

London County Council.

EDUCATION ACT, 1918.

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.

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. Arithmetic. Book-keeping. Botany. Chemistry. Cookery. Domestic Economy. Drawing. Elementary Science. English. French. Geography. History. Magnetism and Electricity. Mechanics. Physiology. Reading. Writing.	Algebra. Ambulance. Arithmetic. Art. Book-keeping. Botany. Building Construction. Chemistry. Commercial Correspondence. Commercial Knowledge. Composition. Cookery. Domestic Economy. Domestic Science. English. French. Geography. Geology. Geometry. German. History. History (including Literature). Hygiene. Laundrywork. Life and Duties of the Citizen. Machine Construction and Drawing. Magnetism and Electricity. Manual Training in Wood. Mathematics. Mechanics. Mensuration. Navigation.	Accounting and Auditing. Aesthetics. Appreciation of Art. " Literature. " Music. Arithmetic. Art. Art Embroidery. Articulation for Stammerers. Astronomy. Banking and Banking Law. Banking and Currency. Blind, classes for the. Book-keeping. Business Methods and Office Routine. Calculations for all Trade Courses. Chemistry. Civics. Commerce. Commercial Correspondence. Cookery. Country Dances and Folk Songs. Danish. Domestic Tailoring. Domestic Upholstery. Drawing. Dramatic Literature. Dressmaking. Dutch. Economics. Elocution. 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. Physics. 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. Physical Exercises (Life saving, Swimming, Gymnastics). Drill. Physics. Physiography. Reading. Recitation. Science of Common Things. Shorthand. Sound, Light and Heat. Steam. Violin. Vocal Music. Writing.</p>	<p>THE FOLLOWING TRADE COURSES ARE HELD :—</p> <p>Aircraft industries. Bookbinding. Bootmaking. Building. Cabinet Making. Carpentry. Chemical Industries. Dental Mechanics. Electro Plating. Engineering trades—mechanical, electrical, motor. Furriery. Gasfitting. Hairdressing. Instrument making. Metal Plate work. Motor body and carriage building. Optical industries. Painting and Signwriting. Pattern making. Photo process. Pianoforte construction. Plumbing. Printing. Silversmithing, etc. Tailoring. Upholstery. Watch and Clockmaking. Wiremen's work. 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. How Railway systems affect the development of a country. Scientific management in commerce. London Traffic. Trade opportunities with South America. The budgets and national expenditure.</p> <p><i>Technical subjects.</i></p> <p>Chemical industries of London. The Building industries of London.</p>	<p>History of paper-making. The uses of Electricity. Our Coal Supply. The Construction and Uses of Dynamos and Motors. The Use of Gas in Industry. By-products. Aeroplanes. Inventions of the nineteenth and twentieth centuries. Furniture: its Design, Construction and Development. The Production and Distribution of Power. Science as a Factor in the Development of an Industry. The Chemistry of Engineering Materials. Women's opportunities in Industry and Commerce. Construction of Large Buildings. Centralisation of Electric Supply. Development of Aeroplane Engines. Garden Cities. Wireless Telegraphy. Town Planning.</p> <p><i>Humanistic subjects.</i></p> <p>(Architecture, Civics, History, Inventions, Popular Science):—</p> <p>Factory Acts and Trade Boards. Domestic Architecture: what is it, and what it ought to be. Historical sketch of the position of women in English industrial life. Opportunities for women in the professions. The Education Act, 1918. The Development of Dress and Adornment. Attempts to dominate Europe. Select from :— 1. Philip II of Spain. 2. Louis XIV. 3. Napoleon. 4. Prussia. The relations of America to Great Britain.</p>	<p>The rise of the Japanese Empire. The Federal System of Colonial Government. The Ministry of Health. Social questions affecting London from the works Charles Dickens: works Charles Kingsley. Matthew Arnold and his place in English Literature. Social questions affecting England from the works Thomas Carlyle. The influence of John Ruskin on social questions. Musical appreciation. "Libraries and how to use them." National heroes. The Hanse Towns. Poland. The Balkan States. The S. American Republics. The Congress of Vienna. The Industrial Revolution. Modern economic development of Russia, France, U.S. and Germany. History of Poor Relief. The Whitley Councils. The Ministry of Ways and Communications. Legislation as applied to children.</p> <p>SHORT COURSES OF LECTURES ON SPECIAL SUBJECTS FOR STUDENTS OF SENIOR COMMERCIAL INSTITUTES.</p> <p>Advertising. Costing. Commercial importance of London. Factory Administration. Landmarks of British Trade Policy. Local Government. Modern Office Organisation. Rise of the United States. Salesmanship. 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 monotchnic 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.

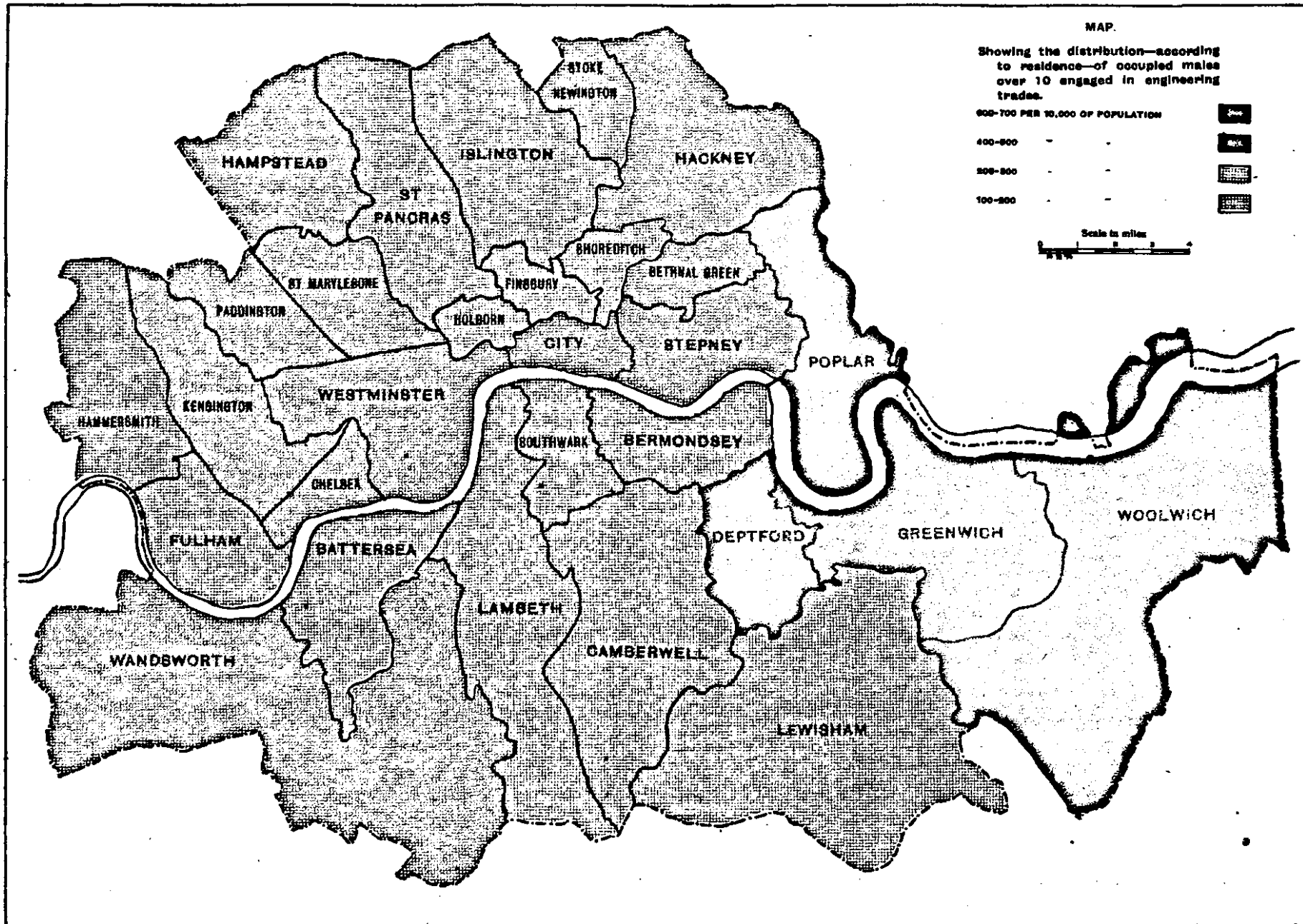
V.

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.

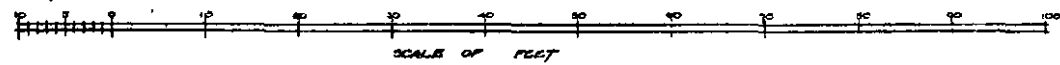
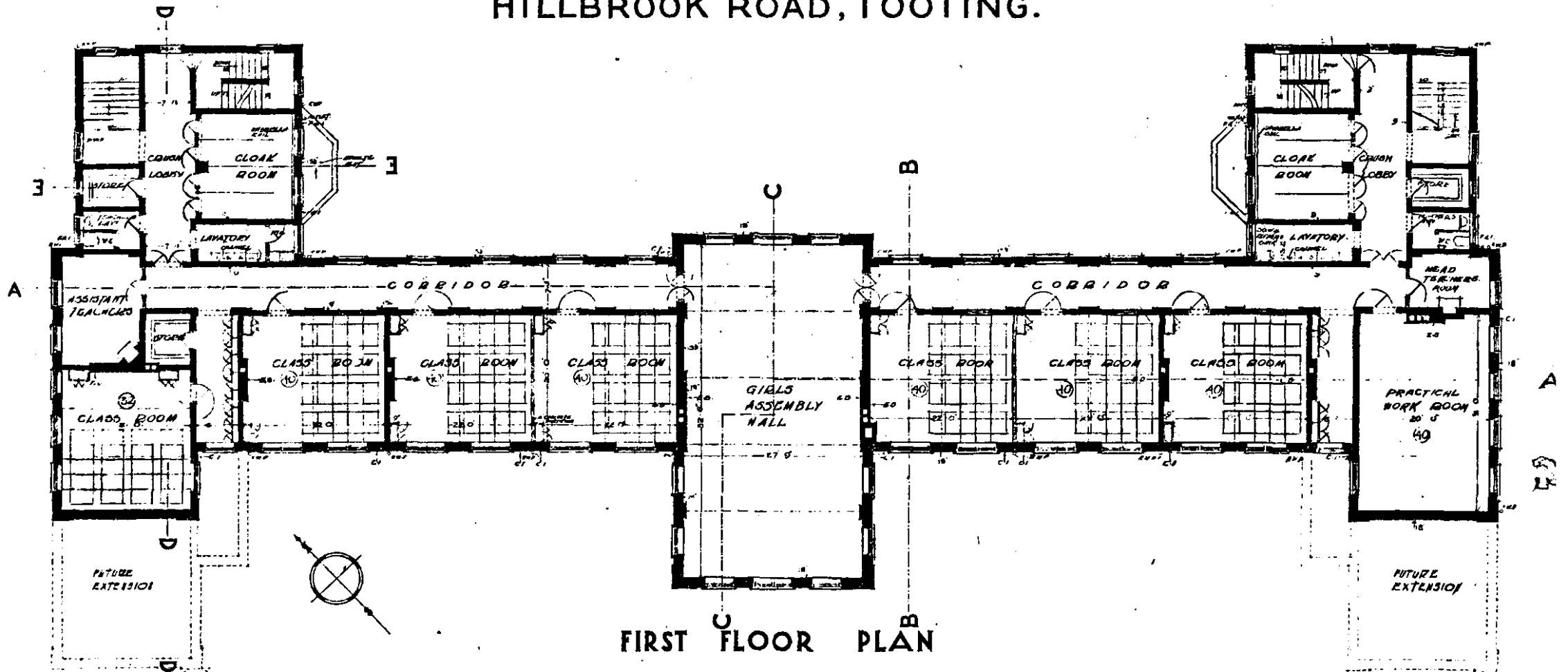
It is proposed that the laboratories shall be lofty, and either top-lighted, or the side windows so planned that the sill level is at least 6 feet from the floor. By this means, no wall space is wasted, and the light is better diffused. The walls, if wood panelled to a height of 6 feet, enable all partitions 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.

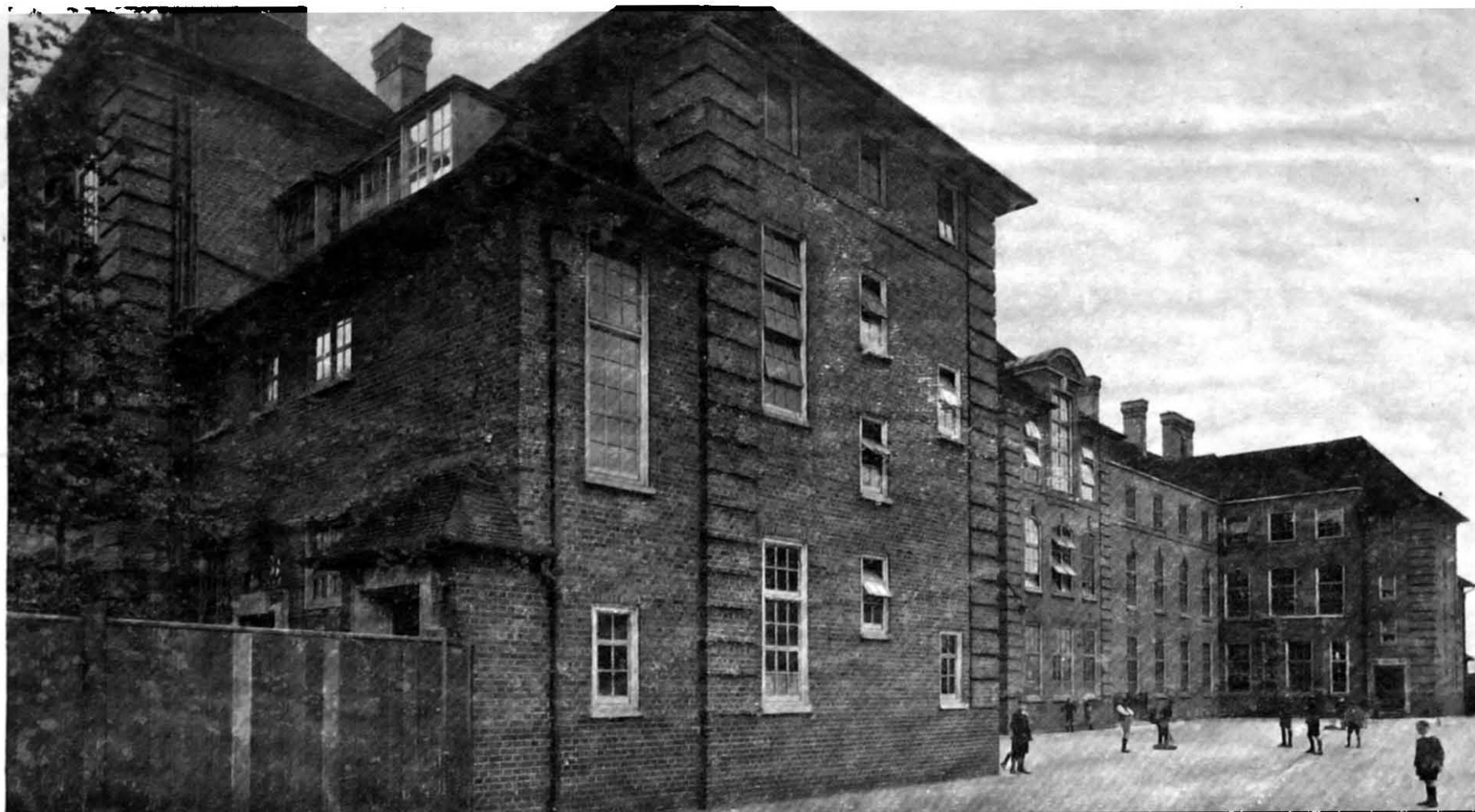
A few general observations may be added as to the Council's practice in the lighting and illumination of school buildings. As regards the former, the relation of window space to floor space is at least one to six; this is the minimum proportion required for defective eyesight. As regards the location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



HARRISON & BROWN, ARCHITECTS, LONDON, W.

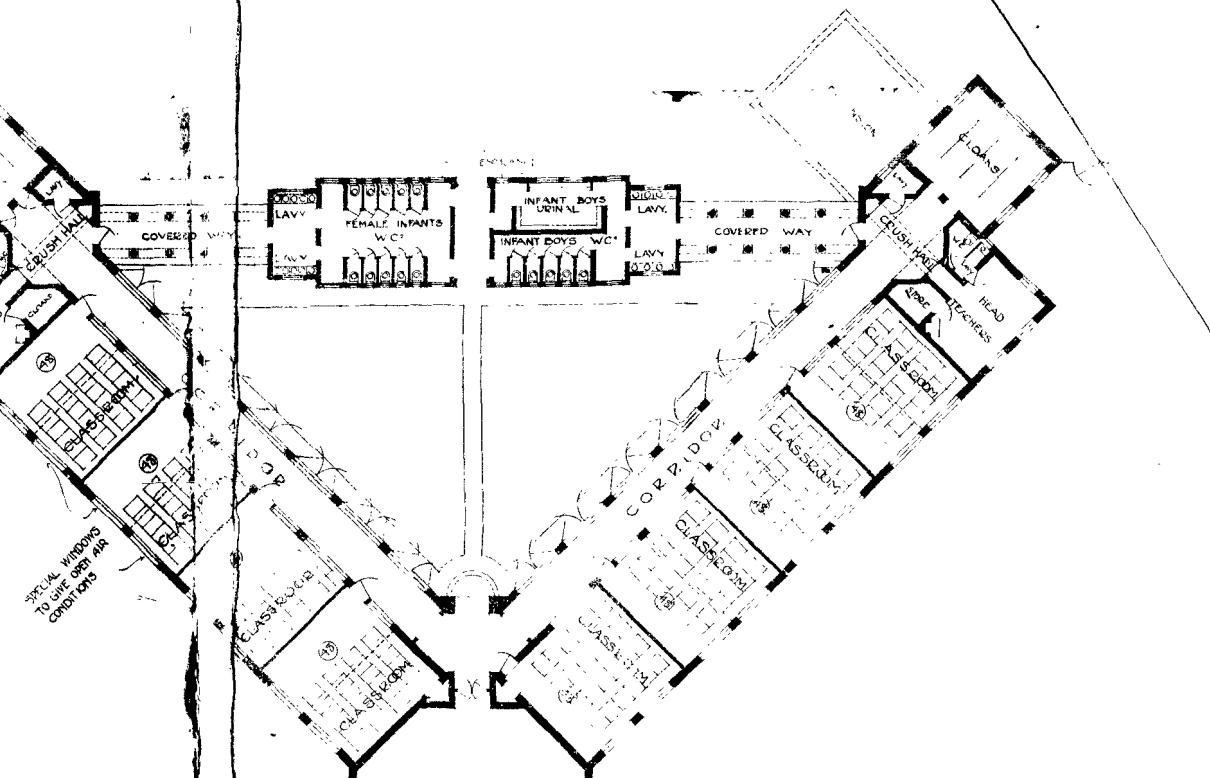
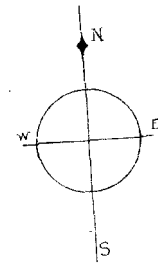
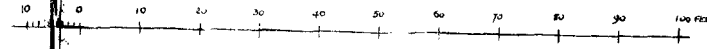


HILLBROOK ROAD ELEMENTARY SCHOOL, TOOTING.

BELLINGHAM ESTATE PROPOSED ELEMENTARY SCHOOL.

INFANTS PLAYGROUND

APPROX. 52 FEET SUPER EIGHT



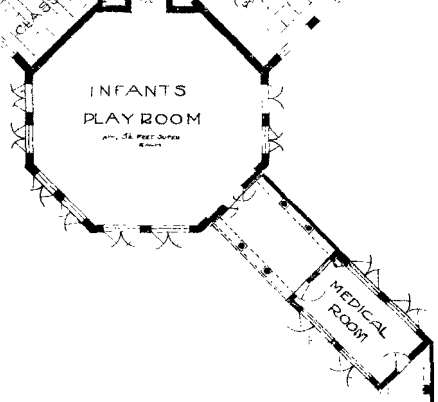
SPECIAL WINDOWS TO GIVE BEST AIR CONDITIONS

GIRLS PLAYGROUND

APPROX 51 FEET SUPER EIGHT

BOYS PLAYGROUND

APPROX 51 FEET SUPER EIGHT



HALL GIRLS

HALL BOYS

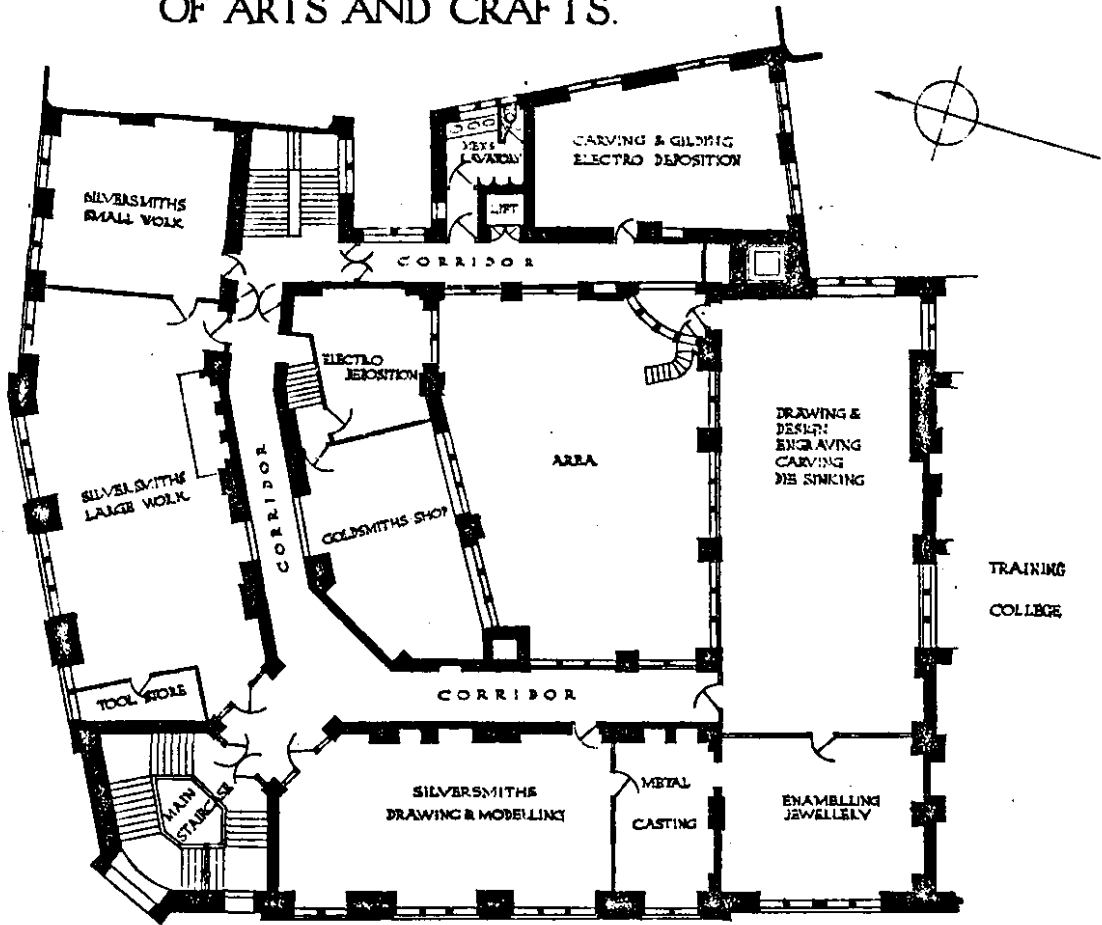
BOYS OFFICES

GIRLS OFFICES



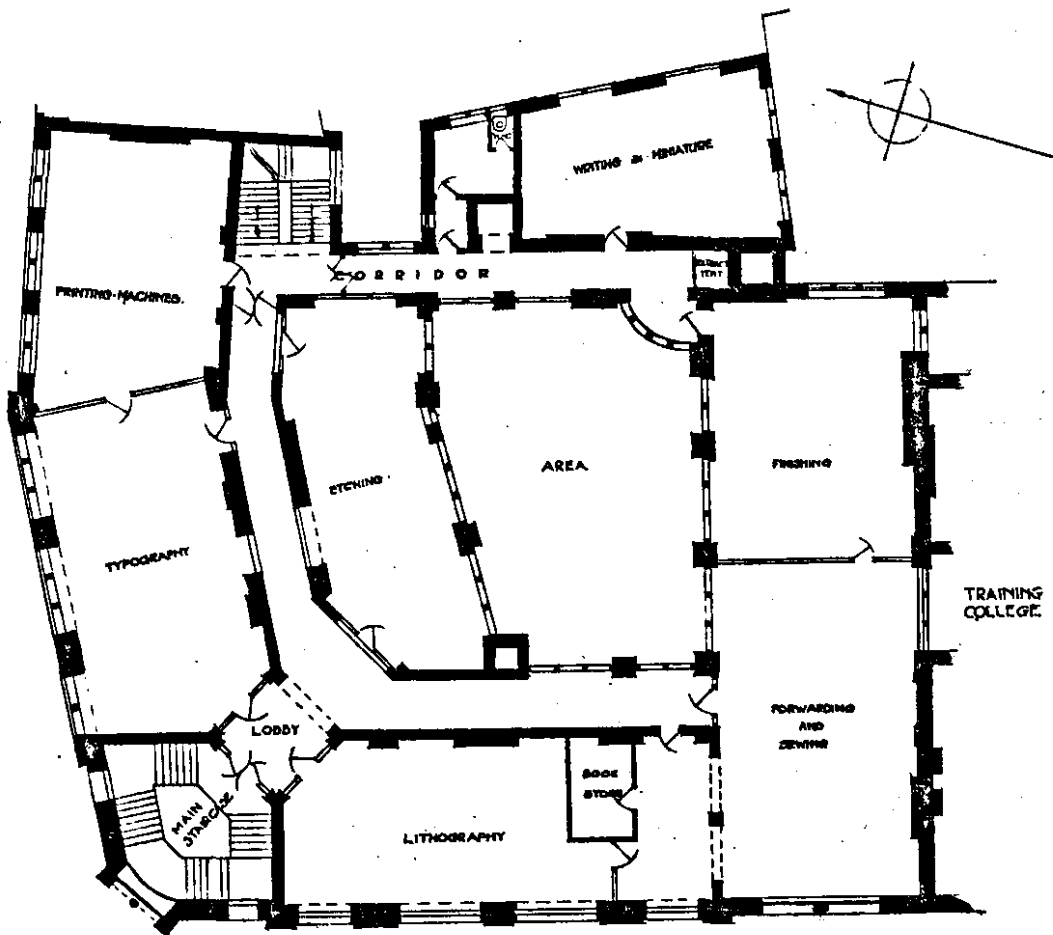
L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, HOLBORN.

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



FIRST FLOOR PLAN

SCALE OF 100 FEET.



SECOND FLOOR PLAN

SCALE OF 100 FEET.

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.

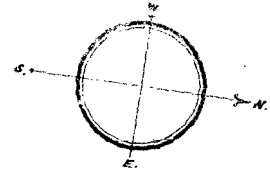
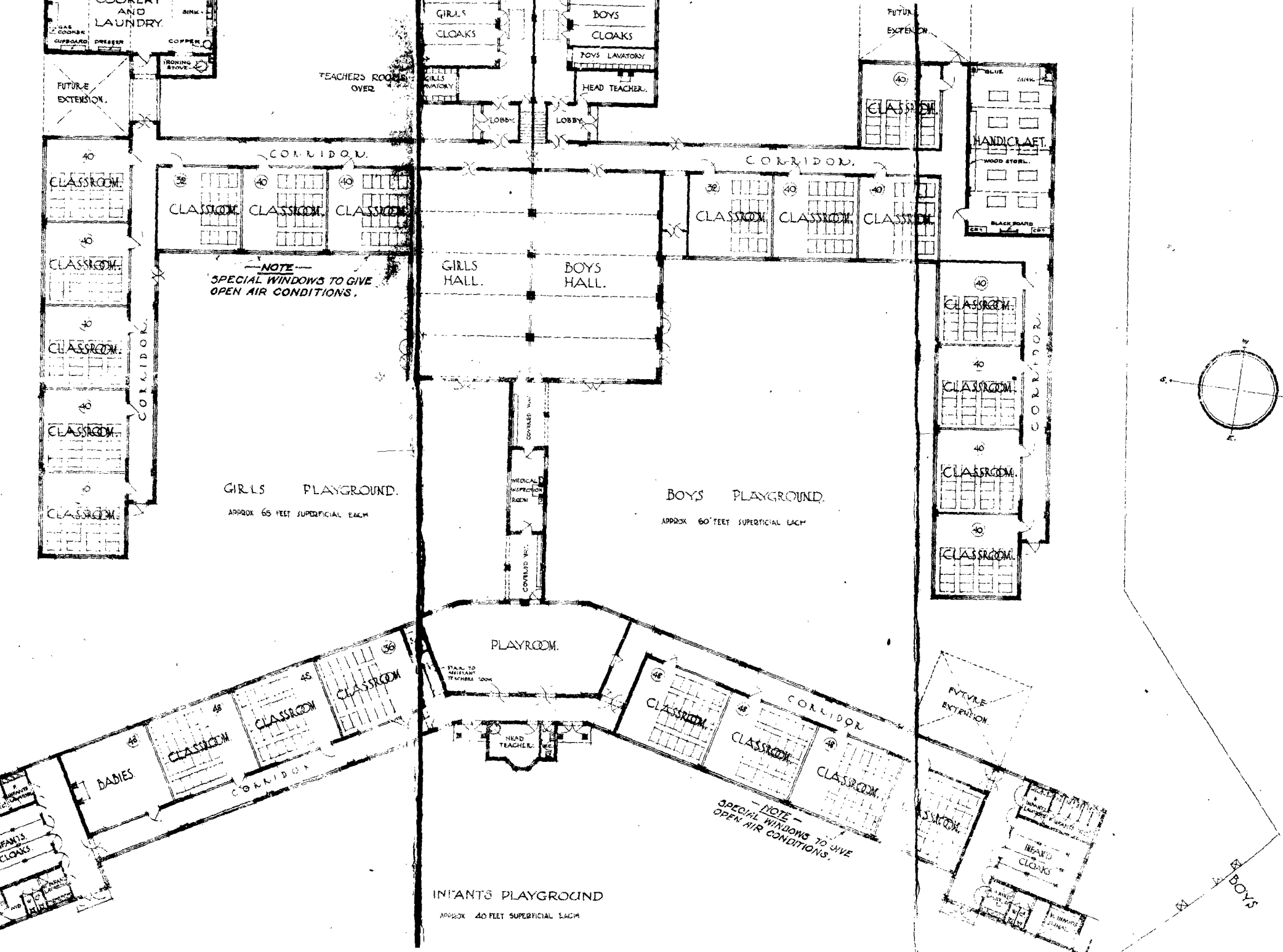
Facilities should be given for any form of practical work which has educational value, e.g., printing, book-binding, leadwork, millinery, etc., where head teachers submit suitable schemes and competent teachers can be secured.

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.



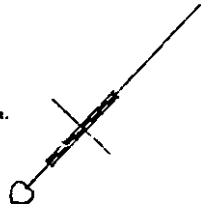
COUNTY SECONDARY SCHOOL FOR GIRLS LAURA PLACE, CLAPTON.

SHEET NO 20
W.G. DUFFY ARCHT.

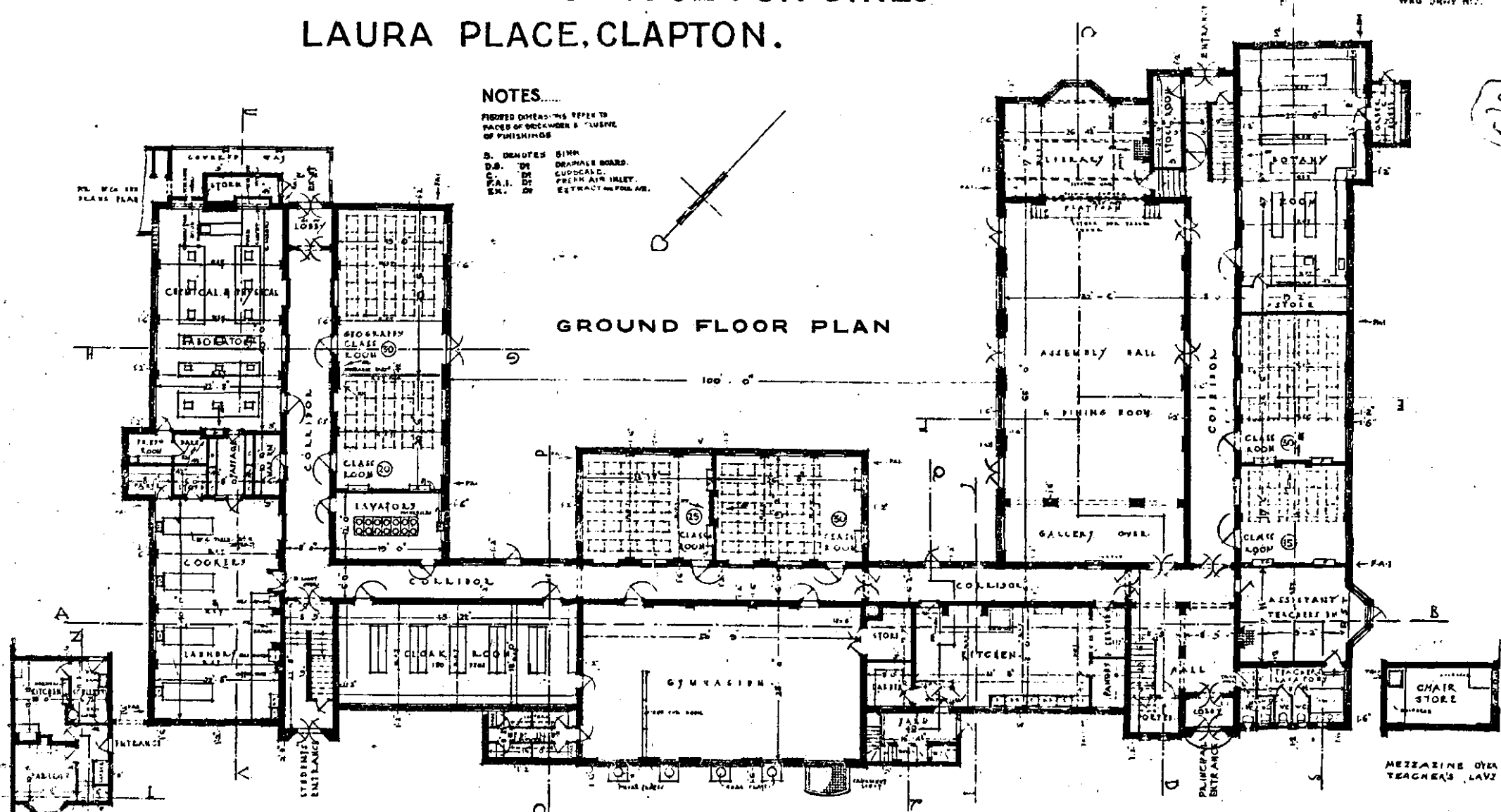
NOTES.....

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 HOD FOR AIR.



GROUND FLOOR PLAN



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1571

CHAIR STORE
MEZZAINE OVER
TEACHER'S LAVZ

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.

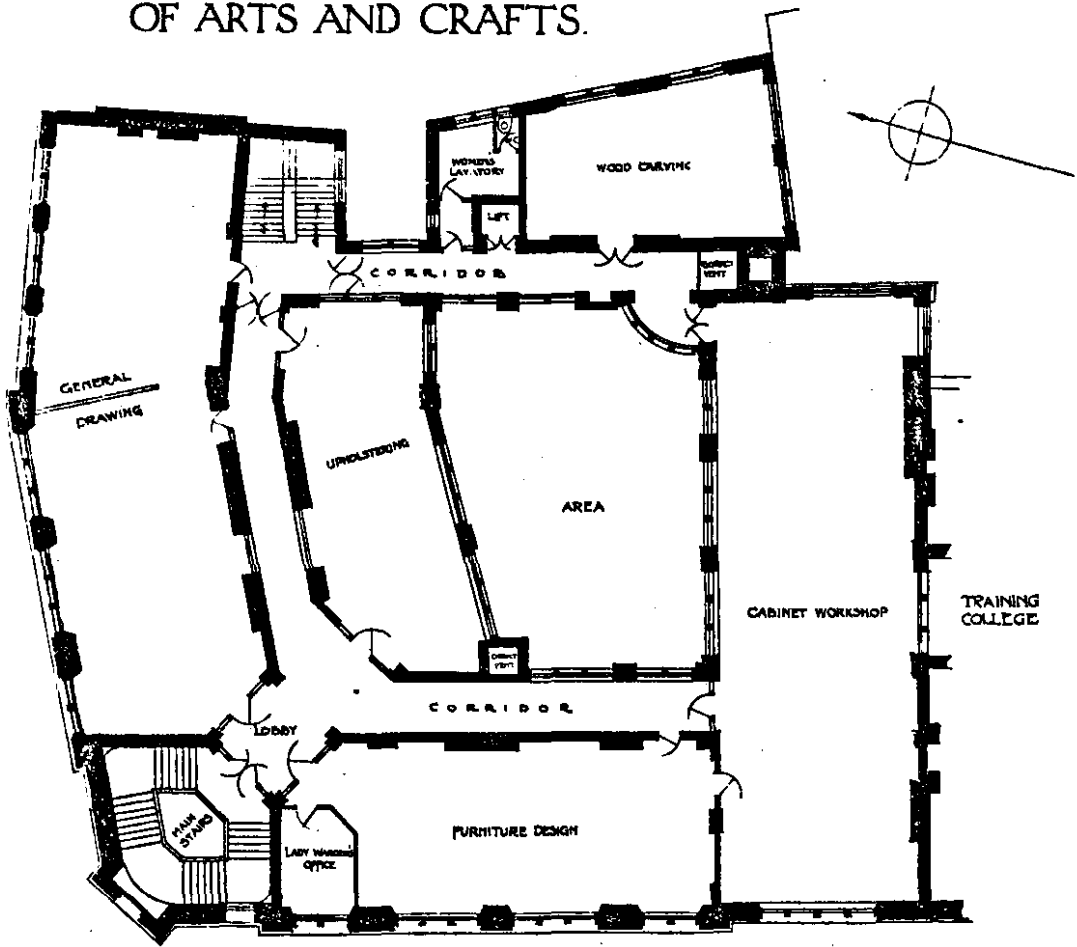
Hitherto school journeys have been conducted under Article 44 (g) of the Code, and children taking part in school journeys have been regarded as attending school. The Council is, however, advised that arrangements for school journeys fall more naturally within the scope of section 17 (c) of the Education 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.

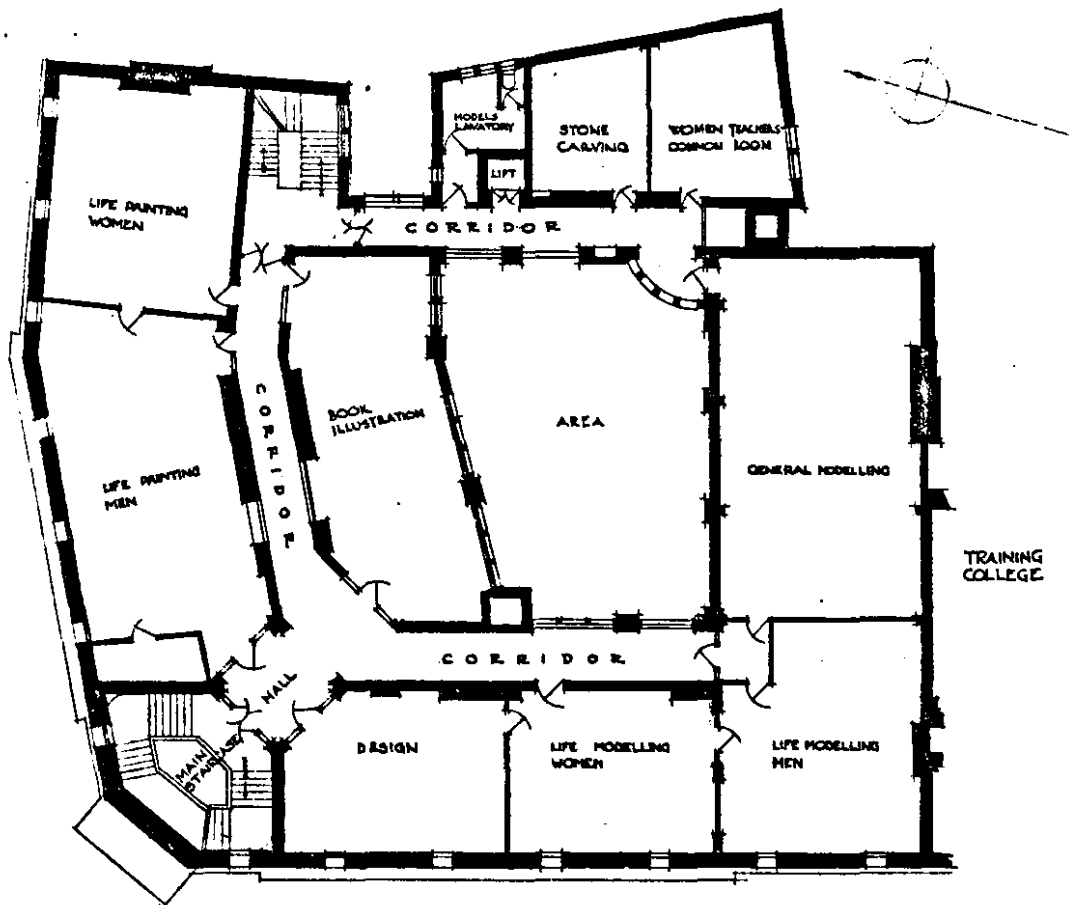
Organised games also form an important part of the physical education, and the Council's parks and open spaces, and the Royal parks and other London playing-fields, afford facilities for cricket, football, and other games, of which the fullest opportunity is taken. It is anticipated that the develop-

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SCALE OF FEET

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 (18,857)†	18,882	18,772 (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
TOTAL (other schools)	15,050	13,184	23,410	19,281
TOTAL (All schools)	33,365	32,066	42,182	36,741

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 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.

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.

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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



COUNTY[SECONDARY SCHOOL FOR GIRLS, LAURA PLACE, CLAPTON.

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
Totals (girls)	1,080	2,275

(iii) *Total for Boys and Girls.*

Accommodation for Boys	1,420	3,324
Accommodation for Girls	1,080	2,275
Total	2,500	5,599

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 of awards.	Proposed number of awards.
Trade scholarships for boys	263*	{ 1,200, plus 350 free places.
Trade scholarships for girls	324*	
Evening exhibitions	360	360
Senior technical scholarships	25 (science) 23 (art)	25 (science) 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 ... (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 ... (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. 0·3	d. 1·5	d. 3·0	d. 3·6	d. 3·9	d. 4·1	d. 4·4	d. 5·0	d. 6·0	d. 7·5	d. 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). C.M., 30th July, 1907 (pp. 393-397). C.M., 3rd December, 1907 (pp. 1254-1255). C.M., 31st March, 1908 (pp. 763-765). C.M., 14th April, 1908 (p. 905).
		Orders of Reference ...	C.M., 7th July, 1914 (p. 14). C.M., 15th October, 1918 (p. 866). C.M., 12th November, 1918 (p. 1039).
Standing Sub-Committees	...	Constitution and Orders of Reference	E.C., 20th April, 1910 (pp. 1458-1459). 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). C.M., 3rd February, 1920 (pp. 111-115). C.M., 2nd March, 1920 (pp. 322-324). C.M., 4th May, 1920 (pp. 903-904).
		"40 and 48" Scheme ...	C.M., 5th March, 1912 (pp. 502-506). C.M., 23rd July, 1912 (pp. 360-361). C.M., 6th May, 1913 (pp. 1048-1061). C.M., 26th May, 1914 (p. 1314). E.C., 30th June, 1915 (p. 819 and pp. 821-838). C.M., 18th May, 1915 (pp. 817-818). C.M., 30th March, 1920 (pp. 663-664).
		Central Schools ...	C.M., 1st March, 1910 (pp. 436-442). C.M., 27th April, 1920 (p. 759).
		Nursery Schools ...	C.M., 29th July, 1919 (p. 995). 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). 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). C.M., 19th December, 1919 (pp. 1726-1730).
		Teaching Staff, Scales of Salary ...	C.M., 14th May, 1918 (pp. 533-550). C.M., 22nd July, 1919 (pp. 930-941). C.M., 19th December, 1919 (pp. 1732-1735). C.M., 2nd March, 1920 (pp. 324-331). C.M., 15th June, 1920 (pp. 1116-1128).
Child Welfare and School Medical Work	...	Provision of Meals ...	C.M., 22nd December, 1908 (p. 1475). C.M., 17th November, 1914 (p. 781). C.M., 30th October, 1917 (p. 901).
		School Care Committees ...	C.M., 30th July, 1907 (p. 422). 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). C.M., 21st January, 1919 (pp. 8-9).
		Medical Treatment ...	C.M., 27th July, 1909 (pp. 353-356). E.C., 26th November, 1919 (pp. 831-838).
		Cleansing Scheme ...	C.M., 13th December, 1910 (pp. 1393-1394). C.M., 27th May, 1919 (p. 571).

Higher Education	...	...	Secondary Schools	...	...	C.M., 2nd March, 1920 (pp. 318-319). 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). C.M., 21st December, 1909 (pp. 1439-1440). C.M., 30th June, 1914 (pp. 1562-1563). E.C., 8th July, 1914 (pp. 72-74). C.M., 6th July, 1915 (pp. 6-7). 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). C.M., 30th-31st July, 1912 (pp. 666-672). E.C., 11th July, 1917 (pp. 401-410). C.M., 16th December, 1919 (p. 1639).
			Day Continuation Schools	...	...	C.M., 2nd March, 1920 (pp. 322-323). C.M., 16th March, 1920 (pp. 470-471 and pp. 474-477). C.M., 4th May 1920 (p. 888).
Miscellaneous	...	...	Special Trade Investigations	...	...	C.M., 27th-28th February, 1912 (pp. 444-445). C.M., 17th-18th December, 1912 (pp. 1591-1597). 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 emolu-

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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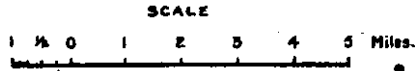
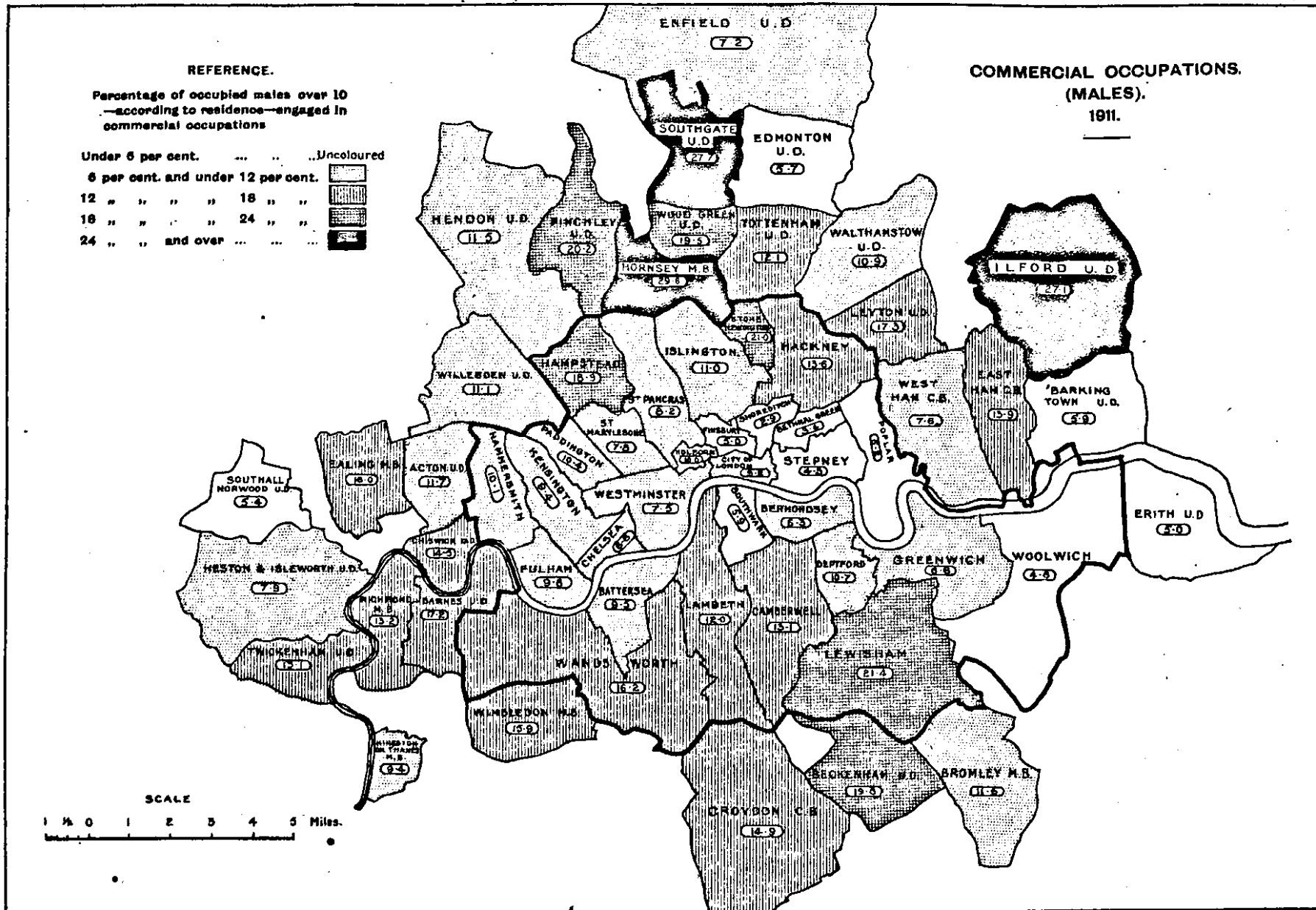
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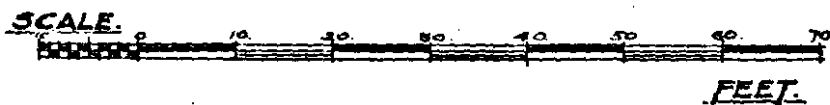
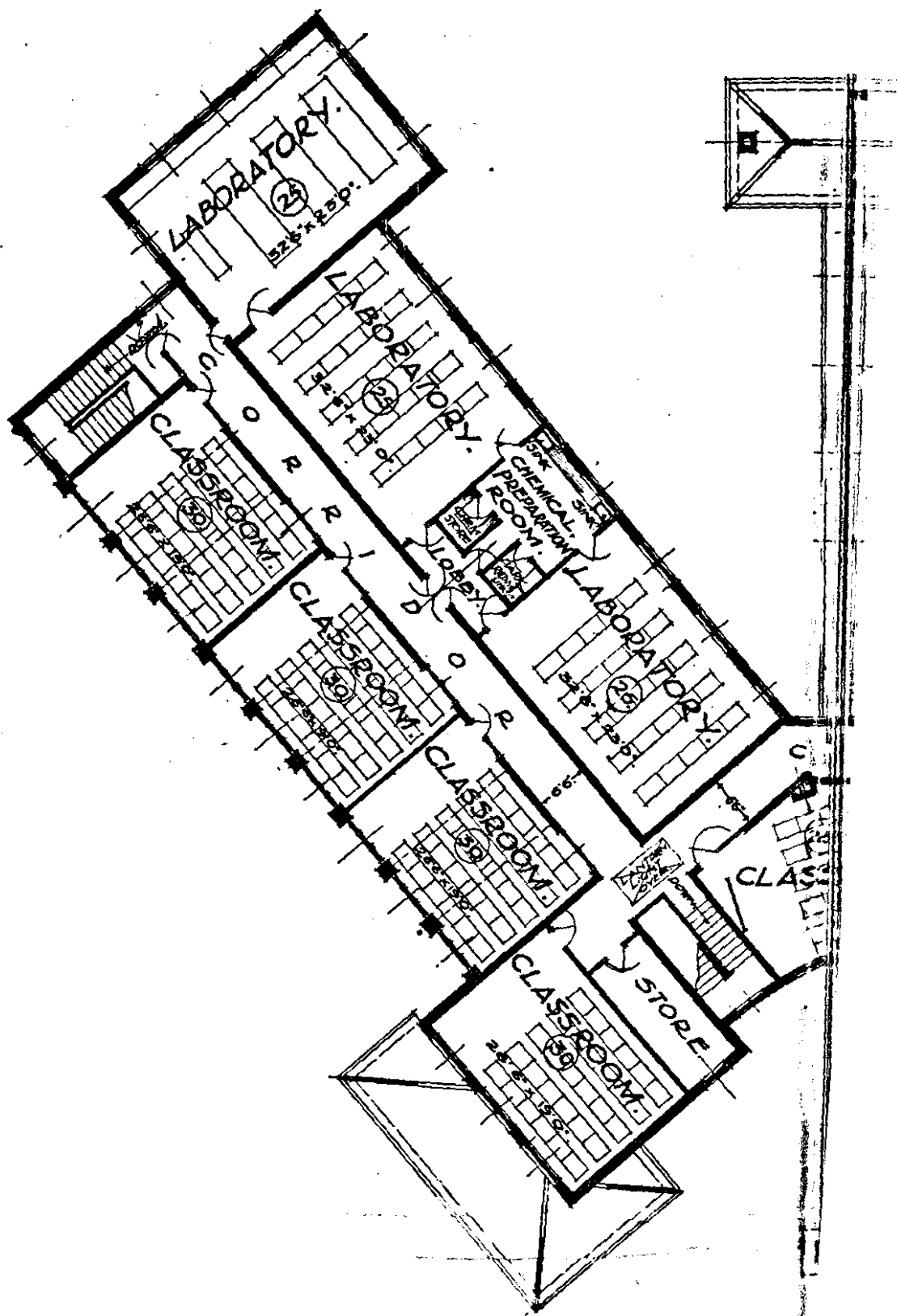
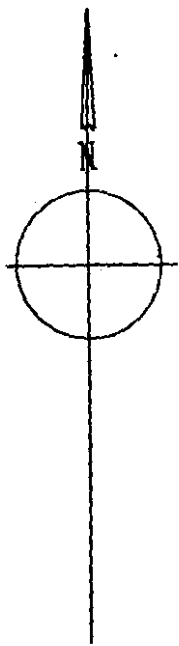
Percentage of occupied males over 10
—according to residence—engaged in
commercial occupations

Under 6 per cent.	Uncoloured
6 per cent. and under 12 per cent.	[Diagonal lines]
12 " " " 18 " "	[Cross-hatch]
18 " " " 24 " "	[Dense cross-hatch]
24 " " and over	[Solid black]

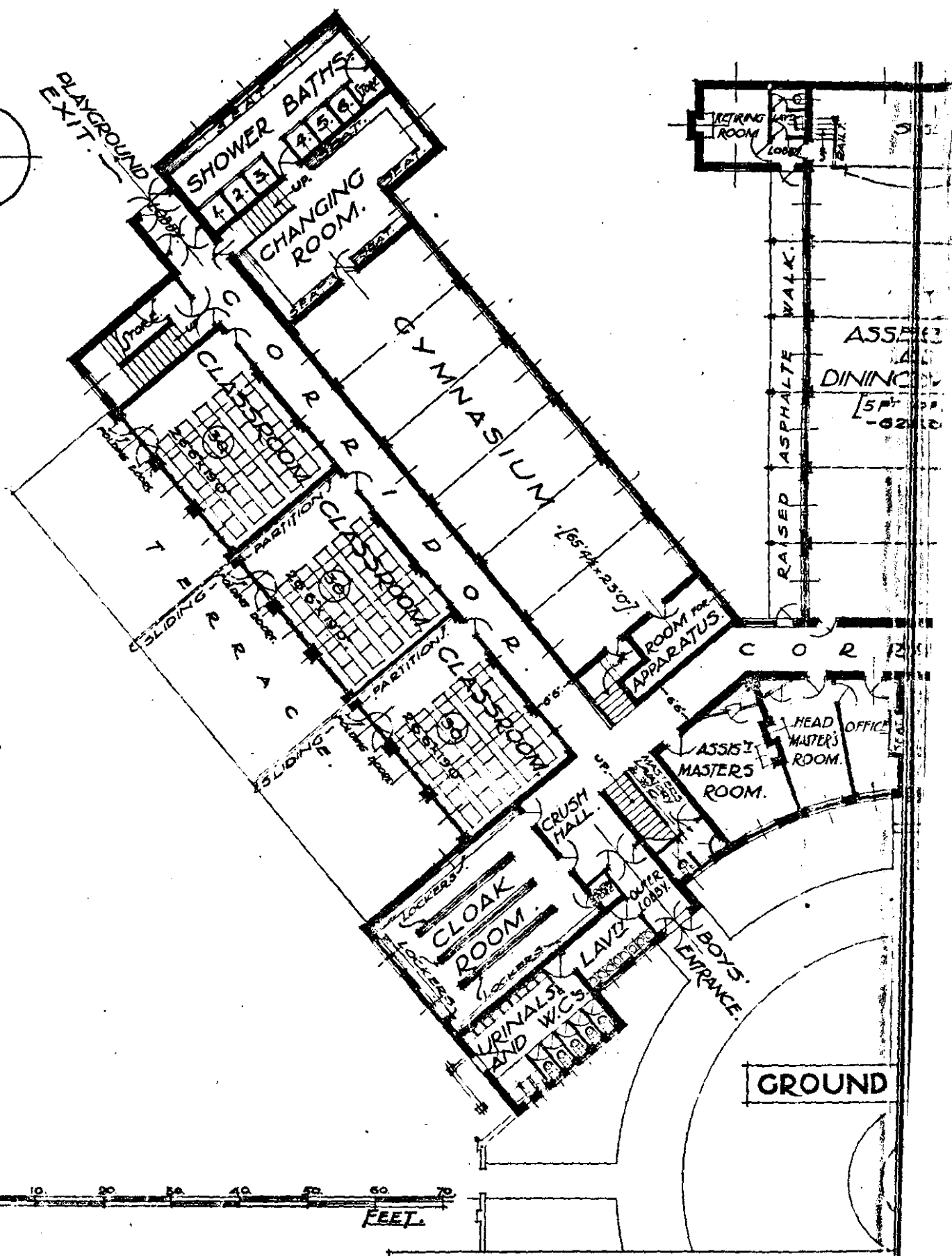
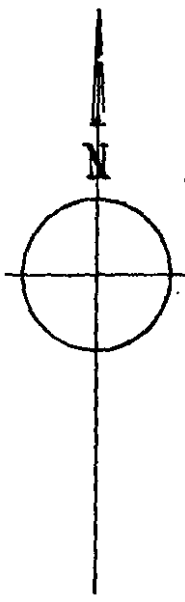
COMMERCIAL OCCUPATIONS.
(MALES).
1911.



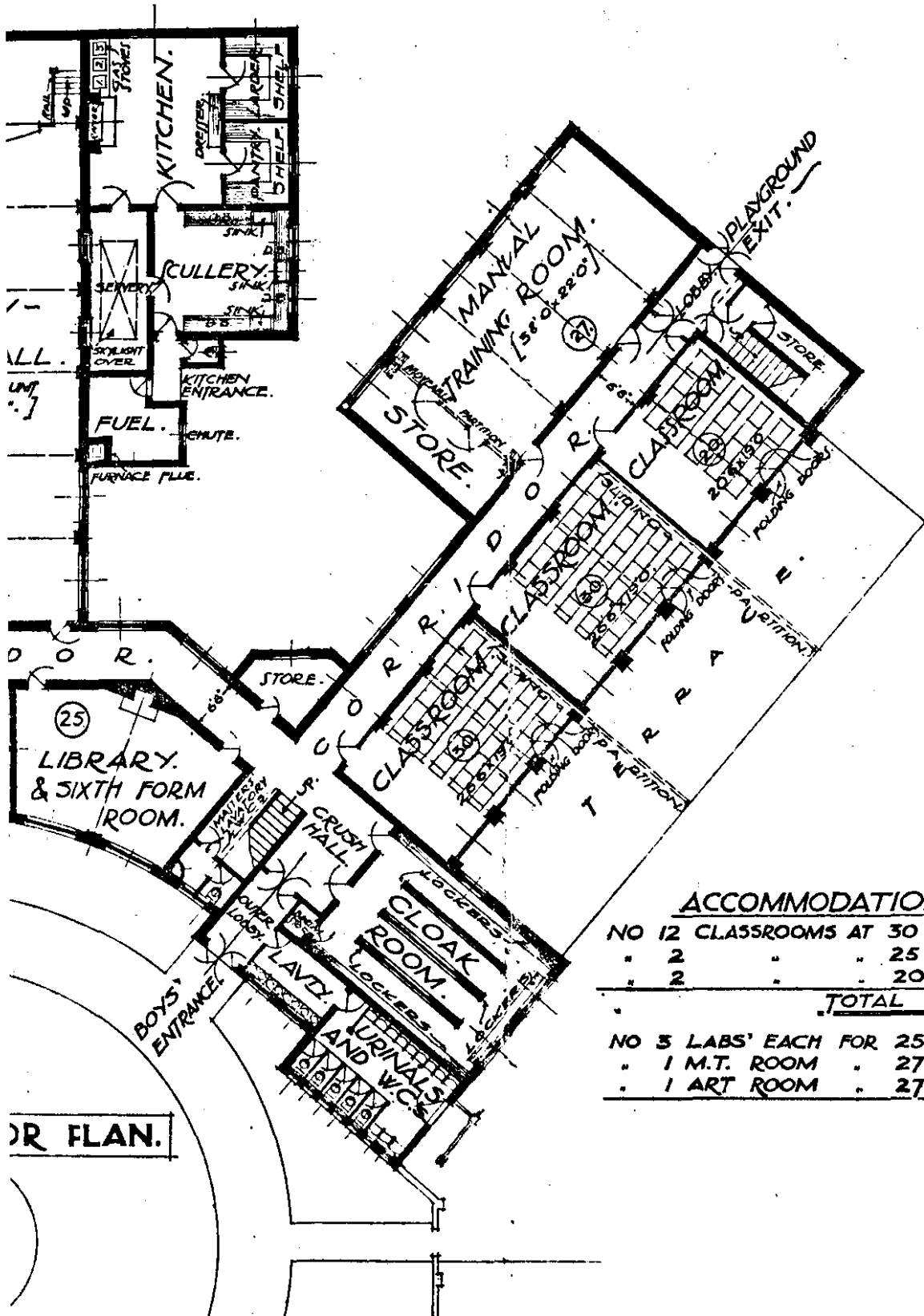
HARRISON & SONS, 17th ST MARTIN'S LANE, W.C.



	LONDO
	PROPOSED NEW
	DUCANE



LONDON CO
 PROPOSED NEW SECOND
 DUCANE ROAD



ACCOMMODATION.

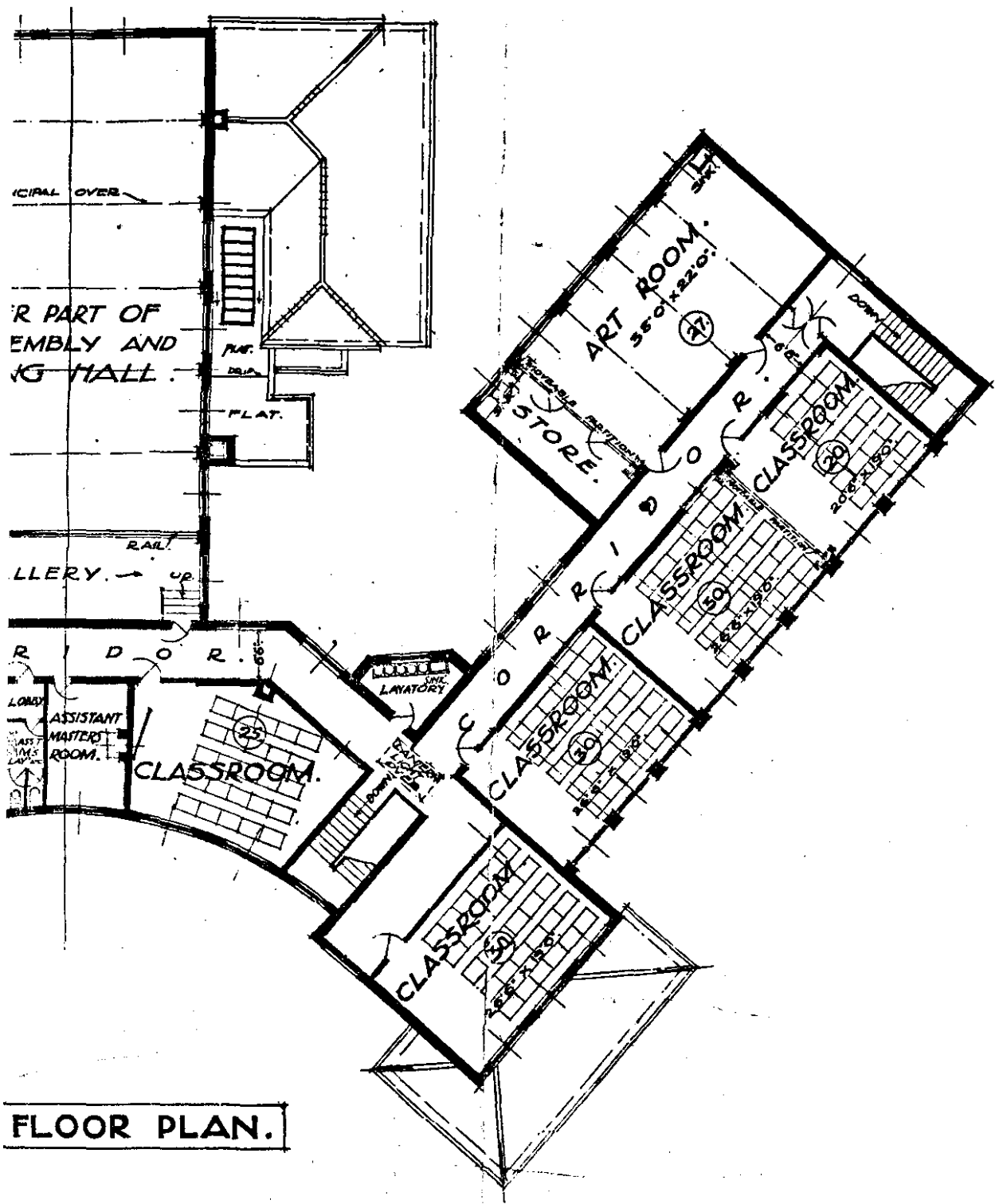
NO 12 CLASSROOMS AT 30 = 360 BOYS.
• 2 " " 25 = 50 "
• 2 " " 20 = 40 "
TOTAL = 450 BOYS.
NO 3 LABS EACH FOR 25 BOYS .
• 1 M.T. ROOM . 27 . .
• 1 ART ROOM . 27 . .

OR FLAN.

TY COUNCIL.

Y SCHOOL FOR BOYS,

AMERSMITH.



FLOOR PLAN.

COUNTY COUNCIL.
SECONDARY SCHOOL FOR BOYS.
WINDHAM, HAMMERSMITH.