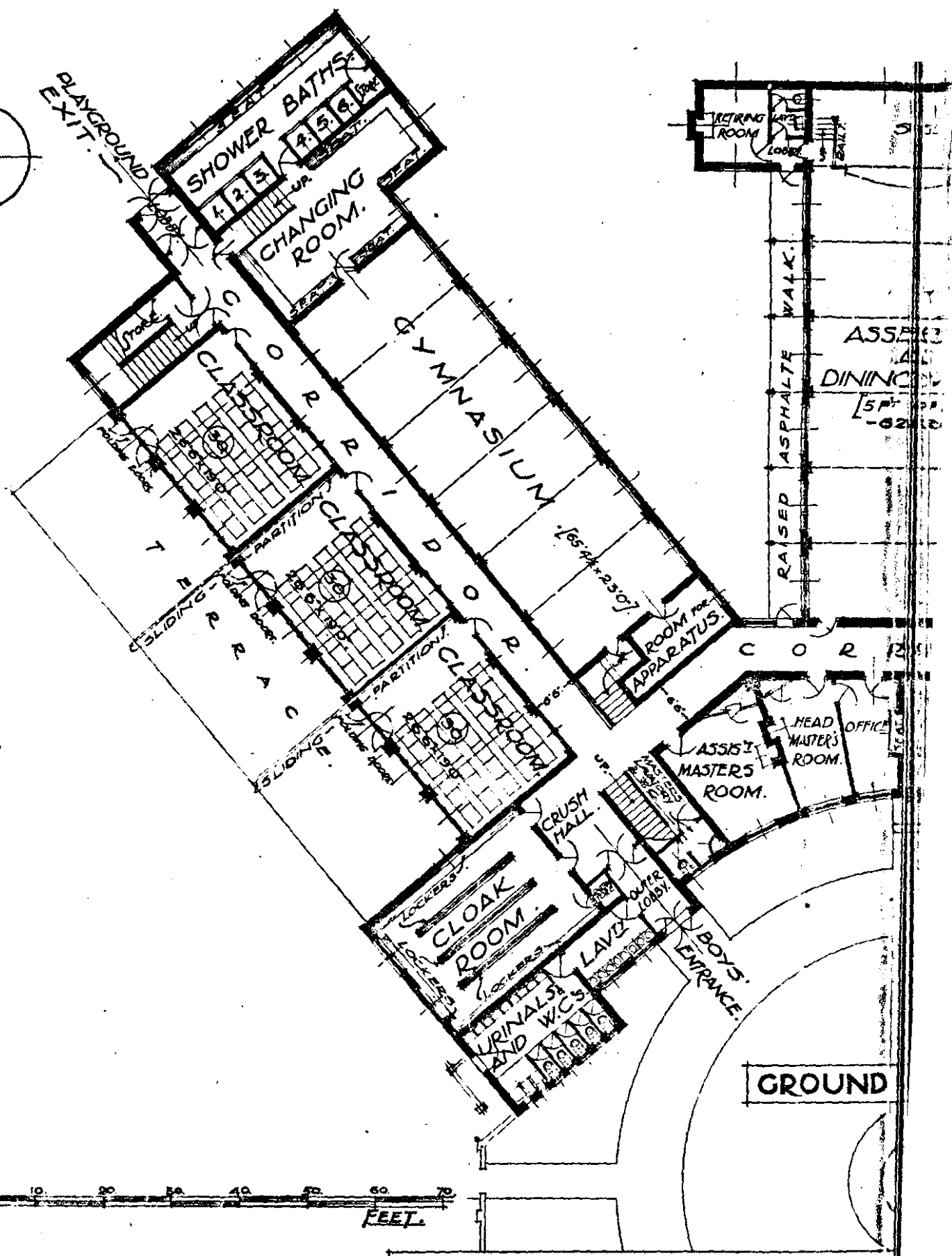
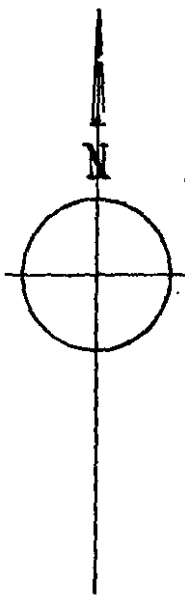
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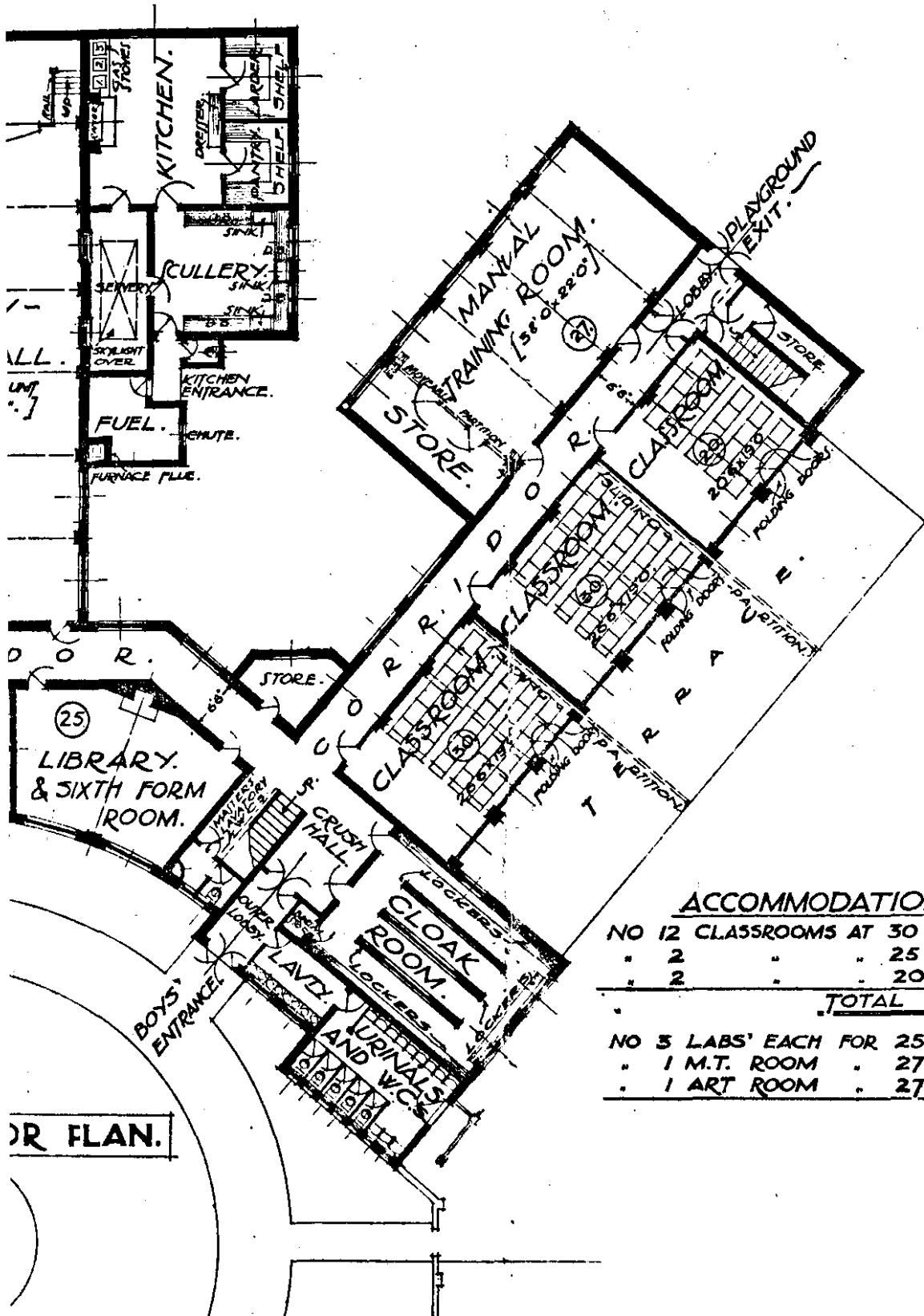


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|  | LONDO        |
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LONDON CO  
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**ACCOMMODATION.**

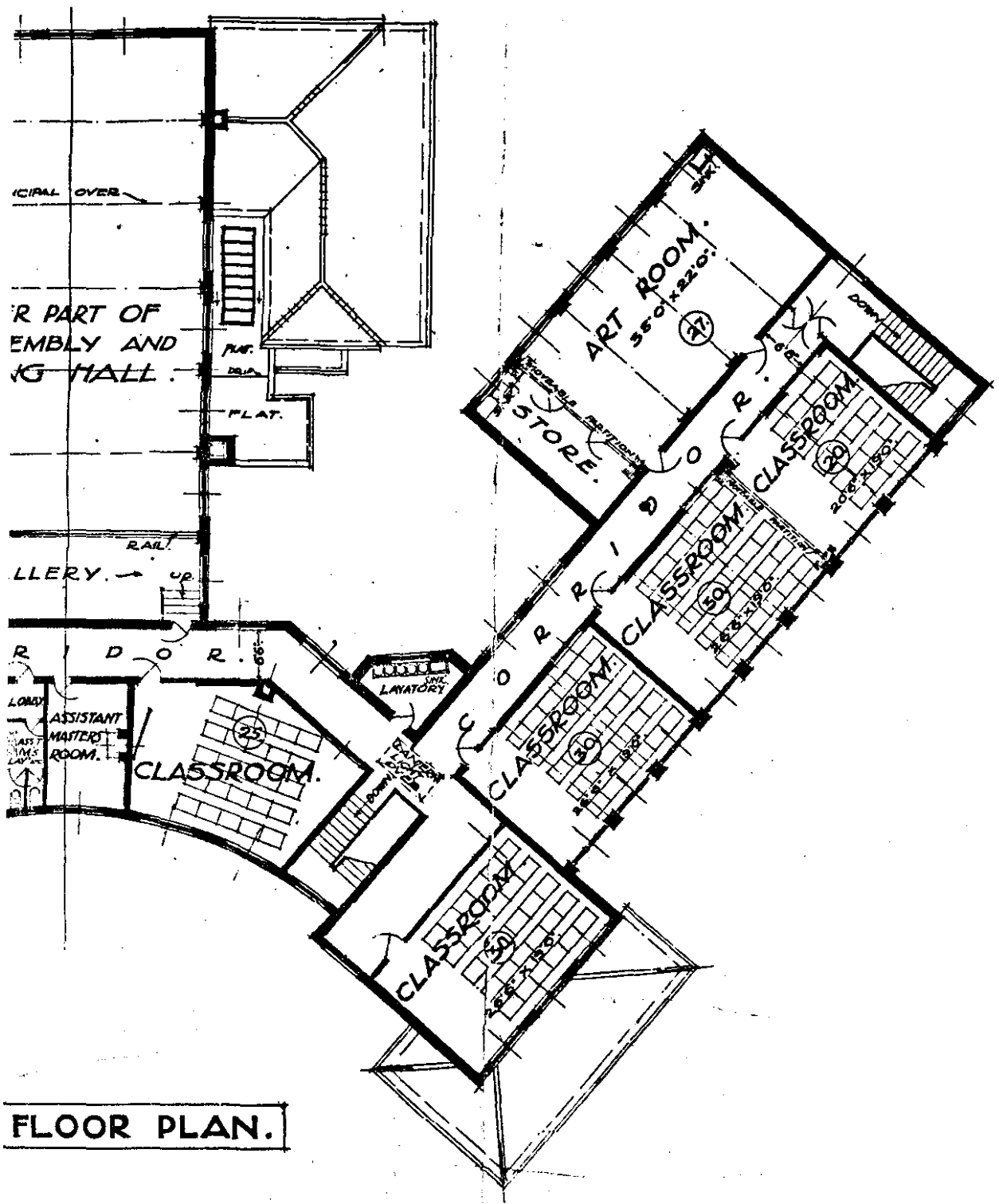
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|--------------------------|-----------|
| NO 12 CLASSROOMS AT 30 = | 360 BOYS. |
| • 2 " " 25 =             | 50 " "    |
| • 2 " " 20 =             | 40 " "    |
| <hr/>                    |           |
| <b>TOTAL = 450 BOYS.</b> |           |
| <hr/>                    |           |
| NO 3 LABS EACH FOR       | 25 BOYS . |
| • 1 M.T. ROOM .          | 27 " .    |
| • 1 ART ROOM .           | 27 " .    |

OR FLAN.

**TY COUNCIL.**

**Y SCHOOL FOR BOYS,**

**AMERSMITH.**



**FLOOR PLAN.**

**COUNTY COUNCIL.**   
**SECONDARY SCHOOL FOR BOYS.**  
**WINDHAM, HAMMERSMITH.**