# THE ARCHITE JOUR





standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

# DIARY

from AN ARCHITECT'S Commonplace Book

ASTRAGAL

LETTERS

PHYSICAL PLANNING
CURRENT BUILDINGS
INFORMATION

CENTRE

Physical Planning
Structure
Materials
Materials
Acoustics & Sound Insulation

Lighting
W Ventilation

Answers

INFORMATION SHEET

SOCIETIES & INSTITUTIONS
PRICES

Architectural Appointments Wanted and Vacant

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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, is given below. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA ABT ACGB ADA APRR	Architectural Association. 34/6, Bedford Square, W.C.1.  Association of Building Technicians. 5, Ashley Place, S.W.1.  Arts Council of Great Britain. 9, Belgrave Square, S.W.1.  The Aluminium Development Association, 67, Brook Street, W.I.  Association for Planning and Regional Reconstruction. 34, Gordon
ARCUK ASB	Square, W.C.1. Euston 2158-9 Architects' Registration Council. 68, Portland Place, W.1. Welbeck 9738 Architectural Science Board of the Royal Institute of British Architects.
BC BCIRA BDA BIA	Building Centre. 9, Conduit Street, W.1. British Cast Iron Research Association. Alvechurch, Birmingham. British Door Association. 25, Victoria Street, S.W.1. British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.
BIAE BINC BOT BRS BSA	British Institute of Adult Education. 29, Tavistock Square, W.C.1. Euston 5385 Building Industries National Council. 11, Weymouth Street, W.1. Langham 2785 Board of Trade. Millbank, S.W.1. Whitehall 5140 Building Research Station. Bucknalls Lane, Watford. Garston 2246 British Steelwork Association. Egginton House, Buckingham Gate, S.W.1.
BSI CCA CID CPRE CSI DIA DOT EJMA	British Standards Institution. 28, Victoria Street, S.W.1.  Abbey 3333 Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.  Sloane 5255 Council of Industrial Design. Tilbury House, Petty France, S.W.1.  Whitehall 6322 Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280 Chartered Surveyors' Institution. 12, Great George Street, S.W.1.  Whitehall 5322 Design and Industries Association. 9, Conduit Street, W.1.  Mayfair 0477 Department of Overseas Trade. 35, Old Queen Street, S.W.1.  Victoria 9040 English Joinery Manufacturers Association (Incorporated). Sackvill House,
FAS .	40, Piccadilly, W.1. Regent 4448 Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.
FMB	Sloane 2837 Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.
FS (Eng.)	Canonbury 2041 Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.
GG HC IAAS	Georgian Group. 4, Hobart Place, S.W.1, Sloane 2837 Housing Centre. 13 Suffolk Street, Pall Mall, S.W.1. Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.
ICE IEE IOB IRA ISE LIDC	Institution of Civil Engineers. Great George Street, S. Sloane 3158 Whitehall 4577 Institution of Electrical Engineers. Savoy Place, W.C.2. Institute of Builders. 48, Bedford Square, W.C.1. Institute of Registered Architects. 47, Victoria Street, S.W.1. Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.
LMBA MARS MOA MOE MOH MOLNS MOS MOT MOTCP	Ministry of Labour and National Service. St. James's Square, W.1. Whitehall 7264 Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. Gerrard 6933 Ministry of Transport. Berkely Square House, Parkely Square, S.W.1. Whitehall 6200 Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.
MOW NAMMC	
NBR NFBTE	94, Petty France, S.W.1. Abbey 1010 National Buildings Record. 37, Onslow Gardens, S.W.7. Kensington 7070 National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby
NFHS NT	Street, W.C.1. Holborn 2770 National Federation of Housing Societies. 13, Suffolk St., S.W.1. Whitehall 2881/2/3 National Trust for Places of Historic Interest or Natural Beauty.
PEP RCA RIBA RS RSA SFMA	42, Queen Anne's Gate, S.W.1. Whitehall 0211/2 Reinforced Concrete Association. 91, Petty France, S.W.1. Whitehall 7245 Royal Institute of British Architects. 66, Portland Place, W.1. Royal Society. Burlington House, Piccadilly, W.1. Regent 3335 Royal Society of Arts. 6, John Adam Street, W.C.2. Temple Bar 8274 School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C. Chancery 5313
SAC	Scientific Advisory Committee, Ministry of Works, Lambeth Bridge House,
SIA SPAB	Albert Embankment, S.E.I. Reliance 7611, Extension 1450 Society of Industrial Artists. 20, Wellfield Avenue, N.10. Tudor 7027 Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.I. Helbert 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.
TDA	Timber Development Association. 75, Cannon Street, E.C.4. Temple Bar 5006 City 6147

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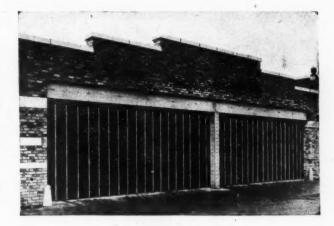
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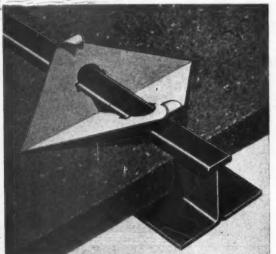


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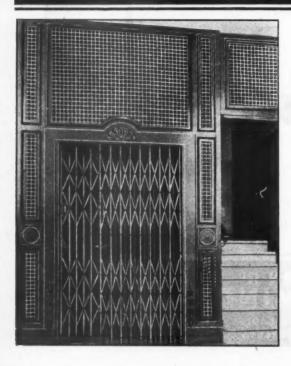
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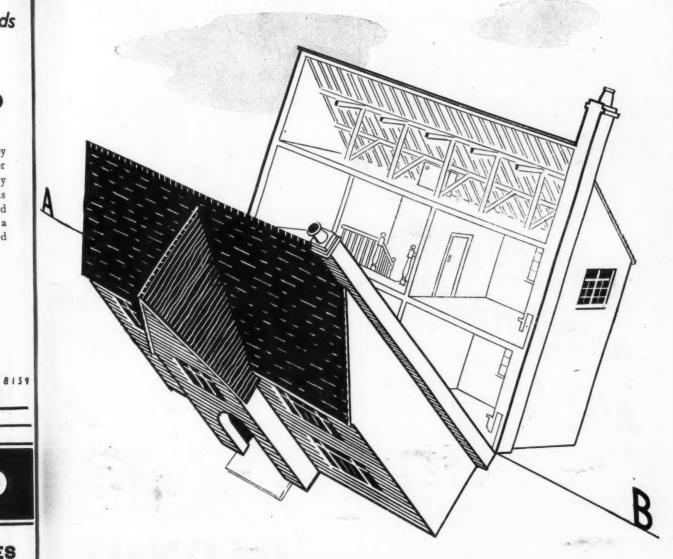
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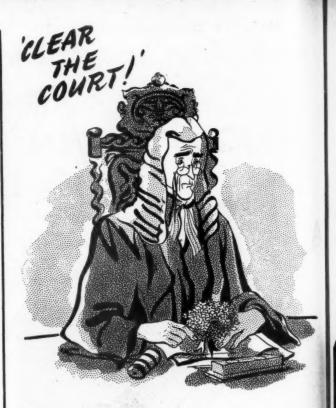
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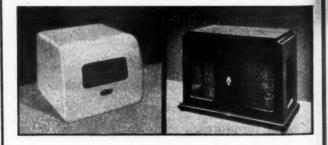
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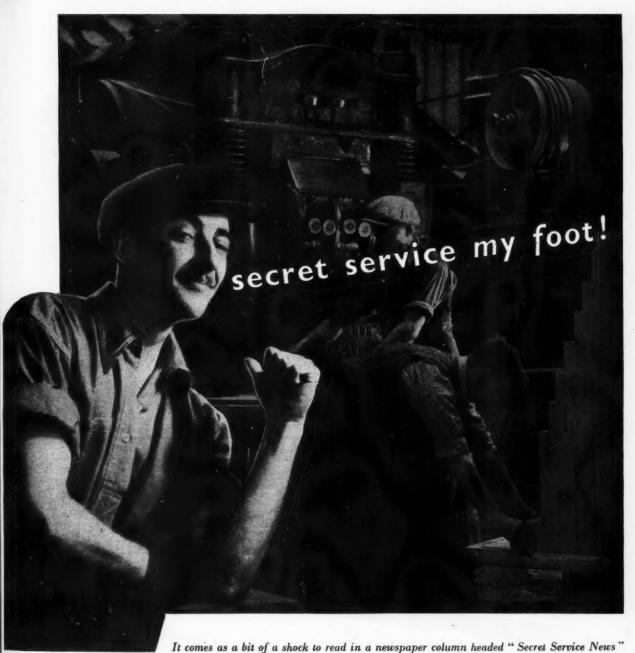


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that one of our allies has developed a process for making bricks from clinker and cement and that this idea may

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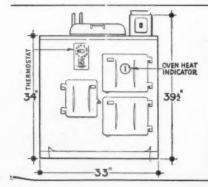
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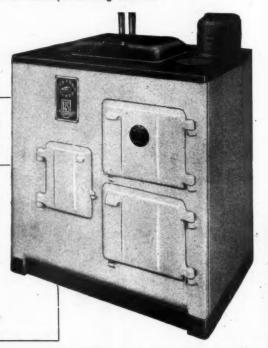
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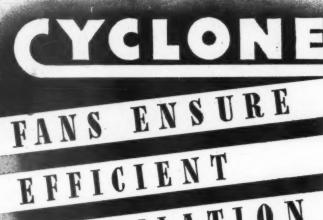
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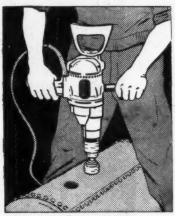
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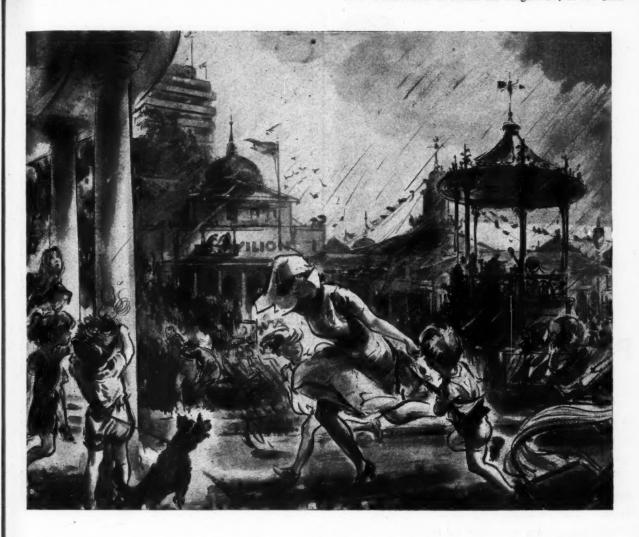


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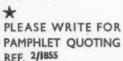






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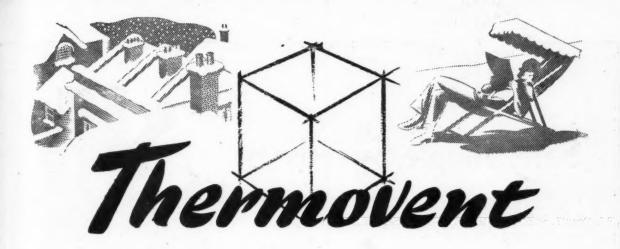


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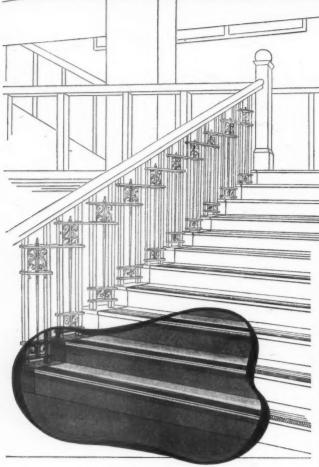
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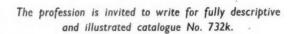




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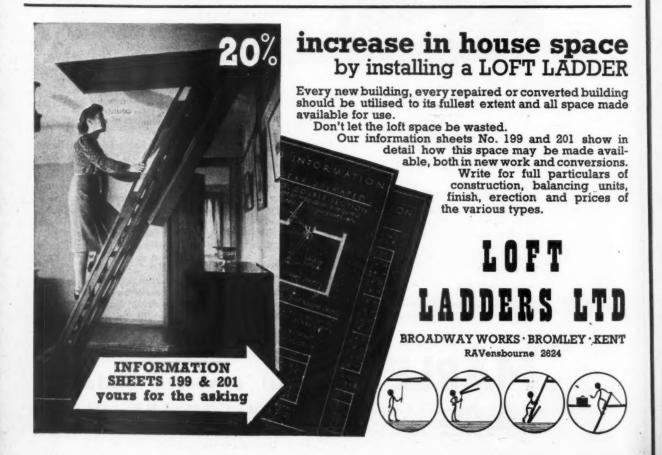
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# CARTER & COMPANY LTD.

### POLICY OF EXPANSION IMPORTANCE OF EXPORTS

Mr. B. E. Elford's review

The thirty-eighth ordinary general meeting of Carter and Co., Ltd., was held on 15th August at Winchester House, Old Broad Street, London, E.C., Mr. Benjamin E. Elford (the Chairman)

The Secretary (Mr. M. E. J. Pearce, F.S.A.A.) having read the notice convening the meeting and the report of the auditors.

The Chairman said: Gentlemen, with the accounts you will the country the said of the said there is little on the country to the said of the said the said o have received from me a brief statement and there is little on the financial side which I can add to the information which has already been given you. From the accounts themselves you will observe that after writing down the assets to the fullest extent we have a net profit for the year of £16,000, as against £12,500 last year. This figure is arrived at, as is our practice, after making provision for income tax. From the accounts you will readily see the adequate resources which we have available for re-equipment and development—resources which will be very fully utilised in once again getting back our existing factories into peace-time production.

#### FACTORY IMPROVEMENT

As I reminded you in the statement which has been circulated, one of our factories which was requisitioned during the war was released last November, and it will be a comparatively slow and expensive matter to carry out the necessary rehabilitation. Shortage of labour and the difficulties of supply of various raw materials and of coal are all hindering factors, but the difficulties are being overcome, and it is hoped that before this time next year this factory will be operating on better than the pre-1939

I draw your attention also to the fact that another factory, our oldest, requires extensive improvement in order to fit it for economical manufacture. This work, too, will involve considerable expense. It was for this reason and the fact that a proportion of the past year's profits represented a non-recurring item that the directors made their recommendation that, after meeting Preference share requirements, a dividend of 7½ per cent. should be paid on the Ordinary share capital, and I am confident that this will have the approval of the shareholders.

Perhaps I may be permitted to express my gratification that we have succeeded in weathering the often extremely difficult period of the war years and come through on the far side of those troubles with the financial stability of the company unimpaired. Indeed, it is in such good shape that it is not an over-statement to say that at no time in the history of the company have we been in a better position to fee the future. in a better position to face the future.

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#### LONG-TERM PLANNING

During the year which has elapsed since I addressed you at our last annual general meeting much has been done to ensure the future prosperity of the company. I speak of the long-term planning on which we have been engaged as well as the day-to-day coping with the problems of shortages of labour and materials, the constant need for licences, the grappling with W.B.A. and other priorities and our unremitting attention to export demands. Of the long term future all largest case is the correction of the long term future. Of the long-term future, all I want to say is that our policy is one of considerable expansion of the company's productive resources

and activities.

There is in industry to-day a tendency to be fearful of the future, a mood of despondency often born of fear of nationalisation in this country and talk of future conflict abroad. Neither my colleagues nor myself share these fears. We believe that there is no country in the world in which the prospects for businesses conducted on fair and honest principles, providing good conditions for the workpeople and a secure return to shareholders, equal those which we offered in England new With our expectation expectation. which are offered in England now. With our productive capacity concentrated in this country we can meet world requirements for our products in competition with manufacturers from any other

Do not suppose I am unaware of the difficulties with which we must now, and shall in the future have to contend, but, having faced these difficulties and studied, too, the difficulties which beset other countries, I have the utmost confidence in our ability to cope with the cites is and in the confidence in our ability to cope with the situation, and, in fact, consider it greatly improved as a result of all that has happened during and since the war.

#### DANGER OF FOREIGN COMPETITION

Do not let it be assumed either that I am in agreement with the That, indeed, would be impossible, for it needs no great discernment to perceive differences of outlook and policy on the part of the Ministries themselves. No one is more conscious than I am of the need for more good houses properly equipped with Carter tiles and with ample supplies of our beautiful Poole pottery on their tables and in their cupboards. We are keen and anytique to contribute outletters our corresponding to the contribute of pottery on their tables and in their cupboards. We are keen and anxious to contribute all that our company is capable of producing for these purposes, but we must not, in doing so, enable our foreign competitors to capture our overseas markets. That is a very real danger. The extreme shortage which exists in those markets through the inability of other English manufacturers and ourselves to supply them is enabling certain foreign competitors to obtain fantastically high prices, thereby building up fighting funds which will be used to keep us our of these up fighting funds which will be used to keep us out of those markets later on.

This situation is developing, particularly in our own dominions, and it is essential if this country is to expand its export trade in the type of products with which we are concerned, as the Board of Trade would have us do, that the Ministry of Health should not demand too high a percentage of our present output. There is no question of personal gain to us as manufacturers in this, since the price which we receive in the export market bears direct relation to the price which we receive in the home market. reason for urging that we should be permitted to devote a high proportion of our output at the present time to export require-ments is that only in this way will it be possible, once the urgent demands of our own housing programme are met, to maintain the kind of working conditions which we want to maintain.

#### CONTENDING INTERESTS OF HOUSING AND EXPORTS

The methods which the Minister of Health has used to deal with the housing problem are being justified by his achievements, and I am reluctant to urge, until the housing problem is more completely solved, any relaxation of the concentrated direction of building materials into the housing market, but I am more than ever concerned that the claims of these contending and vitally important interests should be most carefully considered and the necessary steps taken to make it possible now for English tile makers to play their part in protecting this country's export trade. Only in this way can we ensure continuity of employment and further improvement in working conditions to those engaged

within the industry.

On this subject of working conditions you will be pleased to know that we have just concluded an agreement with the Transport and General Workers' Union, of which the majority of our employees at Poole are members, and this, together with other improvements in conditions, which the termination of war enables us to introduce and reinstate, should go a long way to ensure the continuation of that happy association between the company and its employees, which it has been our good fortune to enjoy for so long.

#### TRIBUTE TO STAFF AND EMPLOYEES

Our appreciation of the loyalty and goodwill of all our staff and employees has never been greater nor more fully earned than to-day, and I would take this opportunity to express my thanks to one and all of them, both those who have carried on in the factories during the difficulties of war-time and those who have now returned to us, or are about to return to us, after the unhappy separation which the war has caused.

separation which the war has caused.

The report and accounts were unanimously adopted and the following dividends approved: 7½ per cent., less tax, on the Cumulative Participating Preference Shares; 7 per cent., less tax, on the Cumulative Non-Participating Second Preference shares; and ½ per cent., less tax, on the Ordinary shares.

The retiring directors, Mr. H. E. Cater, Mr. G. Goddard Watts and Mr. A. L. Crampton Chalk, were re-elected, and the auditors, Messrs. Peat Marwick Mitchell and Co., were reappointed.

The proceedings terminated with a vote of thanks to the chairman, directors and staff.

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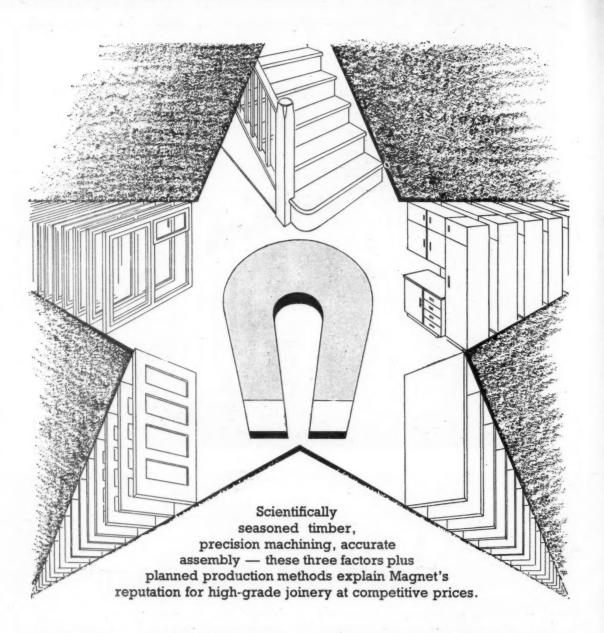
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# DIARY FOR AUGUST SEPTEMBER AND OCTOBER

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.

BOOTLE. Recording Britain. North and Midlands. At the Art Gallery. (Sponsor, the Arts Council.)

Aug. 29-31

BOURNVILLE. "News Chronicle" Knutsford Exhibition. At the Schools, Linden Road, Birmingham, 30. (Sponsor, Bournville Village Trust.) 10.30 a.m. till 7 p.m. Aug. 29-SEFT. 4

DURHAM. Town Planning Institute Summer School. At Durham University. In addition to the English consultants, planning officers and local authority representatives, visitors are coming from the United States, France, Belgium, Sweden, Poland, Czechoslovakia and Holland. The school will be opened by the Rt. Hon. Lewis Silkin, M.P., Minister of Town and Country Planning. The main subjects discussed will be:—(1) The Planning of Historical Cities and Derelict Areas as exemplified in Durham. (Thomas Sharp, author of the plans for Durham and Exeter, and of several well-known publications on Town and Country Planning. Mr. Sharp was recently selected to draw up the preliminary plan for the Crawley-Three Bridges New Town). (2) New Towns. (Gordon Stephenson, Senior Research Officer, Ministry of Town and Country Planning). (3) Reconstruction. (Thomas E. North, Borough Architect and Planning Officer of West Ham). (4) Planning for Rural Communities. (Professor A. W. Ashby, Professor of Agricultural Economics, University of Oxford). (5) Outline Plans. (E. H. Doubleday, County Planning Officer, Warwickshire). (6) The Place of the Trading Estate in Planning. (Lt.-Col. Methven, North Eastern Trading Estates Ltd.). The chairman at all sessions will be Mr. G. L. Pepler. All the delegates to the school are being housed in the Halls of Residence of Durham University, and the City Council is generously providing lecture-rooms and exhibition space. Tours will be made to the Team Valley Trading Estate and the Roman Wall. (Sponsor, TPI.)

LIVERPOOL. Exhibition of Liverpool Drawings, by Gordon Hemm. At the Hugo Lang Gallery, Whitechapel, Liverpool. SEPT. 2-14

LONDON. Summer Show of Sacred Art Subjects. At the Church Artists' Agency, 25, Ebury Street, S.W.1. (Sponsor, CAA.) 9.30 a.m. to 5.30 p.m. Saturdays, 9.30 a.m. to 12.30 p.m.

Summer Exhibition of French and English Paintings, Drawings, Prints. At Redfern Gallery, 20, Cork Street, Burlington Gardens, W.I. Aug. 29-Sept. 28 New Homes for Old Exhibition. At 22, Lower Regent Street, S.W.1. (Sponsor, HC.) SEPT. 11-Nov. 9

London Master Builders' Association.

Display of Documentary Films of interest to the Building Industry. At Derry & Toms Restaurant, Kensington High Street, W.8. (Sponsor, LMBA.) 2 p.m. SEPT. 11

Swiss Planning and Building Exhibition. At the RIBA, 66, Portland Place, W.1. Organized with the co-operation of the foremost architects and associations in Switzerland. Building for work, building for recreation, housing, town and country planning, schools and hospitals are among the subjects to be covered. Other features will be the preservation of old and historic buildings and the countryside, and the re-planning of winter sports resorts, for which an extensive programme has already been started. How Switzerland makes the most of her landscape will be shown in a series of photographs.

SEPT. 19-OCT. 26

Two-Day Conference on Industrial Design. At Central Hall, Westminster, S.W.1. This is the first of a series of conferences which the Council of Industrial Design propose to hold in association with the Britain Can Make It Exhibition. Papers to be delivered at the conference will discuss the designer's place in industry, the design of machinery, design and research, and design as an ally in exports. Delegates will include designers and industrialists. Conference arrangements are in the hands of the Conference Secretary, Council of Industrial Design, Tilbury House, Petty France, S.W.1. (Sponsor, Council of Industrial Design and the Federation of British Industries).

PARIS. International Technical Congress. Among the delegates from Great Britain will be Sir Patrick Abercrombie, President, International Reunion of Architects, and Sir Percy Thomas.

SEPT. 26-27

S ALISBURY. Plans for an Arts Centre. At the Arts Theatre. 4.30 p.m. to 7 p.m. (Sponsor, the Arts Council.)

S OUTHAMPTON. History of the British Playhouse. At the Art Gallery, Civic Centre. (Sponsor, the Arts Council.) Aug. 29-Sept. 7

WIGAN. Plans for an Arts Centre. (Sponsor, the Arts Council.) Aug. 29-Sept. 2

# NEWS

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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.

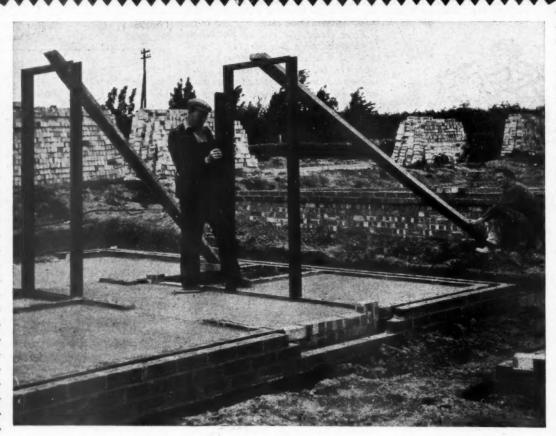
\* means important news, for reasons which may or may not be obvious.

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

\*\*

Directions by Minister of Town and Country Planning on the PRO-TECTION OF SCENIC AREAS.

The Minister of Town and Country Planning (Mr. Lewis Silkin) has issued directions to approximately 500 local authorities in districts which include areas of scenic importance. Similar directions were issued to other local authorities in January last. Mr. Silkin then said it was necessary that he should be in a position to satisfy himself regarding the quality of development in areas of high scenic value, including potential national parks and coastal regions of outstanding beauty, since those areas were of more than local importance, and in fact formed a national asset which it was important to maintain. The Minister has, therefore, issued directions under Section 6(2) of the Town and Country Planning (Interim Development) Act, 1943, as amended by Section 31(2) of the Town and Country Planning Act, 1944, to districts which include any areas of such high scenic value requiring that where the Interim Development Authority give permission for any development contrary to the advice of the joint planning committee, or the county council (as the case may be) to whom planning powers have been relinquished, he should be notified of the decision, and he now considers it necessary to extend these directions to further amenity areas.



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R. J. Miller, A.I.A.S., Architect and Surveyor

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### From AN ARCHITECT'S Commonplace Book

IN PRAISE OF ENGLISH LANDSCAPE GARDENING. [From The Sketch Book of Geoffrey Crayon, Gent by Washington Irving.] The taste of the English in the cultivation of land, and in what is called landscape gardening, is unrivalled. They have studied nature intently, and discover an exquisite sense of her beautiful forms and harmonious combinations. Those charms, which in other countries she lavishes in wild solitudes, are here assembled round the haunts of domestic life. They seem to have caught her coy and furtive graces, and spread them, like witchery, about their rural abodes. Nothing can be more imposing than the magnificence of English park scenery. Vast lawns that extend like sheets of vivid green, with here and there clumps of gigantic trees, heaping up rich piles of foliage: the solemn pomp of groves and woodland glades, with the deer trooping in silent herds across them; the hare, bounding away to the covert; or the pheasant, suddenly bursting upon the wing: the brook taught to wind in natural meanderings, or expand into a glassy lake. These are but a few of the features of park scenery; but what most delights me, is the creative talent with which the English decorate the unostentatious abodes of middle life. The rudest habitation, the most unpromising and scanty portion of land, in the hands of an Englishman of taste, becomes a little paradise. With a nicely discriminating eye, he seizes at once upon its capabilities, and pictures in his mind the future landscape. The sterile spot grows into loveliness under his hand; and yet the operations of art which produce the effect are scarcely to be perceived. The cherishing and training of some trees; the cautious pruning of others; the nice distribution of flowers and plants of tender and graceful foliage; the introduction of a green slope of velvet turf; the partial opening to a peep of blue distance, or silver gleam of water: all these are managed with a delicate tact, a pervading yet quiet assiduity, like the magic touchings with which a painter finishes up a favourite picture.

It has been found necessary to postpone the re-opening of the RIBA LIBRARY until September 16. Until then only urgent enquiries can be dealt with. Current periodicals will remain available.

Under an exchange scheme organized by Arch. SA International Committee a party of SWEDISH ARCH-ITECTURAL STUDENTS IS just completing a visit to this country. The students spent a week in Manchester, and toured places of interest in the neighbourhood, including the city of Chester. Later they went to London, and from there some of the party proceeded to Paris. The remainder stayed in London and visited the RIBA. The visit was organized in Manchester by Mr. F. S. Bolland and in London by Miss Sheila Fairburn. A party of British students from the University of London, Manchester Municipal, and Liverpool Schools of Architecture are visiting Sweden later in the present vacation, under the same scheme.

Mr. Phillip O. Reece has been appointed CONSTRUCTIONAL RESEARCH DIRECTOR TO THE TIMBER DEVELOPMENT ASSOCIATION.

The new technical department will specialise in timber design and construction, and initiate new developments on original lines. It will deal not only with the preparation of the necessary engineering booklets and data, but with the engineering problems which will arise in the future. Mr. Phillip O. Reece, who will take up his new duties on September 2 has had a wide and varied engineering experience in shipbuilding, local government and the Civil Service. In 1941 he joined the staff of Sir Hugh

Beaver, then Director General of the Ministry of Works. First as Assistant Director of Constructional Design and later as Deputy Director of Building Programmes, he was concerned in establishing war-time standards of engineering and building construction. Towards the end of the war in Europe Mr. Reece was released from his war-time duties to undertake research work on housing, and in 1945 was appointed a Senior Structural Engineer at the Ministry of Works. Mr. Reece later returned to the department of the Chief Scientific Adviser where he has since been concerned chiefly with experimental building. As Chairman of the Inter-Departmental Housing Examination Panel and as Technical Officer to the Burt Committee he has had close contact with non-traditional and experimental forms of house construction. For many years Mr. Reece has been Ministry of Works' assessor on the Forest Products Research Roard and also Vice-Chairman of the Codes of Practice Committee on the Structural Use of Timber in Building.



Mr. Phillip O. Reece, appointed Constructional Research Director to the Timber Development Association. See News Item.

The erection of the STEEL FRAMEWORK OF THE NEW HOUSE OF COMMONS will be completed in about nine months time. The foundations for the new building to take the place of the old House of Commons, damaged by enemy action, are nearing completion and the contract for the structural steelwork, comprising 1,200 to 1,300 tons, has been awarded to Redpath Brown & Co. The whole of the steelwork will be fabricated at their London Works at East Greenwich, and the erection carried out by their own organization. The architect for the rebuilding is Sir Giles Gilbert Scott, O.M., R.A., and Dr. Oscar Faber, O.B.E., D.C.L. (Hon.) D.Sc. is in charge of all civil engineering, heating and ventilating. The new chamber will occupy the same site as the old House of Commons and the old building has now been completely dismantled. Internally the building will be a replica of the former chamber but will incorporate the most advanced installations of heating and ventilating. A certain amount of high tensile steel will be used in the construction of the new building, and the erection of the steel framework will be completed in about nine months' time. It is the hope of the Government that the new Chamber will be completed in time for the present House of Commons to assemble in the new building.

We regret to record the DEATH OF PERCY J. BLACK.

Mr. Percy J. Black, M.INST.STRUCT.E., L.R.I.B.A., had been an active member of the Codes of Practice Committee since its inception. He was appointed Chairman of the Building Sectional Committee in November, 1944, and during his period of office significant progress was made in the production of building codes. The Committee owes much to his great knowledge, his skilful guidance and wise judgment. A past President of the Institution of Structural Engineers and, before his retirement, senior District Surveyor in London, he was closely associated with the work of the London County Council during the war.



Site for a New Town

An aerial view of the High Street of Harlow, the little town on the River Stort in Essex, which is to form the nucleus of the third of the new Satellite Towns to take London's overspill. It is, however, likely to be the first to be completed. Further views are shown, on page 150, of the old mill, the lock and the High Street.

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To ensure that the Scottish point of view is adequately represented at the Committees of the British Standards Institution when standards for building and ancillary purposes are being prepared a BRITISH STANDARDS BUILDING COMMITTEE INSCOT-LAND has been set up. The Committee comprises representatives of the main professional organization asso-ciated with building, together with the building trade employers' and operatives' organizations. It will be a channel through which recommendations for, and comments on, all matters concerning standards for materials, components and appliances used in building may be passed from Scotland to the British Standards Institution. The Committee held its first meeting at the Offices of the Royal Institution of Chartered Surveyors in Edinburgh.

In working order in 1948 and finished in 1952 the new TWENTY MILLION POUND AIR RE-SEARCH STATION now being built near Bedford will have a five mile runway: a runway longer than any other at present in the country. Wind tunnels for testing model aircraft will develop speeds of 1,500 m.p.h. Power needed for the station in operation will be over 200,000 h.p., equivalent to the total electrical power intake of a city the size of

Owing to an acute shortage bricks in Scotland the Ministry of Works has arranged for some 25 MILLIONS TO BE SENT BY RAIL from Fletton, Peterborough. The movement started on May 31, and every month for five months; 5 million bricks in twenty trains each of 50 wagons will be run by the LNER and LMS via Berwick and Carlisle respectively. The bricks will go to the Glasgow Corporation, the Lanarkshire, Aberdeen and Perth County Councils, the Dundee Town Council and the Scottish Special Housing Association.

One of the most curious weather vanes in the country, the model copper ship on the spire of ST. MICHAEL QUEENHITHE, Upper Thames Street, E.C.4 has been inspected and found not to have suffered any bomb damage during the War. The ship, a full-rigged, three-masted barque of the late 17th century, has swung on the spire of St. Michael since the church was built by Sir Christopher Wren in 1677. It is constructed throughout of copper, including sails, rigging, yards and pennants, and was found to be still functioning efficiently was a weather yare and generally in perfect was found to be still functioning efficiently as a weather vane, and generally in perfect condition. According to tradition, the ship, or the ball beneath it, holds exactly a bushed of corn. The bulk of London's water-bome grain supplies was during the Middle Ages unloaded at Queenhithe, formerly Corphytica. Cornhythe.

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# RATIONAL APPROACH TRADITIONAL METHODS

TN most types of business there is an annual stocktaking, followed by a balancing of accounts and general review of the situation. It is a pity that something of the same kind is not customary or practicable in certain aspects of architecture as it seems that there is some danger of getting

bogged down in traditional methods.

Let us explain at once that we are not suggesting that tradition is a bad thing—far from it. We do suggest, however, that a constant and vigilant eye should be kept on traditional methods of construction to see just how well they fulfil their purpose under modern conditions or whether, while still using the same general methods they might be improved upon in detail. Numerous examples might be given. One is dealt with in some detail elsewhere in this issue of the Journal where the Manhole Habit is examined with a fresh eye. Another which might be mentioned is the continued use of traditional methods of external rendering in spite of ample evidence that better results can be obtained by a somewhat modified technique. Many others might be mentioned. Is the traditional footing foundation of concrete, followed by brick courses laid below ground level really the optimum method for providing the base of a wall? Is the usual practice of delivering a prefabricated door to the site, followed by hand-cutting of it to receive the lock, very sensible?

It is curious that in times when so much attention is being paid to fundamentally new methods of construction that so little real enquiry is directed towards improving traditional techniques. In a recent address at the Architectural Association, Mr. R. Fitzmaurice examined the factors affecting successful use of new methods and explained how much detailed investigation and knowledge was necessary for success. We believe that in the subsequent discussion Mr. I. G. Evans, the late Director of the Building Research Station, hit a good nail right on the head when he suggested that great improvements might result if traditional methods of construction could receive a similar searching scrutiny. As he expressed it, we might even find that we could then build small houses at a price tenants could afford to pay—a thing which has not been done for a large part of the population for a very long time indeed.

Much of this work may have to be left to investigation which can only be done under scientific control, but a good deal can be done by architects thinking things out for themselves and trying small improvements here and there. There may, in fact, be many cases where this has been done already. but, if so, the profession is too modest about it. New ideas, if proved successful, should be written up for the benefit of all, not locked away in the plan chest or hidden because the individual thinks he will be able to go one better than the

other architects who have not hit upon a particular improvement. We invite architects to examine their "standard details," to revise them and to let us know the results.



The Architects' Journal
13, Queen Anne's Gate Wastminster, S.W.s.

Phone: Whitehall of11

NOTES

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TOPICS

THE SUDBURY WAY

In the quiet market town of Sudbury in Suffolk a significant local planning movement has arisen, I hear, which is probably of more than local significance. Sudbury has tried to prove the case for local voluntary effort and in doing so is something of a pioneer. The townsfolk themselves have organized an Independent Planning Association which refuses to be dominated either by the local council or by the central ministries. Its attitude is summed up in the words of a Guide to an exhibition it has held: "The Sudbury and District Planning Association does not seek to make Sudbury the instrument of a National Policy, however desirable that policy may be, as in the recently publicized plans for Stevenage."

Such local patriotism on the part of the people themselves must delight those who still have faith in democratic initiative. The Sudbury Association certainly has a sturdy independence which in more depressed moments one fears the British people are beginning to lose. It has tried to avoid local politics of the less helpful kind and has thus been able to draw to its banner many who would otherwise steer clear. Perhaps the organizers have remembered the Eatanswill of Pickwick Papers, a town which Sudbury claims the distinction of being: "With these dissensions it is almost superfluous to say that everything in Eatanswill was made a party-question. If the Buffs proposed to new skylight the market place, the Blues got up public meetings, and denounced the proceeding; if the Blues proposed the erection of an additional pump in the High Street, the Buffs rose as one man and stood aghast at the enormity."

But on broad planning issues politics obviously cannot be avoided. In a sense planning is politics, for every planner must have some kind of notion, whether conscious or not, of the kind of society for which he wants to plan. It is almost a truism to say that small scale local planning must, in these days, be linked to a national and regional framework on the understanding that, within the framework, as much freedom for local initiative and personal interests as possible shall be allowed in order to retain a flexible and vital variety.

At the local level, the elected local government itself is the proper instrument for planning. That some local governments are venal and ineffectual does not alter the principle in spite of Dickens's jibes. There is also the question of finance. The Sudbury Plan has been produced but at a cost which has severely stretched the resources of the local voluntary effort, for with all the willing help in the world, the expert must be at hand and he must be paid. And here we have not the advantage they have across the Atlantic where planning associations are so often backed by industrial finance.

The real value of an independent local Planning Association surely lies in the educational and propaganda spheres. It should have the right of representation on the Town Planning Committee and should act rather as a vigilant critic and healthy stimulator of official policy, whether local or central, than as the actual instrument of construction. These seem to be the chief lessons the Sudbury movement can teach

**SQUATTING** 

Those interested in national characteristics should be all agog at this squatting business. The whole affair does, indeed, provide a remarkable comment on the British character. At times almost pathetically law-abiding so long as some moral principle is involved, phlegmatic to a fault, in moments of crisis the British people, it seems, will suddenly take the law into their own hands and move like a swarm of bees in a concerted way towards a definite, physical and practical objective as though nationally organized, although in fact there is no large-scale co-ordination at all.

At such times the Government seems to know instinctively that strong obstruction to the popular move might lead to a lot of trouble. There is no violence as would be expected from a more simple folk, but instead a spate of lame and illogical official excuses combined with a few pious exhortations. The Ministry of Health, for example, has issued a document which, after a number of explanations that do not hide a bad conscience, asks the people to return to the homes from which they have come. At the same time sensible compromising action is taken to tidy up the mess.

But the BBC's attitude in banning all jokes about squatting on the grounds that the matter is too serious seems quite un-British. If we can be facetious in the middle of a world slaughter and crack jokes in the Beachcomber manner about atomic explosions, surely we should be allowed to laugh at the picture of Bert (just demobbed), with his Flo, Auntie Lil and the kids, amicably sharing an army camp with German POWs. But perhaps the 'real reason for the BBC's action is the salacious scope provided by the word Squatters for which the funny men might not be able to resist a departure from the script. Such a reason would be British enough.

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Thomas Sharp's name on the cover of a book on any aspect of planning is a guarantee that it will be worth its price. His half-crown Penguin, The Anatomy of the Village, is worth a great deal more. There is as much meat in it as in most books costing four times as much. It isn't a matter of bulk, of course; it is that the ration as served by Mr. Sharp is of the best quality steak, free from fat, bone, or gristle. Or, less metaphorically, that Mr. Sharp has something to say, knows what it is, and says it in a clear, concise prose.

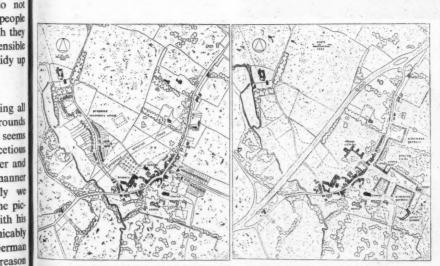
Mr. Sharp's claim for the book is modest enough. It is, he writes, "an attempt to set out in a brief and direct form some of the main principles of village planning. It makes no pretence at covering all the problems that are involved : . . All that is attempted in these pages is a consideration of some of the principles which should govern physical design in the building of new villages or rebuilding old ones."

However, the principles governing physical design cannot be entirely isolated from social and economic factors. Mr. Sharp realizes this as well as anyone alive, and his remarks on such subjects as the necessity for occupational variety in a community are very much to the point; his grasp of fundamentals is particularly well brought out in the section in which he discusses the smallest desirable population for a village and arrives at a figure (actually 570) based on the requirements of education.

With Mr. Sharp's conclusions on his main subject most A.J. readers will agree. For instance, the rectangle is the most convenient plan form, but the natural, non-geometric curve has a place of its own; outward views up the streets of a village should be closed, but a natural feature outside the village may serve to do this in adding to existing villages; architectural harmony should be preserved, but by taking into consideration the scale and materials of what is already there rather than by imitating its forms.

The many photographs that the book contains are not only charming pictures in themselves but also excellent illustrations; that is to say, each one illustrates some specific point made in the text. There are in addition two dozen plans which should delight every good Sharawag, for the traditional English village embodies in its plan the very essence of "the art of the irregular."

ASTRAGAL



Non-planning and planning from Thomas Sharp's Anatomy of the Village reviewed In Astragal above. The plan on the left shows what has happened to a village in Kent during the course of this century: the old buildings are hatched; the modern buildings are in outline. Every possible mistake has been made or is about to be made. The new houses are badly grouped, so that the village has lost character and coherence: an arterial is to cut the village off from the new school. The plan on the right shows what might have been dome if the same new work had been planned: the village is kept compact: the new building shapes are in character: the by-pass is right away from the village.



# LETTERS

Warnett Kennedy, D.Arch., A.M.T.P.I., N.R.D., M.S.I.A. 7. E. Rhind Gerald K. Cooper, (Managing Director Cooper Gardner Construction Company)

### 1951 Exhibition

SIR,—It was refreshing to read Misha Black's letter and proposals for the forthcoming Exhibition. Following closely on the disappointment of the Crystal Palace Competition, it was indeed a pleasure to realise that our leading designers are still capable of unrestricted, unsophisticated flights of imagination.

As in the Crystal Palace competition, so in the forthcoming Exhibition, our all-important need is for a dominant breathtaking idea—one which would incorporate the skills of our finest structural engineers, industrial designers, architects and artists. It should be quite clear that work on a worth-while project aimed for completion in 1951 must start now if the Exhibition is to "surpass the New York World's Fair of 1939 in scale and technical achievement."

1939 in scale and technical achievement."
This implies that we must make use, directly or indirectly, of every responsible designer in this country. Design talent is to be found among our younger designers and those recently returned from the Forces. Surely this is their opporunity?

The purpose of my letter, therefore, is to

propose:—
(a) That the body through which the Exhibition will be promoted should be made known as soon as possible. An obvious choice would, of course, be the Council of Industrial Design.
(b) That this body should immediately draft the conditions for an open competition aimed to secure a dominating idea for the Exhibition as a whole.
(c) That the supervising designer and his team of designers should be chosen from the results of this competition. All the competition material submitted from any source should be made available to the

source should be made available to the panel of designers, who should, however, not necessarily be obliged to build the winning design.

An international exhibition can no longer

### THIRD TOWN SATELLITE







Views of Harlow on the river Stort in Essex which is to become London's third satellite town under the New Towns scheme. Top, Harlow Mill, one of the beauty spots which will be incorporated in the new plan. Centre, Harlow Lock. Bottom, the High Street.

be considered as a collection of romantic pavilions filled with the products of our day-to-day industries. On the contrary, an immense effort of technical imagination is called for, bringing into action the research and development departments of British and development departments of British industrial concerns as happened during the war, e.g., the Mulberry Harbour was a collective effort of British private industry under State sponsorship. It is all the more necessary, therefore, that a vigorous lead should be given at the earliest possible London WARNETT KENNEDY

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### A British Academy

SIR.—Architecture is the Mistress Art and architects should seriously consider the establishment of a British Academy of Architecture, whereby architects in this country may play a more worthy part in influencing the great social changes that are now upon us.

British architecture in its present unco-ordinated state, lacking central stimulation, guided by unrelated and often competing professional bodies and administered by a dozen ministries is in no position to assent itself to confer the benefits it might upon the mass of the population. Such an Academy, if founded, would deal with the many complex problems of scientific building, also guide public opinion in the important subject of the æsthetics of town planning. Its authority would be paramount and in conference with similar academies of other creat States helps the law the foundations of

great States, help to lay the foundations of the new World Order.

Reconstruction must be planned on an international scale led by high-spirited statesmen. Architects can only work for the Colden Age of Architecture. statesmen. Architects can only work for Peace. The Golden Age of Architecture lies before us only if we are prepared to accept the main principles of economic and international co-operation. Farnham J. E. RHIND

# Cornucopia of Building

SIR,—It is no idle simile which contrasts the endless opportunities offered for the design of interesting buildings with the overflowing horn of plenty.

My second sentence should now show architects revelling in the opportunities offered to them, and they and appreciative citizens finding a real joy in life from

offered to them, and they and appreciative citizens finding a real joy in life from physical surroundings.

Unfortunately that I cannot describe, for the architect afraid of using perception in design, gives the ever-dull citizen just what he wants. The citizen becomes ever duller, less artistically inclined, his cities more smoky, his road crossings more dangerous, his buildings more mechanical, and his good health an accident.

The architect has passed into the present

good health an accident.

The architect has passed into the present age as an organized being, his professional arrangements are excellent, his technical information beyond his own capacity to read in a lifetime, but his ability as an artist has suffered to a degree which is appalling.

Builders like to build interesting buildings, and craftsmen like to display their skill, but unless the architects determine to lift building design clean out of the rut of the flat, the plain, the nondescript, and the need-lessly zig-zagged, then builders will have to return to the design of buildings, having at their finger tips the technical possibilities of

their inger tips the technical possibilities of the age and perhaps sometimes the imagina-tion of the Architect Builders of the past. It should be remembered that the rea artist is not a being to be organized, and the greater degree of professional restric-tion imposed will show inevitably in dull-

GERALD K. COOPER Managing Director Cooper Gardner Construction Company Nottingham

Since the cost of manholes in domestic drainage systems may often exceed the cost of the mains themselves, a civil engineer with wide experience in the design and construction of drainage works of various kinds who is a member of the staff of the Building Research Station, here questions the basic assumptions of traditional drainage practice. He enquires whether manholes cannot today be simplified or omitted altogether in many cases in view of the improved quality of the modern drain pipe, especially at bends where hydraulic evidence shows that "the turbulence of flow is more likely to hinder than help the building up of a deposit." In the long run it is far cheaper, he believes, to dig out a stoppage than to pay for a manhole, and refers to standard American practice where manholes are provided only where vertical soil stacks and other pipes enter the underground drain. In order to reduce house building costs the author calls for research into, and the collection of statistical evidence on, this not unimportant problem of access to drains. The plea that all traditional methods of construction should receive similar scrutiny is made in this week's leading article.



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Means of Access to the

# DOMESTIC DRAIN

The Need for a Rational Approach

[by John Wilton, B.Sc. (Hons.)]

It is a fact that the cost of those means of access required by standard usage to be provided for buried domestic drain pipes often exceeds the cost of the The basic drains themselves. assumption seems to be that the drains must, in course of time, fail to do the job for which they were designed—the removal of waste liquids from the house so that an easy means of getting at them for repairs is essential. It is when the provision of such means may double the first cost

of the whole installation that it becomes rational to enquire whether they might not be simplified, or even omitted altogether, without serious loss of efficiency.

In the days when domestic sanitation as we know it today was a developing art, blocked drains and bad smells were commonplace. Clearance of the pipes with rods and other implements was at least an annual requirement, and this led to the addition of manholes on an increasingly generous scale—a scale which has remained standard for more than fifty years. In those years, however, the quality of the drains themselves has improved; design is no longer haphazard, nor a matter largely for the builder's intuition, workmanship is sound, supervision close. The pipes themselves are standardized, sound, and reliable. In fact the common causes of blocked drains in the old days have been practically re-But the ultimate safeguard moved. against blockage—the manhole—remains with us on the generous scale found necessary in those days.

Before going further it will be as well to say something about nomenclature. Quite indiscriminate use is made of the terms Inspection Chamber, Intercepting Chamber, Manhole (even in a recent book Inspection Manhole), to describe the same thing—a rectangular under-ground chamber with a removable cover, across the bottom of which the drain flows in an open channel. The letters I.C. and M.H. are found mixed together on layout drawings as if there were some difference in construction between them. As a first contribution to rational discussion let us describe all access chambers on drains as Manholes-after all this is what they really are. It would be a considerable step forward if the forthcoming Codes of Practice for Drainage were to adopt this nomenclature as a standard for future use.

It is then necessary to inquire whether the manhole, under modern conditions, does in fact justify its first cost. Millions of houses to be built mean millions of manholes and tens of millions of money on their construction. How often will these manholes be used? What percentage of them will ever be used at all, or, if used for the purpose for which they were provided, at what intervals of time is such usage likely to take place?

Might it not be better economics to assume that the modern drain, properly designed and laid, will not become blocked under normal and reasonable usage? Such an approach would regard a blocked drain as a rare contingency caused by abuse, to be remedied by digging up and replacing the damaged drain. The resulting inconvenience and expense might serve as a lesson to the offending tenant or owner. At the same time an important saving in the first cost of the house might be

achieved. For half a century a Golden Rule has been taught to successive generations of students, worded in some such terms as these: "An inspection chamber should be provided at every change in direction in a drain line, at every junction of a drain with a drain, or of a drain with a sewer, and otherwise at intervals not exceeding three hundred feet apart..." The rule seems to have received the semi-official backing of the Ministry of Health itself, and has been incorporated in many sets of Byelaws. Study of the model drainage layouts in almost any text-book will show how automatic application of the rule can multiply the number of manholes required for a single house to quite fantastic numbers.

In fact this rule has resulted in a standard practice, a good example of which was to be seen on the late Ministry of Works Demonstration Site at Northolt. An incomplete count of visible manhole covers revealed the existence of something like 41 manholes per house. It is true that on this site drainage was on the strictly separate system, and that the drain layout was to some extent predetermined by the location of public sewers into which connection had to be made. However, disfiguring manhole covers were to be seen it seemed everywhere about the neatly laid out grass plots round the houses. Much more important than slight disfigurement is the question of what must have been the total cost of building all these manholes. In these days an average domestic manhole can be taken as worth at least £10. Thus it seems that the cost of access to drains in this example must have been between £40 and £50 per house—a very considerable addition to the total cost of building. In fact it is probable that the manholes cost considerably more than the drains themselves.

It is surely legitimate to inquire over what period of time an expenditure of £40 or so per house is likely to be incurred in subsequent excavation to clear blocked drains, supposing for the moment that no manholes at all were provided. Surely a very long time indeed? Those who have had much experience in the maintenance of municipal housing estates built since the 1914-18 war have stated that, where the drains were properly laid in the first place, stoppages of any kind have been extremely infrequent. Where they have occurred, they have often been of such a nature that they could not in any case be cleared by rodding from a manhole, and it was necessary in the end to dig up and relay the offending pipe.

The most careful design and workmanship, together with lavish provision of manholes, will not enable clearance by rodding of some of the objects that do at times find their way into domestic drains. The Christmas fowl which went bad in the post, the lavatory brush that broke, the obsolete telephone directory, have all been reported as typical causes of stoppages which had to be cleared in the end by excavation. On the other hand, stoppages caused by the silting up of the drain, or from the accumulation of normal drain solids, are reported as very rare indeed in drains properly designed and constructed in the first place. Of course workmanship, inadequate gradients, or faulty materials are another matter; with any of these, stoppages are likely to occur. But the remedy surely does not lie in the provision of manholes as an insurance against such faults.

The first part of the Rule we have quoted might seem very sensible, granted the truth of the assumption that it is at bends that stoppages of drains are the most likely to occur. There is, however, a considerable body of hydraulic evidence to show that the turbulence of flow induced by a bend is more likely to hinder than help the building up of a deposit which might ultimately become large enough to cause a stoppage. In the United States bends up to 45° are accepted as a matter of course, without any means of access from the surface, and it is stated that even sharper bends are often allowed on domestic drains, provided that elbow or knuckle pipes are not

In support of what seems to us a revolutionary procedure American engineers argue that practical experience has demonstrated stoppages to be no more frequent at reasonable bends than in straight lengths of pipe. They also work on the principle that it is cheaper in the long run to dig out a stoppage than to pay for a manhole.

Standard American practice seems to be to provide a manhole where vertical

soil stacks and other pipes from the building enter the underground drain, grouping these connections so far as possible at this one point. Otherwise manholes are dispensed with on the domestic drain.

As for junctions, each house will normally have its 4 in. drain leading to the sewer. In normal practice the sewer will be 6 in. or larger in diameter, and if the connection is properly made there is no real need for a manhole at this point. The sole exception is in cases where the obsolete intercepting trap is demanded by local byelaws; if there is an interceptor, then there must be a manhole to house it, and that abomination of summer evenings in the garden the so-called Fresh Air Inlet. not the place to discuss such antique arrangements. It will often be more convenient to join all the drains from a group of houses at a single point, leading them from there to the sewer through a common drain. If this is done, there is a rational basis for a further manhole at the point of junction of the separate drains.

The argument of the Rule about "intervals not exceeding three hundred feet apart" is somewhat sounder, although not very much so. All practical men would probably agree that it is simply not possible to rod through 300 ft, of 4 in. pipe, and that if manholes are to be provided at all they should be much closer together than a hundred yards apart. About 120 ft. is probably the practical maximum for the effective use of drain rods on a 4 in. pipe. This being so, wisdom or prudence may regard an additional manhole towards the middle of the drain, if it is more than about 40 yards long, as a worthwhile expenditure. The 300 ft. limit of our Rule is only really applicable to sewers, and has no practical relation to house drainage with small pipes.

Manholes on housing estates have often been noted as the subject of abuse. Covers are removed and broken by children, and the chambers filled with rubbish. A manhole can also be a convenient repository for unwanted objects, a home for dead cats or source of gruesome evidence for the police; the remains of a motor-cycle are recorded as the cause of a serious sewer stoppage on a London estate. All of which is further argument for the reduction of manholes to a minimum. Again in a small garden a manhole cover is an irksome obstruction, and covers are often buried or hidden beneath rockeries by the enthusiastic

It has sometimes been suggested that manholes might be replaced by buried rodding eyes on the pipes themselves. In theory, if a stoppage does occur, the rodding eye can be exposed and used to clear the blocked pipe. Apart from the fact that rodding eyes are impossible to find after any lapse of time, it is logical to argue that if there is a

case for the omission of the manhole which the rodding eye is to replace, there is the same case for the omission of the rodding eye itself.

From what has been said it would seem sensible to press for the reduction of manholes to one per house, plus such additions as may be required by a rational layout of combined drainage for any group of houses. The proper place for the manhole is at, or close to, the foot of the soil stack. Here its depth will be a minimum, and at the same time access is provided to the connections into the house itself. Connections from the kitchen sink, bathroom and any other wastes can be grouped into this manhole in a normal small house plan; conversely floor plans which lead to drainage complications outside the building should be regarded as uneconomic. For the average house this single manhole should provide all the access to buried drains that is reasonably required in normal use, and at a minimum cost.

There is a need for research into the problem of access to drains, and indeed into the whole behaviour of drains in service. Statistical observations on the frequency of stoppages of drains, and the causes of their occurrence hardly The brick chamber, with concrete floor and elaborate hand-shaped benching remains the standard manhole; although several types of precast chamber have been on the market for years they have not come into general use. Even if it can be shown that the provision of manholes on the scale demanded by accepted rules is really necessary, it should not be beyond the wit of man to devise a simple precast chamber, in concrete or other material, which would be easily adaptable to site variations, and very much cheaper than the standard brick chamber whose design has remained unaltered since the turn of the century. Everyone speaks nowadays of the urgent necessity for a reduction in housing costs; in default of larger and brighter ideas for achieving this laudable object there are worse places on which to begin than the humble, and often forgotten, manhole.



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# PHYSICAL PLANNING SUPPLEMENT



# SUDBURY

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# APLAN FOR A COUNTRY AREA AND A MARKET TOWN

Sudbury, in Suffolk, has an active Planning Association with Keith Jeremiah as Planning Officer. The Association exhibited its proposals for the replanning of Sudbury and District at the enf of June, staging a One-Day Conference in connection with the opening ceremony by Mr. R. Chamberlain, M.P., Parliamentary frivate Secretary to the Minister of Town and Country Planning. The Association's Plan, reviewed on the following pages, is a local one for local people, and is related to National Policy only in so far as this can help to make Sudbury a better district to live in it now remains to be seen whether the local Council considers that the proposals can be moulded into a statutory Scheme. The Exhibition included the display of survey material, and many photographs and sketches produced by local people. One of these stetches by Jane Lloyd is reproduced above, and shows the Market Square and the old Parish Church.

The changing face of England has left many country towns in isolation from their sphere of prosperity. For example, the wool towns of the Cotswolds, once the centres of busy and wealthy districts, are now reduced to places of beauty only, without the hum of life which was meant to go with the interest of their streets. Sudbury, on the borders of suffolk and Essex, has the air of being an important local centre. The size and variety of the shops on the market hill, dominated by the fine church of St. Peter's, indicate clearly that the town exists to meet the needs not only of the people

within its own borough boundary but also the people in the surrounding countryside. There is evidence of busy market days and there are a number of factories carrying on the weaving industry associated with the town for hundreds of years and which made it once a centre in East Anglia second only to Norwich in importance. The survey shows, however, that there is a lack of industrial balance and, by standards which are now becoming the accepted ones, a definite deficiency in buildings and institutions to meet the social, recreational, entertainment and educational needs of the town and district. Some increase in the size of the town and population of the district seems therefore to be desirable, so that the industrial structure can be adjusted, and an adequate range of social services, in the widest sense of the term, can be supported.

### local centre

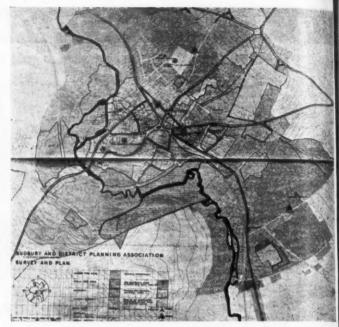
The area which is served by the town has been studied through the catchment areas of shops and institutions of various kinds and the results compared with the answers to questionnaires on shopping habits, etc., distributed to outlying villages with the assistance of Women's Institutes. The rural survey covers an area chosen as a result of these studies and the Sudbury and District Plan envisages the redevelopment of the surrounding countryside, as well as of the town itself.

The area proposals suggest a pattern of village clusters. The centre of each cluster is a larger village (in this district anything over 600 people) where there would be several shops, a post office, a well equipped community centre, a

### **OUTLINE PLANS**



Above, a map showing the area included in the Sudbury Survey, and the proposals for the improvement of the village pattern. Sudbury is shown in the centre of the area. Above right, the Outline Plan for the town, showing the main road proposals and schools indicated by triangles. Below, an air view of the Market Square.





district nurse, a co-operative agricultural centre, and a single stream primary school. The cluster would be completed by smaller residential villages, within two miles of the central village, and these would have in most cases their own churches, public houses, common rooms, and children's playgrounds—the material provision for spontaneous, unself-conscious, small scale social life. It is suggested that the provision of houses within the clusters should make it unnecessary for anyone to be more isolated from reasonable social facilities unless they wish to be. The accessibility of farms has been studied, and no part of the countryside is more than two miles from the small villages of the clusters. A farm worker living in one of the small villages would be within easy reach of many farms and would be able to change his place of employment without having greater distances to travel each day.

### population

The clusters which are suggested have each been considered in relation to whether they contain enough people to support a primary school of the minimum standard assumed. In some cases there are enough people but in others increases are desirable. It is assumed that the migration from the country areas, which is brought out very strongly by the survey, will be checked, if good wages, improved housing, and the public and social services envisaged in these suggestions are provided. It is not thought, however, that the numbers employed directly in agriculture can be expected either to increase or to decrease materially in the next few years. Any increase in population must be brought about by the introduction or return of light industries to the countryside. The Sudbury and District Plan suggests a number of sites, some in Sudbury and some in the open country, which would be suitable for a single small factory or a group of factories. These sites are accessible by road or rail and are in some cases in areas left derelict by gravel workings. They are within easy reach of a number of villages or of Sudbury itself, so that the introduction of factory workers would be spread among a number of communities and none need be socially unbalanced or funda-

mentally changed in character. At the centre of this pattern is a somewhat larger and improved Sudbury, offering better services, particularly as a social, recreational, entertainment and educational centre.

### outline plan for Sudbury

The basic pattern for the development of Sudbury is shown on an Outline Plan which enables the natural physical background to be grasped. The value of this background and its possibilities no doubt influenced the original siting of the town in a horseshoe bend of the river caused by a wedge of high land extending out from the east side of the valley. Upon this ridge stands St. Peter's, one of the three churches of the town, dominating the town centre and giving rise to the fine street picture illustrated in the sketch on page 153. The present population of Sudbury and Great Cornard, which although in the Melford Rural District, cannot be considered but as one of the residential areas of the town, is approximately 8,200. It is considered that an increase of between 3,000 and 4,000 would be desirable to enable the town to become a suitable centre for the district and to make possible adjustments in the industrial structure.

### housing

The survey of existing housing in the town shows that there is a very urgent need to replace houses which are obsolets





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Above, the Town Plan for Sudbury with the road pattern radiating from the Market Square. The alignment of the existing main roads is retained with a certain amount of widening, which will considerably open out the view of St. Peter's Church from two directions. Left, a view of the excellent model showing the planning proposals. This model was the work of local enthusiasts and is one of the many examples illustrating that Sudbury's Plan is a people's plan.

THE MODEL



Above, a perspective sketch of the proposal for the centre of the town, the new Council Offices being in the middle left. Right, a sketch of the suggested Council Offices and forecourt. These sketches were drawn by Edward Passmore.



and overcrowded. Many of them are built in places which are liable to floods and which would not to-day be considered suitable for housing purposes. Two compact residential areas completing partial and scattered development and providing both for rehousing and the suggested increase in population, are sited north-east and south-east of the town. Each is shown with primary and nursery schools and local shopping facilities. Some rehousing is also suggested near the centre and the layout conforms with the contours and takes advantage of the view over the town and across the valley.

### transport

The main flow of traffic is from the north to the east and, to provide for non-stopping vehicles on this route, a by-pass from the Melford Road to the Newton Road, to the north of the town, is proposed. This road is shown as a parkway strip, limiting the spread of the town. It serves the new industrial estate, and is intended to carry not only the Ipswich traffic away from the centre of Sudbury, but also the Colchester traffic. At present the Colchester traffic passes through Bures, which has a bad accident record, and could not be improved without mutilation of the village. The alternative route through Nayland lends itself much more easily to improvement.

Two internal routes will enable local traffic to approach the central core of the town but make it unnecessary to traverse it; a particularly important factor on busy market days. The railway is to remain unchanged, and although the housing areas are rather isolated from the station, the station hardly has the same importance in everyday life in a town of this type, as it would in a suburb. The approaches to the station are improved and suggestions are made for co-ordinating bus and train services.

# town centre

The redevelopment of the town centre retains the alignment of the existing main roads with a certain amount of widening, which will considerably open out the view of St. Peter's church from two directions. It is essential that consideration should be given to the original mediæval viewpoints with The important thing, however, is their changing interest. that the architectural character of Sudbury's town centre will be retained as it is now.

An area of obsolescence between the existing Market Hill and the proposed internal routes is redeveloped to provide a car park, bus station, produce market, additional shopping facilities, and new council offices. The internal routes thus give very convenient access to this central core of the town. An interesting point is that the Community Centre shown is a replica of one of the Arts Council models, and a large model of such a centre was included in the exhibition of the Sudbury and District Survey and Plan.

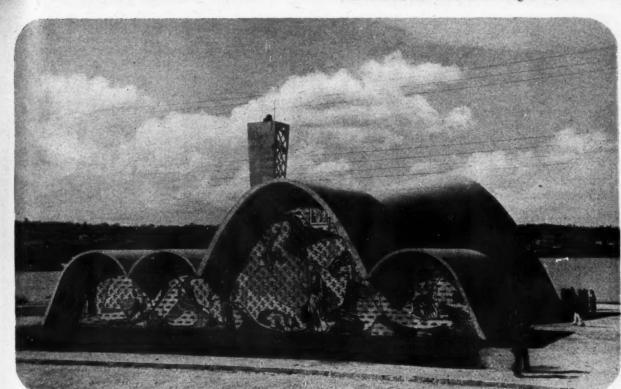
### industry

The existing factories are mainly concerned with silk or rayon, and knitting or weaving, employing a large percentage of female labour. There is a general desire to expand, but even before the war it had been found difficult to obtain the labour needed. Additional industry employing men would therefore be of benefit to the existing industry and the increase in population in the town and district would lead to a further increase in the service industry of the town. An industrial estate is suggested between the two housing areas, served by the new by-pass. Some areas adjacent to the railway are redeveloped for industrial use, but it is assumed that suitable new industries would be of a size and type which would make use of road transport.

### amenities

The natural amenity of the river will be developed and a riverside walk is proposed, with a Holiday Centre sited close by. Whether such a project would succeed in view of the competition of the coast some thirty miles away is rather doubtful, although Sudbury is a starting point for the exploration of the Constable country. The open character of the new development and the landscaping proposals will considerably enhance the beauty in the town.

The Sudbury and District Survey and Plan is the co-operative effort on the part of local enthusiasts guided by the Planning Association's full-time Planning Officer. The model of the scheme for Sudbury is worthy of special mention and portrays the proposals in a way usually the province of professionals in the more lavish exhibitions staged by larger towns. Many sketches by local artists and specially-taken photographs of local scenes and local people, help to explain the Plan. The Plan is based on a sound survey, much of the detail of which was carried out by voluntary helpers. Sudbury has shown that the public can participate in a very real manner in replanning, and the advantage of such local and critical help to Planning Officers cannot be over



The rear of the chapel with its tiled fresco by Portinari. The roof is covered with a ceramic mosaic, the projecting edges being faced with pink granite.

# CHAPEL OF ST. FRANCIS AT PAMPULHA, BRAZIL BY OSCAR NIEMEYER

This chapel, of which illustrations during construction were shown in the Journal for January 31 of this year, has now been completed. The construction is reinforced concrete in a series of parabolic arches, the exterior covering being a ceramic mosaic mainly in pale blue but containing a design in white, blue and brown.

The edges of the arches are covered with pink granite slabs, a material

which is also used to cover the edge of the marquise joining the entrance to the bell tower and also the sides of the bell tower itself.

The entrance elevation has a large glass window shielded from the sun by fixed brise soleil slats of asbestos cement. The marquise, though edged with granite, has its soffit rendered. The supports at the entrance are constructed of tubular steel. The reinforced concrete

bell tower has two sides of concrete lattice work coloured dark blue. The rear of the building is covered

with a design in tiles by Portinari, executed by Rossi Osir. Various shades of blue have been used together with white and brown. Inside is an altar piece in the form of a fresco painted by Portinari and his school, and also a series of bas reliefs of the Via Dolorosa by Ceschiatti, a young sculptor who has won the Prix de Voyage given by the government each year.

The chapel faces a large reservoir and is at present surrounded by a capinha, or rough grass verge, but low growing trees will be planted alongside the chapel. The statue shown in the drawing of the elevation on page 159 has now been eliminated but the large granite cross is being completed and will soon be erected in the position shown on the drawing.

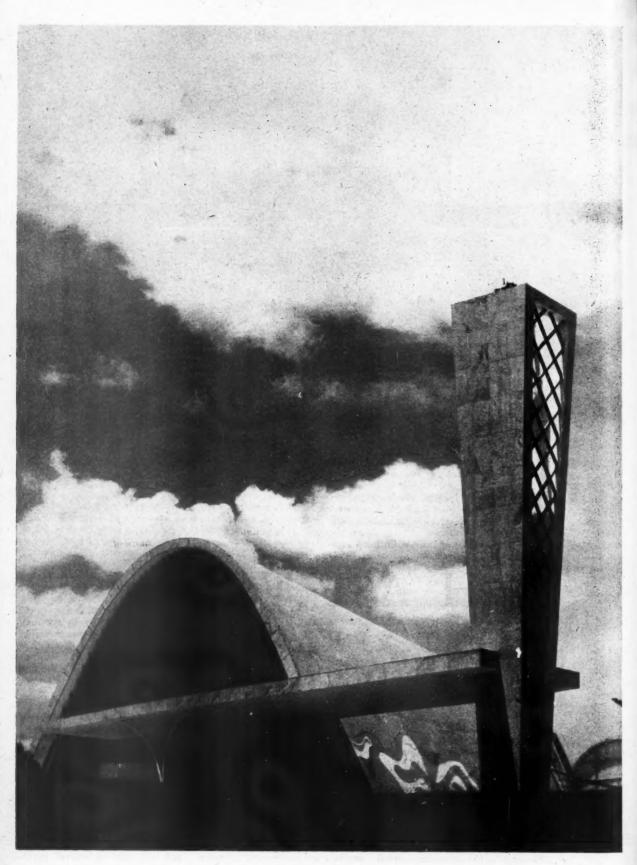
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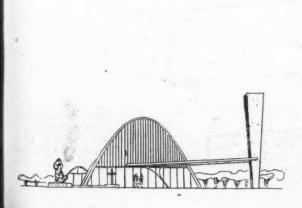
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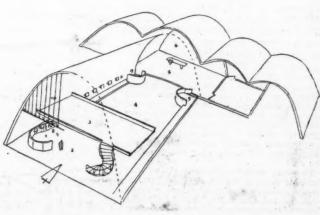
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CHAPEL OF
ST. FRANCIS
AT PAMPULHA
DESIGNED BY
OSCAR NIEMEYER



On facing page, the entrance elevation with its brise soleil, marquise and bell tower. The tower is of reinforced concrete faced with pink granite slabs and has two sides of lozenge-shaped lattices in concrete of dark blue finish. Above, the altar fresco painted by Portinari and his school. Below left, sketch of the front elevation; the statue has been eliminated but the granite cross will shortly be erected. Below right, sketch showing the interior; 1, baptistery; 2, entrance hall; 3, choir balcony; 4, nave; 5, chancel and altar; 6, the altar fresco shown above; 7, bas reliefs by Ceschiatti; 8, paintings; 9, pulpit; 10, brise soleil; on the right of the chancel is the sacristy; the choir balcony is reached by stairs of reinforced concrete with tubular steel railings.





# INFORMATION CENTRE

The function of this feature is to supply an index and a digest of all current developments in planning and building technique throughout the world as recorded in technical publications, and statements of every kind whether official, private or commercial. Items are written by specialists of the highest authority who are not on the permanent staff of the Journal and views expressed are disinterested and objective. The Editors welcome information on all developments from any source, including manufacturers and contractors.

## STRUCTURE

2687

Steel House

THE NUTTALL HOUSE, LONDON COLNEY, HERTS. G. R. Falkiner Nuttall. Consultant; Orrel H. Nuttall, Architect. (The Builder, March 29, 1946, pp. 310-311.) Steel-framed structure of storeyhigh panel frames of pressed steel surmounted by a pitched roof of pressed steel framing and light tubular steel trusses to accommodate the upper

The wall panels are generally 2 ft. wide and 8 ft. high, built up of 3 in. steel channel section with two horizontal tubes welded in at window head and sill levels. The panels are rag-bolted to the foundation concrete and to each other by tie-rods, which pass through the tubular cross members and finally form continuous girdle ties around the complete house frame. Panels are filled with a layer of wood-wool and aluminium-faced building paper, leaving a cavity, and mesh reinforcement is welded or clipped to the outside face. The frames are rendered externally to a total thickness of 1½ in. The internal face is finished with precast plaster units.

The first floor and roof superstructure comprise pressed steel rafters, channels and tubular steel columns supporting pressed steel channel purlins on which the light tubular steel roof trusses are mounted. A feature of the roof truss is the use of a special connector consisting of a split ring with a milled surface, which is expanded inside the ends of the tubular members by tightening a nut. This seals the tube and makes simple bolt connections possible.

The 2 ft. module of the panel frames

allows flexibility in planning.

2688

USA Bridges

DESIGN OF WILBUR CROSS PARKWAY BRIDGES. John F. Willis. (Engineering News-Record, May 16, 1946, pp. 792-7.) Road crossings for Connecticut's express highway. Continuous welded steel girders designed for composite action with concrete slab.

Several interesting bridges will be erected on a section of the express highway between New York City and Boston, now under construction. Steel will be used to a greater extent than on another section of the same road previously completed. The steep gradient of the overhead roads make the architectural problem particularly difficult. Single span and double span structures will be used.

Two-span welded continuous girders with variable depth of section, designed for composite action with the reinforced concrete slab (see Inf. Centre No. 1819: 1.3.45) offer great advantages where approach ramps are required. This system permits of a decrease in depth of girder at the centre, which in

turn allows increased headroom. This is important because, in order to maintain the necessary vertical clearance; other types of structure necessitate a higher level of ramp, i.e., their extension in both directions and also higher and more expensive wing walls. It was found in one case that two separate (non-continuous) spans would increase the cost by over 40 per cent.

From the architect's point of view, welded structures with smooth, flowing lines are preferable to the ugly appearance of riveted girders. In the case of a bridge where the new highway is carried over an existing road and railway on a 5-span deck plate-girder viaduct, several attempts were made to design steel columns on concrete bases, but asthetic requirements could not be satisfied. Finally, concrete frames were decided upon.

2689 French Prefabrication System

FRENCH SYSTEM OF PREFABRICATION. Architect: P. Jeanneret. Engineer: Jean Prouve. (The Architects' Journal, June 27, 1946, pp. 487-491.) First floor on cantilevered steel beams supported on six concrete posts. Main support of roof: central post with splayed legs standing on first floor and supporting cantilevered ridge piece of steel. Ends of ridge piece tied to floor. Steel roof panels cantilevered from ridge both sides. Wall panels of timber in metal frames.

2690 Reinforced Concrete System

HOOK-ON SLAB REINFORCED CONCRETE SYSTEM. Designed by E. May. (The Architects' Journal, June 13, 1946, pp. 453-5.) Precast concrete slabs suitable for external cladding to any type of building with supporting framework at 3 ft. 0 in. centres designed accordingly. Application demonstrated by two prototypes.

2691

Concrete Bridge

BOX MEMBERS DISTINGUISH CONCRETE BRIDGE. (Engineering News-Record, June 27, 1946, pp. 996-7.) Large span low cost continuous girder bridge in reinforced concrete.

inforced concrete.

The contract price of a reinforced concrete road bridge, recently built in Tacoma, Wash, was some 20 per cent. lower than the tender for a competitive timber design. The bridge consists of four box girder cells of a uniform overall depth of 6 ft. The spans are 95, 115 and 95 ft. respectively. The cross section of the bridge is remarkable for the small thickness of the webs which total only 30 in. for an overall width of 33 ft. 4 in.

### LIGHTING

2602

Auditorium Lighting

GLARE-FREE AUDITORIUM LIGHTING, (Arch. Record, April, 1946, p. 77.)
Auditorium roof section.

In these columns reference is often made to natural and artificial lighting design to reduce the brightness contrasts which are the cause of glare. An excellent example occurs in an article describing a school project and is shown in the diagram reproduced here. The section is through the ceiling. It will be seen that directional lights are fitted in the upper surface to provide the main downward light, but as these would appear glaring by contrast with the surrounding areas if the latter were unlighted, strip-light fittings are located in the lip of the off-set to provide upward illumination. This seems a very sensible arrangement.

2693

Lighting Fixtures

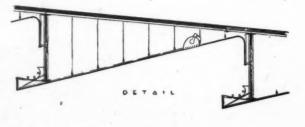
New Developments in Aluminium For Lighting Fixtures. C. A. Atherton. (Lighting and Lamps, March. 1946, p. 58.) Characteristics; design innovations.

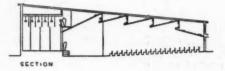
This article contains a catalogue of desirable characteristics of the material: strength, workability, choice of alloy, etc. Many points are familiar, less so perhaps is the value of high thermal conductivity, which is claimed as an advantage because the heat from the lamp is distributed over the fitting instead of being allowed to concentrate where it may damage wiring, etc. Among the innovations is the suggestion of using cheap reflectors—so cheap that they are thrown away and replaced when dirty, instead of being washed. Surface finishes are discussed.

2694

Measuring Daylight

THE APPROXIMATE MEASUREMENT OF





Section and roof detail of the auditorium of a school in the USA. Acoustical baffles are correlated with the lighting. See No. 2692.

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Scorebing days . . . running in and out of blue sea . . . wet sand spaded into buckets . . . wet and dry seaweed . . . donkey rides . . . glint of water through the pier . . . collecting shells . . . peppermint rock with the name right through. The joyous memories of childhood holidays by the sea.



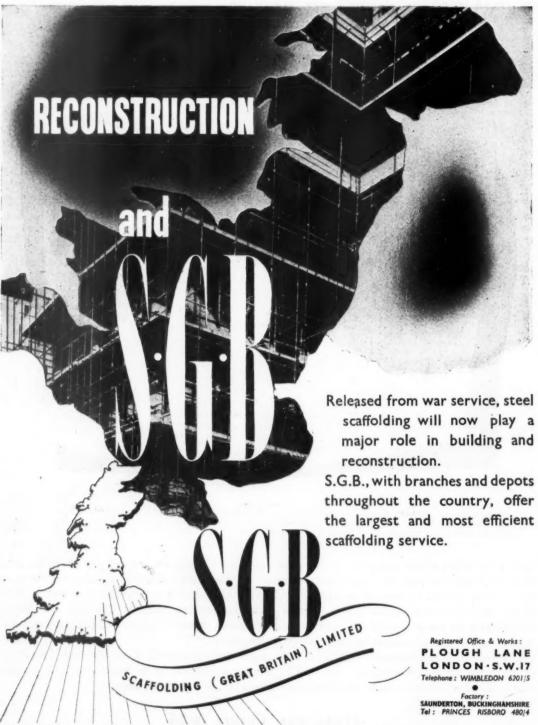
What will a child's seaside holiday be like in twenty years' time? What will our everyday life be like then? There are bound to be many changes and developments. We think there will be a great deal more Aluminium used—in our homes, at work, in transport, everywhere. Aluminium is so essentially the medium of the future, because it combines so many desirable qualities—lightness, strength, durability and beauty. Aluminium is our sole preoccupation. We mine the raw material, reduce it to pure metal and combine it with other metals to produce most suitable alloys for specific purposes.

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BRANCHES AT: — ABERDEEN · BRIGHTON · BIRMINGHAM · BRISTOL · CARDIFF · DUNDEE EDINBURGH · EXETER · GLASGOW · HIGH WYCOMBE · HULL · LEEDS · LIVERPOOL · LONDÓN MANCHESTER · NOTTINGHAM · NEWCASTLE · PLYMOUTH · PORTSMOUTH · SOUTHAMPTON DAYLIGHT. P. J. Waldram. (RIBA Journal, May, 1946, p. 290.) Daylight factor. Official regulations, tables and graphs. Example analyses.

This paper discusses the terms daylightfactor and sky-factor, drawing attention to the fact that one should employ the latter term in many places where one now uses the former. No doubt this distinction will become recognised in due course.

Much of the paper is devoted to what the author calls an "approximate" method, although the term appears to belie, to some extent, his development of it. There is more mathematics about it than about the author's well-known diagram or the other accepted methods, and it seems doubtful if this will appeal to architects.

### MISCELLANEO US

3695

Public Libraries

MODERN PUBLIC LIBRARIES: PLANNING AND DESIGN. E. H. Ashburner. (Grafton & Co., 1946, 25s. 0d.) Design and equipment of municipal libraries: Furnishings, heating, venti-lation, and lighting. Internal finishlation, and lighting. Internal finishings. Notes on British libraries other than municipal lending libraries. Notes on some foreign libraries. Bibliography. Fully illustrated.

The book gives a very thorough survey of trends and developments in the planning and equipment of municipal libraries up to 1939, the object being to assess requirements in regard to a reorganised library service. In planning for future library development probable movements of population must be considered and anticipated. Local authorities should realize the importance of supply-ing immediate library facilities to serve new residential areas.

In the introduction a historical note is given on the development of library facilities to-gether with a summary of legislation relating to municipal libraries.

The smallest units of the municipal library organisation are represented by reading centres provided for the use of schools, social centres, clubs, etc., and administered by a member of the central library staff.

Municipal branch libraries constitute the

next larger unit in the municipal library system. Their layout and equipment are demonstrated by an analysis of various wellchosen examples.

The factors which govern the requirements of a central library differ considerably in each town and depend not only on the type of public served but also on the nature and extent of other educational facilities provided in the vicinity. For instance, in the case of the Sheffield Central Library the manufacturing interests of the city have called for representation in the form of a very large library room devoted exclusively works. Similarly in the case of a district rich in historical, architectural or geographical interests the library will have to cater for these particular subjects. A number of twicel carter! libraries are described and typical central libraries are described and illustrated with critical comments on their layout, services and constructional arrangements.

very useful chapter discusses each unit of the library plan in detail with regard to its functions, general requirements, and position in the library scheme as a whole. Departments described include the lending library, the children's library, the newspaper room, the reference library, reading and magazine rooms, and administrative and staff rooms. staff rooms.

Library furnishings are analysed and illustrated in great detail providing much valu-

able information on layout dimensions.

The problems of heating, lighting, and servicing, of floor construction, floor finish and noise prevention are among other aspects

thoroughly dealt with.

Appendix I briefly describes some British libraries other than municipal lending libraries mentioning a county branch library, some university libraries, and the National

Library of Wales.

In Appendix 2 an attempt is made to stress certain features of foreign libraries which may be considered as links in the chain of general development.

The bibliography contains a noteworthy reference section entitled Libraries Illustrated in the Technical Press during the past Fifteen Years.

2696

Electrical Engineering

DICTIONARY OF ELECTRICAL ENGINEER-ING. G. W. Stubbings. (E. & F. Spon Ltd., 10s. 6d.) ELECTRICAL WIRING THEORY AND PRACTICE. W. S. Ibbetson. (E. & F. Spon Ltd., 11s. 0d.) Books not intended for architects but Wiring Theory and Practice has detailed explanations of many items the architect must have for discussion with his consultant. It would serve as a useful office reference book although some of the material does not quite agree with latest recommendations for practice.

Electrical Engineering

ELECTRICAL ENGINEERING. Book List 207. Sponsored by the British Council for distribution by the National Book League. A valuable and comprehensive list of books on this subject prepared by the late J. Corthesy, Librarian 1913-1946 of the Institution of Electrical Engineers.

# PLUMBING and Sanitation

2698

Domestic Drain Pipe

THE DOMESTIC DRAIN PIPE. Wilton. (The House-Builder, May, 1946. Vol. V, p. 103.) Need for care in specification. Existing British Standards and their weaknesses. Confusion in nomenclature. The "seconds" pipe, its uses and defects.

The existence of many grades of glazed ware pipe and of confusion in nomenclature frequently results in site difficulties and disputes. Often, it is not realised that to specify "pipes manufactured in accordance with BSS" will not result in the supply of British Standard marked and tested pipes British Standard pipes are batch-tested, or individually tested, according to grade. It is argued here that the small extra cost of British Standard pipes is well worth-while. Neither do manufacturers help the existing confusion by marketing their own grades "best," "tested," etc.; nor do the authors of the text-books, by using indiscriminately the terms "stoneware," "fireclay," "earthenware" and so forth. There is a strong case

on the market. The author suggests that the "seconds" quality pipe is an undesirable article which would be better off the market altogether. It is probable that manufacturers of repute

for the revision of BSS.s 65 and 540 so as to reduce the number of grades and qualities

would welcome its disappearance, and the number of engineers who have abandoned the use of "seconds" for surface water drains is increasing. As it is undesirable to draw up a specification for what is an admittedly defective article, their view seems to be a logical one.

2699

Saving Lead in Housing

VITAL MINIMUM USES OF LEAD SHEET AND PIPE IN HOUSE BUILDING. (Lead Industries Development Council.) Application of Ministry of Works Economy Memorandum on use of lead in building. Roofing, flashings, valley gutters. Supply and distribution pipes for water. Waste and soil pipes. Gas connections. Use of alloys. Illustrated. A useful set of notes on the present restrictions. The drawings are particularly clear. By vital minimum uses is meant those uses for which lead sheet and pipe are pre-eminently suited, and in connection with which competent labour is available.

2700

Water-Seal Overflows

WATER-SEAL OVERFLOWS. (The Plumbing Trade Journal, March, 1946, p. 53.) Frost damage due to entry of cold air through overflow pipes. Comparison of existing methods of prevention. method

It is pointed out that the entry of cold air through overflow pipes from w.c. flushing cisterns and supply tanks is a frequent cause of frost damage. This has been overcome the country of the country o of frost damage. This has been overcome in the past by fitting a valve on the over-flow pipe—a method with considerable disadvantages. It is proposed here to carry the overflow inlet inside the cistern below normal water level (by means of an elbow and short length of vertical pipe), thus prevent-ing the free flow of air. This arrangement would produce the desired result, but it might meet with objection from some water

Cement Pipe Linings

ADVANTAGES OF CEMENT LININGS FOR CAST-IRON PIPES. Thomas W. Wolfe. (Contractors' Record, Waterworks Supplement, May, 1946, p. xcvi.) Cement linings increase working life of cast-iron mains by preventing interior deposit. Friction losses in old pipes: theoretical and in practice. Experience with lined pipes in the USA. Possibilities of using smaller diameter pipes when lined, to reduce first cost.

It is argued that the long physical life of a cast-iron pipe means little if its carrying capacity becomes seriously impaired by interior deposit, and that the logical way to prevent this situation is by lining. Successful applications of company lining. applications of cement lining over long periods in the United States are described. The weaknesses of early types of lined pipes are stated to have been completely over-

2702

Alloy Pipes

LEAD PIPES, SILVER-COPPER-LEAD ALLOY. British Standard 1,085-1946. Standards Institution, 2s.) (British Composition of standard alloy. Weights of pipe and working pressures. Standard marking. Testing.

This is an expanded version of the war

emergency specification, originally issued to provide an alternative to BSSs 602 and 603. This alloy (which is subject to patent rights) has a somewhat higher resistance to

creep under steadily applied pressure, and is therefore retained as a standard for post-war use. Diameters of ‡ in. and 2 in. have been added, and weight increases allowed for use where the working pressure exceeds 150 feet head of water. A standard method of etching pipe cross-sections for examination of the metallic grain is included as an example of the standard method of the metallic grain is included as an example. appendix. A uniform grain is called for to satisfy the Specification.

Bath Traps

FERROUS TRAPS FOR BATHS. British Standard 1,291-1946. (British Standards Institution, 2s.) Grades of cast Dimensions and drawings. Standard finishes. Traps are for use with standard cast iron baths to BS

The standard trap is 11-in. bore, P type, with threaded tail and internal grating at with threaded tail and internal grating at waste outlet. A side-entry cleaning plug of ample size (1½-in. bore) is provided, a fact which alone justifies the issue of the specification. This is to be interchangeable with an overflow connection placed opposite. Standard finishes are "as cast," galvanised or painted externally, fine cast, galvanised, or glass enamelled inside.

# EOUIPMENT

Domestic Gas Appliances

DOMESTIC GAS APPLIANCES FOR IMME-DIATE POST-WAR HOUSING. PART I. General Specification, including Space and Rating Requirements. British Standard 1250: Part 1: 1945. (British Standards Institution, 2s. 0d.) Eventually to be in two parts. The present Part I deals with essential dimensions and rating requirements of cookers, sink water heaters, bath water heaters, multi-point heaters, laundry boilers, fires, flueless space heaters, refrigerators and other apparatus.

As immediate supplies will be mainly pre-war models a wide range is included, but the gas industry is considering some measure of standardisation and this specification may

be modified later.

# **QUESTIONS** and Answers

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been The service is confidential, and in prepared. no case is the identity of an enquirer disclosed to a third party. Questions should be sent to : THE ARCHITECTS' JOURNAL, 13, Queen Anne's Gate, Westminster, S.W.r.

2705

Greyhound Racing Tracks

We have been appointed architects for a Greyhound Racing Track and buildings appropriate in connection therewith, such as grand stand, kennels, offices, totalizator, etc., and we are wondering whether you could put us in touch with any Association, who could give us information concerning the construction of the track and planning layout of the buildings.

A The Stewards of the National Grey-hound Racing Club have a list of re-quirements, which includes such headings

as Training Kennels, Isolation Kennels, Racing Kennels and Paddock, Track, Judge's Box, Stewards' Box, Hare Controller's Box and Track Lighting.

A copy of this list can be obtained from the National Greyhound Racing Society of Great Britain, Ltd., 38, Jermyn Street, S.W.1. Any further information which you may require, such as placing of Grandstand, Offices and Totalizator, etc., may be obtained from Mr. Aldridge, the Secretary

Manufacturers of Totalizators are Messrs. Setright Registers, Ltd., 27, Claremont Road, Walthamstow, E.17.



Speeches and lectures delivered before societies as well reports of their activities, dealt with under this which includes trade associations, Government departments, Parliament and professional societies. To economize space the bodies concerned are represented by their initials, but a glossary of abbreviations will be found on the front Except where inverted commas are used, the reports are summaries, and not verbatim.

# RIBA

# Architectural Education

The Board of Architectural Education has considered the REPORT OF THE SPECIAL COMMITTEE ON ARCHI-TECTURAL EDUCATION in the light of comments received from the Royal Incorporation of Architects in Scotland and other Allied Societies, from a number of members of the RIBA, and from the National Society for Art Education. The RIBA Council has now itself considered the report of the Board. Below is published part of the report of the Special Committee on Architectural Education together with statements of action taken by the Council on the various recommendations.

The Council of the Royal Institute of British Architects has now received the recommendations of the Board of Architec-tural Education upon the various recom-mendations made in the Report of the Special Committee Architectural on

The Council before sidering the various recommendations in detail gave, at the request of the Board of Architectural Education, special consideration to the question of the training of Junior tion to the question of the training of Junior Assistants. That is to say, consideration to methods of training alternative to that offered by the Schools of Architecture whose examinations are recognised as exempting from those of the RIBA. In the view of the Council the training of the Junior Assistant is a problem influencing the general consideration of the Report, which rightly stresses the importance of school training but does not deal with the external training but does not deal with the external examinations proportionately.

The Council has approved the recommen-

dation of the Board that steps be taken to intensify the RIBA collaboration with those intensity the RIBA collaboration with those schools which provide by means of evening or part-time courses facilities for the preparation of those who wish to take the RIBA Examinations externally. This is not the introduction of a new policy, for it has always been the policy of the Royal Insti-tute to assist by all available means those institutions providing tuition for those who

cannot attend full-time courses of study.

The Council has asked the Board to submit detailed proposals for securing an increased degree of collaboration with the

above schools.

The Council has taken the following action on the various recommendations made by the Special Committee on Architectural Education.\*

Recommendation:-That all for admission to Probationership of the Institute should be required to have passed one of the examinations approved from time to time by the Council. They shall be required to have passed in English and Mathematics but in other subjects in which a pass standard is also required they may be permitted to exercise such freedom of choice as the conditions governing the examination may allow. Decision:—The Council has approved this recommendation, but in view of the recent and pending changes in the national system of education the Council will retain discretionary powers for dealing with cases of exceptional hardship.

Recommendation:—That the following subjects should be comprised in the curri-

culum of a Fully Recognized School:

Design, the Technique of Presentation, the Theory of Architecture, the History of Architecture, Construction, Services and Architecture, Construction, Services and Equipment, Quantities and Estimates, Specification, Surveying, Town and Country Planning, Professional Practice, and Practical Experience. That the minimum length of the qualifying curriculum in a Fully Recognized School should continue to be five years, of which four and a half should be spent by the student working under direction in the school. Decision:—The Council has decided to forward these recommendations to the Headmasters of the Recognized Schools of Architecture for such

cognized Schools of Architecture for such action as they may consider necessary.

Recommendation:—That, bearing in mind the extent of the services which the architect should be equipped to render in the spheres of urban, suburban and rural housing, more attention should in the curricula of the Recognized Schools be paid to the study of domestic work than is at present given to it. Decision:—The Council has decided to forward this recommendation to decided to forward this recommendation to the Headmasters of the Recognized Schools of Architecture for such action as they may

consider necessary.

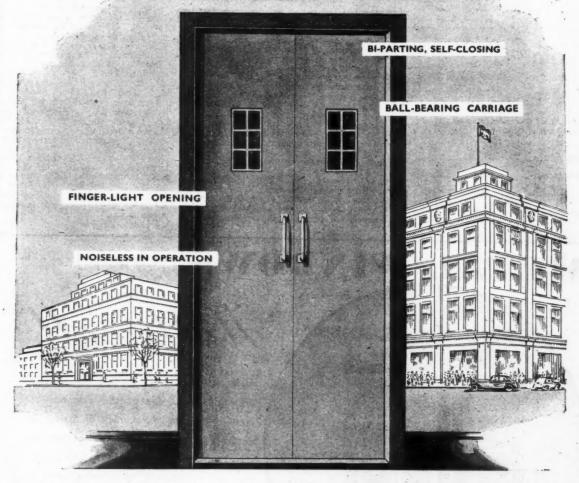
Recommendation: -That the Recognised Schools should be advised to consider the advantages of substituting topographical for life drawing. Decision:—The Council has decided to forward this recommendation to the Headmasters of the Recognised Schools of Architecture for such action as

they may consider necessary.

Recommendation:—That in the teaching of Architectural Construction principles

\*Only a few of these are published here. - Ed. A.J.

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should be consistently stressed. That no attempts should be made to render the pros-pective architect wholly independent of the services of other experts and specialists and particularly of the civil or structural engineer, since that aim could only be achieved by subordinating or totally eliminating those studies—above all the comprehensive study of design—which give to the curriculum its architectural character. That, on the contrary the student should during his course be prepared as far as possible for effective and sympathetic collaboration with the en-gineer and with others with whom he will

gineer and with others with whom he will later have to co-operate in practice. Decision:—The Council has these recommendations still under consideration.

Recommendation:—That every Recognized School should seek (i) to acquire (a) a representative collection of materials used in building and an extensive range of fullsize constructional models; (b) suitable accommodation for the display of such exhibits; (c) a laboratory or laboratories for demonstrating the behaviour of materials under various tests; (d) a workshop for demonstrations of craft work; (ii) to secure the services of a competent demonstrator with craft experience. Decision:—The Council has decided to forward these recommendations to the Headmasters of the Recognized Schools of Architecture for such action as they may consider necessary.

Recommendation:—That, to give Town and

Country Planning its due place both in the pre-graduate and post-graduate education of the architect, every fully Recognized School should provide (a) introductory courses in the History, Law and Practice of the sub-ject during the last two years of the qualify-ing curriculum, (b) post-graduate courses for the benefit of students able to pursue further study in this field. Decision:—The further study in this field. Decision:—The Council have decided to forward these recommendations to the Headmasters of the Schools of Architecture for

such action as they may consider necessary, Recommendation:—That the schools should consider the advisability of interposing between the end of the third and the beginning of the fourth sessions a period approved Practical Experience. Decision:

—The Council has this recommendation still under consideration.

Recommendation:—That the Institute should continue to make it clear to the authorities concerned that in general the salaries at present paid to teachers of architecture are no longer adequate to attract to the service of architectural education a sufficient number of candidates of the requisite quality. Decision:—The Council has approved this recommendation.

# Announcements

Of the 41,000 Arcon temporary prefabricated houses ordered by the Government, 28,000 had been produced by the end of July and 24,000 were in course of erection, according to figures issued by Woodrow Construction, Ltd., managing contractors. Hulls completed numbered 19,000 and houses completed for occupation numbered 11,000.

Mr. C. C. Spence, B.A., A.R.I.B.A., and Mr. G. L. Price, A.R.I.B.A., on release from the Forces have entered into partnership and will practise under the style of Spence & Price for the present at No. 15, Haldane Terrace, Jesmond, Newcastle-upon-Tyne. They will be pleased to receive trade cata-

logues, etc. Mr. Douglas Mr. Douglas N. Linnet, technical journalist, Box 4,455, G.P.O., Sydney, N.S.W., Australia, would be glad to receive trade catalogues and information sheets from firms in the Building Industry, especially those interested in export to Australia.

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# This Present Age . . 6

It is the supreme tragedy of war that the nation must lose the flower of its manhood with all its bright promise. Succeeding youth must be worthy of these sacrifices and, out of the chaos and confusion of war, resolve to seize the many rich opportunities which await it. shoulder these great responsibilities requires a discipline of all the mental, moral and physical faculties. Since the outbreak of war the company has accepted the voluntary responsibility for the rehabilitation of Service men and women into their peacetime pursuits without loss of status. All who return will have acquired a new and disciplined outlook. Many will have discovered latent talents or acquired new skills. Such qualifications will be of inestimable value when directed to the best advantage, but of most account will be the ability of the individual to give the highest quality of service in a spirit of free co-operation. Science and technology can bestow many bounties if youth is worthy of past traditions and future potential-Never in the history of ities. the nation has so great a burden fallen on a rising generation, or so bright a prospect presented itself.

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### CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal." War Address: 45 The Avenue, Cheam, Surrey, 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," War Address: 45 The Avenue, Cheam,

### Public and Official Announcements Six 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, Earon Place, London, S.W.1. Tel.: Sloans 5615. 931

### LONDON COUNTY COUNCIL.

Applications are invited for the following posi-(1) QUANTITY SURVEYORS AND ASSISTANTS (SENIOR AND JUNIOR). Required

for:

(a) "Taking-off" quantities, measuring, and adjusting variations under building contracts and preparing estimates.

(b) Preparing estimates and measuring repairs and minor works under schedule of prices (experience of London County Council War Department or Office of Works Schedules).

(c) Working up, etc., in connection with domestic buildings and general working up (innior).

domestic buildings and general working (janler).

(d) Measurement of roads and sewers and housing work on cottage estates, preparation of interim and final bills on Schedules.

(2) ARCHITECTS, BUILDING SURVEYORS, TECHNICAL ASSISTANTS (ARCHITECTURAL) AND JUNIOR DRAWING OFFICE ASSISTANTS. Required for:

(a) Work in connection with the design and development of housing schemes for cottage estates and block dwellings (experience in demestic architecture preferred).

(b) Similar work in connection with schools and hospitals.

(6) Similar work in connection with sensors and hospitals.

(e) The preparation of estimates and specifications for works of cleaning and painting, repairs and minor alterations at schools and hospitals.

(d) Assistants to district surveyors. A knowledge of the London Building Acts and by-laws is necessary for these positions.

(e) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and experience, up to 65s. a week, plus cost-of-living addition.

addition.

(3) HEATING ENGINEERS AND HEATING AND VENTILATING ASSISTANTS. Good technical education required. Applicants must be experienced in the design of, and preparation of drawings, specifications and estimates for, modern bot water heating, ventilating and hot water sunnly schemes.

drawings, specifications and estimates for, modern bot water heating, ventilating and hot water supply schemes.

Except as otherwise shown, salaries for the above positions will be determined by qualifications and experience up to a maximum of £400 a year, together with cost-of-living additions up to £90 a year, according to basic salary. Salary up to £500 for certain positions of heating engineer and building surveyor. Successful candidates will be engaged on a temporary basis, but will be eligible for appointment, according to merits, for permanent appointment on the occurrence of vacancies. Temporary staff are required to contribute to the Council's Superannuation and Provident Fund.

Ex-Service candidates with experience prior to their war service will be specially considered. Application forms may be obtained from the Clerk of the Council, County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope.

Canvassing disqualifies.

### THE UNIVERSITY OF MANCHESTER.

Applications are invited for the following posts, in the School of Architecture:—
TWO TEMPORARY LECTURESHIPS.
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TWO TEMPORARY ASSISTANT LECTURESHIPS.
Duties to commence 29th September, 1946, or as agon thereafter as posible. The stipend attached to the post of Assistant Lecturer is 2350 per annum, rising according to scale. The commencing stipend of the Lecturers will be according to qualifications and experience, but will be not less than 2500 per annum, rising according to scale. All applications should be sent not less than 2500 per annum, rising according to scale. All applications should be sent not later than 9th September to the Registrar, The University, Manchester, 13, from whom further particulars may be obtained.

### METROPOLITAN BOROUGH OF PADDINGTON.

### SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of a Senior Architectural Assistant, on the permanent staff of the Borough Engineer and Surveyor's Department of the Council, at a commencing salary of £460 per annum, plus cost-of-living bonus, at present £59 16s. per annum. The post will be graded under the National Scales of Salaries.

of Salaries.

Applicants must be Registered Architects, preferably members (by examination) of the R.I.B.A., and have had extensive experience in municipal work, including working class flats. London experience will be an advantage. Forms of application and conditions of appointment can be obtained from the undersigned, to whom applications are to be returned not later than Monday, 9th September, 1946.

Canvassing, either directly or indirectly, will disqualify.

W. H. BENTLEY.

Town Hall, Paddington, London, W.2.

### BOROUGH OF EDMONTON.

# BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

# APPOINTMENT OF ARCHITECTURAL ASSISTANT.

ASSISTANT.
Applications are invited for the appointment of Architectural Assistant, in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade IV of the National Scheme of Conditions of Service (£420-£15-£465 per annum), plus London "weighting" £20 per annum, plus cost-of-living bonus, at present £59 16s. per annum

annum, plus cost-of-living bonus, at present £59 16s. per annum. Candidates should hold an appropriate architectural qualification, and have had experience in housing and general building work. The appointment will be subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination

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

Applications should be made on forms to be obtained from the Borough Engineer and Surveyor. Town Hall, Edmonton, London, N.9, and should be returned with copies of three recent testimonials to the undersigned, on or before 9th September, 1946.

H. BACKHOUSE R.Sc. Town Hall, Edmonton, N.9.

H. BACKHOUSE, B.Sc. 818

# THE COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE.

# APPOINTMENT OF COUNTY PLANNING OFFICER.

Applications are invited for the appointment of County Planning Officer, at an annual salary of £1.500, rising by annual increments of £50 to £1.750, plus war bonus on the County Council's scale. Applicants must be Corporate Members of the Town Planning Institute, and have had considerable experience in the preparation and administration of planning schemes. Preference will be given to persons who also possess a recognized qualification in architecture, civil enzineering or surveying.

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

Applications in writing, stating age, qualifications and experience, accompanied by copies of three recent testimonials, must be lodged with the undersigned in scaled envelopes, marked clearly in the top left-hand corner "County Planning Officer," not later than the 30th day of September, 1946.

BERNARD KENYON,
Clerk of the County Council.
13th August, 1946.

### COUNTY BOROUGH OF NEWPORT, MON. BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT ARCHITECT. in the above Department, qualified Member of the R.I.B.A. by examination. and who has had considerable experience in Educational and Housing work. Commencing salary will be in accordance with Grade V. National Scale, plus bonus (viz., £460 to £510 p.s.).

V. National Scale, plus volume to the Corporation's Conditions of Service and Superannuation Scheme, and the successful candidate will be required to pass a medical examination.

Application, accompanied by three recent testimonials, must reach the undersigned not later than the 6th Sentember, 1946.

JOHNSON BLACKETT, F.R.I.B.A.

Borough Architect.

Town Hall, Newport, Mon. 20th August, 1946.

### DEPARTMENT OF HEALTH FOR SCOTLAND.

# CHIEF ARCHITECT AND PLANNING OFFICER.

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Applications are invited by the Department of Health for Scotland for the post of Chief Architect and Planning Officer in Edinburgh, at a salary of £1,500 inclusive.

The appointment is subject to the usual Civi Service conditions as to pension, holidays, ek. If the successful applicant is a pensionable official of a local authority, the Local Government and Civil Service (Superannuation) Rules, 1936, will apply.

Carries (superannuation) Rules, 1936, was apply.
Candidates must be between the ages of 35 and 55 on 1st September, 1946, must be members of the R.I.B.A. and the T.P.I., and must have extensive experience of housing (with particular reference to layout, design, and the new form of construction) and of town and country

of construction) and of town and country planning.

Forms of application, with further particular of the appointment, may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Rdsburgh, 1, and must be returned to him may later than the 31st October, 1946.

Those candidates who appear best qualified will be required to attend a Selection Board in Ediburgh or London.

### MIDDLESBROUGH EDUCATION COMMITTEE.

# APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for appointment as Senior Architectural Assistant in the Architect's Section of the Education Department. Salary accordance with Grade VI of the National Joint Council Scales (£335-£660 per annum), plus confiliving bonus. Applicants must be Associate of the Royal Institute of British Architects, and have had considerable experience in the design and construction of modern educational building. The appointment will be subject to the previsions of the Local Government Superannuation Act. 1947.

Act, 1917.
Applications, giving full details of age, training, qualifications, present and previous appointments type of experience, together with copies of ne more than three recent testimonials, should be delivered to the Director of Education, Education Offices, Woodlands Road, Middlesbrough, by not later than Friday, 6th September, 1946.
Canvassing will disqualify.
E. C. PARR,
Town Clerk's Office. Middlesbrough.

Town Clerk's Office, Middlesbrough. August, 1946.

### COUNTY BOROUGH OF WALSALL. PUBLIC WORKS DEPARTMENT.

PUBLIC WORKS DEPARTMENT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT (Permanent), as a salary of £460, rising to £510 (Grade V of the Administrative, Professional, Technical Division of the National Joint Council Scales of Salaries, Candidates must be A.R.I.B.A., and experience in Housing, Schools and General Work.

The above salary is basic salary, and is exclusive of cost-of-living bonus, at present £59 16s. per annum.

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

Applications, stating age, qualifications and experiences.

medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must reach the undersigned not later than 7th September, 1946.

M. E. HABERSHON,

Borough Engineer and Surveyer.

Council House, Walsall.

12th August, 1946.

### BOROUGH OF SOUTHALL. APPOINTMENT OF ARCHITECTURAL ASSISTANT.

ASSISTANT.

Applications are invited for the following permanent appointment, in the Department of the Borough Engineer:

Architectural Assistant. Salary £365 per annum, rising by annual increments of £15 to £425 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Applicants should be registered architects, and should have experience in housing design.

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

Applications, on forms to be obtained from the Borough Engineer, Town Hall, Southall, mais be returned, accompanied by copies of three recent testimonials, on or before 3rd September 1946.

Canvassing any member of the Council or any ommittee thereof, directly or indirectly, will dis-

M. LINDSAY TAYLOR, Clerk. Town Clerk's Offices, South Road, Southall. August, 1946.

### BATTERSEA BOROUGH COUNCIL.

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APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT.

ASSISTANT.

Applications are invited for the appointment of Chief Architectural Assistant, in the Borough Bagineer and Surveyor's Department. The commencing salary will be £645 (including Loadon weighting) in Grade VIII of the National Feat Council Scheme, rising to the maximum the Grade, and by two further annual incressents of £25 to an ultimate maximum of £770 per annum, plus cost-of-living bonns (at present £93 liss, per annum). Candidates must be Associate Members of the Royal Institute of British Architects, and have had extensive experience in architectural design and construction. In addition administrative experience with a local authority is essential. The appointment will be determinable by one sentil's notice on either side, and is subject to the provisions of the Local Government Superannation Act, 1337. The successful candidate rill be required to pass a medical examination. Forms of application may be obtained from the Brough Engineer and Surveyor, Town Hall Lavender Hill, S.W.II, and should be returned, together with copies of three recent testimonials and endorsed "Chief Architectural Assistant," to make the undersigned not later than 16th September, 1946.

R. G. BERRY,

R. G. BERRY, Town Clerk. Town Hall, Lavender Hill, S.W.11.

# FERMANAGH COUNTY COUNCIL.

# APPOINTMENT OF ASSISTANT PLANNING OFFICER.

The above-named Council will at a meeting to be held on Friday, 13th September, 1946, consider applications from qualified persons for the post of Assistant Planning Officer, for the County of Permanagh, at a salary of £500 per annum, assistant prices of the National Joint Industrial Council for Local Anthorities Services (Scotland) for Local Government Officers, at present £90 per annum. Applicants for the position must possess the following qualifications:—

He must be a Fellow, Associate, or Member of one of the following:

The Royal Institute of British Architects;
The Institution of Civil Engineers;
The Institution of Civil Engineers of Ireland;
The Royal Institute of Manistry and County.

The Institution of Civil Engineers of Ireland;
The Institution of Manistry and County.

und; or The Institution of Municipal and County

Regineers.
Preference will be given to applicants who in sidition are Associate Members of the Town Panning Institute or who have had practical planning experience, preferably with a Local bulleting experience,

planning experience, preferably with a Local subhority.
The probable duration of the work will be two to three years, and the appointment, which will be subject to the sanction of the Ministry of Health and Local Government, terminable by three mosths' notice (in writing) on either side.
The person appointed will be required to take up duty as soon as possible after appointment, and devote his whole time to the duties of the Office.

and devote his whole time to the dubies of the combes.

Preference will be given to ex-Service canditates possessing suitable qualifications, provided that the Council is satisfied that sake candidates can or within a reasonable time will be able to fill the post efficiently.

Suitable candidates may be required to attend for interview, when vouched travelling expenses will be paid.

Applications (in writing), giving full particulars of age, qualifications and experience, accompanied by copies of two recent testimonials, will be received by the undersigned not later than 4 p.m. on Thursday, 5th September. 1946.

H. J. D. MOFFITT,

Secretary.

Secretary's Office, Courthouse, Enniskillen.

### BOROUGH OF TAUNTON

### APPOINTMENT OF HOUSING ARCHITECT.

Applications are invited for the above appointment from fully qualified Architects, at a commencing salary of £750 per annum, rising, subsite to satisfactory service, by annual increments of £59, to a maximum of £650 (plus cost-of-ling bonns, at present £59 19s.).

The appointment will be subject to termination by three months notice on either side. The post will be subject to the provisions of the Local Government Superannuation Act, 1937, and the person appointed will be required to make the appropriate contributions under the fet.

Offices and staff are provided by the Council.
Applications, on forms to be obtained from the undersigned, should be returned not later than the 16th September, 1946.

I. ATWELL.
Town Clerk.

Unicipal Buildings, Taunton. 21st August. 1946.

### COUNTY BOROUGH OF DERBY.

### BOROUGH ARCHITECT'S DEPARTMENT. APPOINTMENT OF TECHNICAL STAFF.

APPOINTMENT OF TECHNICAL STAFF.

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

(a) CHIEF ASSISTANT ARCHITECT: Grade VIII, A.P. and T. Division. Salary £625-£700.

(b) CHIEF ASSISTANT ARCHITECT (Town Planning and Architectural Work). Grade VIII, A.P. and T. Division. Salary £252-£700.

(c) TWO ASSISTANT ARCHITECTS Grade VIII, A.P. and T. Division. Salary £35-£650.

(d) FIVE ASSISTANT ARCHITECTS. Grade IV, A.P. and T. Division. Salary £30-£465.

(e) FIVE JUNIOR ARCHITECTS. Grade I, A.P. and T. Division. Salary £30-£650.

(f) ONE CHIEF QUANTITY SURVEYOR. Grade VIII, A.P. and T. Division. Salary £30-£700.

Grade VIII, A.P. and T. Division. Salary £625-£700.

(2) THREE SENIOR QUANTITY SURVEYORS. Grade VI, A.P. and T. Division. Salary £535-£600.

(h) ONE JUNIOR QUANTITY SURVEYOR. Grade IV, A.P. and T. Division. Salary £420-£465.

(i) ONE CLERK OF WORKS. Grade III, A.P. and T. Division. Salary £390-£435.

Plus cost-of-living bonus in all cases; at present £59 16s. (male).

Applicants for:

(a) should be Associate R.I.B.A., with good experience of Architectural work, including Hospitals and Public Buildings, undertaken by a Local Authority;

(b) should be A.S. T.P.I. and A.R.I.B.A., with practical experience in Town Planning;

(c) should be Associates R.I.B.A., with good experience of work undertaken by a Local Authority;

(c) should be A.M.T.P.I. and A.R.I.B.A., with practical experience in Town Planning;
(c) should be Associates R.I.B.A., with good experience of work undertaken by a Local Authority;
(d) should have passed the Intermediate Examination of the R.I.B.A., and have had good general Architectural experience;
(e) should have passed the Preliminary Examination of the R.I.B.A., and have had experience in general Architectural work;
(f) must be a Chartered Quantity Surveyor, with extensive experience of all classes of work undertaken by a Local Authority;
(g) should be P.A.S.I. (Quantities Section) or prospective, and have had experience in the preparation of quantities, specifications, site measuring, estimates and final accounts.
(h) should be fully experienced in working-up and accustomed to the requirements of a quantity surveyor's office.
(i) should be fully experienced in Municipal works, and have a sound knowledge of all building trades.

Bach appointment will be subject to one month's notice in writing on either side, and to the terms of the National Joint Council's Scheme of Conditions of Service, and the provisions of the Local Government Superannuation Act. 1937, and the successful applicants will be required to pass a medical examination.

Applications, indicating clearly the appointment concerned, should be tabulated, showing age, qualifications, present salary, previous experience, and date when available, accompanied by copies of three recent testimopials, and delivered to Thos. W. East, F.R.I.B.A. Borough Architect, The Council House, Corporation Street. Derby, to arrive not later than Friday, 6th September, 1946.

Canvassing, directly or indirectly, will be a disqualification. C. ASHTON, M.A., Town Clerk.

Market Place, Derby. 8th August, 1946.

# YEOVIL AND DISTRICT JOINT TOWN PLANNING COMMITTEE.

### TOWN PLANNING OFFICER.

Applications are invited for the appointment of a qualified Town Planning Officer to the above Committee, at a salary of £536 p.a., rising, subject to satisfactory service, by two annual increments of £20 and one of £25 to a maximum of £600 p.a., plus current war bonus (at present £59 16s. p.a.).

The successful applicant will be expected to provide a car, and a car allowance of £100 p.a. will be made.

Applicants must have had experience of Planning Schemes and be fully conversant with the Town and Country Planning Acts and Orders thereunder. Preference will be given to candidates who have passed the Associate Membership examination of the Town Planning Institute.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the successful candidates being required to pass a medical examination.

Applications, stating age, whether married or single, qualifications, experience, etc., and endorsed "Town Planning Officer," to be sent to the undersigned, accompanied by copies of three recent testimonials, not later than Saturday, 21st September, 1946.

H. C. C. BATTEN,

H: C. C. BATTEN, Clerk to the Joint Committee. Church House, Yeovil, Somerset. 14th August, 1946.

### CITY OF COVENTRY.

### CITY ARCHITECTURAL DEPARTMENT.

The Corporation of Coventry invites applica-tions from qualified persons for the whole-time permanent appointment of SENIOR QUANTITY SURVEYOR, in the City Architectural Depart-

ment.

The salary will be on Grade A.P.T. IV (commencing at £420 and rising by three annual increments to a maximum of £465 per annum). Salary increments are subject to satisfactory service. The above salary is exclusive of the Council's cost-of-living bonus, which may vary, but which at present amounts to £59 19s. 3d. per annum.

annum.

The post is subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Acts as amended in regard to annuities to widows by the Coventry Corpoation Act, 1936, and a satisfactory certificate will be requisite from the Council's Medical Referee. The person appointed will be required to contribute to the Coventry Municipal Officers', Widows' and Orphans' Pension Fund.

Applications must be made on the form obtainable from the undersigned, and should be returned completed, together with copies of not more than two recent testimonials or names of two persons to whom reference may be made, not later than Thursday, the 12th September, 1946.

D. E. E. GIBSON, City Architect.

1a, Warwick Row, Coventry. 22nd August, 1946.

# HARROGATE AND DISTRICT REGIONAL PLANNING COMMITTEE.

### CHIEF PLANNING ASSISTANT.

Applications are invited for the appointment of Chief Planning Assistant, at a salary in accordance with the National Scale of Salaries, A.P.T., Grade V. commencing at 2460, and rising by two annual increments of £15 and one of £20 to £510 per annum, plus cost-of-living bonus.

Applicants should be Corporate Members of the Town Planning Institute, and have had experience in the preparation of Statutory Planning Schemes and the control of interim development. Preference will be given to applicants who possess also a qualification in engineering or architecture. The appointment will be terminable by one month's notice on either side, and the successful candidate will be required to pass a medical examination. The appointment is subject to the provisions of the Local Government Superanuation Act, 1937.

Applications, stating age, qualifications, and previous experience, endorsed "Chief Planning Assistant," and accompanied by copies of not more than three recent testimonials, should be submitted to the undersigned not later than Thursday, the 12th September, 1946.

Canvassing, either directly or indirectly, will be a disqualification.

J. M. DODDS.

J. M. DODDS.

Honorary Clerk of the Committee.

Offices, Harrogate.

30th July, 1946.

# METROPOLITAN BOROUGH OF HACKNEY. APPOINTMENT OF ARCHITECTURAL ASSISTANT.

# BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the appointment, on the permanent establishment, of an Architectural Assistant, in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade VI (£535 per annum, rising to £500 per annum) of the A.P. and T. Division of, and subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, plus £20 per annum London weighting, and a cost-of-living bonus, at present amounting to £50 fds. per annum.

The commencing salary will be determined within the Grade according to the experience and qualifications of the successful candidate.

Candidates must be Registered Architects and Corporate Members of the Royal Institute of British Architects, and must have had a good architectural experience.

The appointment will be terminable by one month's notice on either side, subject to the provisions of the Council's Superannuation Acts, to the successful candidate passing a medical examination, and to the Council's Regulations relating to staff appointments.

Applications in writing, on forms to be obtained from the undersigned on receipt of a stamped addressed envelope, must be received not later than first post on Monday, 15th September, 1946, endorsed "Architectural Assistant."

DUDLEY SORRELL, Town Clerk.

Town Hall, Hackney, E.8. 30th July, 1946.

# ENGINEER AND SURVEYOR'S DEPART-MENT.

Applications are invited for the following four appointments on the permanent staff:—

(a) CHIEF PLANNING ASSISTANT (readvertisement).

Grade V. Salary £480×£15—£530, plus cost-of-living bonus, and a car allowance on the Council's scale.

acale.
(b) JUNIOR PLANNING ASSISTANT.
Grade I. Salary £350×£15—£395, plus cost-of-

living bonus.

(c) QUANTITY SURVEYOR (re-advertisement).

Grade IV. Salary £440×£15—£485, plus cost-of-(c) QUANTITY
Grade IV. Salary £440×£15-£-200, p.
living bonus.
(d) JUNIOR ARCHITECTURAL ASSISTANT.
Grade I. Salary £350×£15-£395, plus cost-of-

(d) JUNIOR ARCHITECTURAL ASSISTANT. Grade I. Salary £350×£15-£395, plus cost-of-living bonus.

Applicants for appointment (a) must have had previous experience in the preparation of Statutory Planning Schemes and of Interim Development Control, and must be Corporate Members of the Town Planning Institute, and preference will be given to applicants who are also members of another professional Institution of standing.

Applicants for appointment (b) should preferably have had previous training and experience in the planning office of a Planning Consultant or of a Local Authority, on the preparation of Draft Planning proposals.

Applicants for appointment (c) should be technically qualified Quantity Surveyors by examination, and accustomed to preparing bills of quantities, specifications and estimates, and settling accounts for building contracts.

Applicants for appointment (d) should have had previous training and experience in the office of a private Architect or Local Authority on architectural work, preferably on the design and detailing of Council housing schemes.

The grades of salaries referred to are those laid down by the National Joint Council, including London weighting, and the cost-of-living bonus mentioned is at present £59 fes, per annum. The appointments will be terminable by one month's notice in writing on either side, and are subject to the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination, and will be expected to devote the whole of their time to the service of the Council.

Applications, endorsed Appointment (a), (b), (c), or (d), as the case may be, stating age, qualifications, present and previous appointments, details of experience, and accompanied by copies of three recent testimonials, must be delivered to C. G. Alderton, A.M.I.C.E., M.I.M. & Cy.E., Engineer and Surveyor, Council Offices, Eaher, Surveyor, Council Offices, Eaher, Surveyor, Council Offices, Eaher, Surveyor, Council Offices, Eaher, Surveyor, Council Offices, E

### FREDERICK EDWARDS

Clerk of the Council. Council Offices, Esher, Surrey.

### URBAN DISTRICT COUNCIL OF ENFIELD.

# ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following permanent appointments:

(a) SENIOR ENGINEERING ASSISTANT.
Candidates should be Corporate Members of the Institution of Civil Engineers or hold equivalent qualifications, and should have had good general Municipal engineering experience.

(b) SENIOR ARCHITECTURAL ASSISTANT.
Candidates should be Associates of the Royal Institute of British Architects, and have good general experience.

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general experience.

The salary for both appointments will be in accordance with Grade V of the A.P.T. Division of the National Scales, 2460-2510, plus cost-of-living bonns, at present 259 16s. per annum, and London weighting of £20 per annum.

The appointments will be subject to:—
(1) The Scheme of Conditions of Service adopted by the National Joint Council for Local Authorities, Administrative, Professional, Technical, and Clerical Services.
(2) To the Local Government Superannuation Act, 1937.
(3) The passing of a medical examination.

(3) The passing of a medical examination.
(4) Determination by one month's notice on

(4) Determination by one month's notice on either side.

Forms of application may be obtained from Mr. Frank Lee, Assoc.M.Inst.C.E., F.S.I., Engineer and Surveyor, "Percy House," 7, Little Park Gardens, Enfield, Middlesex, and should be returned to the undersigned on or before 21st September, 1946, the envelope being endorsed "Senior Engineering Assistant" or "Senior Architectural Assistant."

Architectural Assistant.

Candidates must state whether they are related to any member or officer of the Council.

Canvassing will disqualify.

J. WARING SAINSBURY, Clerk of the Council. Public Offices, Enfield, Middlesex.

### BOROUGH OF LEYTON.

# BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments, in the Department of the Borough Engineer and Surveyor:—

\*\*RCHITECTURAL ASSISTANTS.\*\*

(1) TEMPORARY ARCHITECTURAL ASSISTANT, at a salary of £420 per annum, rising by annual increments of £15 per annum to a maximum of £465 per annum, plus £20 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

annal increments of £15 per annum, rising by annual increments of £15 per annum to a maximum of £465 per annum, plus £20 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

(2) ARCHITECTURAL ASSISTANT, at a salary of £30 per annum, rising by annual increments of £15 per annum to a maximum of £435 per annum, plus £20 per annum.

(3) GENERAL ARCHITECTURAL ASSISTANT, at a salary of £390 per annum rising by annual increments of £15 per annum, rising by annual increments of £15 per annum, rising by annual increments of £15 per annum, rising by annual increments of £15 per annum to a maximum of £435 per annum, plus £20 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

Candidates should possess the recognized architectural qualifications (preferably A.B.I.B.A.), and have good Municipal experience.

Candidates for (2) should have had experience in Housing Maintenance.

TOWN PLANNING ASSISTANTS.

(1) TOWN PLANNING ASSISTANTS.

(1) TOWN PLANNING ASSISTANTS.

(2) TEMPORARY JUNIOR TOWN PLANNING ASSISTANT, at a salary of £420 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

(2) TEMPORARY JUNIOR TOWN PLANNING ASSISTANT, at a num, plus £20 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

Candidates for (1) must have had good experience in the preparation and administration of Town Planning Schemes, and should possess a recognized qualification in Town Planning.

The appointments will be subject to the provisions of the Local Government SuperannumAct, 1937, and the successful candidates will be required to pass a medical examination.

Applications, stating age, details of qualifications and experience, together with copies of three recent testimonials, are to be delivered to the Borough Engineer and Surveyor not later than 20th September, 1946, in a sealed envelope, and endoresed respectively, Architectural Assistant (1) or (2).

Canvassing, directly or indirectly, will disqualify.

or (2). Canvassing, directly or indirectly, will dis-D. J. OSBORNE.

Town Clerk. Town Hall, Leyton, E.10. 12th August, 1946.

### BOROUGH OF ROYAL LEAMINGTON SPA. DEPARTMENT OF DIRECTOR OF HOUSING.

APPOINTMENT OF JUNIOR ASSISTANT ARCHITECT.

Applications are invited for the above appointment, at a basic salary of £255, rising by annual increments of £15 to £300, plus cost-of-living bonus, at present approximately £60 per annun. The appointment will be on the unestablished staff of the Corporation, terminable by one month's notice on either side. Candidates should have reached the standard of the intermediate examination of the R.I.B.A., and be experienced in the preparing of working drawings and details, particularly in relation to housing.

ings and details, particularly in relation to housing.

Applications must be made on the appropriate forms, which can be obtained at the address given below, and must be returned, together with copies of not more than two testimonials, before 12 noon on Saturday, the 21st September, 1946, endorsed "Assistant Architect."

Canvassing in any form is prohibited, and will be regarded as a disqualification.

H. FEDESKI, A.R.I.B.A.,
Dipt.T.P., A.M.T.P.I.,
Director of Housing.

Town Hall Annexe, 3, Regent Grove,
Leamington Spa.

13th August, 1946.

# THE ARCHITECTS' JOURNAL LIBRARY OF INFORMATION SHEETS.

Applications are invited for appointment of TECHNICAL ASSISTANT.

Applicants must be first-class draughtsmen. possess a sound knowledge of building practice, and be interested in the preparation of technical data.

Salary £300 to £500 per annum, according to qualifications and experience. Applications may be made by members of H.M. Forces expecting demobilisation by October, 1946.

THE TECHNICAL EDITOR.
The Architectural Press, Ltd., 45, The
Avenue, Cheam, Surrey.

# COUNTY OF LINCOLN-PARTS OF KESTEVEN.

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### COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, in the County Architect's Department.

Salary £390 per annum, rising by annual increments of £15 to a maximum of £435 per annual plus cost-of-living bonus of 23s. per week on the Council's salal.

plus cost-of-living bonus of 23s. per week on the Council's scale.

Experience in Education and General County work is desirable.

The appointment is subject to the provision of the Local Government Superannuation Au. 1937. to a satisfactory medical certificate, and to the termination of the appointment by month's notice in writing on either side.

Applications, stating age, present appointment and salary, experience and qualifications, together with copies of two recent testimonials, should be sent to the undersigned not later than the 2m September, 1946.

J. E. BLOW.

J. E. BLOW,

Clerk of the County Council

County Offices, Sleaford, Lines.

# NORTHERN POLYTECHNIC, HOLLOWAY, N.J.

The Governing Body invite immediate application for appointment to the full-time staff of the School of Architecture as STUDIO MASTER IN DESIGN. Applicants should be Fellows of Associates of the Royal Institute of British Architects, and should preferably have been trained in a recognized school. Some teaching experience will be an advantage, but is not essential. Duties will commence as soon as possible after 1st September, 1946. Burnham (Technical) Scale salary.

Members of the staff of the School are afforded reasonable opportunities for practice and research.

search.

Forms of application, together with full particulars, will be forwarded on receipt of a stamped, addressed foolscap envelope.

Applications are also invited for appointment as part-time day or evening STUDIO MASTERS IN DESIGN AND LECTURERS ON BUILD ING CONSTRUCTION. Applications should be made in writing, giving full particulars of training, professional and teaching experience.

R. H. CURRELL,

# NEWCASTLE-UPON-TYNE EDUCATION COMMITTEE

Applications are invited for the following appointments, on the established staff of the Education Architect's Sub-department:—
(a) CHIEF ASSISTANT ARCHITECT (Grain VIII). Salary 2625-2700 per annum. Applicant should be Associate Members of the Royal Institute of British Architects, or hold an equivalent qualification, and should have had experience in the design of school buildings.
(b) QUANTITY SURVEYOR (Grade V). Salary 2660-2510 per annum. Applicants should have passed the intermediate examination of the Royal Institute of Chartered Surveyors.
(c) FOUR ARCHITECTURAL ASSISTANTS (Grade I). Salaries £310-£375 per annum Applicants should have passed the intermediate examination of the Royal Institute of British Architects, or hold equivalent professional qualifications.

The National Conditions of Service (includies

fications.

The National Conditions of Service (including cost-of-living bonus, at present £39 16s. present support of the cost of the cost of the cost of application and form of application may be obtained from the unsergined, to whom applications must be delivered not later than 16th September, 1946.

THOS. WALLING, Director of Education.

Education Office, Northumberland Road, Newcastle-upon-Tyne, 1.

### NOTTINGHAMSHIRE COUNTY COUNCIL ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, at a salary of £510 per annum, plus cost-of-living bonus, which at present amounts to £59 16s. Mr

Applicants should be members of the Surveyor' Institution (Quantity Surveying Branch), and the salary advertised may be increased in accordance with qualifications and experience. The post will be subject to the Local Government Superannustion Acts, 1937-1939, and will be terminable upon one month's notice on either side at any time. The successful candidate will be required to pass a medical examination. Forms of application may be obtained from the County Architect, Shire Hall, Nottingham.

August, 1946.

COUNTY BOROUGH OF CANTERBURY.

CITY ARCHITECT'S DEPARTMENT.

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taff following CT (Grade Applications are invited for the following pointments in the City Architect's Depart-ARCHITECTURAL ASSISTANT (Tempy). Grade III salary of £390×£15—£435

per annum.
Applicants must be A.R.I.B.A., and should have had experience on educational buildingse
(3) ARCHITECTURAL ASSISTANT (Temperary). Grade I salary of £330×£15-£375 per perary).

anum.

Preference will be given to applicants who are
A.R.J.B.A., and have some experience of housing Cost-of-living, at present £59 16s. per annum, is

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

Applications, stating age, qualifications and experience, together with the names of three persons to whom reference may be made, should be forwarded to the City Architect, Mr. L. Hugh Wilson, A.R.I.B.A., A.M.T.P.I., Municipal Buildings, Dane John, Canterbury, not later than Friday, 13th September, 1946.

J. BOYLE, Town Clerk.

Municipal Buildings, Canterbury. 15th August, 1946.

BOROUGH OF BARKING.

DEPARTMENT OF THE BOROUGH ARCHITECT.

REPAIR OF WAR DAMAGE.

Applications are invited for the temporary appointment of a CLERK OF WORKS in consection with the above.

Applicants must have been apprenticed to a beac-lide building contractor in one of the recognized trades, and in addition must have served a considerable time in their trade and as a general foreman. Membership of a recognized Clerk of Works' Association would be an advantage.

Clerk of Works Association would be advantage.

The salary will be at the rate of £7 7s. per week, plus war bonus (at present 23s. per week). The appointment will be subject to one month's actice on either side, the Council's General Service Conditions will apply, and the successful applicant will be required to pass a medical examination.

applicant will be required to pass a medical examination.

Applications must be made on the appropriate form, which can be obtained from the Borough Architect, C. C. Shaw, F.R.I.B.A., Town Hall, Barking, and returned to the undersigned, together with copies of not more than three recent testimonials, not later than 12 noon on 12th September, 1946.

Canvassing, directly or indirectly, will be deemed a disqualification.

E. R. FARR.

E. R. FARR, Town Clerk.

Town Hall, Barking.

### SURREY COUNTY COUNCIL.

Applications are invited for the following appointments, in the County Architect's Department.

ASSISTANT ARCHITECT, in Grade V, at a commencing salary of £460, rising by annual increments of £15/£20 to £510 per annum, plus London allowance of £20, together with war bonus, at present £59 16s. per annum. Applicants should either hold a degree in Architecture or be an Associate Member of the Royal Institute of British Architects, and should have had a good training and an adequate experience in the design and construction of modern buildings.

is a good training and an adequate experience in the design and construction of modern buildings.

ARCHITECTURAL ASSISTANT, in Grade I, at a commencing salary of £330, rising by annual increments of £15 to £375 per annum, plus London allowance of £20, together with war bonus, at present £59 16s, per annum.

Applicants should have had a good training and an adequate experience in architecture, and preferably be an Associate Member of the Royal Institute of British Architects.

This 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, 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-on-Thames, not later than Saturday, the lith September, 1946.

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

DUDLEY AUKLAND,
Clerk of the Council.
County Hall, Kingston-on-Thames.

B53

### Tenders

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

WANDSWORTH BOROUGH COUNCIL.

ERECTION OF FLATS-IRON MILL PLACE, WANDSWORTH.

Tenders are invited for the erection of two Blocks of Flats, on the Iron Mill Place site. Wandsworth, S.W.18. The approximate size of each block is 320 ft. by 30 ft., and five and seven storeys in height. Each block will contain 58 Flats. The foundations have been made the subject of a separate contract, and will be completed ready to take the superstructure, for which tenders are now being invited.

Applications for Forms of Tender and Bills of Quantities must be made to the Architect, Mr. C. Lovett Gill, F.R.I.B.A., 41, Russell Square, London, W.C.1, not later than 6th September, 1946, accompanied by a deposit of three gaineas (which will be refunded upon submission of a bona fide tender and return of all documents). Drawings and Conditions of Contract may be inspected at the offices of the Architect during the month of September.

Tenders, enclosed in sealed envelopes endorsed "Tender-Erection of Flats-Iron Mill Place," must be delivered to the Town Clerk, Municipal Buildings, Wandsworth, S.W.18, not later than 12 noon on Monday, 7th October, 1946.

The Council do not bind themselves to accept the lowest or any tender.

By Order,

R. H. JERMAN,

Town Clerk.

Municipal Buildings, Wandsworth, S.W.18.

WANDSWORTH BOROUGH COUNCIL.

ERECTION OF DWELLINGS-NOTRE DAME ESTATE, CLAPHAM.

ESTATE, CLAPHAM.

Tenders are invited for the erection of 92
Dwellings, in blocks of four and five storeys, at the Notre Dame Estate, Clapham, to the design of the Architect, Mr. C. H. James, R.A., F.R.I.B.A., 5, Bloomsbury Street, London, W.C.I. Applications for Forms of Tender and Bills of Quantities must be made to the undersigned not later than 4th September, 1946, accompanied by a deposit of three guineas (which will be refunded upon submission of a bona fide tender and return of all documents). Drawings and Conditions of Contract may be inspected at the offices of the Architect during the month of September.

Tenders, enclosed in sealed envelopes endorsed "Tender-Erection of Dwellings-Notre Dame," must be delivered to the Town Clerk, Municipal Buildings, Wandsworth, S.W.18, not later than 12 noon on Monday, 7th October, 1946.

The Council do not bind themselves to accept the lowest or any tender.

R. H. JERMAN,

Town Clerk.

Municipal Buildings, Wandsworth, S.W.18.

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Paint, 3 Chicken Huts, Ladders, 3 Wheelbarrows,
2 Hen Huts, a quantity of used Timber and 60
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A RCHITECTURAL ASSISTANT required, with good knowledge of design and construction; capable of preparing working drawings and specifications from sketches; salary £500.

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JUNIOR ASSISTANT (R.I.B.A. Inter Standard) wanted for Architect's Office; able to work up \$\frac{1}{2}\$ in. and \$\frac{1}{2}\$ in. working drawings. Apply. stating age, experience, and salary required, to Hedley A. Mobbs, F.F.A.S., L.R.I.B.A.. 18a, High Street, Boston, Lincs.

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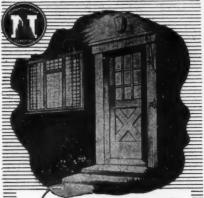
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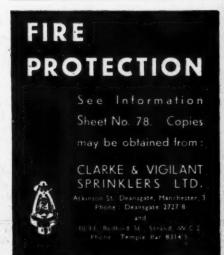
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Anderson, C. F., & Sons, Ltd		Gillett & Johnston, Ltd	-1-1	Poles, Ltd.	
Ascot Gas Water Heaters, Ltd	-	Goddard & Smith	xlvi	Precision Roofs, Ltd.	-
Ashley Accessories, Ltd		Gray, J. W., & Son, Ltd		Pressed Steel Co., Ltd	-
Automatic Telephone & Electrical Co.,		Greenwood's & Airvac Ventilating Co.,		Pyrene Co., Ltd	
Ltd		Ltd		Pyrotenax, Ltd	-
Bakelite, Ltd	vii	Griffiths Bros. & Co., London, Ltd		Range Boilers, Ltd	-
Bailey, Sir W. H., & Co., Ltd	xviii	Hall, Robert H., & Co. (Kent), Ltd	-	Renfrew Foundries, Ltd	-
Banister, Walton, & Co., Ltd		Harvey, G. A., & Co. (London), Ltd	iii	Restall, Fredk., Ltd	X
Barton, Wm., & Sons, Ltd	11	Helliwell & Co., Ltd.	xxxiv	Ross, S. Grahame, Ltd.	-
	- 8.6	Hondomon D C I td	AAAIV		
Bath Cabinet Makers & Artcrafts, Ltd.		Henderson, P. C., Ltd.		Rownson Drew & Clydesdale, Ltd	
Black & Decker, Ltd	xi	Hobdell Engineering Co., Ltd		Ruberoid Co., Ltd	2
Blackburn, Thomas, & Sons, Ltd		Holden & Brooke, Ltd	11	Sanders, Wm., & Co. (Wednesbury), Ltd.	-
Bolton Gate Co., Ltd	iii	Holloway, F., & Brother, Ltd		Sankey, J. H., & Son, Ltd	
Booth, John, & Sons (Bolton), Ltd		Hope, Henry, & Sons, Ltd	XXX	Scaffolding (Great Britain), Ltd	3
Boulton Tubular Structures, Ltd	xx	Hopton Wood Stone Firms, Ltd	xvi	Schori Metallising Process, Ltd	-
Braithwaite & Co., Engineers, Ltd		Horton Manufacturing Co., Ltd		Service Electric Co., Ltd	-
Bratt Colbran, Ltd		Huntley & Sparks, Ltd		Sharman & Sons	
Briggs, William, & Sons, Ltd	iv	Imperial Chemical Industries, Ltd.	xiii	Sharp Bros. & Knight, Ltd.	
	14				
Brightside Foundry & Engineering, The,		Industrial Engineering, Ltd	xii	Smith & Wellstood, Ltd.	
Co., Ltd	-	International Correspondence Schools	xiv	Smith's English Clocks, Ltd.	-
British Aluminium Co., Ltd., The	xxxi	Jenkins, Robert, & Co., Ltd	xlvii	Spiral Tube & Components Co., Ltd	-
British National Electrics, Ltd	xxxvi	Jones, Samuel, & Co., Ltd		Staines Kitchen Equipment Co., Ltd	-
British Gas Council		Johnston Bros. (Contractors), Ltd		Stent Precast Concrete, Ltd	-
British Trane Co., Ltd	xxxviii	Kautex Plastics, Ltd		Sundeala Board Co., Ltd	
Broadcast Relay Service, Ltd		Key Engineering Co., Ltd		Sutcliffe Speakman Co., Ltd	
Carrier Engineering Co., Ltd	xxxvi	Kieft, Cyril, & Co., Ltd.	xxvi	Thermovent Heater (E. K. Cole, Ltd.)	
Carter & Co. (London), Ltd.	XXV	King, Geo. W., Ltd.	AATI	Thompson Beacon Windows, Ltd., John	
		Tainer John & Con TAJ			
Caston & Co., Ltd.	xxxiii	Laing, John, & Son, Ltd	-	Thornborough & Son (Manchester), Ltd.	-
Cement Marketing Co., Ltd	xxvii	Leaderflush, Ltd.	XXI	Thornton, A. G., Ltd.	-
Chloride Electrical Storage Co., Ltd		Limmer & Trinidad Lake Asphalte Co		Thorp, John B	-
Clarke & Vigilant Sprinklers, Ltd	xlv	Lloyd Boards, Ltd	-	True Flue, Ltd.	-
Colt Ventilation, Ltd	xlvii	Loft Ladders, Ltd	xxiv	Trussed Concrete Steel Co., Ltd	_
Colt, W. H. (London), Ltd		Logicol Coal Bunkers	xxxviii	Tudor Accumulator Co., Ltd	
Courtenay Pope, Ltd.		London County Council	xlvi	Turners' Asbestos Cement Co., Ltd	-
		Lowe I & II (Chames) IA3			
Crittall, Richard, & Co., Ltd	-1-	Lowe, J. & H. (Cranes), Ltd	xxxvi	Tylers, Ltd.	
Cutting, R. C., & Co., Ltd	xlv	Magnet Joinery, Ltd.	xxviii	Uni-Seco Structures, Ltd	-
Dawnays, Ltd.		Marley Tile Co., Ltd	xxiii	Universal Asbestos Co., Ltd	
Doulton & Co., Ltd.		Matthews & Yates, Ltd	x	United Steel Companies, Ltd., The	3
Dunlop Rubber Co., Ltd	XX	McCall & Co. (Sheffield), Ltd	xv	Val de Travers Paving Asphalte Co., Ltd.	-
Durafencing, Ltd	viii	Metal Window Information Bureau		Vent-Axia, Ltd.	
Eagle Pencil Co., Ltd		Midland Joinery Works, The, Ltd		Vulcanite, Ltd	-
E.C.D., Ltd.	viii	Midland Woodworking Co., Ltd.		Wardle Engineering Co., Ltd	
Ellison, George, Ltd.	xlv	Mills, Scaffold Co., Ltd.	Misselve		
	AIV	Minister of Labore to National Const.	xlviii	Walker, Crosweller & Co., Ltd	
English Joinery Manufacturers Assoc		Ministry of Labour & National Service .	xlv	Ward, Thos. W., Ltd.	)x
Etchells Congdon & Muir, Ltd	xvi	Ministry of Supply	xlvi	West, A., & Partners, Ltd	-
Ewart & Son, Ltd		Moler Products ,Ltd	xxxvi	Wheeler, F. H., & Co., Ltd	-
Excel Asphalte Co., Ltd	ii	Newalls Insulation Co., Ltd	xiv	Willcox, W. H., & Co., Ltd	_
Expanded Metal Co., Ltd	-	Newsum, H., Sons & Co., Ltd	xlv	Wimpey, George, & Co., Ltd	-
Farmer, S. W., & Son, Ltd.	-	Nobles & Hoare, Ltd.	xxxvii	Zine Alloy Rust Proofing Co., Ltd	_
Ferguson Edwards & Co. (London), Ltd.		Northern Polytechnic	xlv	Zinc Development Assoc	
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Legal Notices Misc	ellaneous	Property and Land Sales—see pages xxxvi	ii vyviv	xl. xli, xlii, xliii, xliv, and xlv,	
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