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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to H one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Welbeck 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. School of Architecture, Manchester Municipal School of Art, All Saints, Manchester, 14	Ardwick 3480
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Welbeck 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 9, Conduit Street, W.1.	Mayfair 8641/6
BCC	British Colour Council. 28, Sackville Street, W.1.	Regent 3613
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 25, Victoria Street, S.W.1.	Abbey 5422-3
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGC	British Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
BGF	British Gas Federation. 1, Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	British Steelwork Association. Eggington House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSA	Building Societies Association 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CAS	County Architects Society. C/o A. Guy Chant, F.R.I.B.A. Salop County Council, 5, Belmont, Shrewsbury.	Shrewsbury 3031
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAD	Central Institute of Art and Design. 41, 42, Dover Street, W.1.	Regent 3074
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7. Zurich, Switzerland	
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee. MOW, 42, Onslow Gardens, S.W.7.	Kensington 7070
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUJC	Coal Utilization Joint Council. 54, Victoria Street, S.W.1.	Victoria 9851
DIA	Design and Industries Association. 9, Conduit Street, W.1.	Mayfair 5432
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
EC	Electricity Commission. Savoy Court, Strand, W.C.2.	Temple Bar 7565
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub Contractors. 21, Tothill Street, S.W.1.	Whitehall 9606
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	Flush Door Manufacturers Association. Stapleford Road, Trowell, Nottingham.	Ilkeston 623/4/5
FLD	Friends of the Lake District. Pennington House, Nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881

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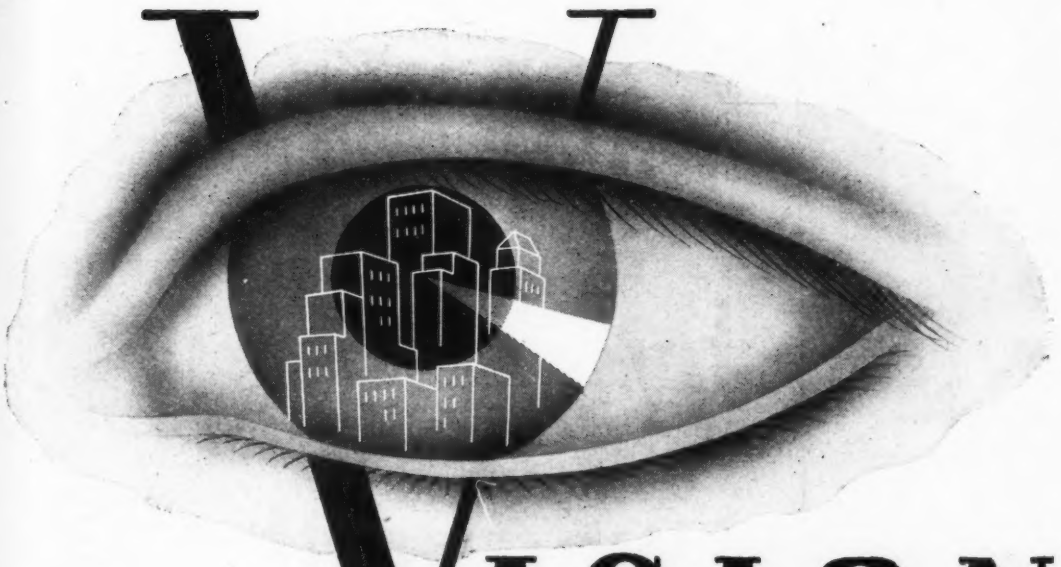

VISION

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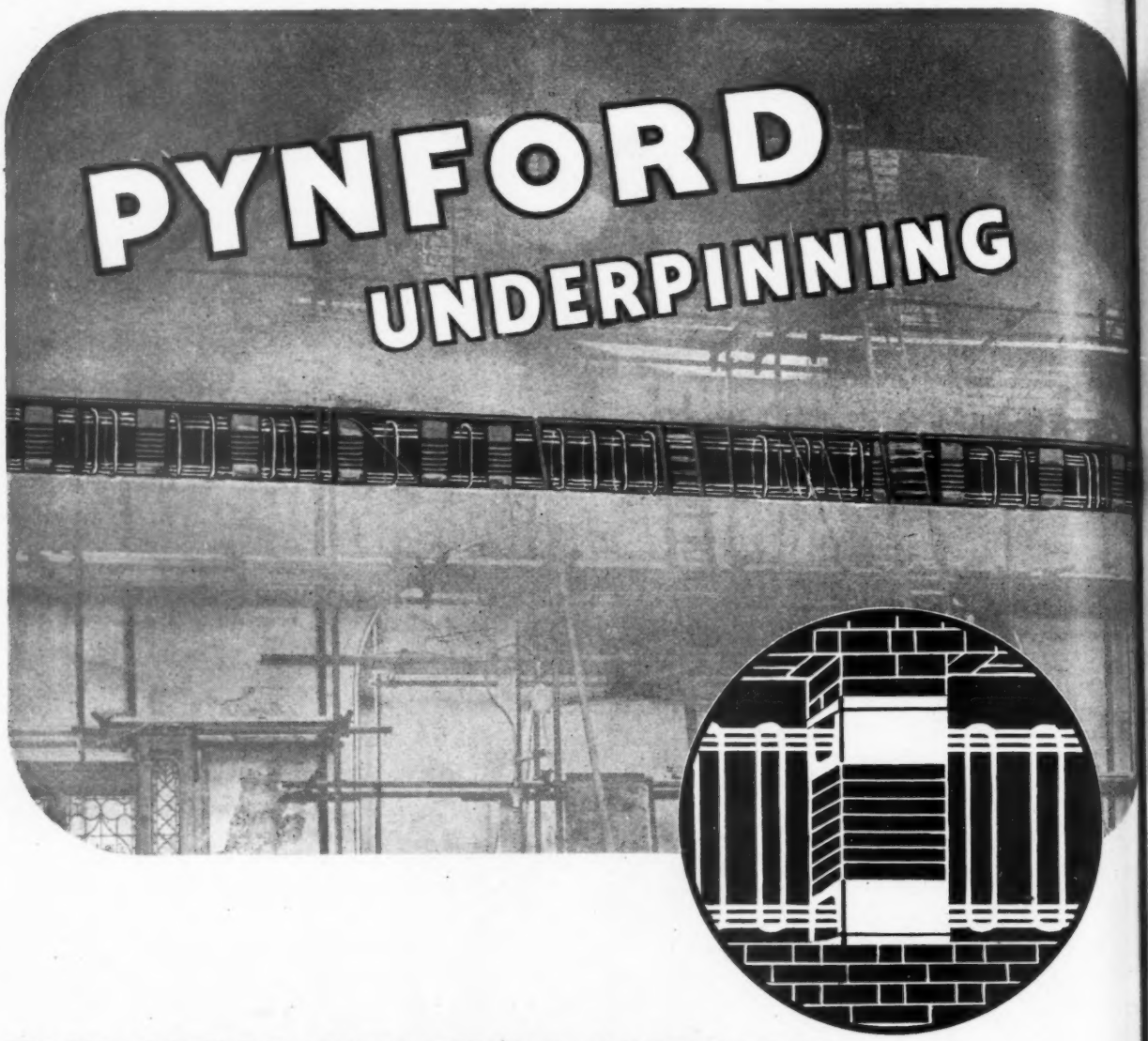

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THERMACOUST	The Cementation Co., Ltd., Thermacoust Dept., 39, Victoria Street, S.W.1. Telephone: Abbey 5726.
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POTTERY THROUGH THE AGES · NO. 9

Specially drawn by Gordon Nicoll, R.I.

PORCELAIN—THE GLORY OF CHINA

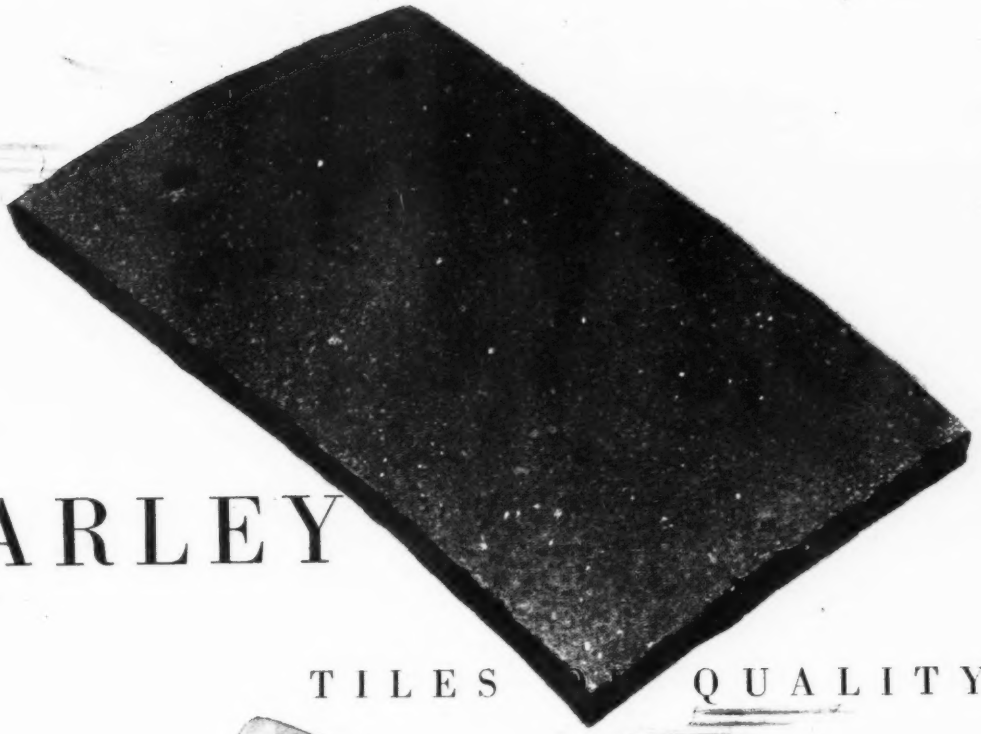
For several centuries after the fall of Rome, pottery making in Europe was at a low ebb. But in China a brilliant new era in ceramic history had already dawned—the inspiration of which has influenced potters throughout the world down to the present day.

Prehistoric painted pots made in the region of the Yellow River, some 5,000 years ago, had affinities with Indian and Mesopotamian wares. They left no lasting impression on the subsequent development of Chinese pottery. During the Bronze Age, Chinese wares, generally speaking, were technically inferior to those of Babylon, Egypt and Crete.

Then—perhaps in the 4th or 3rd century B.C.—came a development of unprecedented importance. Chinese potters learned to make a hard and resonant felspathic-glazed material, now known as stoneware. Its vitrified body was an outstanding improvement on earlier porous earthenwares, and the glaze was more intimately related to its body than any before produced.

The discovery of a white-burning clay which the Chinese called *kaolin* (china clay) and an excellent fusible material known as *petuntse* (china stone) made possible the gradual evolution, first, of porcellanous stoneware, and, then, of a pure creamy-white translucent porcelain. This development probably began during the Han Dynasty (206 B.C. to 220 A.D.) and by the end of the T'ang Dynasty (618 to 906 A.D.) the porcelain body had attained a wonderful degree of perfection. Technical discoveries of great importance were made—the benefit of long maturing of the clay in increasing plasticity; the influence of fine grinding; and the effect of firing at high temperatures.

Chinese craftsmen raised pottery-making to the status of a noble art, patronised by emperors and high officials who valued porcelain as highly as jade and precious metals. Many of the loveliest pieces were made for ornament only, but even those for daily use evidence a subtle appreciation of texture and colour as well as form. No pottery of any previous age had at its command so rich a palette of glazes or so wide a range of painting and decorative technique.



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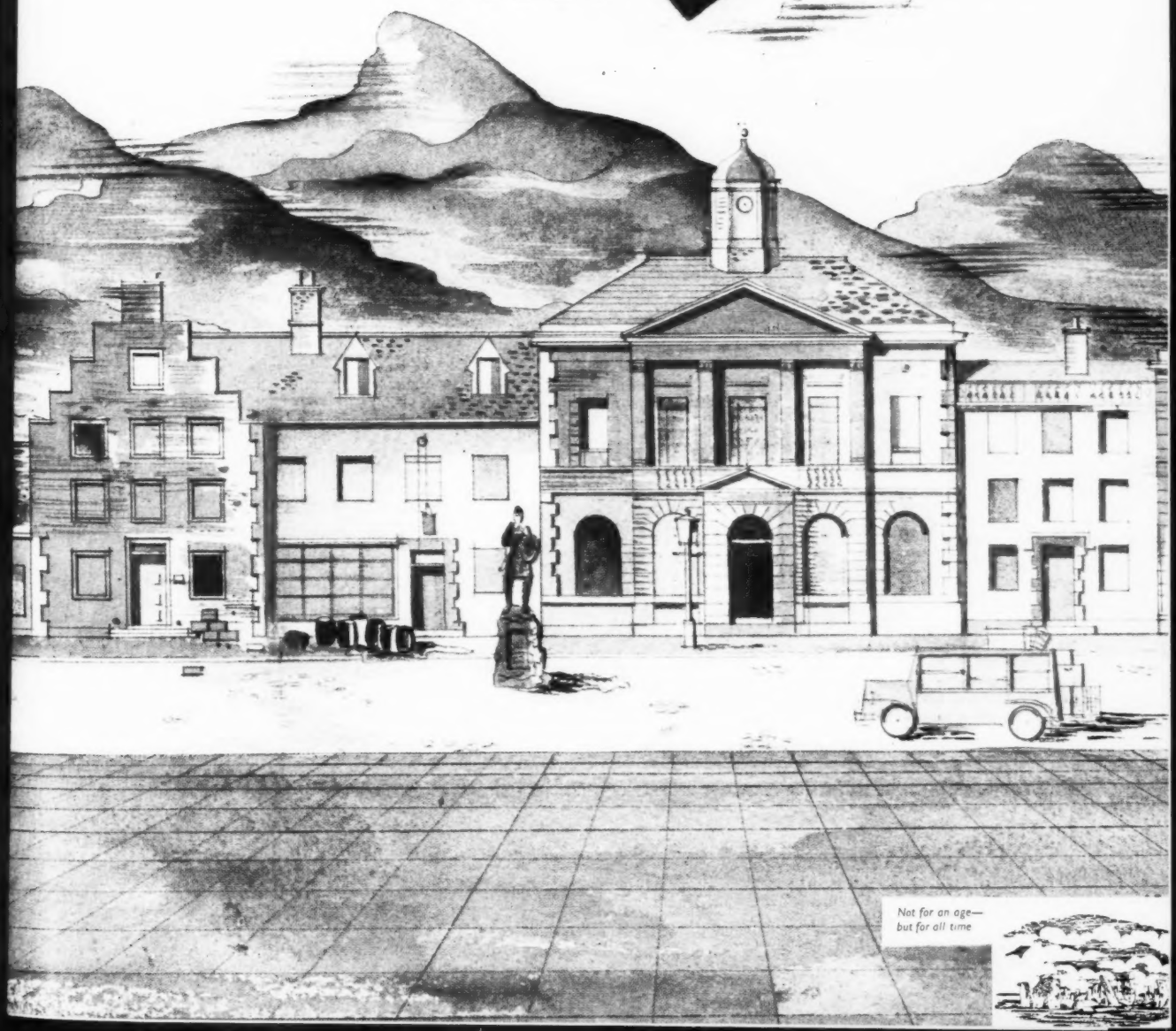
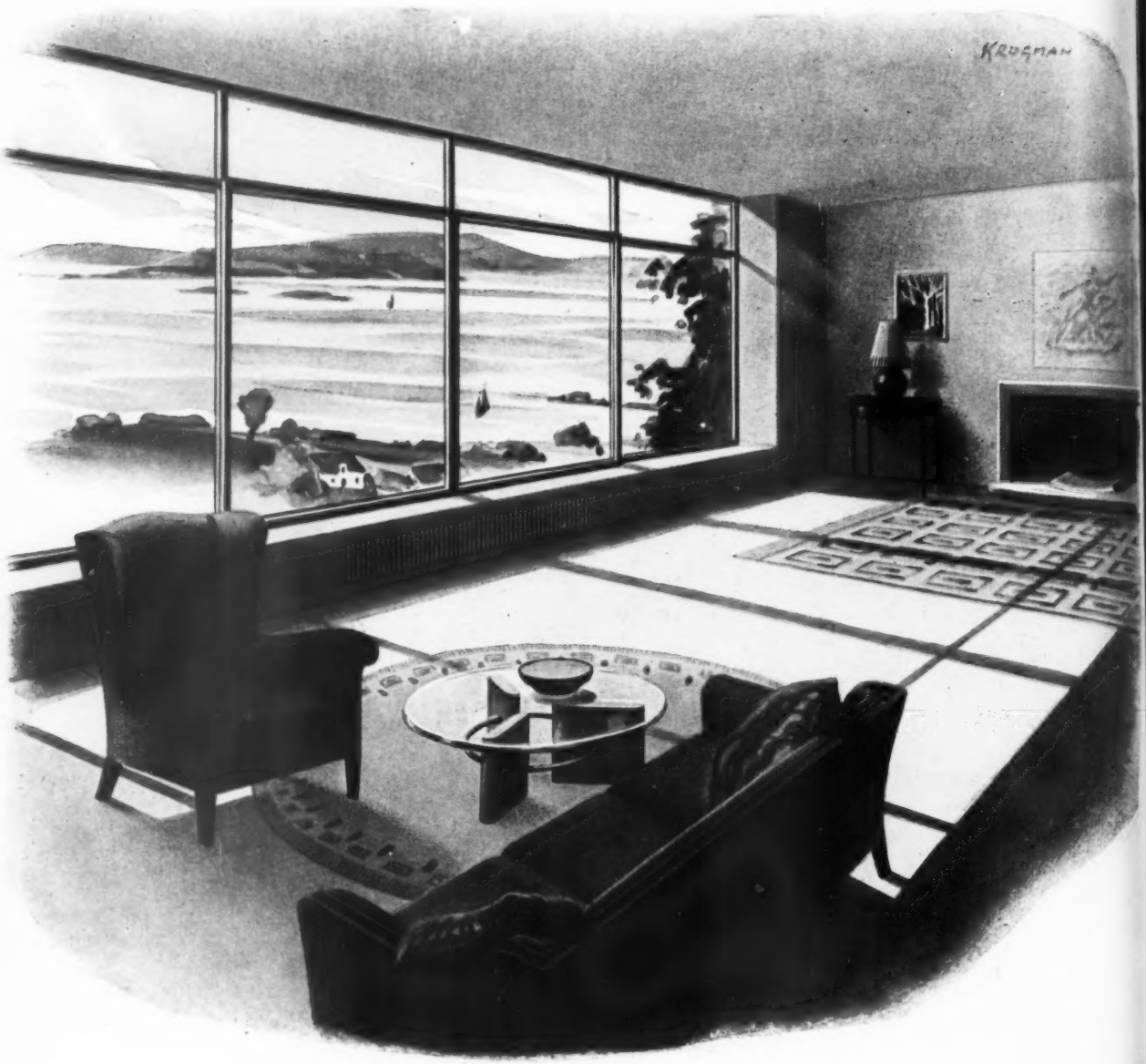


Not for an age—
but for all time



brighter outlook

FOR PEOPLE NEAR THE SEA

The phrase "bigger and better" has occasionally got into disrepute; but there are times when it really means improvement and not just enlargement. A bigger window, for example, does mean a better room behind it; a room intimately linked up with some pleasant outdoor scene—a secluded and gracious garden; a stretch of quiet country or a view of the sea. Such a window becomes a large glazed animated picture; and contemporary building technique allows the most generous expanse of polished plate glass to provide bigger and better windows.

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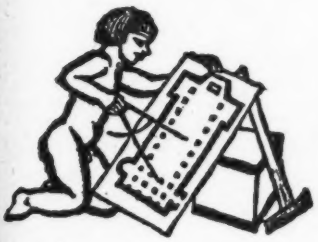


DIARY FOR OCTOBER NOVEMBER AND DECEMBER

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first. Sponsors are represented by the initials as given in the glossary of abbreviations on the front cover.

BRISTOL. *Building Science Exhibition.* At George Wills Museum. (Sponsor, DSIR.) OCT 20-NOV. 1

FOLKESTONE. *Fourth Building Congress.* At Leas Cliff Hall, Folkestone. (Sponsor, BINC.) Admission 1 guinea. Nov. 18 and 19

LONDON. *The Miner Comes to Town Exhibition.* At the COI Exhibition Centre, Marble Arch. There are nine sections dealing with all aspects of the mining industry. (Sponsor, COI for MFP and NCB.) UNTIL OCT. 23

Woman's Fair Exhibition. At Dorland Hall, Regent Street, S.W.1. (Sponsor, "Woman.") UNTIL NOV. 22

G. A. R. Sheppard. *Modern Trends in Waterworks Practice.* Bossom Gift Lecture. At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. (Sponsor, Chadwick Trustees.) 2.30 p.m. OCT. 18

Helping Young People to See. A conference on design for Youth Leaders and Teachers. At Brown's Hotel, Dover Street, W.1. The conference will include lectures, visits, discussions on content and method, and social functions. The resident fee, which includes a visit to the theatre, is £5 10s. 0d., and the non-resident fee is £2 10s. 0d. Copies of the programme and forms of application may be obtained from the DIA headquarters. (Sponsor, DIA.) OCT. 20-30

The Englishman's Home: A History of House Design. An Exhibition of posters designed to meet the needs of schools for illustrative material on housing and history. The Exhibition provides a rapid survey of the developments in the architecture of the Englishman's Home from the early primitive huts to the modern "prefab." At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) OCT. 20-NOV. 1

Major Manningham-Buller, M.P. *Country Planning.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) 1.15 p.m. OCT. 21

Dr. Joan Evans. *Huguenot Silver.* At the Courtauld Institute of Art, 20, Portman Square, W.1. (Sponsor, Courtauld Institute.) 5.30 p.m. 2s. OCT. 21

Architects' Working Drawings. An exhibition of drawings that a practising architect hands to a contractor. Drawings by Sir Patrick Abercrombie and Richard Nickson, Maxwell Fry, and R. H. Matthew, Architect to the LCC, are included. At the RIBA, 66, Portland Place. Students' Evening with exhibiting architects present to explain their drawings, 6.30 p.m., Oct. 29. (Sponsor, RIBA Board of Architectural Education.) 10 a.m. to 7 p.m. Saturdays, 10 a.m. to 5 p.m. OCT. 22-30

Charles Madge. *The Social Growth of a New Town.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) Buffet lunch, 12.35 p.m. Talk, 1.15 p.m. OCT. 23

*Visit to Tabard Gardens Estate, London County Council, Hankey Place, S.E.*1. Members of the Housing Centre to meet at the Superintendent's House at 2.30 p.m. A party will leave the Housing Centre, 13, Suffolk Street, S.W.1, and travel by Underground at 2 p.m. Booking fee 1s. per head (2s. per head for non-members). Nearest station—Borough. Tabard Gardens Estate is one of the LCC flat dwelling estates built between the wars for slum clearance. The tour will be conducted round the estate by Miss Margaret MacKenzie, who has managed it for a number of years. (Sponsor, HC.) OCT. 23

Course of Lectures. School Planning and Construction. At the RIBA, 66, Portland Place, W.1. The course will be open to members of the RIBA and of allied Societies and, in addition, the Clerks to Local Authorities will be invited to nominate professional representatives to attend. (Sponsor, RIBA.) OCT. 23-25

Curtains and Murals, designed by Michael O'Connell for Industrial Canteens and Small Theatres. At Heal's, 196, Tottenham Court Road, W.1. UNTIL OCT. 31

MANCHESTER. *Regional Building in America.* Exhibition prepared by the Museum of Modern Art, New York. At the Municipal School of Art, Cavendish Street, All Saints, Manchester, 15. (Sponsor, Arts Council.) UNTIL OCT. 28

TONBRIDGE. *Exhibition of Work by Planning Students of The Polytechnic, Regent Street.* Some individual studies based upon the results of the Planning Survey of the Tonbridge and District Joint Planning Committee area, carried out by the Diploma Year students of Planning, are included, together with additional survey material loaned by the Tonbridge and District Joint Planning Committee. At Tonbridge School. (Sponsor, The Polytechnic School of Architecture, Regent Street.) Monday, Wednesday and Friday, 2-4 p.m. Tuesday, Thursday and Saturday, 2-6 p.m. OCT. 27-NOV. 1

NEWS

THURSDAY, October 16, 1947
No. 2749 VOL. 106

Though no feature in the JOURNAL *is without value for someone, there are often good reasons why certain news calls for special emphasis. The* JOURNAL'S *starring system is designed to give this emphasis, but without prejudice to the unstarred items which are often no less important.*

★ *means spare a second for this, it will probably be worth it.*

★★ *means important news, for reasons which may or may not be obvious.*

Any feature marked with more than two stars is very big building news indeed.

★

The General Council of the Trades Union Congress is holding a COMPETITION for designs for a New Memorial Building to be erected in Great Russell Street, London.

Architects of British nationality, or architects resident in this country, are invited to submit designs in competition for the Trades Union Congress Memorial Building to be erected in Great Russell Street, London. The Assessor is Sir Percy Thomas, P.P.R.I.B.A. The premiums are £2,000, £1,000, and £500. The last day for receiving designs is May 31, 1948, and the last day for questions is December 1, 1947. Conditions and plan of site may be obtained on application to the General Secretary, Trades Union Congress, Transport House, Smith Square, London, S.W.1, on payment of a deposit of two guineas, which will be refunded on receipt of a bona fide design or upon the return of the Conditions within one month after the receipt of Answers to Questions.

From AN ARCHITECT'S *Commonplace Book*

ART AND NATURE. [*From* Concerning the Spiritual in Art, *by Wassily Kandinsky* (*Wittenborn, Schultz, Inc., New York*).] That art stands above nature is no new discovery. New principles do not fall gratuitously from the sky, but are causally connected with the past and future. What is important to us is the transitory position of the principle and the way in which it can best be used. It must not be forced. But if the artist tunes his character to this note, the sound will reverberate in his work. The " emancipation " of to-day must advance in terms of internal necessity, which is the origin of the objective in art. Natural forms make boundaries which often are impediments to this expression. Thus they must be set aside and the freed space be used for the objective side of the form—construction for the purpose of composition. This explains the obvious trend of to-day which seeks to develop the constructive forms of the epoch. Cubism, as a transitory form, demonstrates how natural forms are subordinated to constructive purposes and what unessential hindrances these realistic forms are. A transition is cubism, in which natural form, by being forcibly subjected to constructional ends, becomes an impediment.

★

The RIBA has issued the following statement on the GOVERNMENT FURTHER EDUCATION AND TRAINING SCHEME.

The RIBA has been informed by the Ministry of Labour and National Service Appointments Department that, with certain exceptions, the benefits of the Government Further Education and Training Scheme will *not* be available to men who began their period of National Service under the National Service Acts after September 30, 1947. Certain other amendments and alterations have also been made to the provisions of the Scheme. The various amendments involved are set out in the revised leaflet P.L. 120, copies of which may be obtained from the Ministry of Labour and National Service or its Regional Appointments Offices.

Mr. Harry G. Speakman, A.R.I.B.A., A.M.T.P.I., has been APPOINTED SENIOR ARCHITECT on the staff of the States Engineer, Guernsey.

From 1936 he was on the staff of the Miners' Welfare Commission and from 1943 served in the Fleet Air Arm as Sub-Lieutenant, RNVR.

A preliminary announcement has been made by the Central Institute of Art and Design concerning an INN CRAFTS EXHIBITION to be held next year.

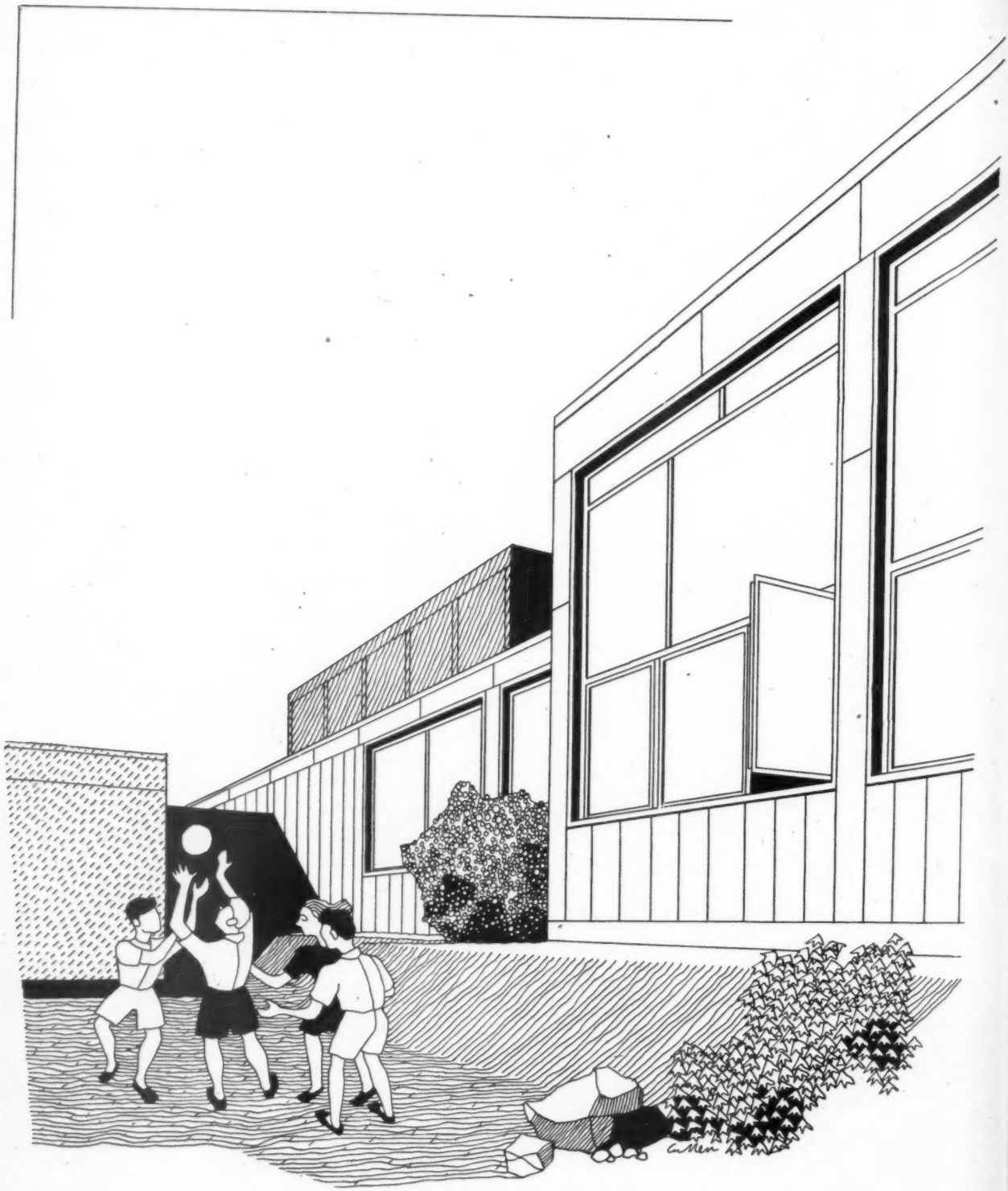
The exhibition is being organised for the Brewers' Society by the Central Institute of Art and Design in co-operation with the Arts and Crafts Exhibition Society, the Art Workers' Guild, the Red Rose Guild of Craftsmen and the Rural Industries' Bureau. The work shown will be divided broadly into two groups:—Group 1: work commissioned by individual brewers or by the committee of the exhibition, such work to remain the property either of the brewers concerned or of the Brewers' Society after the exhibition is over. The commissioning of this will be in the hands of special committees, who will approach the appropriate individual craftsmen as occasion arises; Group 2: work done independently of commissions and submitted for display. A number of prizes, totalling £1,000 are being offered by the Brewers' Society. All work exhibited will be eligible for a system of awards or diplomas. All work submitted for the exhibition (whether commissioned or not) will come before appropriate selection committees, and only work approved by them will be exhibited. Further particulars can be obtained from the Central Institute of Art and Design, 41-42, Dover Street, London, W.1.

★

Sir Patrick Abercrombie's proposals for the REPLANNING OF EDINBURGH provide for major alterations in the city's road and rail systems and a gradual redistribution of population within the present boundaries.

The most spectacular changes affect the central area of the city. Princes Street would become a two-decker street with a dual carriageway below the present thoroughfare, and Waverley Station would be reduced to the status of a local terminal. All long-distance rail traffic would be transferred to a new combined station in Morrison Street. This would be a two-decker structure with LMS traffic on the top level and LNER through-traffic on the lower one. The electrification of the line through Princes Street Gardens is also foreseen, so that ultimately the cutting may become a tunnel. These and other modifications of the existing rail network are closely related to a larger plan for the rapid handling of coal and freight traffic —output from the Midlothian mines, most of which lie to the east of the city. A new layout for Leith has been designed to provide new sites for factories and warehouses near the docks, and to reserve the dockside and central areas exclusively for industry and commerce. Recommendations are also to be made for the architectural treatment of Princes Street and the rehabilitation of the Royal Mile, the latter involving the transference of industry from the vicinity of Holyroodhouse to Abbeyhill.

Following up the Department of Health for Scotland's Section " Scotland Tomorrow " as the tailpiece in the Enterprise Scotland Exhibition, was the " Scotland Tomorrow " Planning Congress, 1947, held in Edinburgh from October 3-6. Papers were read by Professor Holford, Maxwell Fry, Sir Frank Mears, Professor Dudok, C. L. Pepler and Professor Abercrombie. From left to right, S. A. Findlay, James Macaulay, Professor Holford, Lt.-Colonel A. H. Hill, J. T. Middleton and Professor de Cler, of Holland, after one of the meetings.



Jobs in the Making : A Hertfordshire School

To fulfil the demands of the Education Act of 1944, in spite of contemporary difficulties of labour and materials, Mr. Aslin, the County Architect, with his assistants, have devised a flexible system of building with factory-produced components. On pages 339-347 a contribution from the County Architect's Department discusses the problems that have been encountered and the solutions devised for them. Those attending the course at the RIBA beginning next week will find this material of value. The school above is to be built at Croxley Green.

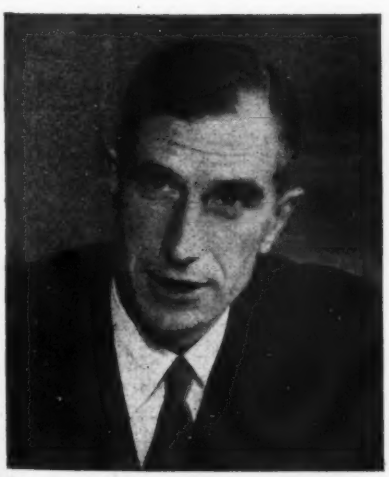
As part of a scheme for the MODERNISATION of LIME STREET STATION, Liverpool, work has begun on the lengthening of five of the eleven platforms in order to accommodate longer trains.
In addition to lengthening the platforms, a new signal box with a 95-lever power frame, controlling all points and signals in the station area, is to be provided. The scheme is expected to be completed during 1948.

★

The Minister of Works, Mr. Charles W. Key, M.P., is to open the 21st Biennial BUILDING EXHIBITION at Olympia, London, at 3 p.m. on Wednesday, November 19.
Sir Lancelot Keay, P.R.I.B.A., Chairman of the Exhibition, will take the chair. Sir Giles G. Scott will propose a vote of thanks to the opener; the seconder will be Sir Harry R. Selley, J.P., President of the Federation of Master Builders. Great interest in the Exhibition has been expressed from overseas, particularly from Denmark, Sweden, Norway, Switzerland, Portugal, Brazil, France, USA, Australia, New Zealand and East Africa. The London Master Builders' Association, which is this year celebrating its 75th birthday, is to have a club room at the Exhibition designed by Mr. H. Warren Wilson, lecturer in decoration at University College, who was for many years adviser to the Department of Overseas Trade. The Exhibition will remain open until Thursday, December 4.

★

Among changes made by the Prime Minister in reconstructing the Government is the APPOINTMENT of MR. EVELYN MANSFIELD KING, M.A. as Parliamentary Secretary to the Ministry of Town and Country Planning.
Aged 40, Mr. King was educated at Cheltenham College and King's College, Cambridge. Before entering Parliament in 1945 as Labour Member for the Penryn and Falmouth Division of Cornwall, he was Headmaster of Clayesmore School, Dorset, for ten years, and is now Warden of the School. He held the rank of Lt.-Colonel in the recent war. He replaces Mr. Fred Marshall.



Mr. E. M. King, the new Parliamentary Secretary to the Ministry of Town and Country Planning. See news item.

BUILDING FOR EDUCATION

IN the leading article in this Journal on December 5, 1946, we said in discussing the *Report of the Committee on School Sites and Buildings*, " With the present urgent need [for school buildings] there will be a tendency for the architects to Education Authorities to look to standardized solutions to get them out of their difficulties." The work of the County Architect's Department of the Herts. County Council illustrated and described in this issue of the Journal, suggests that in the case of one Education Authority at least our fears have not been justified.

Next week, many architects and others concerned with the designing of schools will gather at the RIBA to receive help and information from those experienced in this field. The experiences in Hertfordshire are relevant.

The Education Act of 1944 changed fundamentally the responsibilities of the Local Authorities with regard to education. Mr. Newsom, the Education Officer for Hertfordshire, himself has said " The basic importance of the 1944 Education Act is not so much in its detailed provisions as in its crystallisation of the changing attitude towards education of the majority which has been going on for the last 25 years. Until the last decade, the majority of schools were not designed to meet the needs of children as children, but to provide the minimum space required to give them a basic instruction in the Three R's. The national system of education was largely under the direction and control of people who did not send their own children into its schools and were themselves educated elsewhere. This situation is changing fast and there is already hope that the national system of education will really become national."

With this idea the County Architect got together a team of architects, surveyors, quantity surveyors, engineers and with the collaboration of the Education Officer set about the task of fulfilling the requirements of the Act in terms of buildings. The details of this achievement are dealt with elsewhere in this Journal. There are, however, some general lessons to be derived from the experience that will be of value to all Local Authorities responsible for administering the Act. First, it is obvious that some success has been achieved because the County Architect took his Department fully into his confidence, and throughout, all those who have been engaged on the design and planning work, have been regarded as colleagues and fellow labourers and not, as is so often the case, as mere stooges.

This attitude has resulted in great enthusiasm being aroused and consequently good work was possible, everybody giving his best, because his contribution was regarded as valuable as that of other members of the team.

Then, the aim of the architects was to produce, not a rubber stamp solution, but a working method that would enable schools appropriate to the educational requirements and to the special characteristics of the site to be erected with speed, economy and architectural quality. The result

is anything but a standard school, and it is hoped indeed to introduce variations into the design of the teaching space. A long way this from the " Standard " school.

Next, the idea of a flexible long-term progressive programme, though of course not new, has been applied to the particular problem with special thoroughness. With this programme it has been possible to achieve priority arrangements for materials with the Ministry of Education, so that there is some hope of the rhythm of construction being maintained, unless there are to be heavy cuts in the allocation of labour and materials to schools in the future.

While not perfect, the work of the Hertfordshire team shows that progress is possible even within the limitations of local authorities, provided genuine team work can be achieved and the architect is given undivided responsibility.

The Architects' Journal

9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1

Phone: Whitehall 0611

NOTES & TOPICS

HIRING AND FIRING

The new Control of Engagement Order is now in force. It has little to do, as the innocent might think, with any of the preliminaries to marriage. It is intended to facilitate the persuasion or inducement of those seeking employment towards, or into, occupational activities more conducive to a solution of the present national need than those which they might otherwise find if left to themselves (if only one could write official language as well as officials do). So far as the profession is concerned, it creates quite a barrier. An architect working in a professional and independent capacity is not liable to direction. An architectural draughtsman is.

*

In short, an architect may get a new job for himself. He cannot advertise for a draughtsman—or, indeed, for any clerical labour—but must ask his local employment exchange if they have anyone whom they can send, and if they are willing to send him. If by any chance he encounters a man asking for a job he must obtain the approval of the exchange before he can engage him (unless, that is, the man already possesses a permit allowing him to look for work unaided).

*

Thus life progresses. No one could say that the profession has yet been encouraged to set about a job that, two years ago, looked quite urgent. Housing is still the prerogative of the local authority. Vast areas lie awaiting reconstruction, and what they need more at the moment is a landscape gardener. All the average architect is left with is time to draw the plans of what he would like to do some day. And now he will find it even harder to get a draughtsman to copy them. There is a lot to be said for farming.

JOHN DOWER

In any profession there are only a few men whose interests range well beyond the profession's usual boundaries and who achieve distinction outside those boundaries. Among architects, John Dower was a notable example.

Dower became an architect after taking first-class honours at Cambridge. He was always a great country walker and this led both to professional work for the Youth Hostels Association and to an interest in all problems of access to the countryside and wild places which culminated in his work on National Parks. But these things were only one of his interests, though possibly the greatest. Dower became a member of the TPI and collaborated with Mr. Harding Thompson on several planning reports; he was one of the earliest members of PEP and took part in the preparation of the PEP reports on housing, location of industry and agriculture; and he was secretary of the pre-war Air Ministry, TPI and RIBA committee which made a detailed review of the siting requirements of aerodromes.

*

When war came, Dower joined the RE's and should no doubt have taken things very easily when ill-health compelled him to leave the Army. But no one who knew Dower can imagine his taking things easily. He joined the Ministry of Works and Planning and when MOTCP was set up, he became head of the National Park side of its work and toured all areas proposed as parks. In 1945 he produced the report which bears his name.

RADIOLYMPIA

Having unavoidably missed the Press view day, I had to go to Radiolympia in the ordinary way like anybody else, and, even if the crowd was too big to be able to see or hear anything, it seemed to enjoy milling around fiddling with knobs as though it were the motor show.

*

Display was pretty uneven, and varied from pure Corinthian classic to mannered modern. A standardised tubular mast with a name-bearing pennant for each stand was probably a good idea, but there were too many strident attempts to catch the eye on individual stands.

*

So far as the sets were concerned (any price up to about £500) there were few designs not already announced. Eight years ago, when the last Exhibition was held, there were a few good designs with the rest nowhere. To-day

there are quite a lot of good ones, the general level is adequate, and there are hardly any real mistakes. The radiogram-cum-cocktail cabinet designed as a Sheraton sideboard has almost (but not quite) disappeared.

THE TWO SIDES OF PLANNING

The appointment of Mr. S. L. G. Beaufoy as Director of Technical Services at the Ministry of Town and Country Planning suggests some gathering of forces for two formidable jobs—the administration of the new Act, and ensuring that planning under the Act fits in smoothly with the other forms of planning which are now in the headlines every other day. The two jobs can of course be held to be all one, but for many purposes it is simple to regard them as separate.

*

The 1947 Town and Country Planning Act contains all that pre-war town planners could have wished for, but its 120 sections and 11 schedules deal almost exclusively with things that follow the preparation of a development plan—with land acquisition, development control, compensation and so on. Only in its reference to the survey that must precede the plan does it hint at the problems of the location of industry and other development that must be solved in common by the economic planners, MOTCP and the planning authorities before the plans of the new Act are approved.

*

Since the war ended there has been a great deal of Government guidance of the location of new industry, and immediate and short-term needs have necessarily played a large part in decisions. This guidance is likely to continue, but the probable big cut in new building during the next two or three years should mean that planners (of both kinds) will have time to think more about the long-term effects of proposed schemes. One may hope that in doing so they will all come to agree that economic and physical planning are the two sides of the same coin, and find ways to put this agreement into practice in the preparation of the new development plans for every county and city.

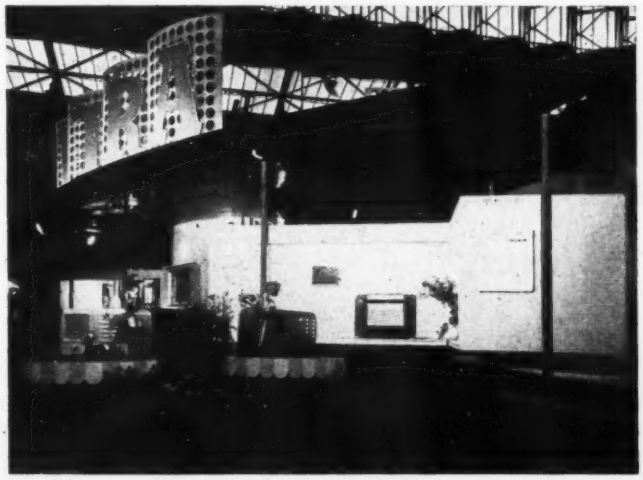
THE LITERATURE WE DESERVE?

In his letter to last week's *AJ* Mr. Grey Wornum made a good point when he stressed the irritation which we often feel in trying to extract from some manufacturer's catalogue or ad. man's omelette, the essential particulars of the product we want to specify. As Grey Wornum succinctly put it, "*such publications, beyond a notification of manufacture, merely incur a most tiresome follow-up for the obtaining of the really essential data.*"

*

Surely we all know how infinitely more useful is a clear straightforward summary of facts compared with the ubiquitous three-colour half-tone ballyhoo. Why is it then that so many manufacturers still continue to issue such stuff? Or have I got it all wrong? Do the majority of architects really like such dope or, more possibly, is it that they just don't care a tinker's cuss either way, and therefore get the literature they deserve?

ASTRAGAL



The stand for Ultra Radio, designed by Design Research Unit (Robert Gutman, consultant Misha Black). See Astragal's note opposite.

LETTERS

Richard Butterworth, A.R.I.B.A.

The New Library of Information Sheets

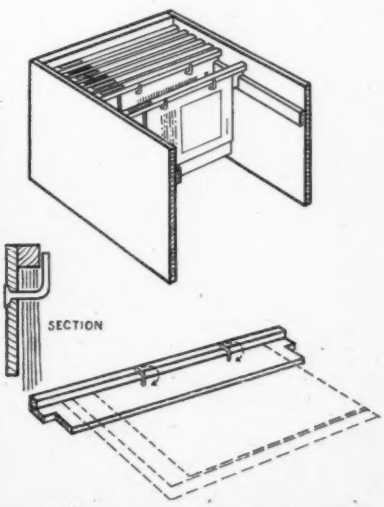
SIR,—After reading your recent references to the filing of information I thought that you might be interested in an easily and cheaply made system which I have found most useful.

Each group of magazine pages, leaflet, etc., hangs from a holder which rests on ledges fixed to the sides of a box or drawer. Each holder is made from a piece of wood about 17 in. x 2½ in. x $\frac{3}{16}$ in. (cut from an orange box) shaped as shown and having a strip ¼ in. to ½ in. deep glued along the top edge. The hooks are made from 2 in. nails bent to a right angle, cut off short and pushed through countersunk holes in the wood. The hooks are turned down to put on the sheets, each punched with two holes. By turning back the hooks the sheets are secured. The backs of the files for each group of subjects are painted a distinctive colour and have a typed label stuck on. In this way it is possible to find any file at a glance, even if it is out of place.

I find that this system always remains tidy and keeps the sheets flat, whereas the more usual folders soon become shabby, the name tags get bent down or torn off and if several files are taken out at one time the remainder collapse and the sheets are damaged.

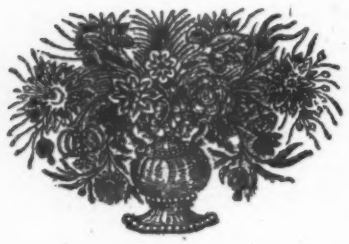
RICHARD BUTTERWORTH, A.R.I.B.A.

London



A filing system for Information Sheets. See letter from Richard Butterworth.

Ian Bowen, in the following criticism, points out that Harry Barham's plan for the future of the building industry is "wide open to many kinds of logical objection" and "violates every principle known to political or economic thought."*



How Not to Re-organise the Building Industry

[*by Ian Bowen*]

The Building Industry is not a subject on which it is difficult for a writer to be remarkably dull. It lends itself to tediousness, and is singularly lacking in glamour and romance. Architecture, the railway system and civil engineering have had their histories written every other year; building is an industry which attracted few authors and perhaps almost as few readers. At least, this was the position until about 1941, since when building, as part of "planning," has inspired a swarm of critics and defenders.

Thus, Mr. Barham has added his name to a roll that has only recently become a long one. Where Leslie Wallis, Richard Coppock, Professor G. D. H. Cole, and Lord Simon of Wythenshawe have already cut a swathe through the forest, others indeed may follow. A book on the building industry must now be judged not on the judiciousness of its own quotations from previous authorities, but on its contribution to knowledge or to ideas. It is not for its vivacity that Mr. Barham's book can be recommended, but because it does seriously discuss, in a thorough way, a fundamental idea. The idea is full-scale nationalization of the building industry; not a new idea, but never before so completely worked out in detail.

A few years ago a suggestion made to nationalize an industry of over 100,000 independent units would have received, and perhaps deserved, a very short notice. In these times, remedies apparently so consistent with dominant political doctrines need to be examined with the greatest care; the reasons, or the underlying functions, that give rise to them are more important than they ever were before.

Mr. Barham begins his book with an attack on the efficiency of the existing building industry. His main points are these: (1) Jerry-building was rife in the industry before the war; no one knows how rife, although Mr. Leslie Wallis has admitted its existence. (2) Building jobs used to cost too much because of the spinning out of work by the operatives; this was due to fear of unemployment. (3) Mr. Barham dismisses Mr. Wallis' claim that the industry is modern in outlook and "eager to try new methods and new materials"; instead he agrees with Lord Simon that it has been the "most traditional and conservative of our great industries." (4) He quotes Mr. Wallis with approval on the cost of the tendering system. The costs of preparing tenders by all the unsuccessful bidders must ultimately fall on the consumer. (5) Estimating moreover, as Mr. Barham observes, "is very far indeed from being an exact science." (6) When the industry has shown signs of organising itself it has been mainly with the result that prices were raised against the building owner (according to the Report on the Placing and Management of Building Contracts). (7) As for size of firms, the industry "is seen to have at one end a medley of small competing firms and at the other end monster organisations governed by finance capital, *i.e.*, big business."

Most of this indictment rings true. It is based, indeed, on a series of careful investigations into the industry carried out over the last six years. Mr. Barham's diagnosis has merit and soundness even if it is not original. It deserves to be considered, and appropriate remedies devised. It is commonly accepted by everyone, except for a few ostriches who happen to be building employers.

What is more controversial in Mr. Barham's book, and more interesting, is his "plan for the future." To begin with, he rejects Mr. G. D. H. Cole's proposal, the establishment of a National Building Corporation. Mr. Cole's Corporation was to be made up of employers, operatives, architects and other professional workers, and entrance into it was to be entirely voluntary. Firms entering into it would accept certain obligations regarding standard wages and conditions, in return for which they would receive preference in the placing of contracts by housing authorities and by the State. Separate building firms would remain in existence; the Corporation would co-ordinate their efforts, and act as a nucleus towards which all house-building (but not all jobbing) builders would naturally gravitate. Mr. Barham characterises a Corporation set up on these lines as a "hybrid and unnatural body"; he mentions the appointment of Mr. Luke Fawcett to chairmanship of some such Corporation, and the later shelving of the scheme as evidence of its unworkability.

What is the basis of Mr. Barham's own scheme? He advocates industrial democracy in one of its most rigorous meanings. The basis of the kind of nationalised industry that he would like to see would be the Local Building Organisation. The Organisation will be governed by a Council "elected by the whole of the building workers in the area, including the technicians and office workers." This Local Council will make "all such decisions of principle and policy as fall to be made locally." There will be a Regional Organisation and over all a National Building Council which will be responsible for the National Building Service. But it will be the Local organisation's responsibility to "interpret the rules" laid down by the National Council. The Local Organisation will have "a yard and works" and "will be in practice the contractor to the Local Authority." Employment exchanges will no longer be needed for building workers, who will be handled by the Labour Department of each Local Building Organisation. Each building job will be in charge of a manager or foreman, but he will be "subject to the supervision and instructions of the appropriate technicians and of the Executive Committee" (of the Local Building Organisation) —an unenviable position.

This whole scheme is based on two beliefs: First, that if every shareholder and director of building firms were, as a trade union circular put it, to drop dead or emigrate, the industry would be well rid of an incubus; and secondly, that elected committees and councils would in fact consent to be advised by technicians and experts. "The final decision will rest with the technician, not because of his superior status but because of his specialised knowledge," remarks Mr. Barham, with a touch of smugness. How is it, though, that technicians have come into existence? This seems to need some explaining. Can it be that the directors of the building industry have been paying their salaries? Will the elected committees pay them relatively better or worse? Are technicians going to find it easier to sway the decisions of elected committees (which employ them) than to advise boards of directors? If so, why?

Mr. Barham optimistically supposes that labour productivity will rise (*a*) if the fear of unemployment is permanently removed, (*b*) if the operatives know theirs is a self-governing industry, and (*c*) when the operatives learn to discard their present somewhat Luddite attitude, and to welcome new methods.

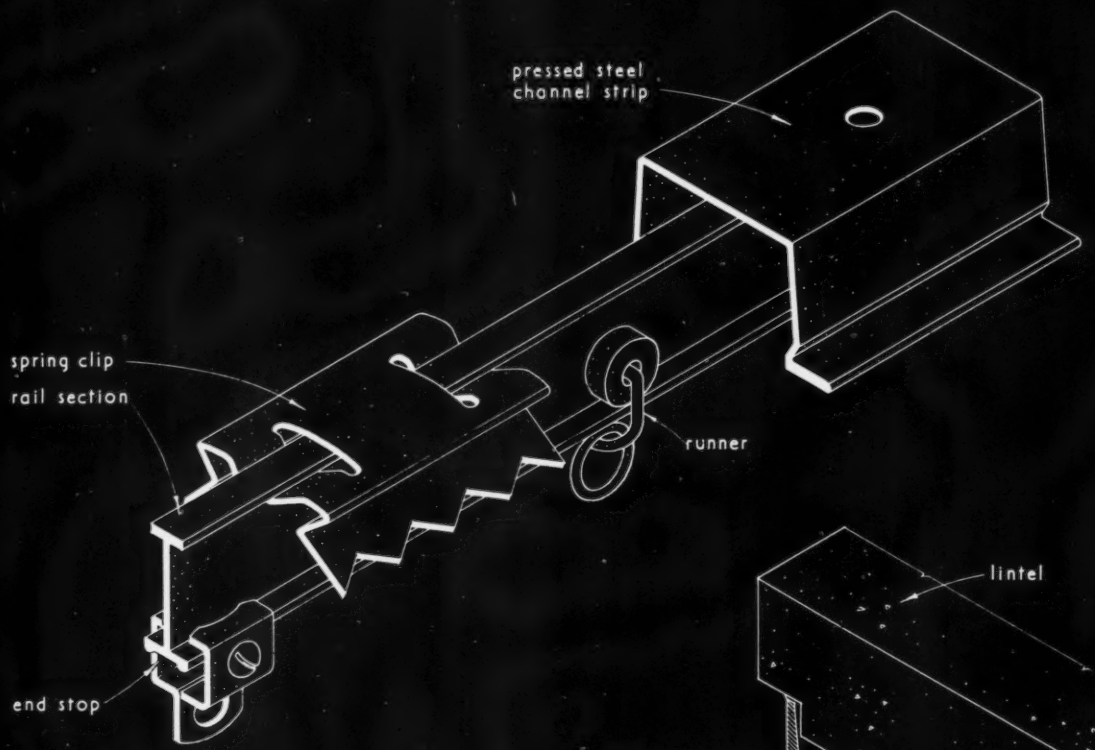
This whole theory is based on a political axiom, that people like to vote, an axiom that is now far from self-evident. What proportion of operatives would in fact reap moral and spiritual benefit from the knowledge that their individual votes could influence the constitution of the Local Building Council is undetermined. Mr. Barham offers no evidence on the point; he does not even seem to have considered it. He might look at the capitalist system, at the history of shareholders' meetings—to discover the apathy of the individual in relation to economic affairs.

This bold plan of Mr. Barham is wide open to many kinds of logical objection. But as long as the destructive criticism of his book remains unanswered, and as long as no plan to remedy the ills of the building industry is evolved, so long will drastic, if indefensible propositions command assent, and whole industries, like the State in revolutionary times, may become the laboratories for political experimentation. It would not be difficult, but it is probably unnecessary, to point out that Mr. Barham's proposed organisation violates every principle known to political or economic thought. It combines in a singular degree the evils of de-centralisation and over-centralised red tape. It works on unlimited borrowed capital, but apparently pays no interest. It does not have to worry about a profit, being a public service—but does it not have to worry about making a loss? I doubt if the British taxpayer will buy Mr. Barham's scheme. But his book is full of sound criticism; it is knowledgeable, and, off his hobby-horse, Mr. Barham is eminently fair. Above all, his book is a portent of the serious condition of the industry.

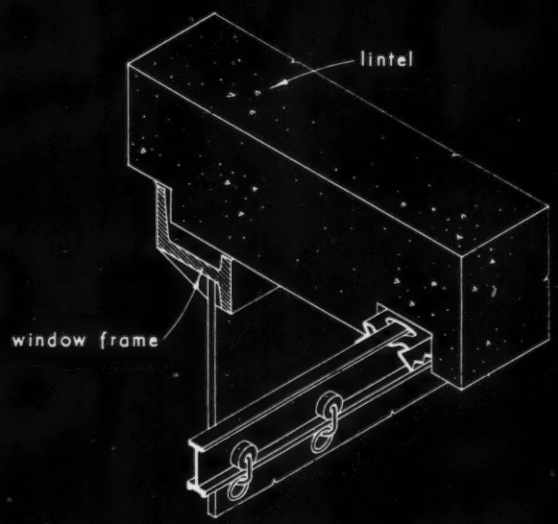
*The Building Industry: A Criticism and a Plan for the Future. by Harry Barham. Industrial Democracy Series No. 1. 8s. Botolph Publishing Co., Ltd., 1947. 5s.

FITTINGS | CURTAIN FITTINGS

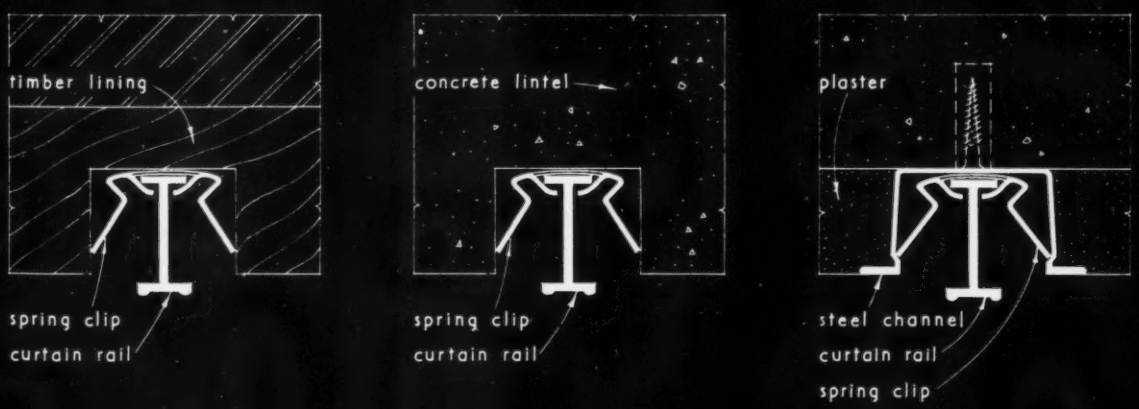
The Architects' Journal Library of Information Sheets 5. Editor: Cotterell Butler, A.R.I.B.A.



RAIL SECTION SHOWING STEEL CHANNEL STRIP AND SPRING CLIP.



ISOMETRIC VIEW OF RAIL IN POSITION.



F.S. SECTIONS SHOWING APPLICATIONS TO TIMBER, CONCRETE AND PLASTER.

·RUFFLETTE· RECESSED CURTAIN TRACK. Manufacturer: Thomas French and Sons Limited.

44.D1 ·RUFFLETTE· RECESSED CURTAIN TRACK

General

This Sheet describes the Rufflette recessed curtain track which is a system of built-in curtain fitments for concrete or wood lintels. The isometric drawing at the top of the face of this Sheet illustrates the various components and the other isometric view shows the application of the system to a fair-faced concrete lintel.

Applications

The following applications are illustrated on the face of this Sheet.

Timber : A channel measuring $\frac{5}{8}$ in. by $\frac{7}{8}$ in. is cut in the lintel to accommodate the track section. The rail is held in position by means of spring clips at approximately 1 ft. 3 in. centres. These are pre-fixed to the track, complete with fittings, before the assembly is sprung into position.

Concrete : The method of fixing here is as before, the channel being cast in the concrete lintel in advance.

Plaster : Where a plaster facing is specified to the lintel a pressed steel channel strip is screwed to wood plugs let into the lintel to provide the recess for the track. Plastering is done after the steel channel has been screwed to the lintel and should be allowed to dry thoroughly before the spring clip, pre-fixed to track with fittings, is sprung into position.

Runners and End Stops

The number of curtain runners should be three to every foot and end stops should be fitted to each track length.

Specification : Material and Finishes

The track and fittings are corrosion-resisting and are available in the following materials and finishes :

Steel channel strip : zinc plated and lacquered.

Patented spring clips : Solid spring bronze.

Curtain track : Solid brass, folded steel or aluminium alloy.

Runners : Brass nickel plated.

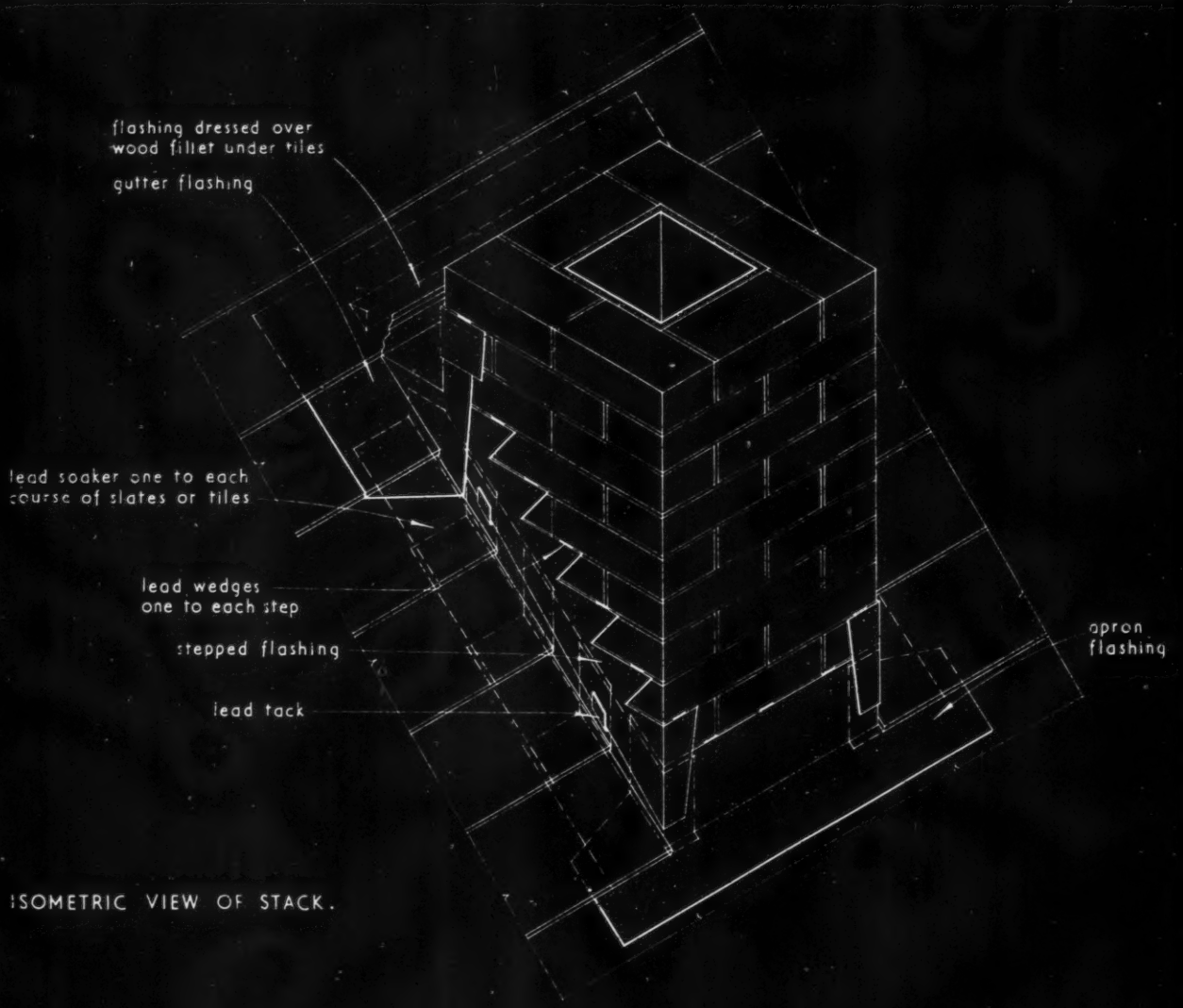
End stops : Pressed steel, brassed or zinc plated.

Compiled from information supplied by :

Thomas French & Sons Ltd.
Head Office : Chester Road, Manchester 15.
Telephone : Blackfriars 1887 (10 lines).
Telegrams : Rufflette Manchester.
London Office : 156-162, Oxford Street, W.1.
Telephone : Museum 5558-9.
New York : 620, Fifth Avenue.
Massachusetts : Fleur-de-Lis Mills, Fall River.
Canada : 751, Victoria Square, Montreal.

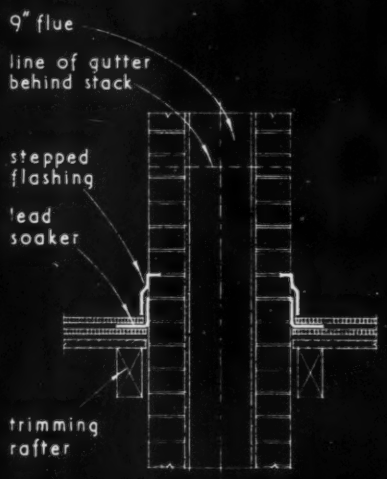
LEAD AND ALLOYS | APPLICATIONS

The Architects' Journal Library of Information Sheets 6. Editor : Cotterell Butler, A.R.I.B.A.

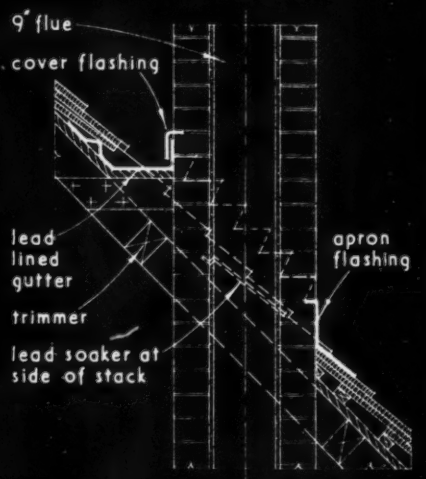


ISOMETRIC VIEW OF STACK.

DETAIL OF LEAD SOAKER AND STEPPED FLASHING.



SECTION ACROSS SLOPE OF ROOF.



SECTION ALONG SLOPE OF ROOF.

LEAD FLASHING TO CHIMNEYS ON SLATE OR TILE ROOFS.

Compiled from information supplied by The Lead Industries Development Council.

10.G1 LEAD FLASHING TO CHIMNEYS ON SLATE OR PLAIN TILE ROOFS

General

This Sheet is one of a series dealing with lead and its applications and describes the most common method of lead flashing to chimney stacks.

Method

Sides : The flashing at each side of the chimney stack consists of a series of lead soakers, one to each tile course, which are laid between the slates or tiles with the upstand against the brickwork. A lead flashing cut from a strip of lead to the stepped shape shown, is fixed over the upstand of the soakers so that, when in position, the lower edge of the lead follows the pitch of the roof : the turned edges of the step are tucked into the brickwork joints, where they are secured with lead wedges and pointed up.
In the drawing on this Sheet, the space between tiles has been exaggerated to allow the lead soakers to be clearly shown. In practice, 3 lb. lead is used for this purpose and the consequent displacement of the upper tile is negligible.

Front : The front of the chimney is flashed with a plain lead apron, which is carried down on to the slates or tiles.

Back : The back of the chimney is formed in the manner of a small gutter, with a lead cover flashing turned into the brickwork joint and wedged.
The lead must be carefully worked over the ends of the gutter and down on to the slates or tiles as shown to form a close fit.

Weight of Lead

For gutter and flashings, 5 lb. lead is recommended but 4 lb. lead has, with careful working, been used with satisfactory results. For the soakers 3 lb. lead is recommended.

Lapping

Laps should not be less than 4 in. and with large chimneys, the length of one piece of flashing should not exceed 7 ft. Lead should be turned into joints at least 1¼ in.

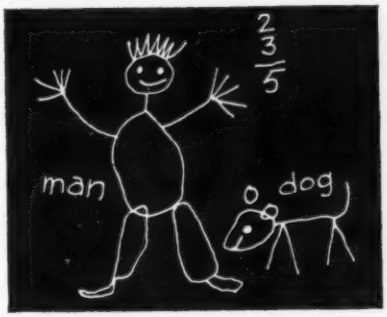
Further Information

The Lead Industries Development Council maintain a Technical Research and Information Bureau which is available to answer questions and advise on technical problems dealing with this subject generally.

Compiled from information supplied by :

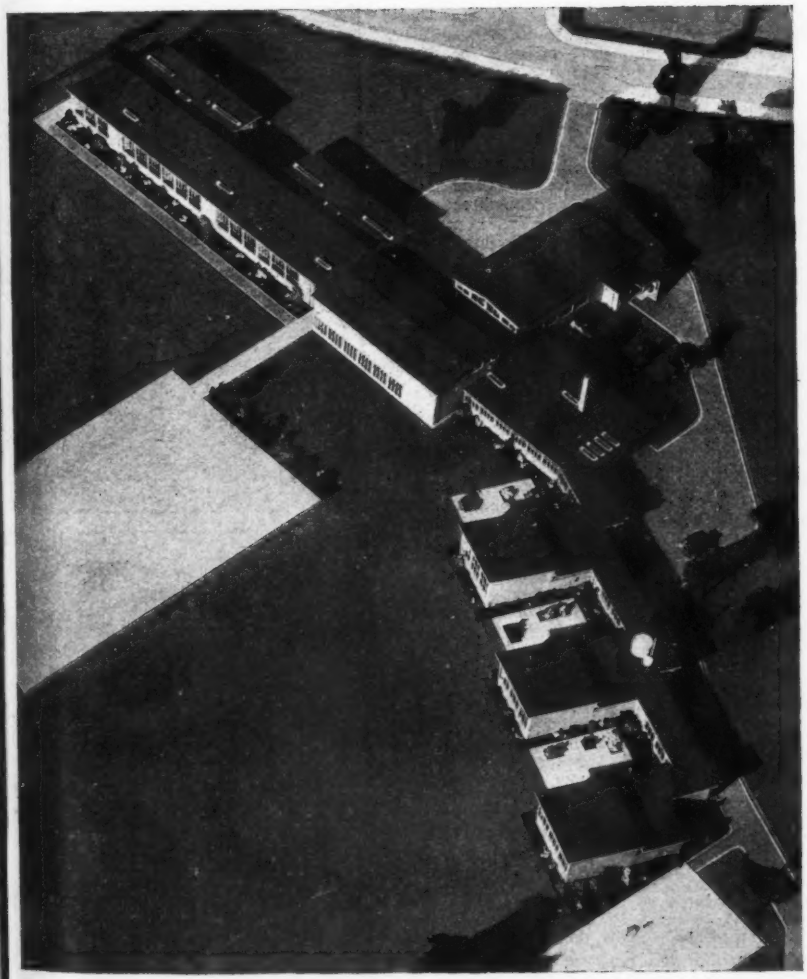
The Lead Industries Development Council.
Address : Eagle House, Jermyn Street, London, S.W.1.
Telephone : Whitehall 7264.

On Wednesday, October 22, the Course on the designing of schools organized by the RIBA at the suggestion of the Ministry of Education will begin. We publish on the following pages of this Journal a contribution to the study of this most important subject prepared by the County Architect's Department of the Hertfordshire County Council. Mr. Aslin, the County Architect, is convinced of the necessity of the widest possible discussion of experiences and lines of development. Those attending the RIBA Course will find the material which follows of outstanding interest. The work of the Hertfordshire County Architect's Department is a major contribution to the solution of the Country's desperate need for teaching space to provide a worthy education for its children.



ON THE DESIGN OF PRIMARY SCHOOLS

BY THE HERTS COUNTY COUNCIL ARCHITECT'S DEPARTMENT



ORIGINS

The Herts CC appointed its first County Architect, Mr. C. H. Aslin, in 1945. By January, 1946, sufficient staff had been recruited to undertake new projects, and the department was asked to design the usual variety of building associated with the work of a County Council, which includes libraries, houses and flats, community centres, county colleges, nurses' homes, secondary schools and hospitals, but the largest and most clearly defined demand was for the provision of new primary schools.

NEED FOR SCHOOLS

Even before the war, Hertfordshire, in common with other authorities, needed many new schools in order to achieve the accepted educational standards. By 1945, the number of buildings required by the county had been considerably increased through destruction by enemy action, cessation of normal building during the war, growth of new housing areas, development of the new towns of Stevenage and Hemel Hempstead, and the requirements of the new Education Act.

1944 *EDUCATION ACT*

The 1944 Education Act provided architects with a large programme of educational work demanding a generous provision of space and a much more liberal outlook on the problem than was usual before the war. The provisions of the Act are being implemented at a time when normal traditional materials and the labour to handle them are practically non-existent.

THE CLIENT

The Department is fortunate in its client, which is a well-informed Education Committee advised by a dynamic Education Officer, J. H. Newsom, who has stated the educational requirements broadly and objectively without any preconceived idea about their architectural solution. The architects have been invited to give free expression to the new requirements, which undoubtedly provide a challenge to the architectural profession. This article describes the attempted answer of a group of architects who welcome the opportunity of an exchange of information offered in these columns.

EARLY ACTIVITIES: NOVEMBER, 1945-JULY, 1946

The first requirements from the Education Committee were for Junior Mixed and Infants' schools for 320 children at Cheshunt, and 120 children at Essendon. The difficulties of producing architecture in post-war England, lacking labour and normal materials, presented a major problem. *Post-War Building Studies* had recommended "light construction," but no well thought-out system had then been established. Ministry of Works huts were being generally recommended for schools, and in spite of the obvious objections to the suggested solution, schemes using this construction were submitted.

PRELIMINARY RESEARCH, NOVEMBER, 1945-JULY, 1946

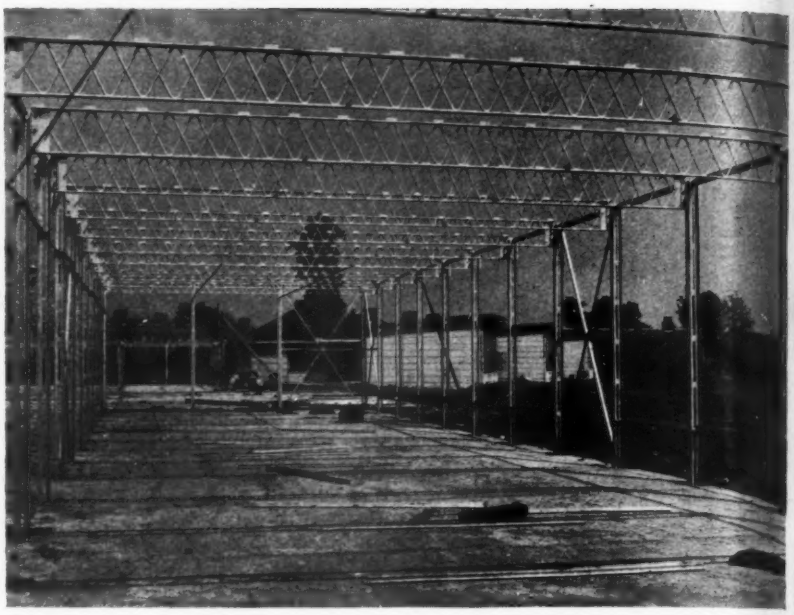
In the meantime, in order to develop a method of permanent construction, investigations were made with the help of official bodies such as the BRS, the Ministry of Works, and a few specialist firms. Advice was also sought from architects concerned with prefabricated housing. These investigations followed three main courses: physical factors, types of materials and types of labour available.

DIMENSIONAL SURVEYS

There was insufficient information to determine room shapes and sizes, cill heights and dimensions of interior fittings and furniture, and so dimensional surveys of large numbers of children were undertaken, with the co-operation of the Education Department. These enquiries were instituted not only to obtain the information required by the architect, but were so framed that measurements could be taken and set down by the children themselves.

DAYLIGHT

In order to establish the best lighting conditions in teaching spaces, discussions took place with the BRS, and physical tests were made in existing schools and in rooms used by the architects themselves. It was known that a good deal more research would be done in connection with school lighting, but the information available led to the conclusion that the contrast between the lowest and highest lit areas of the room should not produce the slightest suspicion of glare, that these conditions do not imply a "flat" daylight factor curve for their fulfilment, and that they can be said to have been achieved if children show no desire to move from one part of the room to another in order to see better. It was decided that main windows, to the south or south-east, should therefore be the full width of the room, with large clerestory windows opposite. This arrangement would give ample light on each reflecting surface and minimize glare. With a south, or near-south aspect, there would be uncomfortable sunlight and sky glare for short periods during the school year unless some precautions were taken. There appears to be insufficient evidence to justify the adoption of complicated sections and other devices incompatible with a simple structural form, and it was considered that a metal slatted venetian blind, now being developed for school use, would give a wide control over light and sun.



The prototype school at Cheshunt under construction. The light steel frame awaits the cladding. The deceptive simplicity of the structural skeleton has been achieved only as the result of much research and development.

ARTIFICIAL LIGHT

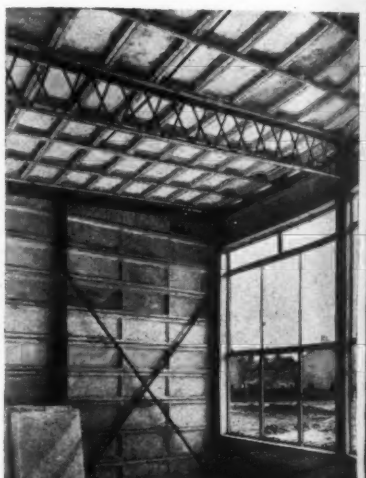
The trend of artificial lighting appeared to be towards a totally shadowless result. While such lighting is suitable for two-dimensional vision (on blackboards and books), it is not satisfactory for many present-day educational activities which incline more towards debates, handicrafts and practical work and away from static reading and writing. Three-dimensional objects are seen in terms of shade, shadow and high light, and in order to see them, directional light is necessary. In this connection several experimental arrangements of fluorescent tubes were made in an existing classroom, and from the results obtained an experimental installation was fitted in the prototype school.

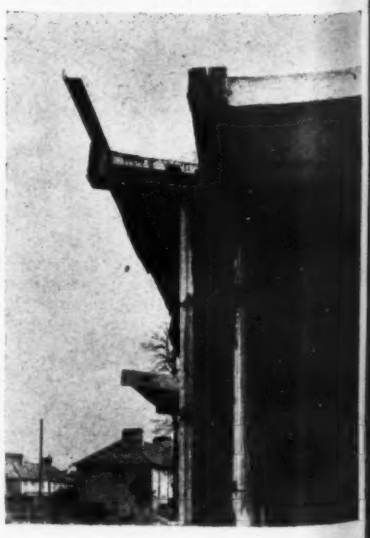
HEATING

The usual type of radiator heating had certain disadvantages, but, with the assistance of the BRS, a firm was found which had in production a system of ductless warm air heating new to this country. The system appeared to offer many advantages, and consequently an experimental installation was tested in an existing classroom. Tests proved to be successful, and after the experiment had been viewed by representatives from the BRS and the Ministry of Education, it was agreed to use this method of heating in the prototype school.

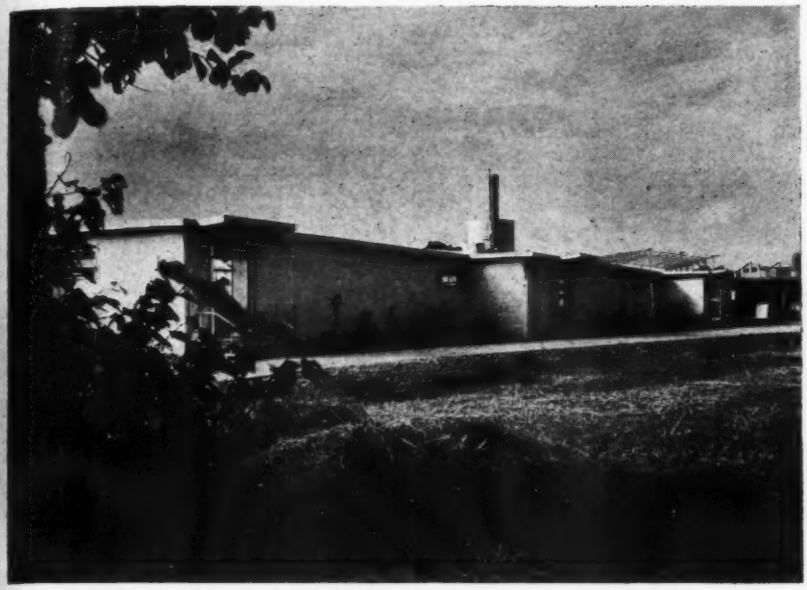
MATERIALS AND LABOUR

In order to determine the structure it was necessary to forecast the availability of materials and labour during the forthcoming 18 months. It was known that schools would have a lower priority than housing, and it appeared that import restrictions would prohibit the use of materials which were not indigenous. Bricks would be mainly supplied for houses and their use





The prototype. Two more views of the prototype under construction. Middle right, the interior of one of the classroom units showing the inner face of the concrete slabs. Bottom, the projecting eaves.



A general view of the prototype school at Cheshunt from the north. The tank and boiler flue are temporary.

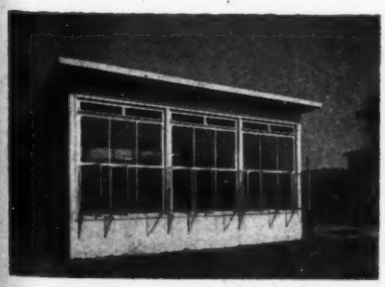
would be restricted by the shortage of coal and of bricklayers; the scarcity of timber was likely to continue; nearly all asbestos supplies were used for temporary housing and many promising new synthetic materials were in short supply or were insufficiently developed. The only readily available materials appeared to be concrete, fibrous plaster, and steel in small quantities.

As schools were likely to have a low labour priority, the continued scarcity of site labour appeared to be inevitable, but this might be minimised by the recognition of the trend for skilled men to move from the site to the factory and the consequent use of more components made in factories and assembled on the site by the makers.

These conditions helped to define the nature of the prototype which it was agreed should be in light construction with simple factory-made components. These were to be limited to 2-man loads, and to be capable of assembly by both large and small building firms.

SPACE

Spatial requirements were broadly outlined in the Ministry's regulations, but their interpretation was fully worked out with the Education Department, who accepted a flexible and free use of space as an adaptable background to the wide variety of activities envisaged in the Education Act. A school is no longer to be an institution for formal education only, but is to provide a human and gracious environment for the many-sided development of the whole child.



A typical classroom unit of the prototype school. In future the facing slabs will be arranged vertically, and the projecting eaves are to be abandoned.

PROTOTYPE

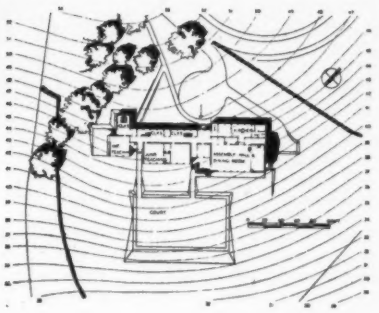
A small prototype was considered desirable, but as time did not allow for this, the Infants' section of the Cheshunt School (3 teaching spaces, cloaks and lavs.) was used for experimental purposes. It was discovered that Hills Patent Glazing Co. had considered the use of their light steel products for schools, and had developed their patent Presweld beam in accordance with the recommendations of *Post-War Building Studies*. At the same time they had formed an associate company to develop and manufacture pre-cast roof and wall units. Messrs. Hills agreed to construct a prototype with the proviso that its necessarily high cost was spread over any subsequent orders placed with them. The early development of the prototype was simplified by one firm being made responsible for the whole shell, the sitework for which was started in July, 1946. The construction consists of a light steel framework, with a suspended floor, which was adopted to avoid the use of as much wet concrete as possible. All steelwork consists of re-rolled sections, which were more easily available than heavy R.S.J.s. The stanchions consist of four 2 in. × 2 in. × ¼ in. angles in I formation, and the beams are a combination of welded flats and rounds. The steelwork is on an 8′-3″ module, and the pre-cast roof, floor, and wall units are designed accordingly. The roof and floor units (8 ft. 2½ in. × 1 ft. 4 in. × 4 in.) are pre-cast concrete of light construction, to reduce the beam loads. The wall units are 8 ft. 2½ in. × 1 ft. 4 in. × 2½ in. (dished) with a Leighton Buzzard spar topping, and are bedded horizontally and clipped to the stanchion at 8′-3″ centres, the joints being subsequently pointed. The window openings are trimmed by pressed steel galvanised sub-frames fixed to the stanchions. Galvanised steel windows are inserted into these sub-frames. The internal finishes are in prefabricated fibrous plaster.

SECOND STAGE OF DEVELOPMENT

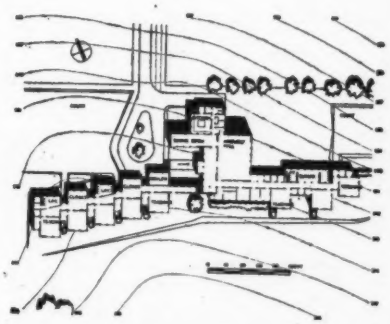
The Ministry of Education approved this form of construction, and agreed to the redesigning of the Ministry of Works hutted schemes for Cheshunt and Essendon accordingly. This raised the planning and structural problem of a whole school as opposed to a group of teaching spaces only.

The Junior section of Cheshunt J.M.I. school and the Essendon J.M.I. school were designed to incorporate minor structural modifications of the prototype, and formed Stage 2 of the development.

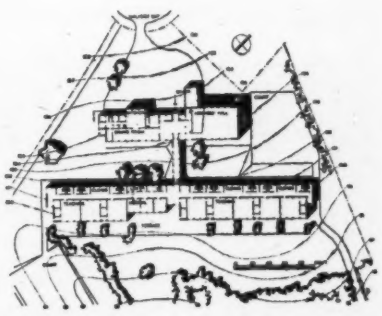
Cheshunt Junior Mixed and Infants School. The prototype for future developments.



Essendon Junior Mixed and Infants School. This is the sole example of the rural village school in the current programme.



Letchworth Junior Mixed and Infants School. The Infants section of the school is on the right.



Croxley Green Infants School. The block plans of the first eleven schools of the operational programme are shown on this and the two succeeding pages.

Examination of the structure at this stage revealed a number of faults and suggested improvements that would probably be useful for the future. Analysis of the 8 ft. 0 in. high stanchion on the prototype showed that out of a total of 50 stanchions 30 were different in some respect. This difference was caused by several factors, such as the stanchions not being symmetrical about both axes, the position of bracing, the varied position of windows, the number of wall blocks, and internal and external corners, eaves, etc. This practically amounted to each stanchion having to be individually investigated and designed involving an enormous amount of work both in the drawing office and in the factory. The solution appeared to lie in the design of a stanchion capable of meeting every possible case and in its mass production.

The wall cladding system of the prototype had limitations, because it destroyed the light steel frame æsthetic. Moreover there were technical and assembly difficulties due to the difference in tolerance between the precise steel work and cast concrete. It was believed that a vertical system of wall cladding would to some extent overcome both æsthetic and technical objections.

1947 OPERATIONAL BUILDING PROGRAMME

In August, 1946, the Ministry asked Local Authorities to submit their building programmes for 1947. Because the Education Department was so far advanced with their Development Plan, they were immediately able to say what schools were required during the year, and this early warning, together with the work already put in on the prototype placed the Department in a favourable position for the organisation of a large programme. In November, 1946, the Ministry of Education provisionally approved the building of eleven new Primary Schools during 1947. Technically the programme appeared to be possible, but it was clear that the existing administrative machinery would prevent its fulfilment.

ADMINISTRATIVE PROCEDURE

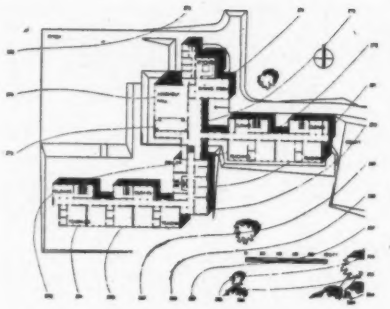
The Ministry of Education in their pamphlet (Report of the Committee on School Sites and Buildings Precedure) recorded the fact that from the choice of site to the occupation of a new school a minimum period of 3½ years was necessary, under pre-war conditions. The priorities Branch of the Ministry viewed the problem realistically and was quick to realise the absurdity of the situation. Within a short space of time the Ministry of Education instituted the Operational Programme, a bold and revolutionary procedure, the chief object of which was to complete as many classrooms in each school as possible during 1947.

The Operational scheme drastically curtailed the old administrative procedure, the chief feature being that it was now necessary only for preliminary designs and estimates to be submitted before final approval by the Ministry.

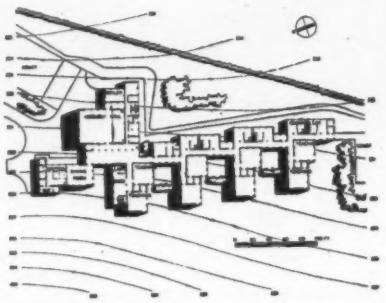
OFFICE ORGANISATION

It was clear that the urgency and the magnitude of the programme demanded that the architect should organise himself in a new way. The old method of one architect responsible for one school would have to give way to a team organisation. Each necessary procedure could thus be carried out once for eleven schools instead of eleven times for eleven schools. At first the team's functions fell into two categories:—design (*i.e.*, planning and technical) on the one hand; and administration and contracts procedure on the other.

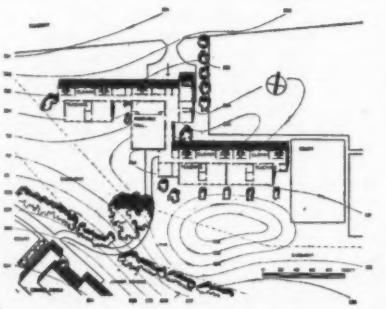
A section of the team was engaged on assessing quantities of materials, applying for licences, negotiating site purchases, organising surveys, arranging for the letting of contracts, selecting sub-contractors and preparing time progress charts to establish the earliest possible starting date for each school.



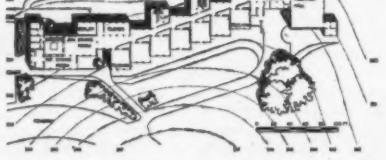
Croxley Green Junior School.



Bushey Junior Mixed and Infants School.



Oxhey Infants School for the new LCC housing estate.



Oxhey Junior School for the new LCC housing estate.

All schools are primary and are therefore restricted to Infants (5-7 years) and Juniors (7-11 years). Investigations soon showed that there are important differences between these types which affect the design. At all the planning stages a close contact continued to be maintained with the Education Department, the specialist organisers and school staffs. Having established the site and obtained a survey, the first planning procedure was to make a preliminary design to $\frac{1}{16}$ in. scale for each school, for three main purposes: firstly, to form a basis for Ministry approval; secondly, to establish the technical and structural implications; thirdly, to form a basis for discussion with each local education committee and head teacher concerned. It was considered essential that no plan should be finalised until each of these three stages had been passed.

It was at this point that the constant factors affecting planning (Ministry regulations, and urgency) on the one hand and the variable factors (contours, aspect, type and size of school, local wishes) on the other, became very clear. The variable factors were so important that the solution could only lie in freedom of planning, being served by flexible standardised components. The prevalent panacea of standard unit plan arrangements had to be avoided at all costs. This approach is one that certainly appears attractive on paper, but breaks down in the face of the variable factors encountered in practice. Some plans would be simple and some complex, but the design and assembly of component parts must always be simple.

Planning technique developed in such a way that difficult combinations of contours and aspect could be overcome (*e.g.*, Letchworth, Oxhey) within the scope of the structure. Because preliminary plans for all the schools were in preparation at one time, the structural implications for the whole programme could be established at an early stage. The planning developments, time studies and structural modifications, mentioned earlier, enabled the Department by January, 1947, to present to Messrs. Hills Patent Glazing Co. Ltd. a clear outline of the approach and method, and to set in motion a continuous building programme to commence in June. Hills agreed that the drawing office and steel component production problems could be solved by them, but that it would be necessary to spread the manufacture of concrete components.

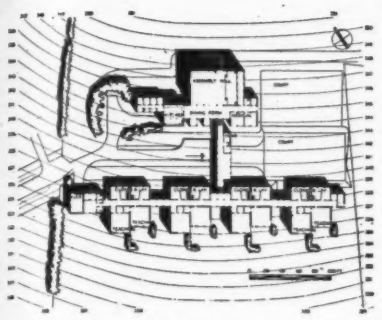
Between January and May, 1947, one of the architects was alternately working in the factory and in the County Architect's office in order that technical and planning development could at every stage be integrated. As the various components were finalised, standard drawings applicable to all schools were made (*e.g.*, for beams, stanchions, threshold details, etc.) and as plans were finalised, job drawings applicable to individual schools were made (*e.g.*, general arrangement for windows, wall blocks, roof blocks and site foundation and drainage).

This procedure seems to resolve itself into four distinct stages; first, preliminary plans; secondly, design of components (technique); thirdly, arrangement of components (planning); fourthly, assembly of components (building). This coupled with a development production approach, should ensure a progressive architecture able to turn to advantage the limitations of the methods adopted.

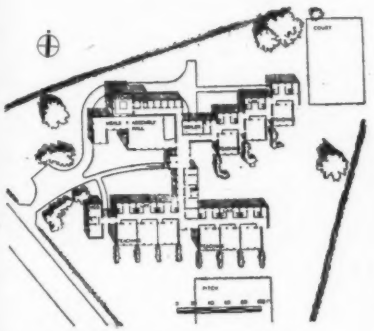
THIRD STAGE OF DEVELOPMENT

Because the Architect had controlled all aspects of planning and technical research, he was able to direct them to serve his design.

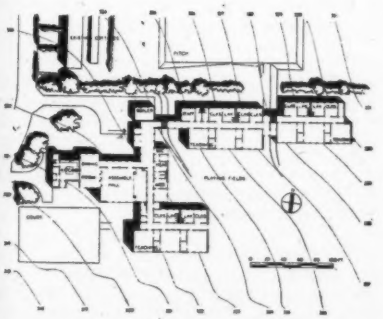
The child and his activities were always the starting-point of the plan. It was



Hemel Hempstead Junior Mixed and Infants School.



Hitchin Infants School.



Stevenage Junior Mixed School.

thought to be necessary that the school should have a scale appropriate to the child and his environment, and for his environment to be an interplay of exterior and interior spaces; to have freedom, intimacy, lightness, colour, gaiety and surprise.

All the sites conform to the maximum areas required by the Ministry's regulations. This has made it possible to plan freely on one floor. The Department believes that the largest schools (up to 360 children) have extended single floor planning to its limit. In schools for more than 360 children there seems to be a case for two floor planning. The aim has always been to arrange those parts of the school most frequently used to face both the best aspect and the pleasantest view and at the same time avoid overlooking hard surfaced play areas.

The programme contained three types of Primary School, Infant, Junior Mixed, and Junior Mixed with Infants. The plans of the J.M.I. Schools have been designed with a view to their eventual conversion for Infants only, as their use as J.M.I. Schools is only temporary. Planning requirements resolved themselves into three distinct groups:—entrance, assembly and dining halls, which are planned as a communal nucleus; teaching spaces with cloakrooms and lavatories; and staff rooms. An attempt has been made to avoid long, unbroken lengths of corridors and classrooms by suitable grouping of teaching spaces about the communal section.

TEACHING SPACES

For infants, an indoor and outdoor teaching space with its own cloakrooms and lavatories and separate entrance, form, whenever possible, a self-contained unit. Two or three of these together can be an infants' wing to a J.M.I. school (as at Cheshunt or Letchworth). This arrangement helps to minimise the sudden change from a domestic to a communal environment, for in fact this is the first entrance of the child into public life. It also facilitates supervision and training and minimises the spread of infection.

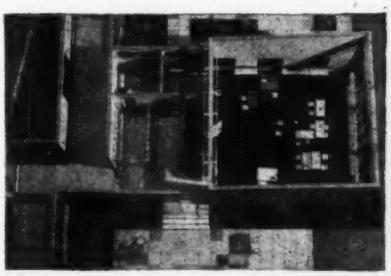
All teaching spaces are square, a shape which seems best to suit the varying uses of the room. No one arrangement of furniture can be assumed. Each child has a tubular nesting chair and two children share a tubular nesting table. All tables and chairs are divided into three size groups, each group having a distinctive colour. Two cupboard-units (4 ft. 0 in. x 1 ft. 2 in. x 2 ft. 3 in. high) with two doors and two locker units (4 ft. 0 in. x 1 ft. 2 in. x 2 ft. 3 in.), each with 20 trays, gives every child his own locker, distinguished by a letter of the alphabet. A continuous wall board is provided at child height, which is divided into sections for pinning up drawings, and for blackboards for the children's use. A sink is also provided.

For juniors, the teaching spaces are not arranged as self-contained units as for infants, but are grouped, because activities are likely to be rather more formal. Cloakrooms and lavatories tend to become larger and less dispersed. Lavatories which are planned within the building, rather than lining the playground, encourage more civilized behaviour, are more easily supervised and can have a higher standard of equipment and finish.

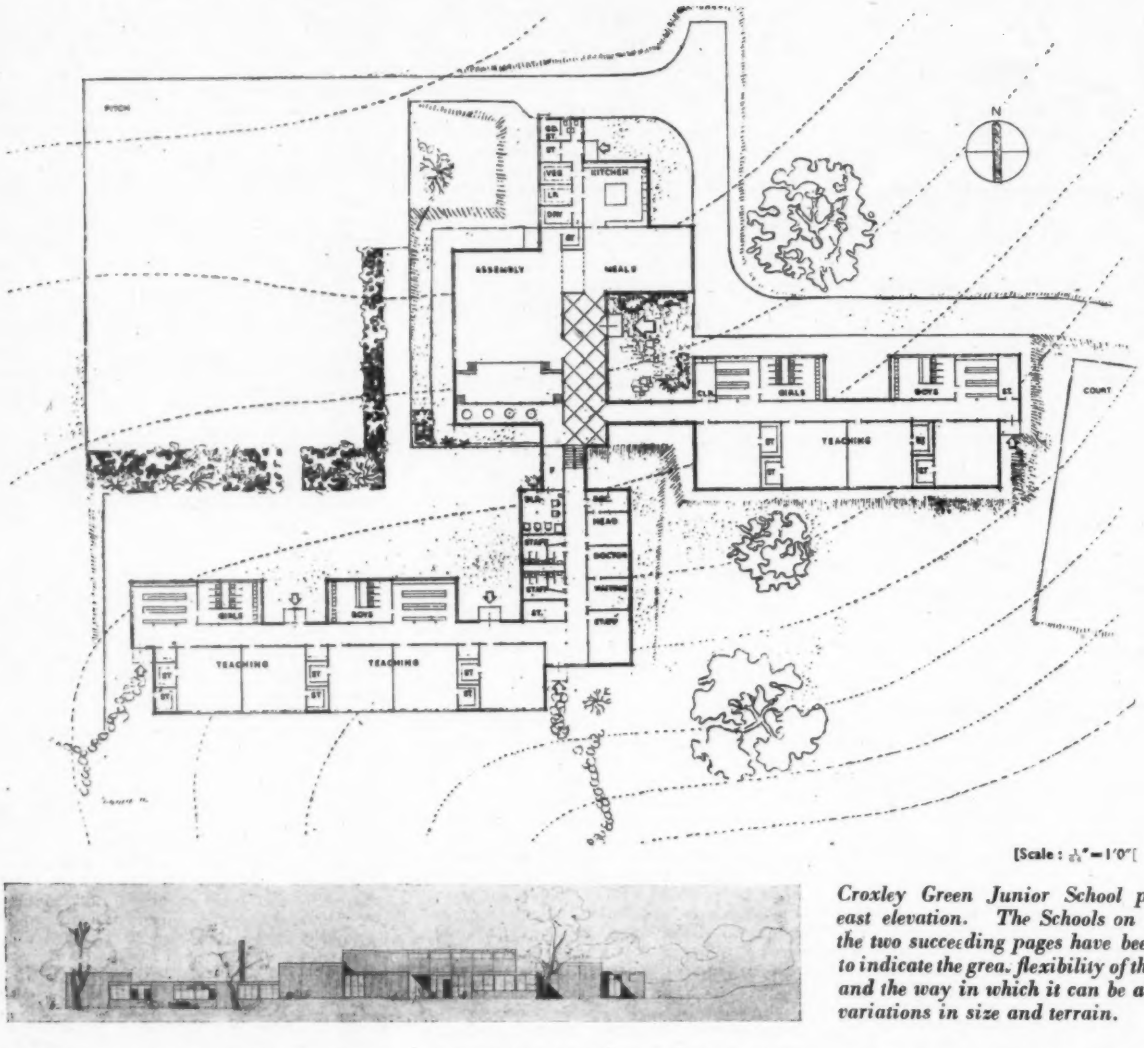
Each child has his own lightweight plywood desk, with book storage locker. These are graded in three sizes and have nesting tubular chairs to suit. Two tray units and two cupboard-units are provided. Wallboard strips are as in the infants' rooms. One teaching space is specially equipped as a practical room, with four heavy tables, 20 desks and nesting chairs, three small carpentry benches, four special cupboard-units and a sink and gas point. All teaching spaces have an electric power point and a loudspeaker outlet. Much of the available school furniture was unsatisfactory, but as all the schools in the programme were treated as one project, required quantities were large and manufacturers were therefore willing to collaborate in the design and production of furniture and equipment suitable for the new requirements.

COMMUNAL ACCOMMODATION

The children come into the school through the main entrance hall and not through back doors of cloak rooms and lavatories. The hall is purposely large so that together with the Assembly and Dining Halls a suitable space is created, which can be easily supervised for indoor play in wet weather. It is also the most convenient arrangement for other communal activities, both of the school and the neighbourhood. The new approach toward education embodied in Parent-Teacher Associations is beginning to transform the school into a common meeting ground for child and adult members of the community. All the assembly halls have stages, but those in Junior schools are equipped for a greater variety of activities, and although special green rooms cannot be provided, the halls are so planned that other rooms can be used for this purpose.



Above, a model of a typical classroom unit of Cheshunt School. Below, a general view of Cheshunt model.



[Scale : $\frac{1}{16}$" = 1'0"[

Croxley Green Junior School plan and east elevation. The Schools on this and the two succeeding pages have been chosen to indicate the great flexibility of the system, and the way in which it can be adapted to variations in size and terrain.

GARDEN LAY-OUT AND PLAY AREAS

Hard-surfaced pitches and courts are placed when possible so that children can play without distracting others still in class. The gardens, which will include sandpits, flower beds, tree stumps for climbing and paddling pools, are designed to attract teachers and children to use them as an extension of their indoor teaching spaces.

STRUCTURE

The urgency implicit in the operational programme gave added point to the simplifications of structure and method resulting from the earlier analysis.

STEEL COMPONENTS

The steel component which needed most simplification was the stanchion. The solution was a square stanchion, formed by four 2 in × 2 in. × ¼ in. angles in square box formation, with holes punched at intervals to accommodate any desired arrangement of beams, windows and bracings. Every stanchion had holes punched to take the maximum possible number of connections in order to standardise production. It was possible by this means to limit the number of stanchions for all rooms to three, one for each room height. The medium height stanchion can be juxtaposed to a low one to form a step in the structure for use on sloping sites. This obviates the use of any "special" components at these points. An interesting situation was now reached where this standardisation had almost eliminated the drawing office work, but had overburdened the "hole-punching" shops; therefore a compromise between drawing office and shop was made, which resulted in a small increase in the number of stanchions.

In addition to the stanchions there are beams (6), horizontal ties, braces and half-stanchion units, making a total of 27 parts in all, which can be mass-produced irrespective of the school in which they will be used. The architect then assembles these parts to suit the particular design. This approach has meant a reduction in the number of steelwork drawings for each school from 60-70 to 2, one showing the setting out for the jig and the other the general arrangement of the steel components.

One of the entrances to the Cheshunt school.

WALL BLOCKS

The earlier analysis showed that it was desirable to change to a vertical system of concrete slabs. The change involved a vertical system of slabs 10 in. wide × 2½ in. thick (dished), the slabs over the stanchions and at corners are 2 in. thick, and these have a cement finish, while the others have a white, exposed aggregate. They can be laid dry and pointed on completion. To overcome steel and concrete tolerances, the fixing system allows of adjustment relative to the steel, and there are ten vertical joints per bay instead of one, to take up movement in the steelwork. The exterior, therefore, is divided into panels within the steel framework, thus expressing the scale of the structure. The number of different types of slabs used on one school is between 26 and 30, which is no more than on a prefabricated concrete house.

ROOF BLOCKS

Again considerable development has taken place since the Cheshunt prototype experience. The first block used was one that was already available and which was cast in steel moulds giving dimensions of 8 ft. 2½ in. × 1 ft. 4 in. × 4 in. deep.

This width is not a multiple of the 8′-3″ steel module, consequently between 5-10 per cent. of the roof area is *in situ* work, which takes nearly as long to lay as the remainder. By using a different method of manufacture, it has been possible to design a series of blocks, every seventh joint of which always coincides with the centre line of the steelwork, irrespective of plan or section arrangement. At the same time all *in situ* work is eliminated, thus contributing to the inevitable tendency of the transfer of skill from the assembly to the design stage. A block always occurs on the centre of a bay, so that the timber inserts which are provided for fixing the ceiling boards, also serve for mounting electric batten holders. It also means that top lights can be inserted centrally in bays or corridors without disturbing the standard system. The blocks are designed to allow the passage of electric cables to any point on plan without chasing, and the incorporation of flues, rainwater sumps and top lights where necessary. This has been another example of the benefits obtained by the architect working in close touch with the manufacturer, whose methods have made this solution possible.

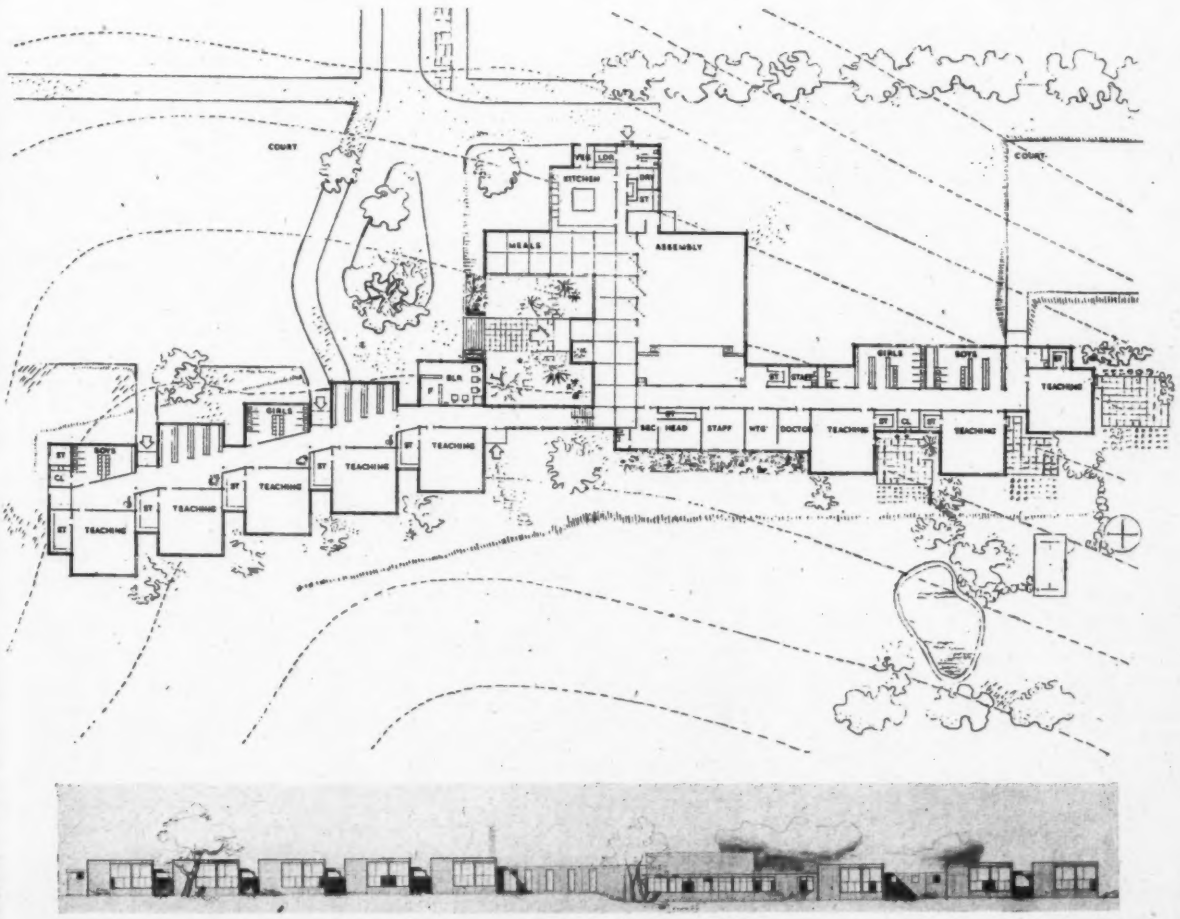
HEATING

A system of circulated warmed air is being used which is designed to maintain under thermostatic control an average temperature of 60° in the teaching spaces and 45° in the corridors and lavatories, when the outside temperature is 30°. The system is automatically controlled in relation to the outside temperature, and cuts down between 4.30 p.m. and 8 a.m. and at week-ends. Magazine boilers of new design in a central boiler house provide hot water at a controlled temperature through a simple flow and return, which serve heat exchange units at various points in the plan, the temperature at each of which is again thermostatically controlled. The great advantage of the system is that it responds immediately to any change in conditions such as the entry of a number of children into a teaching space, or a sudden drop in outside temperature. Since the boiler immediately reacts to change of room temperature, a very considerable saving in fuel results.

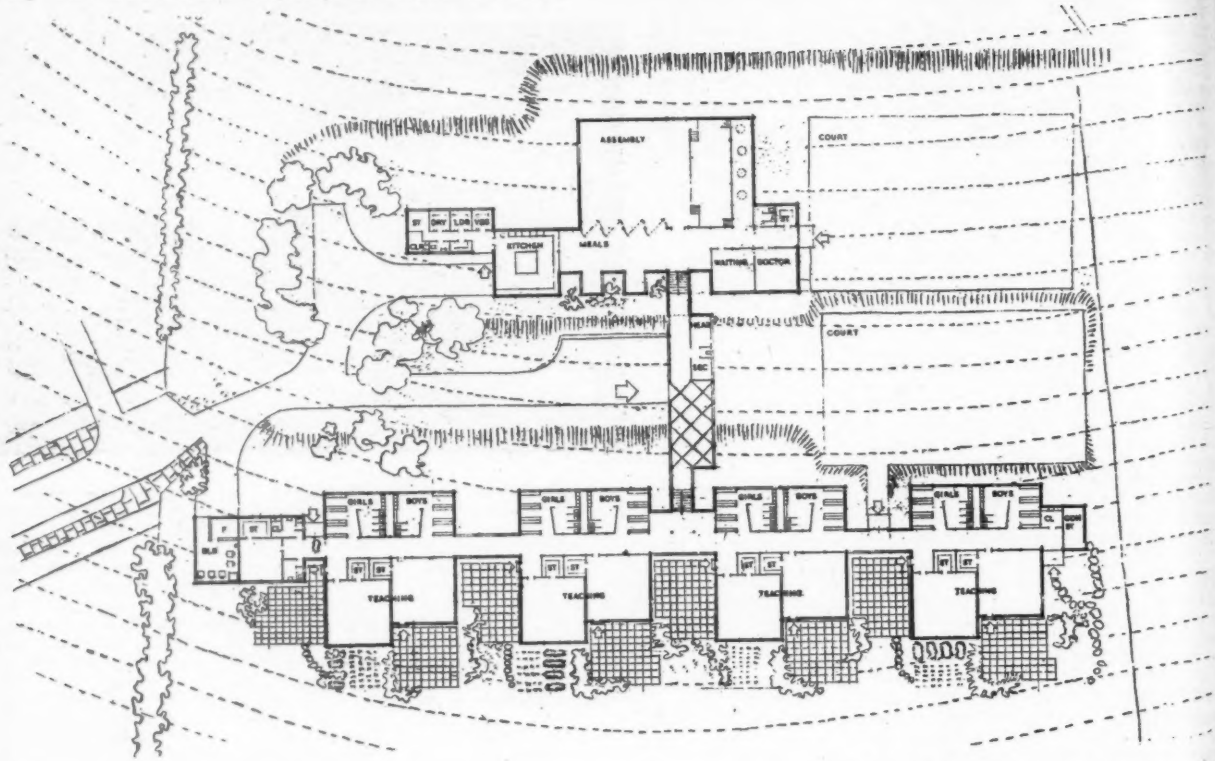
ELECTRICAL INSTALLATION

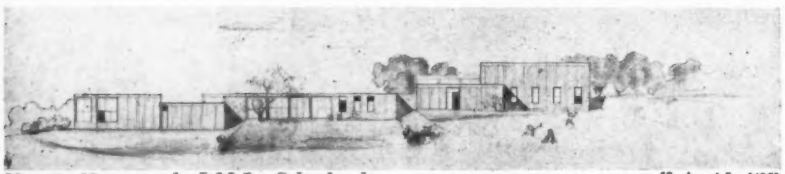
A prefabricated lighting wiring system is being installed, which reduces site labour in that cables are pre-cut to length and attached to the distribution boxes in the factory. All horizontal distribution is in the 1-in. space between ceiling board and roof blocks, and all vertical distribution—switches, plugs and fittings—are on stanchion positions. This allows the electrical installation to be made independently of interior partitions and finishing. Possible exceptions to this are overcome by the use of ceiling switches, and special enamelled pressed steel switch fuse boxes have been designed which enable the light switches and corresponding fuses to be together, making replacement easy. The distribution boxes are of special design and are housed in the thickness of the roof block.

The interior of a typical teaching unit. The furniture has been designed with the collaboration of the Architect's Department.



Letchworth J.M.I. School. Plan and south elevation. [Scale : 1/16″ = 1′ 0″]





Hemel Hempstead J.M.I. School plan and east elevation [Scale: $\frac{1}{16}$"=1'0"]

They are also designed to provide the maximum number of points in a given unit plan area, so that any additional future electrical requirements can easily be met. All wiring is in toughened rubber cable.

INTERNAL LINING

A new form of partition has been devised, using wood wool slabs with fibrous plaster cast on each side. All the necessary sizes, complete with skirting, are cast in the factory and delivered to the site ready for dry assembly. These units are treated as panels between stanchions, where pilasters provide expansion joints. This method was adopted following experience gained on the prototype. Fibrous plaster is a very flexible material suitable for the pre-casting of several internal items, such as top light reveals, soffits, beam and column casings, heater cabinets, blackboards and lavatory units.

WINDOWS

All windows and external doors are in galvanized medium universal steel construction with inserted ventilators where necessary. The adoption of the factory glazing principle effects a considerable saving over casement construction and, if handled properly, presents no æsthetic difficulties. All window frames are taken up to cornice height and, if high glazing is not required, ribbed asbestos sheeting is substituted.

A standard set of window frames and ventilator units nave been designed, with a consistent proportion ratio throughout and from this standard set, the necessary types are selected for each school.

FLOOR FINISH

Only a very small quantity of linoleum and wood block could be obtained. Generally floor finishes are: Semtex, Durablock, concrete tiles, and clay tiles.

COLOUR

A range—not yet complete—of intense full colours has been established which can be intermixed or to which can be added black or white to obtain tints or tones to white or black respectively. Consequently, the architect is not restricted to "colour card" colour schemes. Due to the limited choice of interior finishes, paint can play a more significant part than hitherto and can be used to articulate the building and give joy—a quality so often lacking in schools.

REVIEW OF SITEWORKS

By arrangement with the Ministry of Education, the Ministry of Works Soil Survey Section kindly made soil surveys of each site, which in many cases resulted in a considerable saving of time and money.

Because it had been decided to adopt a solid floor construction in place of a suspended floor construction on grounds of economy of steel and improvement of thermal insulation, the first sitework operation is the levelling of platforms on sloping sites. Subsequently a steel jig, consisting of a framework designed to locate the stanchion holding down bolts accurately is used. The jig can be used in a series of combinations to produce any plan shape and is adaptable for use on sloping sites. There are two jigs in use, and these are transported from site to site as required. The assembly of the steel framework and the cladding of the wall and roof is a rapid process enabling work to proceed under cover at an early stage.

INTERIM CONCLUSIONS

The operational procedure has enabled the construction of a school to start within a year of its inclusion in the Education Development Plan. Eight schools are in varying stages of construction and within 10 months of the inception of the operational programme, all the schools will be under way.

Whilst it is too early to judge the success or failure of the methods which have been employed, certain observations can be made at this stage.

It is believed that in mass production methods a social rather than a mechanical significance is to be observed. By their proper use the high standards of craftsmanship and finish usually associated with the luxury building should eventually be brought within the reach of buildings which will be the every-day environment of the mass of the community.

It is recognised that if this is carried to its logical conclusion, the organisation of the building industry, connected with this type of work, must undergo a fundamental change; that labour on the site will have to consist of teams of adaptable "jacks of all trades" who will be responsible for all stages of assembly rather than individual specialists who come and go to carry out their particular part of the work.

The programme commenced with no preconceived ideas as to what the buildings should look like, but every endeavour was made to develop and express the æsthetic which emerged from the particular technique employed. There are, however, inconsistencies resulting from present-day conditions such as the necessity of cladding a very light frame with a clumsy intractable material which is neither a panel nor a wall permitting a clear expression of the structure.

A grid is not only fundamental to frame construction, but is a means of relating each part of the plan to the whole. It is felt that no special claim can be made for any particular dimension, but that this should be controlled by the nature of the materials used and should be capable of sub-division into units closely related to the human scale.

An endeavour has been made to calculate the method of approach required to meet the demands of this particular programme, and it would be dangerous to assume that it is applicable to other types of projects. It appears, however, that a relatively small number of architects can produce a large

volume of work if they function as a team which can extend when necessary to include the administrator, the technician and the client.

It is believed that educational development is frequently restricted by its environment, and in improving this environment, the architect can assist in liberating the progressive forces of education which, in turn, should stimulate a creative architecture.

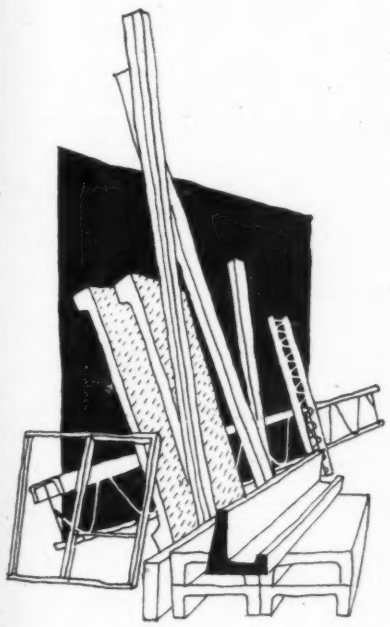
1947 OPERATIONAL PRIMARY SCHOOLS BUILDING PROGRAMME

The team responsible for establishing, directing and developing this programme is shown below:

THE STAFF

C. H. Aslin, F.R.I.B.A., M.I.Struct.E. (County Architect)
S. Johnson Marshall, B.Arch.(L'pool), A.R.I.B.A.(Deputy County Architect)
S. Morrison (Principal Assistant Architect)
O. Carey, A.A.Dip, A.R.I.B.A.
Anthony Cox, A.A.Dip., A.R.I.B.A. (until May, 1947)
Mary Crowley, A.A.Dip., A.R.I.B.A.
W. Henderson, Dip.Arch. (L'pool), A.R.I.B.A. (until February, 1947)
W. D. Lacey, A.R.I.B.A.
Bruce Martin, A.A.Dip., A.R.I.B.A.
D. L. Medd, A.A.Dip., A.R.I.B.A.
(the above architects have worked exclusively on primary schools)

G. T. Powis (Assistant)
Svend Madsen (Danish students)
Jorgen Magnussen (Danish students)
H. Sugden (Quantity Surveyor)
J. Nisbet (Quantity Surveyor)
C. Nott (Quantity Surveyor)
T. G. Hopperton (Clerk of Works)
W. F. Reading (Clerk of Works)
F. E. Speary (Clerk of Works)
C. H. West (Clerk of Works)
F. E. Young (Clerk of Works)



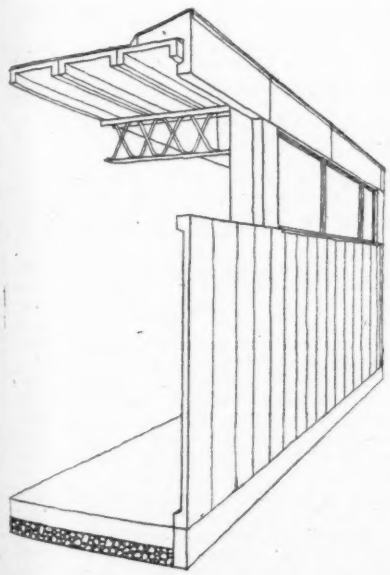
SCHOOLS AND CONTRACTORS

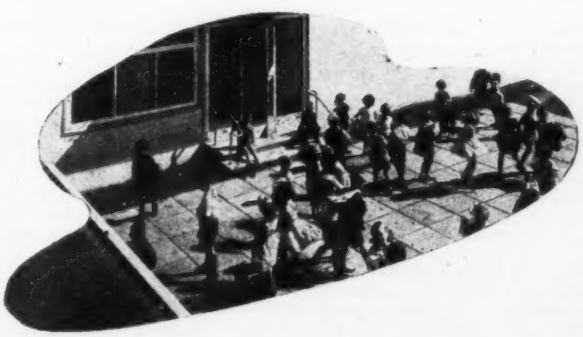
Cheshunt, Blindman's Lane. Junior Mixed and Infants: 320 children	Gee, Walker & Slater, Ltd., 100, Park Lane, London, W.1
Essendon. Junior Mixed and Infants: 120 children	do
Letchworth, Bedford Road. Junior Mixed and Infants: 320 children	do.
Croxley Green, Malvern Way. Infants: 360 children	C. Miskin & Sons, Ltd., Romeland, St. Albans.
Croxley Green, Little Green Lanes. Junior: 360 children	do.
Hitchin, Strathmore Avenue. Infants: 360 children	M. & F. O. Foster & Co., Ltd., 23, York Road, Hitchin.
Bushey, Mill Way. Junior Mixed and Infants: 320 children	C. Brightman & Sons, Ltd., Ebury Road Works, Watford.
Oxhey, L.C.C. Estate. Infants: 240 children	Holland & Hannen & Cubitts, Ltd., 1, Queen Anne's Gate, London, S.W.1.
Oxhey, L.C.C. Estate. Junior: 360 children	do.
Hemel Hempstead, Oliver Road. Junior Mixed and Infants: 320 children	Gee, Walker & Slater, Ltd., 100, Park Lane, London, W.1.
Stevenage, Sish Lane. Junior: 360 children	—

SUB-CONTRACTORS

Steelwork. †Hills Patent Glazing Co., Ltd.
Wallblocks. Uniment, Ltd.
Roof Blocks. Milbank Floors, Ltd.
*Hilcon, Ltd.
Roofing. Ruberoid Co., Ltd.
*D. Anderson & Son, Ltd.
Flue. True Flue, Ltd.
Windows. Hills Patent Glazing Co., Ltd.
James Gibbons, Ltd.
Electrical. Hartley Electromotives Ltd.
*Northmet Power Co., Ltd.
Heating. †Weatherfoil Heating Systems, Ltd.
Internal Walls. †Dejongs (branch of Shand Kydd, Ltd.)
Sanitary Equipment. Adamsez, Ltd.
*John Bolding & Sons, Ltd.
Floors. Carter & Co. (London), Ltd.
Hollis Bros. & Co., Ltd.
Semtex, Ltd.
William Lockhart, Ltd.
The Terradura Flooring Co., Ltd.
*Granwood Flooring Co., Ltd.
Doors. George M. Hammer & Co., Ltd.
*Standard Range & Foundry Co., Ltd.
Wire Lockers. Standard Range & Foundry Co., Ltd.
Ironmongery. N. F. Ramsay & Co., Ltd.
*James Gibbons, Ltd.
Paving. *C. H. Chaston & Co., Ltd.
Fencing. Lawsons (Whetstone), Ltd.
Manhole Covers. Broad & Co., Ltd.
Inspection Chambers. Trollope & Colls, Ltd.
Paint. †Mander Brothers, Ltd.
*Walpamur Co., Ltd.
Planting. Sear & Carter.
Furniture. George M. Hammer & Co., Ltd.
The Educational Supply Association
Harris Lebus, Ltd.
Kingfisher, Ltd.
Lighting Fittings. Troughton & Young, Ltd.
†B.T.H. Co., Ltd.

* Concerned with prototype only. † Collaborated with department with experimental work.





The structure of the schools in the operational programme is described on pp. 344-6. Top, typical standard units are shown. The programme is based on the reduction of variations to the minimum. Bottom, a diagram showing the relation of the various units when assembled. On the right, a part of the outdoor teaching space.

TECHNICAL SECTION

The function of this feature is to supply a digest of, and commentary on current information of interest to architects as recorded in technical publications and statements of every kind throughout the world. Items are prepared by specialists of the highest authority who are not on the permanent staff of the Journal, and views expressed are disinterested and objective. Items are printed on one side of the paper only to permit of cutting out and pasting up in classified order in readers' files. The Editors welcome information on all developments from any source.

INFORMATION CENTRE

To enable items to be filed all information is classified under the following headings:

1 SOCIOLOGY. 2 PLANNING: General. 3 PLANNING: Regional and National. 4 PLANNING: Urban and Rural. 5 PLANNING: Public Utilities. 6 PLANNING: Social and Recreational. 7 PRACTICE. 8 SURVEYING, SPECIFICATION. 9 DESIGN: General. 10 DESIGN: Building Types. 11 MATERIALS: General. 12 MATERIALS: Metal. 13 MATERIALS: Timber. 14 MATERIALS: Concrete. 15 MATERIALS: Applied Finishes, Treatments. 16 MATERIALS: Miscellaneous. 17 CONSTRUCTION: General. 18 CONSTRUCTION: Theory. 19 CONSTRUCTION: Details. 20 CONSTRUCTION: Complete Structures. 21 CONSTRUCTION: Miscellaneous. 22 SOUND INSULATION, ACOUSTICS. 23 HEATING, VENTILATION. 24 LIGHTING. 25 WATER SUPPLY, SANITATION. 26 SERVICES, EQUIPMENT: Miscellaneous. 27 FURNITURE, FITTINGS. 28 MISCELLANEOUS.

8.7 surveying and specification
SURVEYING INSTRUMENTS

Instruments and Methods for Surveys of Limited Extent. Philip Kissam (McGraw-Hill Book Co. Inc. 17s. 6d.)

A book written to provide a text-book for a short course in surveying for students of engineering, covering general principles, the particular methods to be adopted in various circumstances and the instruments normally used. Of particular interest to engineers as distinct from those concerned solely with straightforward land surveys.

There are already in existence standard works on land surveying, and the particular interest of this book lies in the fact that the author foresees the extended use of surveying in industrial enterprises.

In his opinion, the engineer must be capable, not only of making topographical and location surveys, but also of establishing sound surveying procedures for the alignment of large products, the setting of gauge points on jigs, the layout of liquid transfer equipment and the alignment of machinery, etc.

This does not mean that general principles have been overlooked—they have been adequately dealt with, but the emphasis is upon methods and instruments.

After general principles, the book deals with the transit (or theodolite) and its uses, traverses, the level and levelling procedure, "establishing line and grade for construction," topographical surveying and drawing maps, apart from other miscellaneous matter and tables. Separate chapters are given on the adjustment of the transit and level.

The book is well written and illustrated. The approach is novel and should be of interest to all concerned with surveying; it should prove invaluable to students of engineering, and to all others concerned with the use of surveying instruments as a means of obtaining accurate measurements for industrial purposes.

10.20 design: building types
SWIMMING BATHS

Planning and Design of Covered Baths. Part II. Design and Equipment. John A. Davenport. (John A. Davenport, Liverpool. 7s. 6d.)

Consideration of requirements of public baths, with statement of size requirements to suit population. Detailed sizes of fitments and opinions about planning.

This book contains a great deal of detailed information about bath sizes and bath equipment, together with opinions on planning and arrangement, which should provide useful reference. It covers private baths as well as plunge baths and also deals with laundries. There are chapters on heating and ventilation and on water purification. The particular claim made for this book is that it deals with planning on a *quantitative* basis.

12.9 materials: metal
SHEET ZINC

Sheet Zinc for Building. (Brochure by Zinc Development Association.)

Intended primarily for plumbers and sheet-metal working students, gives general information and some diagrams of some interest to architectural students.

13.15 materials: timber
TIMBERS: CHARACTERISTICS

World Timbers (*Series of Leaflets*), *Vol. II.* (Timber Development Association.)

Five new leaflets in the series. Dealing with PONDEROSO PINE, PODO, PYINKADO, SUGAR PINE, WESTERN WHITE PINE. Leaflets give botanical and other names; distribution; description of tree and nature and uses of timber.

15.14 materials: applied finishes and treatments
PAINTING AND DECORATING

The New Builder's Handbook on Painting, Decorating and Paperhanging. F. C. Horstmann and J. H. Sexton, Ed. I. R. Vessels. (George Allen and Unwin, Ltd., June, 1947, 5s.)

Simply written manual dealing in practical detail with variety of techniques and processes used in decorating a hypothetical house and shop. Old and new work included. There is a chapter on defects in painting and another on simple principles of estimating. p. 143. Index. Illustrated.

The booklet is a useful guide to the student and to the amateur decorator. Its main contribution is the information it provides on the actual operations involved in painting, etc. Theoretical knowledge on the subject would be better found in the recognised text books and in the Codes of Practice, where it is less superficially dealt with.

23.42 heating and ventilation
HEATING CIRCULATORS

Power-driven Circulators for Heating Plants. B.S. 1394: 1947. (British Standards Institution. 2s.)

This specification on power-driven circulators for heating plants is for all types of pump which give a flow to heating and hot water systems where the water temperature does not exceed 200 deg. F. No rigid system is laid down which might limit the design of the pump or heating system. Provisions are set down covering all the requirements of these pumps.

25.39 water supply and sanitation
SHEET STEEL BATHS

Sheet Steel Baths for Domestic Purposes. B.S. 1390: 1947. (British Standards Institution. 2s.)

Standard prepared for sheet steel baths to help in the housing programme. It covers vitreous enamelled sheet steel baths of two patterns and their sizes. The requirements for manufacture, quality, dimensions and tolerances are laid down. The vitreous enamel finish has tests for alkali and abrasion resistance. Overall plumbing sizes are the same as those for iron baths.

This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.

QUESTIONS AND ANSWERS

2915 WAR DAMAGE ACT

Q *I have several cases of genuine war damage claims which for various reasons have only just come to light. The War Damage Commission inform me that it is substantially outside the normal time limit, and that they do not consider the cases justified in granting an extension of time. Can you inform me whether there is any Appeal Tribunal, and whether their decision can be upheld in law?*

A Under the War Damage Act, 1943, Section 31, the Treasury were empowered to issue Regulations in respect of the notification of war damage. These Regulations (S.R. & O. 1941, No. 569) gave 30 days after the occurrence of the war damage in which notification of the damage should be given to the War Damage Commission, and the Commission could, in their discretion, extend this time in particular cases. Since October 1, 1946, a new form was required by the Commission for belated notification of war damage, and it would appear to be a matter for the discretion of the Commission, under the Regulations, as to whether they will accept such belated notification.

The following tables summarise the official statistics on housing progress, the production of building materials and the labour position.

HOUSING, MATERIALS AND LABOUR

[by Ian Bowen]

HOUSING

TABLE I PERMANENT HOUSES IN GREAT BRITAIN: Cumulative Totals

	Begun			Finished		
	Local Authorities	Private Builders	Total	Local Authorities	Private Builders	Total
To Dec., 1945	20,409	—	—	1,657	1,031	2,688
1946: Sept. ..	130,705	52,218	182,923	10,902	17,394	28,296
Oct. ..	150,882	55,800	206,682	14,570	21,177	35,747
Nov. ..	165,447	58,581	224,028	18,459	24,639	43,098
Dec. ..	178,379	61,293	239,672	23,923	28,175	52,098
1947: Jan. ..	190,340	63,319	253,659	28,440	31,609	60,049
Feb. ..	197,938	64,459	262,397	30,607	33,278	63,885
March	205,159	65,864	271,023	34,436	35,430	69,866
April	218,815	67,826	286,641	40,425	38,184	78,609
May ..	234,395	70,684	305,079	47,726	41,465	89,191
June ..	250,292	73,181	323,473	55,642	44,356	99,998
July ..	265,689	75,741	341,430	63,975	47,316	111,291
Aug. ..	280,197	78,582	358,779	71,646	49,813	121,459
Increase of Aug. over July ..	14,508	2,841	17,349	7,671	2,497	10,168

Total at Aug. 31, 1947	Under Construction	Finished
Local Authorities	208,551	71,646
Private Builders	28,769	49,813
War-destroyed rebuilt	16,515	13,484
Government Departments	2,071	329
Total	255,906	135,272

TABLE II TEMPORARY HOUSES IN GREAT BRITAIN: Cumulative Totals

	Slabbing Begun	Slabbing Completed	Erection Begun	Erection Completed
To Dec., 1945 ..	61,008	39,998	22,932	9,376
1946: Sept. ..	117,422	103,700	83,725	57,040
Oct. ..	122,742	109,368	93,201	70,121
Nov. ..	128,258	112,837	98,650	80,135
Dec. ..	131,646	115,711	103,796	92,306
1947: Jan. ..	134,023	118,451	107,214	97,070
Feb. ..	136,238	118,734	109,033	99,461
March ..	137,992	119,759	111,002	101,717
April ..	140,333	123,757	115,166	106,664
May ..	141,786	127,270	118,653	111,029
June ..	143,769	130,735	122,353	115,086
July ..	147,661	134,956	126,375	119,960
Aug. ..	153,086	141,611	129,535	122,992
Increase of Aug. over July ..	5,425	6,655	3,160	3,032

Temporary Houses Under Construction at Aug. 31: 6,543.

TABLE III NON-TRADITIONAL PERMANENT HOUSES (ALREADY INCLUDED IN TABLE I) GREAT BRITAIN: Cumulative Totals

	Begun	Completed
To end March 1947	38,159	5,495
„ April „	42,170	6,687
„ May „	46,793	8,281
„ June „	52,075	10,009
„ July „	57,935	12,160
„ Aug. „	63,293	14,161

Non-traditional Houses Under Construction at Aug. 31: 49,132

TABLE IV * HOUSING ACCOMMODATION PROVIDED OTHERWISE THAN BY NEW BUILDING: Cumulative Totals

	Unoccupied War-Damaged Houses Repaired	Conversions and Adaptations
To end March 1947	114,117	42,826
„ April „	116,772	44,909
„ May „	119,062	47,294
„ June „	121,836	49,616
„ July „	123,537	51,691
„ Aug. „	124,967	53,627
Increase of Aug. over July	1,430	1,936

* Emergency Huts (programme finished August 1946) provided for a further 3,480 families.

BUILDING MATERIALS

TABLE V PRODUCTION AND STOCK‡

Material	Unit	July-Sept., 1946		Aug., 1947	
		Production	Stocks‡	Production	Stocks‡
		(monthly average)			
Cement	th. tons ..	595	252	613	218
Bricks	millions ..	336	267	371	269
Roofing materials					
Clay tiles ..	th. squares	49.9	25.8	67.4	45.9
Concrete tiles ..	„	37.1	26.8	52.7	66.7
Slates	„	23.8	35.7	—	—
Asbestos cement sheeting ..	th. tons ..	26.7	—	21.7	—
Roofing felt ..	th. rolls of 24 sq. yds.	198	93	220	159
Ceilings, Wall Linings and Floorings					
Plaster gypseous	th. tons ..	15.8	—	—	—
Plasterboard ..	th. sq. yds.	2,910	298	3,141	254
Tiles					
Glazed	th. sq. yds.	458	—	461	—
Floor (Clay) ..	„	105	—	144	—
Pipes (Water, Gas, etc.)					
Lead	th. tons ..	3.76	—	3.83	—
Copper ..	„ ..	2.52	—	2.34	—
Soil Pipes (cast iron)	„ ..	1.44	—	1.95	—
(Asbestos Cement)	„ ..	—	—	.35	—
Drain Pipes, Salt Glazed	„ ..	30.6	—	37.7	—
Rainwater Goods, Rainwater Pipes, Gutters and Fittings					
Cast Iron and Pressed Steel	th. of equiv. tons of cast iron	3.47	—	4.55	—
Asbestos Cement Goods ..	th. tons ..	—	—	1.47	—
Manhole Covers and Frames	th. of equiv. tons of cast iron	3.25	—	2.55	—
Metal Windows ..	Mn. ft. sup.	3.14	2.10	3.33	3.22
Sanitary Fittings					
Baths	thousands ..	23.6	—	25.3	—
Lavatory Basins	„ ..	72.4	—	71.7	—
Sinks	„ ..	52.5	—	57.1	—
W.C. Pans ..	„ ..	84.0	—	89.5	—
Cookers ..					
Solid Fuel ..	„ ..	11.9	—	19.4	—
Electric ..	„ ..	13.3	—	18.7	—
Gas	„ ..	28.7	—	31.4	—
Fires, Solid Fuel ..	„ ..	52.2	—	80.2	—
Wash Boilers					
Electric	„ ..	17.6	—	18.2	—
Gas	„ ..	37.7	—	42.1	—
Furnace Pans (Solid Fuel) ..	thousands ..	3.0	—	3.3	—
Solid Fuel ..		.32	—	1.68	—
Softwood Timber (Imports and Home Produced)	th. stds. ..	76.4	150.9	188.4§	197.6†

‡ At end of period.
§ Imports only. British production is about 6,400 standard per month.
† July figures.

LABOUR

TABLE VI BUILDING AND CIVIL ENGINEERING LABOUR IN GREAT BRITAIN: Operatives Employed, aged 16 and over†

Type of Work	July, 1945	Aug., 1946	Aug., 1947*
Total	535.0	925.0	1,002.0
Housing	343.9	600.9	850.4
Permanent (Construction, and preparation of sites)	17.4	180.9	249.9
Temporary	14.5	39.4	11.2
Other (repairs, etc.) ..	312.0	380.6	289.3
Other Work	191.1	324.1	451.6

* Provisional. † In thousands.

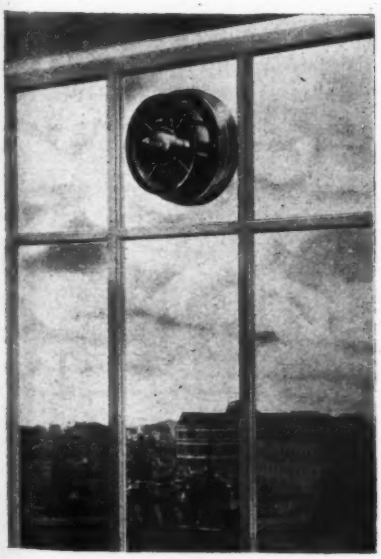
This feature covers both the production and marketing of new materials and designs of equipment, as well as the general trend of developments within the Building Industry.

THE INDUSTRY

[by Philip Scholberg]

WINDOW FANS

In the years before the war the GEC used to make a small plastic window fan known as the Xpelair. This has now been reintroduced in a modified and improved form at a price of £7 5s. 3d. for the A.C. and £12 8s. for the D.C. model. Rated at 25 watts this fan shifts 230 cubic feet of air a minute, this figure being measured in accordance with the appropriate BSS. The complete unit is fixed in the window glass by a rubber cushioned clamping ring, the glass hole being 9¼ in. diameter. In the past, two of the major criticisms which have been levelled against this type of fan are noise and vibration. In this particular model the fan is resiliently mounted on four rubber bushings in the casing which receive the fan arms, so that noise and vibration are considerably reduced. The overall efficiency of the fan has also been improved by the redesign of the cowling and by the use of a fan impeller which gives partly axial and partly centrifugal flow, and the loss in output due to the necessary reversal of air flow in the cowling is now only 6½ per cent. The fan motor has self-aligning and self-oiling bearings. At the moment the standard colour is brown, but a model in cream plastic will be produced as soon as materials are available. (*The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.*)



Xpelair plastic window fan.

MANAGING ON 1·6 STANDARDS

Most architects will presumably have learnt by now how to manage on the 1·6 standards allowance for 1,000 super feet of house. The TDA, however, has had the commendable idea of taking a standard Ministry of Health plan and showing how to manage on the official allowance without making any special departures from normal practice. First floor is 1 inch t and g on 2" by 7" joists at 18 inch centres and the hipped roof is timber. Roof and first floor together account for 1·090 standards, leaving 0·535 for the joinery, which includes windows, doors and door frames, staircase, mouldings, two tall broom and store cupboards and some sink cabinets in the kitchen, and a dresser in the dining room. For 1,032 square feet of floor space this adds up to 1·625 standards, or 1·570 per 1,000 feet, which seems safely within the allowance, particularly as all items include a 10 per cent. allowance for cutting and waste. The schedule has been prepared in conjunction with the English Joinery Manufacturers' Association and the British Door Association, and the suggestions of the MOW timber economy memorandum have also been followed. A series of tables showing MOW recommended dimensions for carcassing timbers has also been included, with a list of the relevant BSS for the joinery, not a bad effort in only 3 pages. Copies are available on request. (*The Timber Development Association, 75, Cannon Street, London, E.C.4.*)

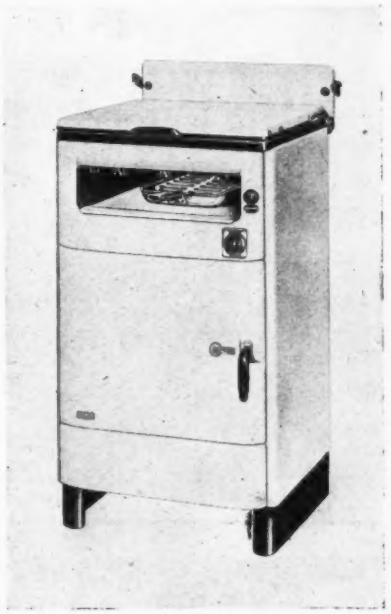
A NEW RADIATION COOKER

Shown for the first time last week, the new Radiation type 1430 cooker is a handsome looking job at quite a reasonable price for present-day levels. The main departure from standard pre-war practice is the wider use of vitreous enamelled pressings as against castings. Burner efficiency has been increased by something like 20 per cent. and the gas injection system has been modified so that the burners will not keep alight if they should strike back. The oven is a light alloy casting insulated with glass silk and a layer of aluminium foil, and the closing face of the oven door, instead of being machined, is fitted with a thin strip of stainless steel which is springy enough to provide a good seal and prevent heat losses.

Burner layout is normal, but for easy cleaning it is mounted in a deep vitreous, enamelled steel tray which can be lifted out and scrubbed under the tap. The plate rack folds down and the back forms a flat cover over the top of the stove. Cream, cream and green, and green and grey finishes have so far been standardised, and prices vary from £24 10s. to £27 16s., all plus 22s. with a flint type gas match. So far only a freestanding model has been produced, but there is to be a further model without the side panels, arranged for building into a range of standard cabinets. Whether a cooker of the latter type is a good idea is arguable. Radiation maintain, perhaps rightly, that it is practically impossible to prevent food spilling down the gap between the cooker and the cupboards, and that the space is uncleanable unless the cooker is disconnected and pulled right out, and that the freestanding type therefore remains the more practical. (*Radiation Ltd., Stratford Place, London, W.1.*)

AUTOMATIC WELDING

Some months ago I referred in these notes to an automatic electric stud welding gun developed in America, and suggested that something of the kind should find a considerable market in this country. I am interested, therefore, to find that a firm called Cyc-Arc is producing equipment of this kind, and that it is being quite widely used in the shipping industry, where any number of fittings have to be fixed to steel plate. The manufacturers provide a special mild steel stud which has a conical end and is metallised to reduce oxidation during welding. The stud is loaded into the chuck of the hand tool, interchangeable chucks being provided for different stud diameters, with a further adjustment to suit different lengths. The hand tool is then held so that the point of the stud is in the required position and in contact with the plate. When the trigger



Radiation type 1430 gas cooker.

is pulled the stud is automatically lifted from the plate and an arc is struck, melting the end of the stud and forming a molten pool on the surface of the plate. Current is then cut off and the stud is once more pushed against the plate to complete the weld. The whole process is automatic and the cycle takes about half a second to complete. A small fillet is formed round the base of the stud, but this should not normally be any disadvantage and it can be removed if necessary. Welding on a horizontal surface is perfectly straightforward, but for vertical or overhead surfaces a ferrule is temporarily slipped over the stud to control the size of the fillet.

So far as the quality of the weld is concerned, tests have shown that the studs can be bent through nearly a right angle, pulled in tension, or twisted off by torsion without failure of the weld. Although originally intended for stud welding, the Cyc-Arc system has also been successfully used for welding other light attachments such as lugs, split pins, clips or hooks. Several different sizes of unit are made, and there should be a wide use for them not only for fixing work on site, but also for shop assembly. The saving in time over drilling with power tools is considerable, and there is the additional advantage that the fix is made without perforating the structure, an important point when dealing with tanks or anything else which must be watertight. Savings in labour and other costs are of the order of twopence a stud in the smaller sizes, and more as the stud size increases. (*Cyc-Arc Ltd., Stelmar House, New North Road, London, N.1.*)

The form printed below is to assist readers requiring up-to-date information on building products and services. Complete and post it to The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1, and the advertisers listed will be asked to supply information direct.

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..... *A.J.* 16.10.47

Announcements

Owing to pressure of work in other connections, Mrs. Elizabeth McAllister, M.A., has resigned the editorship of "Town and Country Planning," a post she has held since 1941. Her place has been taken by Mr. Desmond Donnelly, who joined the staff of the Town and Country Planning Association last year.

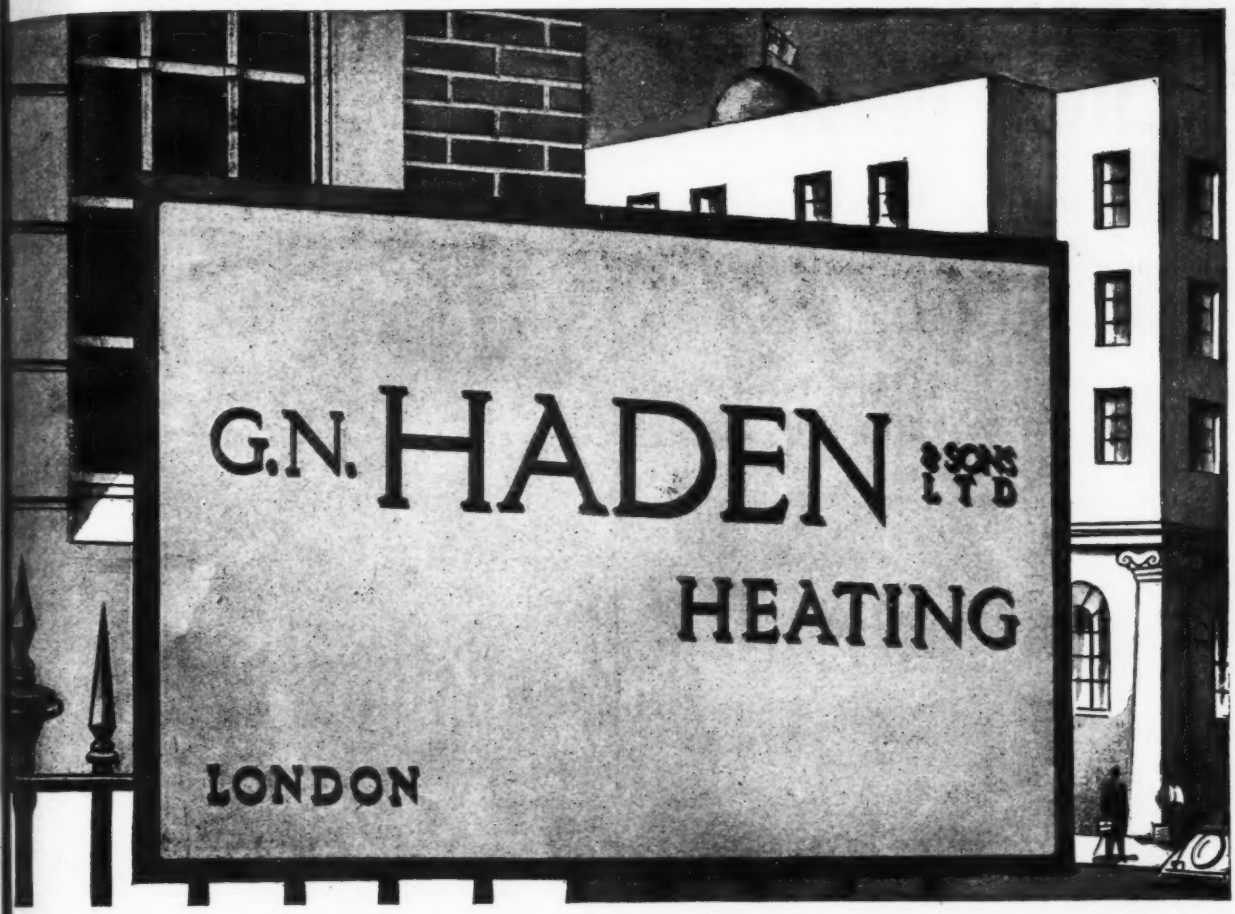
Mr. Alister MacDonald, F.R.I.B.A., chartered architect, is now conducting his professional practice from 167, Oxford Street, London, W.1. Telephone: Gerrard 6716.

Mr. F. J. Meekins, F.I.A.S., announces that the firm of F. J. Meekins and Partners, surveyors, has now been reformed, and that he has taken into partnership Mr. Leonard Fowler, A.R.I.C.S., F.I.ARB., who has for some time acted as superintending quantity surveyor. The firm will be re-styled F. J. Meekins and Partners, quantity surveyors, practising as before at 112, Park Street, London, W.1. Telephone number, Mayfair 3571/5.

Mr. George Fejér, M.S.I.A., consultant industrial designer, of 70, Ormonde Court, Upper Richmond Road, London, S.W.15, has now returned after a five weeks' study tour in Switzerland.

Obituary

We regret to announce the death on Friday, October 3, of Mr. John Dower, A.R.I.B.A. Mr. John Dower, who was responsible for the 1945 White Paper on National Parks, was educated at the Leys School and at St. John's College, Cambridge, where he was a scholar and where he took a first class in 1923. He entered the architectural profession, becoming an associate of the Royal Institute of British Architects in 1930, and was for a time in partnership with the late Harding Thompson. But his main work lay in planning related to the countryside, and in the thirties he began to take an important place among the growing body of opinion concerned with planning problems. Thus he was associated with the physical planning side of PEP, and a member of the National Parks Committee of the CPRE, while as an architect he designed hostels in the Lake District for the Youth Hostels Association, and was architect to the National Camps Board. After serving in the Royal Engineers during the war he was invalided out of the Army, and joined the planning side of the newly constituted Ministry of Works and Planning. It was there and in the later Ministry of Town and Country Planning that he carried out the task for which he is best known, though this was, in a sense, only the final phase of a long period of brilliant but often little-known work. Most important was the report which bears his name—the White Paper on National Parks, published in 1945. In it Dower's many qualities combined to produce a classic of its kind; its combination of strong but not extravagant idealism with much practical wisdom is illuminated by a clear and forceful prose style, and it has all the virtues of a short work written by one who has all the details at his fingers' ends. Its effect has been considerable and the recent reports of the National Parks Committee and the Footpaths and Access Committee, of both of which he was a member, are in a great degree indebted to it. On these committees Dower served most effectively, but constant demands on his strength were too great, and he had to retire from the Ministry of Town and Country Planning, continuing to serve it as a consultant, and from his Northumbrian sickbed, almost until the last, he encouraged the work he had begun.



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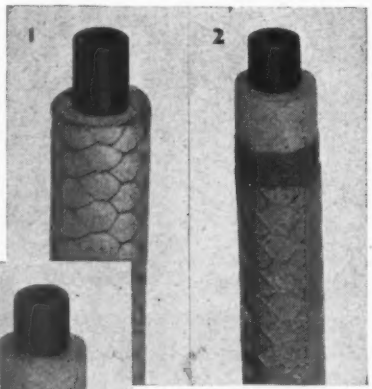
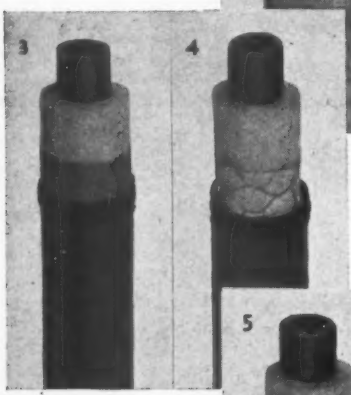


1. Flexible sections enclosed in cotton scrim cloth and secured in three-quarter inch mesh galvanised wire netting.

2. Flexible sections enclosed in hardboard, secured in galvanised wire netting and painted (two coats approved colour).



3. Flexible sections enclosed in hardboard, totally covered by heavy jute canvas, sewn on, filled, sized, and painted (two coats approved colour).

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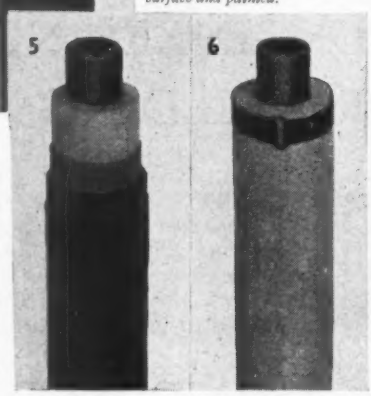

5. Flexible sections enclosed in hardboard, totally covered by waterproof bitumen felt secured externally in galvanised wire netting and painted.

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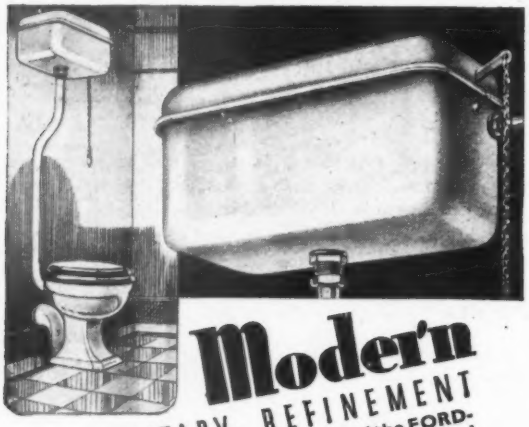

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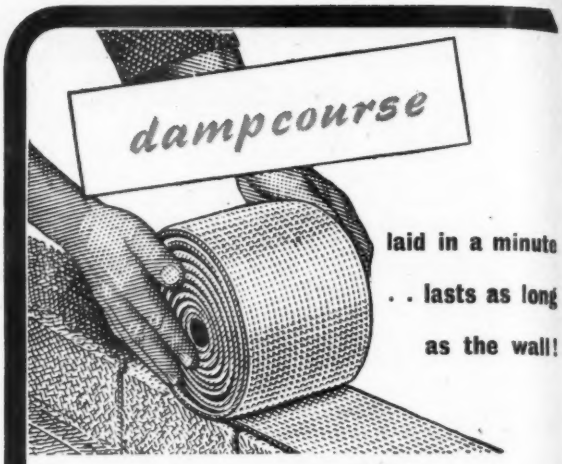

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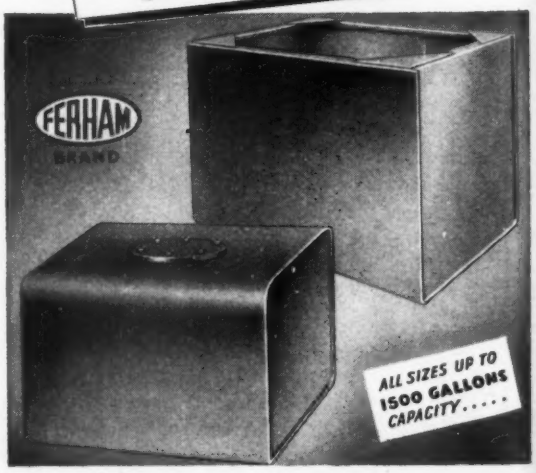

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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

None of the vacancies in these columns relates to a man between the age of 18 and 50, inclusive, or a woman between the age of 18 and 40, inclusive, unless he or she is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

Public and Official Announcements

6 lines or under, 10s.; each additional line, 1s. 6d.

THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: 75, EATON PLACE, LONDON, S.W.1. TEL. SLOANE 5615. 991

LONDON COUNTY COUNCIL.
COUNTY OF LONDON PLAN—VACANCIES FOR PLANNING STAFF.

Applications are invited for positions in the following grades:—

PLANNING OFFICER, Grade III, up to £760 a year.

TECHNICAL ASSISTANT, up to £580 a year. Commencing rate according to qualifications and experience. Opportunities for competing for permanent appointment and promotion. Successful candidates will be superannuable.

The planning work involved includes assistance in the detailed development of Reconstruction Area schemes and the preparation of revised zoning plans.

A knowledge of current town planning legislation is desirable in all cases, and candidates for Grade III positions should possess architectural, surveying or town planning qualifications.

Application forms obtainable from Architect to the Council, County Hall, S.E.1 (enclose stamped addressed envelope), returnable not later than 10 days from this date.

Canvassing disqualifies. (1680) 835

DEPARTMENT OF HEALTH FOR SCOTLAND invite applications for the following temporary Planning and Architectural appointments. The work covers town and country planning, housing and design of hospitals, health centres, schools, and other community buildings.

(a) Planning Appointments (covering regional planning work, planning technique, and studies for survey and development plans):

(1) ASSISTANT PLANNING OFFICERS. Candidates should be qualified as architects, engineers or surveyors, and should have passed the Final examination of the T.P.I. Preferably they should have had at least three years' experience in a planning office. Minimum age: 26. Commencing salary: £485 at age 26, with additions of £25 for each year up to age 32.

(2) PLANNING ASSISTANTS. Candidates should have reached the Intermediate examination stage as architects, engineers, surveyors or planners, and should preferably have had some experience in a planning office. Minimum age: 22. Commencing salary: £320 at age 22, with additions of £20 for each year up to age 25.

(b) ASSISTANT ARCHITECTS. To assist on research work on special building types and on design and layout of housing and other building schemes for redevelopment areas and new towns. Candidates should be fully qualified architects, preferably with at least four years' practical experience. Minimum age: 24. Commencing salary: £435 at age 24, with additions of £25 for each year up to age 30.

Successful candidates over the higher ages mentioned may be given further additions to the salaries indicated. Salaries for women in respect of all the above-mentioned appointments will be somewhat lower than those for men. Forms of application may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Edinburgh, 1. No application can be considered unless received by the Department on the prescribed form not later than 1st December. 851

COUNTY OF LINCOLN—PARTS OF LINDSEY.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of SENIOR QUANTITY SURVEYOR, A.P.T., Grade VI-VII, salary £635-£650, plus bonus. The cost-of-living bonus amounts to £59 16s. per annum. Preference will be given to members of the R.I.C.S.

The appointment will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937.

The successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with not more than two testimonials or names for reference, should be sent to the County Architect, County Offices, Lincoln, not later than fourteen days after the date of this advertisement.

ERIC W. SCORER,
Clerk of the County Council.
County Offices, Lincoln. 890

ANGLESEY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following permanent appointments, in the County Architect's Department:—

(a) TWO SENIOR ASSISTANT ARCHITECTS. Salary Grade V, commencing at £460 per annum and rising to £510 per annum. Applicants should be Registered Architects, and preference will be given to members of the Royal Institute of British Architects, who should have had experience in the design of educational buildings, preparation of working drawings, specifications, etc.

(b) TWO ASSISTANT ARCHITECTS. Salary Grade III, commencing at £390 per annum and rising to £435 per annum. Applicants should have passed the Intermediate examination of the Royal Institute of British Architects, and have had good experience of general architectural work.

(c) ONE ARCHITECTURAL ASSISTANT. Salary Grade I, commencing at £330 per annum, and rising to £375 per annum. Applicants should have passed the Preliminary examination of the Royal Institute of British Architects, and have had a good architectural training.

Cost-of-living bonus, at present £59 16s. per annum, is payable in addition to the salary scales quoted above.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidates passing a medical examination. The appointments are also subject to one month's notice on either side.

Applications in plain envelopes, appropriately endorsed, stating age, training, qualifications, experience, and past and present appointments, accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than Monday, 27th October, 1947.

WILLIAM JONES,
Clerk of the County Council.
Shire Hall, Llangefni, Anglesey. 889

MIDDLESBROUGH EDUCATION COMMITTEE.
APPOINTMENT OF ASSISTANT ARCHITECTS.

Applications are invited for the following appointments on the established staff of the Architect's Section of the Education Offices:—

(a) TWO ASSISTANT ARCHITECTS. Grade V, £460-£510.

(b) ONE ASSISTANT ARCHITECT. Grade I to II, £330-£405.

(c) ONE JUNIOR ASSISTANT. Misc. Div., £255-£300.

A cost-of-living bonus, at present £60 per annum, will be payable in addition to the basic salary in each case, and the appointments will be subject to the provisions of the Local Government Superannuation Act, 1937.

The selected candidates will work under the immediate direction of the Architect to the Education Committee, Mr. T. Noel Mitchell, B.Arch.(Liverpool), A.R.I.B.A.

Applicants for appointments (a) must have had experience in the design and construction of modern buildings, including schools, and should have reached the standard of the Final Examination of the R.I.B.A. A University degree or diploma in Architecture, and ability to carry out perspective drawing would be an advantage.

Applicants for appointment (b) must have had a good general experience, and should have reached the standard of the Intermediate Examination of the R.I.B.A.

Applicants for appointment (c) must be good draughtsmen, with a general experience.

Applications, stating appointment applied for, giving age, education, professional training and qualifications, experience, previous appointments, present appointment and salary, and service in the Forces (if any), together with copies of two recent testimonials and the names of two persons to whom reference can be made, should be delivered to the Director of Education, Education Offices, Woodlands Road, Middlesbrough, not later than the first post on Tuesday, 28th October, 1947.

Canvassing, directly or indirectly, will disqualify.

E. C. PARR,
Town Clerk.
Town Clerk's Office, Middlesbrough.
29th September, 1947. 870

METROPOLITAN BOROUGH OF HOLBORN.
HOUSING AND PLANNING DEPARTMENT.
SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at an initial basic salary of £555, rising by two annual increments of £20 and one of £25 to a maximum of £620 per annum (A.P.T., Grade VI), plus cost-of-living bonus (£59 16s.).

Applicants must be qualified Architects, and must have had considerable experience in the preparation of housing schemes, plans of flats, and specifications, and, preferably, experience of building in London.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications (no special form provided), stating age, qualifications, experience, and previous appointments, together with copies of three recent testimonials or the names of three persons to whom reference may be made, should be received by the undersigned, endorsed "Senior Architectural Assistant," not later than 25th October, 1947.

C. F. S. CHAPPLE,
Town Clerk.
Town Hall, High Holborn, W.C.1. 913

NEWCASTLE-UPON-TYNE EDUCATION COMMITTEE.

CLERK OF WORKS required in connection with the building of a new School on the Blakelaw Estate, Newcastle-upon-Tyne. Work due to commence about the end of November, 1947. Duration of contract—about 2 years. Wage £8 per week, plus cost-of-living bonus (at present 23s. per week). Previous experience as a Clerk of Works essential. Form of application may be obtained from the undersigned, to whom applications must be delivered not later than 31st October, 1947.

THOS. WALLING,
Director of Education.
Education Offices, Northumberland Road, Newcastle-upon-Tyne, 1. 907

CITY OF STOKE-ON-TRENT.
CITY ARCHITECTURAL DEPARTMENT.

Applications are invited for the following appointments, on the establishment staff of the City Architectural Department:—

(a) ONE ASSISTANT ARCHITECT. Salary A.P.T. Division, Grade VI, £535-£600.

(b) ONE ARCHITECTURAL ASSISTANT. Salary A.P.T. Division, Grade I, £330-£375.

(c) ONE ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. Division, Grade VI, £535-£600.

All the above appointments carry, in addition, a cost-of-living bonus, at present £59 16s. per annum.

The selected applicants will be required to pass a medical examination, and the appointments will be subject to the following:—

(1) One calendar month's notice on either side.

(2) The provisions of the Local Government Superannuation Act, 1937.

(3) The National Scheme of Conditions of Service for Local Government Officers.

Applicants for (a) must be Associates of the Royal Institute of British Architects, and have had experience in the planning, design, and construction of buildings for Local Government purposes.

Applicants for (b) should have received a sound architectural training, be neat and accurate draughtsmen, and have had a good general experience of architectural design and building construction.

Applicants for (c) must be members of the Royal Institution of Chartered Surveyors (Quantities), and must be competent in all branches of Quantity Surveying practice.

Applications, giving date of birth, particulars of education and training, qualifications, experience, present and previous appointments, with copies of two recent testimonials, and names and addresses of two persons to whom reference may be made, should be received by J. R. Piggott, F.R.I.B.A., Chief Architect, City Architectural Department, Kingsway, Stoke-on-Trent, endorsed with the title and grade of the appointment applied for, not later than Friday, 31st October, 1947.

HARRY TAYLOR,
Town Clerk.
Town Hall, Stoke-on-Trent. 903

LONDON COUNTY COUNCIL.
ARCHITECTURAL ASSISTANTS.

Applications are invited for positions of Architectural Assistants, in the Housing and Valuation Department, at consolidated salaries of up to £580 a year. Commencing salaries will be determined according to qualifications and experience, and qualified candidates will be eligible for appointment to the permanent staff of the department on the occurrence of vacancies. Engagement will involve contribution to the Council's Superannuation and Provident Fund.

Successful candidates will be required to undertake work in connection with the design and development of housing schemes (cottages and multi-storey flats).

Forms of application may be obtained from the Director of Housing and Valuer, The County Hall, Westminster Bridge, S.E.1 (stamped addressed foolscap envelope required).

Canvassing disqualifies. (1050) 741

EASINGTON RURAL DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointment on the permanent staff, in accordance with the National Scale of Salaries:—

SECOND ARCHITECTURAL ASSISTANT. Grade II. A.P. and T. Division. Commencing salary £360, rising by annual increments, subject to satisfactory service, to £405 per annum.

Cost-of-living bonus, at present £59 16s. (male), is payable in addition to the above salary.

Candidates must have served articles as an architect or architectural assistant, and preferably had experience in the office of a municipal engineer or architect on the design and layout of large housing schemes.

The appointment is subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Service may be terminated by one month's notice on either side.

Applications, stating age and details of qualifications and experience, on a form obtainable from the undersigned, together with two copies of recent testimonials, are to be delivered to the undersigned not later than 25th October, 1947, in a sealed envelope endorsed "Second Architectural Assistant."

Canvassing, directly or indirectly, will disqualify.

J. W. GRAY,
Clerk of the Council.
Council Offices, Easington, Co. Durham. 904

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT ARCHITECT, Grade V, at a commencing salary of £460, rising by annual increments of £15/£20 to a maximum of £510 per annum, plus London allowance of £20, together with cost-of-living bonus, at present £59 16s. per annum.

Preference will be given to applicants who are Associate Members of the Royal Institute of British Architects, and have had a good training and an adequate experience in the design and construction of modern buildings.

The appointment will be subject to the provisions of the Local Government Act, 1937, and the successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 1st November, 1947.

It is desirable that applications should be accompanied by a small example of the applicant's work.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

DUDLEY AUKLAND,
Clerk of the Council.

County Hall, Kingston-upon-Thames. 918

MONMOUTHSHIRE COUNTY COUNCIL.

Applications are invited for the following posts, in the County Architect's Department :—

(*a*) PERMANENT PRINCIPAL ARCHITECTURAL ASSISTANT, at a salary in accordance with Grade VII of the Administrative, Professional and Technical Division of the National Joint Council's Scheme, *viz.*, £575 per annum, rising by annual increments of £25 to a maximum of £650 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

(*b*) SIX PERMANENT ARCHITECTURAL ASSISTANTS, at a salary in accordance with Grade V of the Administrative, Professional and Technical Division as above, *viz.*, £460 per annum, rising by two annual increments of £15 and one of £20 to a maximum of £510, plus cost-of-living bonus, at present £59 16s. per annum.

(*c*) TWO PERMANENT ASSISTANT QUANTITY SURVEYORS, at a salary in accordance with Grade IV of the Administrative, Professional and Technical Division of the National Joint Council's Scheme, *viz.*, £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates for (*a*) and (*b*) must have a knowledge of design and construction, particularly in relation to schools, public buildings, police stations, etc., and must be Associate Members of the Royal Institute of British Architects, and for (*c*) should be Members of the Surveyor's Institution (Quantities Section), and should have had wide experience in preparing estimates and bills of quantities, and in dealing with contractors' accounts, etc. The appointment will be subject to the Local Government Superannuation Act, 1937, and to the Regulations of the Council in force from time to time governing their Administrative, Technical and Clerical Staff. The successful candidates will be required to pass a medical examination. Canvassing, directly or indirectly, will be a disqualification, and applicants must disclose in writing any relationship within their knowledge to a member of the authority or to a holder of any senior office under the authority. Forms of application, and conditions of service, can be obtained from the undersigned. Applications, together with copies of three recent testimonials, must be delivered to Mr. Colin L. Jones, F.R.I.B.A., County Architect, Queen's Hill, Newport, Mon., not later than Saturday, 8th November, 1947.

VERNON LAWRENCE,
Clerk of the Council.

County Hall, Newport, Mon. 919

BOROUGH OF LUTON.
BOROUGH ENGINEER'S DEPARTMENT.
TECHNICAL STAFF.

Applications are invited for the following appointments :—

(*a*) SENIOR ARCHITECTURAL ASSISTANTS. Salaries £535—£20—£20—£25—£600.

(*b*) ARCHITECTURAL ASSISTANT. Salary £420—£15—£465.

Applicants must be A.R.I.B.A., and have had extensive experience in the design and construction of public buildings, schools and houses, and, in particular, have had recent experience in the design and development of housing programmes.

In the cases of appointments (*a*), every endeavour will be made to provide housing accommodation within a reasonable time.

The appointments are all subject to the provisions of the Local Government Superannuation Act, 1937, and the temporary cost-of-living bonus, at the rate of £59 16s., per annum.

Applications, suitably endorsed, giving particulars of age, qualifications, experience, and present appointment and salary, together with copies of not more than three recent testimonials, should be delivered to the Borough Engineer, Town Hall, Luton, not later than Monday, the 3rd November, 1947. Canvassing will disqualify.

W. H. ROBINSON,
Town Clerk.

Town Hall, Luton.
7th October, 1947. 921

CUMBERLAND COUNTY COUNCIL.
APPOINTMENT OF PLANNING ASSISTANT.

Applications are invited for the position of Planning Assistant, at a salary of £460 per annum, rising by annual increments of £15 and £20 to £510, plus cost-of-living bonus (at present £59 16s. per annum), and a car allowance in accordance with the Council's scale (at present £50 per annum for standing charges and 3d. per mile running costs with free petrol). Subsistence paid on the National Charter Scales. The appointment is subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to undergo a medical examination, the appointment to be terminable by one month's notice in writing on either side. Applicants should be Members, or Associate Members, of the Town Planning Institute, and a qualification in architecture will be an advantage. The commencing salary on the grade will be determined according to the candidate's previous experience. Applicants must be fully conversant with the Town and Country Planning Acts, and Orders made thereunder, and be fully competent to carry out field work, plotting, and the preparation of plans. Applications, stating age, qualifications, experience, and previous appointments held, accompanied by copies of three recent testimonials, and endorsed "Planning Assistant," should be sent to the County Planning Officer, Citadel Chambers, Carlisle, not later than Monday, 27th October, 1947.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts, Carlisle.
4th October, 1947. 908

EAST SUFFOLK COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments in the County Planning Officer's Department :—

(*a*) ASSISTANT COUNTY PLANNING OFFICER. A.P.T., Grade VI (salary £535-£600), plus cost-of-living bonus.

(*b*) TWO SENIOR PLANNING ASSISTANTS. A.P.T., Grade V (salary £460-£510), plus cost-of-living bonus. One Officer will be engaged primarily on reconstruction schemes and be required to reside in the Lowestoft district, the other will assist in the preparation of development plans at Headquarters.

(*c*) PLANNING ASSISTANT. A.P.T., Grade II (salary £360-£405), plus cost-of-living bonus.

Applicants for appointments (*a*) and (*b*) should be either members or associate members of the Town Planning Institute, and preference will be given to those possessing qualifications in engineering, surveying or architecture, and they will be required to maintain a motor car, for which they will be paid allowances according to the Council's scale.

The appointments will be in accordance with the National Conditions of Service, will be subject to the Local Government Superannuation Act, 1937, and will be determinable by one month's notice on either side.

Applications, endorsed with the designation of the appointment desired, stating age, experience, qualifications, present and past appointments, and giving names and addresses of two referees to be delivered to the undersigned not later than the first post Friday morning, the 31st October 1947.

G. C. LIGHTFOOT,
Clerk of the County Council.

County Hall, Ipswich. 917

LONDON COUNTY COUNCIL.

Applications are invited for appointment as HEAD OF THE SENIOR SCHOOL of the Brixton School of Building, Ferndale Road, S.W.4, to commence duties on 1st January, 1948. The department provides full-time courses in Building, Architecture, Structural Engineering and Surveying. Applicants should be Fellows, or Associates, of the R.I.B.A., and have experience in the organization of technical courses associated with building. Burnham scale salary for Grade III department, £900—£25—£1,000, plus £36 or £48 London allowance and training additions. Full particulars and application forms (stamped addressed foolscap envelope necessary) from the Education Officer (T.1), County Hall, S.E.1, returnable by 22nd November, 1947. (3052) 909

NORTH RIDING OF YORKSHIRE COUNTY COUNCIL.

Applications are invited for SENIOR ASSISTANT ARCHITECT, Grade A.P.T., V, of the National Scales (£460-£510), plus bonus of £59 16s. per annum.

Applicants should have had some experience in the Architect's Department of a Local Authority.

Appointment superannuable and subject to medical examination.

No form of application is issued, but further information obtainable from J. Catchpole, A.R.I.B.A., County Architect, Northallerton. Applications, stating age, qualifications and experience, together with particulars of present and previous appointments, and names and addresses of three persons to whom reference can be made, to be sent to undersigned by Friday, 31st October, 1947.

Canvassing, directly or indirectly, will disqualify, and candidates should state, in writing, whether they are related to any member of the Council, or to the Head of any Department or his standing Deputy.

H. G. THORNLEY,
Clerk of the County Council.

County Hall, Northallerton.
8th October, 1947. 926

COUNTY OF LINCOLN—PARTS OF LINDSEY.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, on the permanent staff, in accordance with the National Scheme :—

(*a*) SECTIONAL ASSISTANT ARCHITECT, A.P.T., Grades V-VI, salary £460-£600, plus bonus.

(*b*) ARCHITECTURAL ASSISTANTS. A.P.T., Grade III, salary £390-£435, plus bonus.

The cost-of-living bonus amounts to £59 16s. per annum.

Preference will be given to applicants who have passed the Final Examination of the R.I.B.A. in the case of (*a*), and the Intermediate Examination of the R.I.B.A. in the case of (*b*), or who are Registered Architects. The applicant under (*a*) will also be expected to run a car, for which an allowance on the County Council's scale will be made.

The duties will embrace technical work in connection with all the County Council's major building programmes, and offer wide and varied interests and scope.

The appointments will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937.

The successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with not more than two testimonials or names for reference, should be sent to the County Architect, County Offices, Lincoln, not later than fourteen days after the date of this advertisement.

ERIC W. SCORER,
Clerk of the County Council.

County Offices, Lincoln. 911

VACANCIES FOR DRAUGHTSMEN (ARCHITECTURAL) AND QUANTITY SURVEYORS' ASSISTANT, PUBLIC WORKS DEPARTMENT, SOUTHERN RHODESIA.

Applications are invited from Draughtsmen (Architectural) and Quantity Surveyors' Assistant, with good experience for posts in the Public Works Department, Salisbury, Southern Rhodesia.

Scales of pay and conditions of service, etc., are set out hereunder :—

(1) Appointment will be on a salary scale of £264×£22—£330×£55—£385×£33—£550×£27 10s.—£660 per annum.

(2) Commencing salary may be higher than the minimum stated, depending on qualifications and previous experience. (Example) starting rate for a person who has had 3 years' learnership and 3 years' previous experience, £418 per annum.

(3) Marriage allowance at the rate of £50 per annum is payable, subject to regulations, to officers in receipt of salaries between £330 and £660 per annum.

(4) Appointment will be on probation for two years and thereafter to the fixed establishment, subject to satisfactory service.

(5) The appointment is subject to the regulations applicable to the Public Service, and successful applicants will be required to produce a satisfactory medical certificate signed by a Southern Rhodesia Government Medical Officer.

(6) A cost-of-living allowance of 10 per cent. of salary and a children's allowance at the rate of £24 per annum for the first child and £18 per annum for each additional child are payable. These allowances are subject to alteration.

(7) Vacation leave on full pay is granted at one-tenth of service to officers with salaries up to £550 per annum, and one-eighth to officers receiving higher salaries.

(8) Steamship and rail fares will be paid to Salisbury, Southern Rhodesia, for successful applicant, and half the cost of passages and fares of his wife and dependent children under 18 years of age. Subsistence allowance at Government rates and in similar proportion will be paid in respect of journey from port of disembarkation.

(9) The minimum educational qualifications required is a four year secondary course of education recognized by the Southern Rhodesia Education Department. The matriculation certificate of the University of London ranks as a five year course.

(10) Applicants must be prepared to give an undertaking to serve the Southern Rhodesia Government for a period of at least three years.

Application forms may be obtained from the Secretary, Office of the High Commissioner for Southern Rhodesia, 429, Strand, London, W.C.2, and completed forms should be returned to this office not later than 31st October, 1947. Canvassing will disqualify applicants. 911

CITY ARCHITECT'S DEPARTMENT.

Applications invited for following permanent staff appointments :—

(*a*) SENIOR ASSISTANT ARCHITECTS. Grade V, £460-£510.

(*b*) SENIOR ASSISTANT ARCHITECTS. Grade IV, £420-£465.

(*c*) ASSISTANT ARCHITECTS. Grade III, £390-£435.

(*d*) JUNIOR ARCHITECTURAL ASSISTANTS. Grade I, £330-£375.

All salaries plus cost-of-living bonus (£59 16s. per annum).

Applicants for (*a*) must hold A.R.I.B.A. qualification, and for (*b*) have passed Inter examination of R.I.B.A. Appointments subject to medical examination and to one month's notice on either side. Applications (experience, age, qualifications) to undersigned by 20th October, 1947.

J. Nelson Meredith, F.R.I.B.A., City Architect.
Eagle House, Bristol, 1 933

LOCAL APPOINTMENTS COMMISSION.
POSITIONS VACANT: THREE ASSISTANT QUANTITY SURVEYORS, DUBLIN CORPORATION.

Application forms for and particulars of the above posts may be obtained from the Secretary of the Commission, 45, Upper O'Connell Street, Dublin. Salary scale: £400—£15—£490—£10—£500. Age limits: 25-45 years on 1st June, 1947. The upper age limit will not apply in the case of existing pensionable officers of local authorities. An extension of the upper age limit will be granted to persons who have certain specified service in the Defence Forces or the Auxiliary Defence Services.

Latest time for receiving completed application forms: 5 p.m. on 14th November, 1947. 914

LONDON COUNTY COUNCIL.
VACANCY FOR GRADE I PLANNING OFFICER.

Applications invited for the position of Grade I Planning Officer, at a salary of £840 a year, rising by annual increments of £40 to £960 a year, to assist in the Planning Division of the Architect's Department. Duties will include responsibility for a group of planning staff engaged either on Town Planning applications and detailed planning for a part of the County or on research and negotiations in connection with planning standards and matters of principle for application to the County as a whole.

Candidates should possess good professional qualifications and experience, and should be conversant with current town planning legislation.

Apply to the Architect, County Hall, S.E.1, for form of application (enclosing stamped addressed envelope), returnable within ten days.

Canvassing disqualifies. (3269) 928

LONDON COUNTY COUNCIL.
VACANCY FOR ASSISTANT SENIOR PLANNING OFFICER.

Applications invited for the position of Assistant Senior Planning Officer, at a salary of £1,000 a year, rising by annual increments of £50 to £1,200 a year. The position is secondary to that of the Senior Planning Officer in charge of the Planning Division of the Architect's Department, dealing with all general planning matters, including the preparation of the Development Plan for the Administrative County, the progressing of Reconstruction Area schemes, and the examination of Town Planning applications submitted to the Council.

Candidates should possess good professional qualifications and experience, and should be conversant with current town planning legislation.

Apply to the Architect, County Hall, S.E.1, for form of application (enclosing stamped addressed envelope), returnable within ten days.

Canvassing disqualifies. (3269) 929

CIVIL SERVICE COMMISSION, DUBLIN.

Positions vacant: (*a*) ESTABLISHED ARCHITECTS (2), and (*b*) ESTABLISHED ASSISTANT ARCHITECTS (7), in the Office of Public Works (Dublin).

Application forms for and particulars of the above-named posts may be obtained from the Secretary, Civil Service Commission, 45, Upper O'Connell Street, Dublin.

Post (*a*):—Salary scales: Man, £880—£25—£1,060 inclusive a year; woman, £730—£20—£920 inclusive a year. Maximum age limit: 45 years on the 1st September, 1947, except in the case of serving Civil Servants and persons with certain specified service in the Defence Forces or Auxiliary Defence Services.

Essential qualifications: (i) A recognized University Degree in Architecture or an equivalent academic qualification; (ii) satisfactory practical knowledge of, and experience in, the design, construction, estimation of cost, and supervision, of important buildings, and the services connected therewith; (iii) satisfactory knowledge of the principles of valuation of buildings and their sites; (iv) a good practical knowledge of, and experience in, the repair and maintenance of buildings, and the checking and adjustment of builders' accounts.

Post (*b*):—Salary scales: Man, £420—£20—£800 inclusive a year; woman, £350—£20—£650 inclusive a year. Successful candidates, with special qualifications and/or experience, may be allowed to enter the appropriate salary scale at a point above the minimum, not exceeding £520 inclusive (man) or £450 inclusive (woman). Maximum age limit: 40 years on the 1st September, 1947, except in the case of persons with certain specified service in the Defence Forces or Auxiliary Defence Services. Essential qualifications: (i) a recognized University Degree in Architecture or an equivalent academic qualification; (ii) satisfactory experience of Architectural work in an Architect's Office (in a capacity other than that of apprentice or articled pupil); (iii) satisfactory experience in the preparation of designs and contract drawings from sketches or instructions; (iv) satisfactory outdoor experience.

Note.—In the event of vacancies arising in the Office of Public Works for Temporary Assistant Architects, Grade II (salary scale: man, £9 10s. to £13 inclusive a week; woman, £7 10s. to £10 10s. inclusive a week, according to qualifications and experience), such vacancies may be filled by the appointment of candidates who have been found to be qualified and suitable in the competition for Assistant Architects (Established) but who are not successful in securing established posts.

Latest time for accepting completed application forms for both posts (*a*) and (*b*): 5 p.m. on 25th November, 1947. 936

COUNTY BOROUGH OF GREAT YARMOUTH.
TOWN PLANNING DEPARTMENT.
APPOINTMENT OF TOWN PLANNING ASSISTANT.

Applications are invited for the appointment of Town Planning Assistant, in the Town Planning Department of the Council, at a salary in accordance with Grade I of the Administrative, Professional and Technical Division of the National Scales of Salaries, *i.e.*, £330 per annum, rising by three increments of £15 to £375 per annum, plus cost-of-living bonus, at present £59 16s.

The applicant should be a good draughtsman, with some architectural or planning experience.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination, and will be terminable by one month's notice on either side.

Applications, stating age, qualifications and previous experience, together with copies of three recent testimonials, should be enclosed in an envelope endorsed "Town Planning Assistant," and must reach the undersigned not later than the 31st October, 1947.

Canvassing, directly or indirectly, will be deemed a disqualification, and candidates must disclose in writing whether, to their knowledge, they are related to any member of, or the holder of any senior office under the Council. Any candidate failing to do so will be disqualified, and, if appointed, will be liable to dismissal without notice.

FARRA CONWAY,
Town Clerk.

Town Hall, Great Yarmouth.
7th October, 1947. 920

BOROUGH OF GUILDFORD.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant, in the Borough Engineer's Department, at a salary in accordance with Grade A.P.T., III, of the National Scheme of Conditions of Service (£390-£435), plus cost-of-living bonus, at present £59 16s. per annum.

Applicants must be Registered Architects, and have had good experience on general architectural work, including Housing Development. Preference will be given to applicants holding an appropriate professional qualification. The appointment will be terminated by one month's notice in writing on either side, and subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and experience, must be delivered, with copies of two recent testimonials, to the undersigned, not later than Saturday, 1st November, 1947.

If required, the successful candidate will be assisted in obtaining housing accommodation. Applicants must state whether they are related to any member of the Authority, or the holder of any Senior Office under the Authority. Canvassing of members of the Authority, either directly or indirectly, will disqualify the candidate.

HERBERT C. WELLER,
Town Clerk.

Municipal Offices, Guildford.
8th October, 1947. 925

MONMOUTHSHIRE COUNTY COUNCIL.

Applications are invited for the appointment of permanent ELECTRICAL ENGINEER, at a salary in accordance with Grade A.P.T., VI, of the National Scale of Salaries, *viz.*, £535, rising by two annual increments of £20 and one of £25 to a maximum of £600, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates should possess an Engineering Degree or its equivalent, and also Corporate Membership of one of the leading Electrical Institutions. Experience in all types of electrical installations is essential, and candidates, who will be under the direction of the County Architect, will be expected to:—

(1) Inspect and supervise the maintenance of all the electrical work in schools and County Buildings.

(2) Inspect and report on electrical installations and machinery in cinemas and theatres, in accordance with the Cinematograph Regulations.

(3) Prepare schemes and specifications for all new works in schools, workshops and County Buildings, etc.

The appointment will be subject to the Local Government Superannuation Act, 1937, and to the Regulations of the Council in force from time to time governing their Administrative, Technical and Clerical Staff, and will be determinable by one month's notice on either side. The successful candidate will be required to pass a medical examination. Forms of application and conditions of service can be obtained from the undersigned. Canvassing, directly or indirectly, will be a disqualification, and applicants must disclose in writing any relationship within their knowledge to a member of the Authority or to a holder of any senior office under the Authority.

Applications, stating age, experience and qualifications, together with copies of three recent testimonials, must be delivered to Mr. Colin L. Jones, F.R.I.B.A., County Architect, Queen's Hill, Newport Mon., not later than Saturday, 8th November, 1947.

VERNON LAWRENCE.
Clerk of the Council.

County Hall, Newport, Mon. 935

SOMERSET COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Note.—None of the vacancies appearing hereunder relates to a man between the ages of 18 and 50, inclusive, or a woman between the ages of 18 and 40, inclusive, unless he or she is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

Applications are invited for the following appointments in the above-named Department:—

ASSISTANT ARCHITECT. £625—£25—£700 (A.P. & T. Division, Grade VIII).

Applicants must be A.R.I.B.A., with Administrative experience, conversant with Committee procedure, and competent to take charge of a section of the work of the Department.

ARCHITECTURAL ASSISTANT. £535-£600 (A.P. & T. Division, Grade VI).

Applicants must be A.R.I.B.A., with good experience in Architectural Design.

ARCHITECTURAL ASSISTANT. £460-£510 (A.P. & T. Division, Grade V).

Applicants must be A.R.I.B.A., with good experience in Architectural Design.

ARCHITECTURAL ASSISTANT. £330—£15—£375 (A.P. & T. Division, Grade I).

Applicants must have passed the Intermediate Examination of the R.I.B.A.

QUANTITY SURVEYOR. £535-£600 (A.P. & T. Division, Grade VI).

Applicants must be P.A.S.I. (Quantity Surveying Division).

QUANTITY SURVEYOR. £420—£15—£465 (A.P.T. Division, Grade IV).

Applicants must be P.A.S.I. (Quantity Surveying Division).

The salary scales quoted are basic and subject to a cost-of-living bonus in accordance with the County Council's scale (at present at the rate of £59 19s. per annum at 21 years of age or over).

All the above-mentioned appointments will be subject to the regulations and rules of the County Council from time to time in force, the provisions of the Local Government Superannuation Acts 1937 and 1939, and to the passing satisfactorily of a medical examination by the Council's Medical Officer of Health.

Applications, stating age, training, experience and qualifications, together with copies of three recent testimonials, should be sent to the undersigned not later than Monday, the 27th October, 1947.

Canvassing of any form will be a disqualification, and every candidate should disclose whether to his knowledge he is related to any Member of the County Council or to a holder of any senior office under the Council.

R. O. HARRIS, F.R.I.B.A.,
County Architect.

Park Street, Taunton.
10th October, 1947. 932

CORPORATION OF DUBLIN.

Vacancies for:—

(*a*) ONE TEMPORARY ASSISTANT ARCHITECT, Housing Repair Department.

(*b*) FOUR TEMPORARY DRAUGHTSMEN, Town Planning Department.

It is proposed to make appointments to the above-mentioned vacancies. Applications on the prescribed form are invited from persons desirous of being appointed.

Salary scales:—

For post (*a*), £9 10s.—12s. 6d.—£13 per week.
For post (*b*), £5 15s.—10s.—£7 10s. per week.

The successful candidates may be allowed, subject to the consent of the Minister for Local Government, to enter the appropriate scale at a point above the minimum where their experience or qualifications would so warrant.

Application forms and particulars as to qualifications, etc., may be obtained from the Finance and General Purposes Section, City Hall, Dublin, where completed application forms must be lodged not later than 12 noon on the 10th November, 1947.

P. J. HERNON,
City Manager and Town Clerk.

City Hall, Dublin.
9th October, 1947. 931

NEWCASTLE-UPON-TYNE EDUCATION COMMITTEE.
APPOINTMENT OF TECHNICAL STAFF.

Applications are invited for the following appointments on the established staff of the Education Committee's Architectural Sub-Department:—

(*a*) ONE QUANTITY SURVEYOR. Grade VI, salary £535-£600 per annum.

(*b*) ONE ARCHITECTURAL ASSISTANT. Grade III, salary £390-£435 per annum.

(*c*) FOUR ARCHITECTURAL ASSISTANTS. Grade I, salary £330-£375 per annum.

The National Conditions of Service (including cost-of-living bonus, at present £59 16s. per annum) will apply to each appointment.

Particulars of these appointments and form of application may be obtained from the undersigned, to whom applications must be delivered not later than 31st October, 1947.

THOS. WALLING,
Director of Education.

Education Offices, Northumberland Road,
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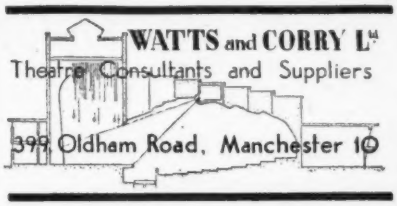
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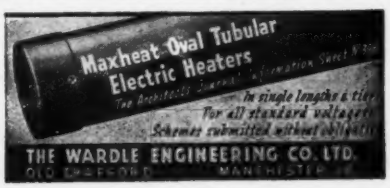

Alphabetical Index to Advertisers

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational, Legal Notices, Miscellaneous Property, Land and Sales, see pages xlvii, xlviii, xlix, l and li.

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