

THE ARCHITECTS' JOURNAL



standard contents

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

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

IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1	Sloane 3158
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
ICW	Institute of Clayworkers. 4, Vernon Place, W.C.1.	Chancery 6258
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 1, Grosvenor Place, S.W.1.	Sloane 8606
IHVE	Institution of Heating and Ventilating Engineers. 72/74, Victoria Street, S.W.1.	Victoria 0146/7
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1. Euston 2450	Museum 1783
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 7197
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Abbey 6172
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Sloane 7128-29
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Whitehall 7264
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Museum 3891
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Park 7678
MARS	MARS Group (English Branch of CIAM). 46, Sheffield Terrace, W.8.	Whitehall 3400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Sloane 4522
MOE	Ministry of Education. Belgrave Square, S.W.1.	Whitehall 4300
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 6200
MOLNS	Ministry of Labour and National Service. St. James's Square, S.W.1.	Gerrard 6933
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Whitehall 8411
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Reliance 7611
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Abbey 1010
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Abbey 5277/8
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Kensington 8161
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 5111
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Whitehall 4041
NCBMP	National Council of Building Material Producers. 2, Caxton Street, S.W.1.	Holborn 1881
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Whitehall 2881/2/3
NFBTO	National Federation of Building Trades Operatives. 8, Rosebery Houses, Breams Buildings, E.C.4.	Langham 4041
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Museum 1264
NHBR	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Molesey 1380
NHTPC	National Housing and Town Planning Council. 41, Russell Square, W.C.1.	Whitehall 2415
NPL	National Physical Laboratory. Head Office, Teddington.	S.W.1. Abbey 1359
NRIAD	National Register of Industrial Art Designers. National Gallery, Trafalgar Square, W.C.2.	Whitehall 0211/2
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Whitehall 7245
NT	National Trust for Places of Historic Interest or Natural Beauty. 42 Queen Anne's Gate, S.W.1.	Reliance 7611
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 9936
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1.	Edinburgh 20396
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Welbeck 5721
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Whitehall 5322
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Regent 1446
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1.	Regent 3335
RFAC	Royal Fine Art Commission. 6, Burlington Gardens, W.1.	Temple Bar 8274
RS	Royal Society. Burlington House, Piccadilly, W.1.	Sloane 5134
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Wimbledon 5101
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Regent 6347
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Euston 6272/3
SBPM	Society of British Paint Manufacturers. 20, Piccadilly, London, W.1.	W.C. Chancery 5313
SCR	Society for Cultural Relations with the USSR. 98 Gower Street, W.C.1.	E.C.1. Metropolitan 8344
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C.	Holborn 2646
SIA	Society of Industrial Artists. Room 243, Empire House, St. Martin's-le-Grand, E.C.1.	Covent Garden, W.C.2
SNTPC	Scottish National Town Planning Council. 11, Drumsheugh Gardens, Edinburgh, 3	Temple Bar 5006
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	City 6146 (3 lines)
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2	Victoria 8815
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 1476
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Mayfair 8866
TTF	Timber Trades Federation. 81, Cannon Street, E.C.4.	E.C.4.
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	City 4263/4
WEDA	Welfare Equipment Development Association. 61, St. Paul's Churchyard, E.C.4.	Oxford 47988
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	

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[Vol. 106

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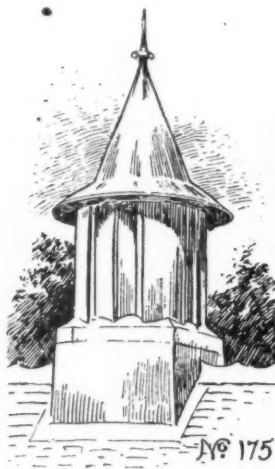
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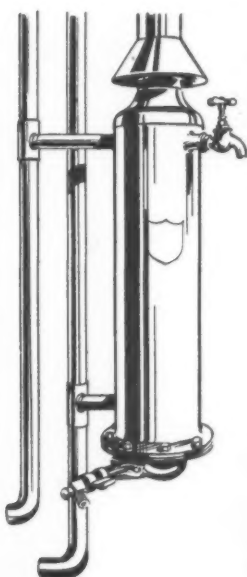
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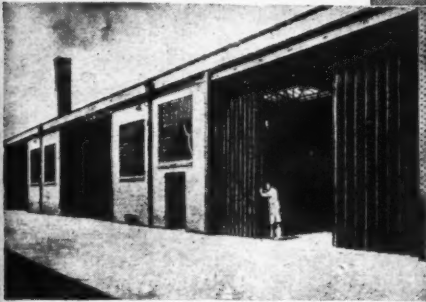


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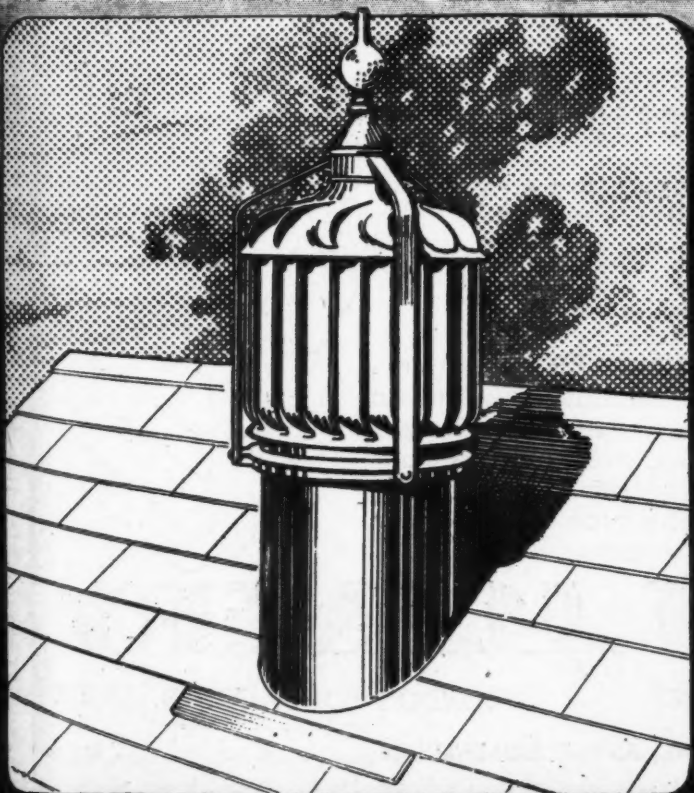
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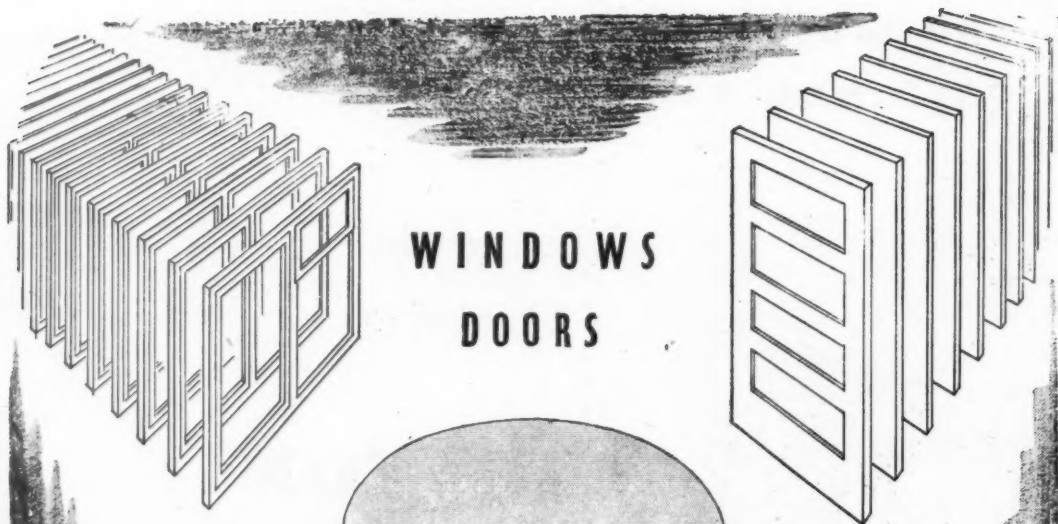
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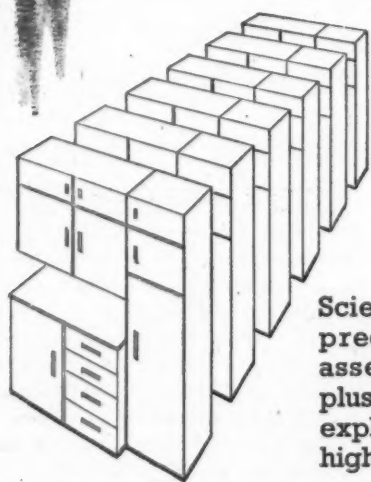
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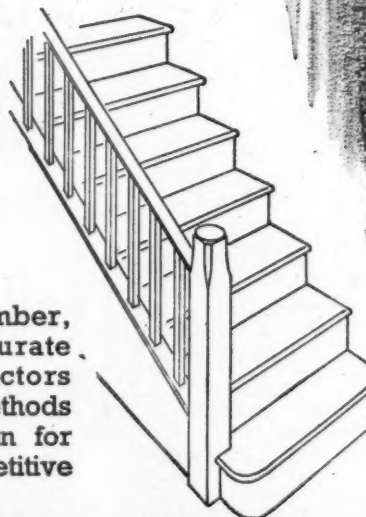


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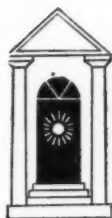
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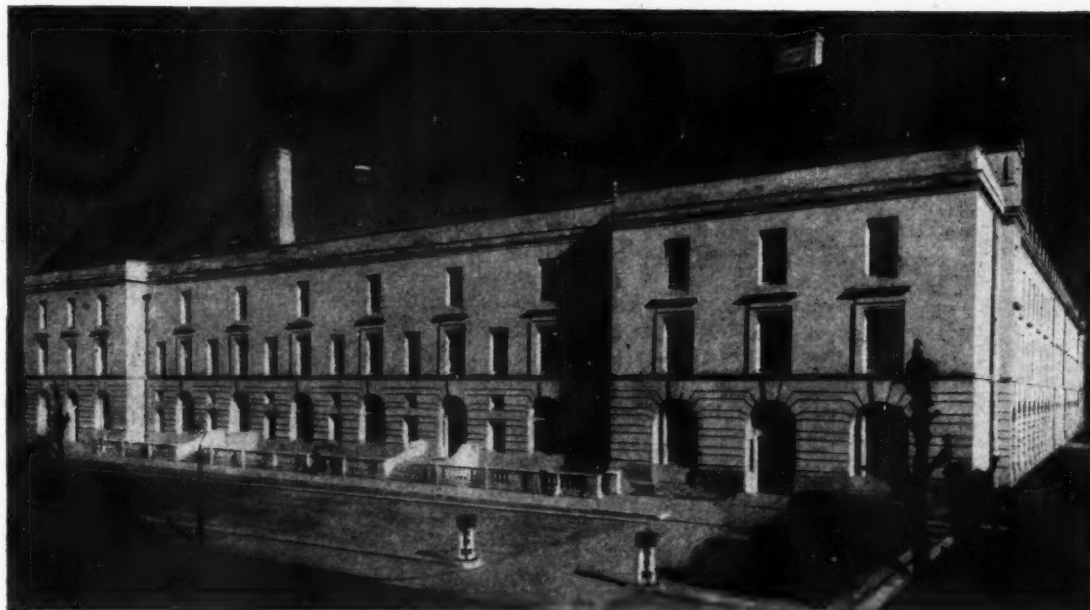
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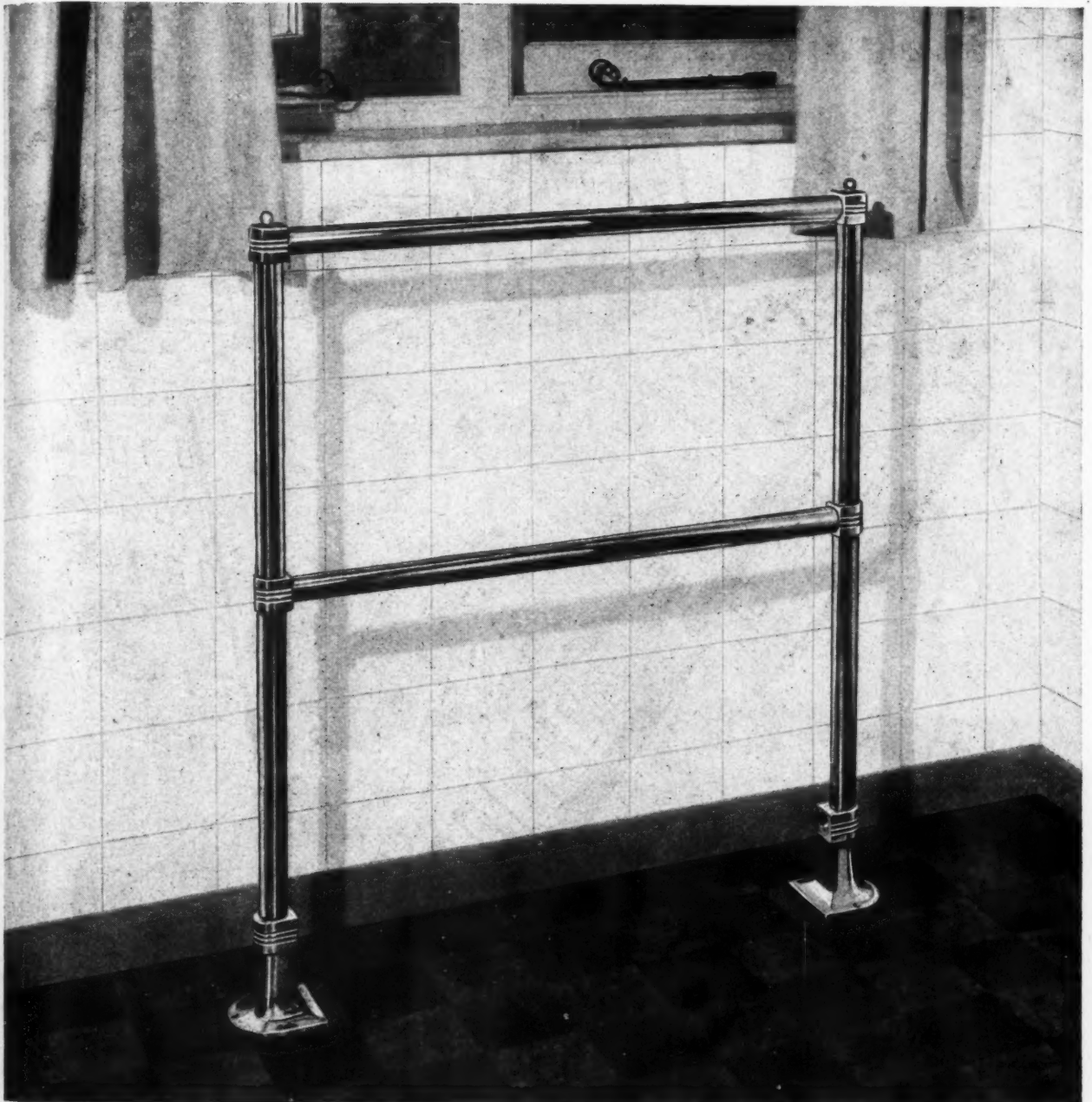
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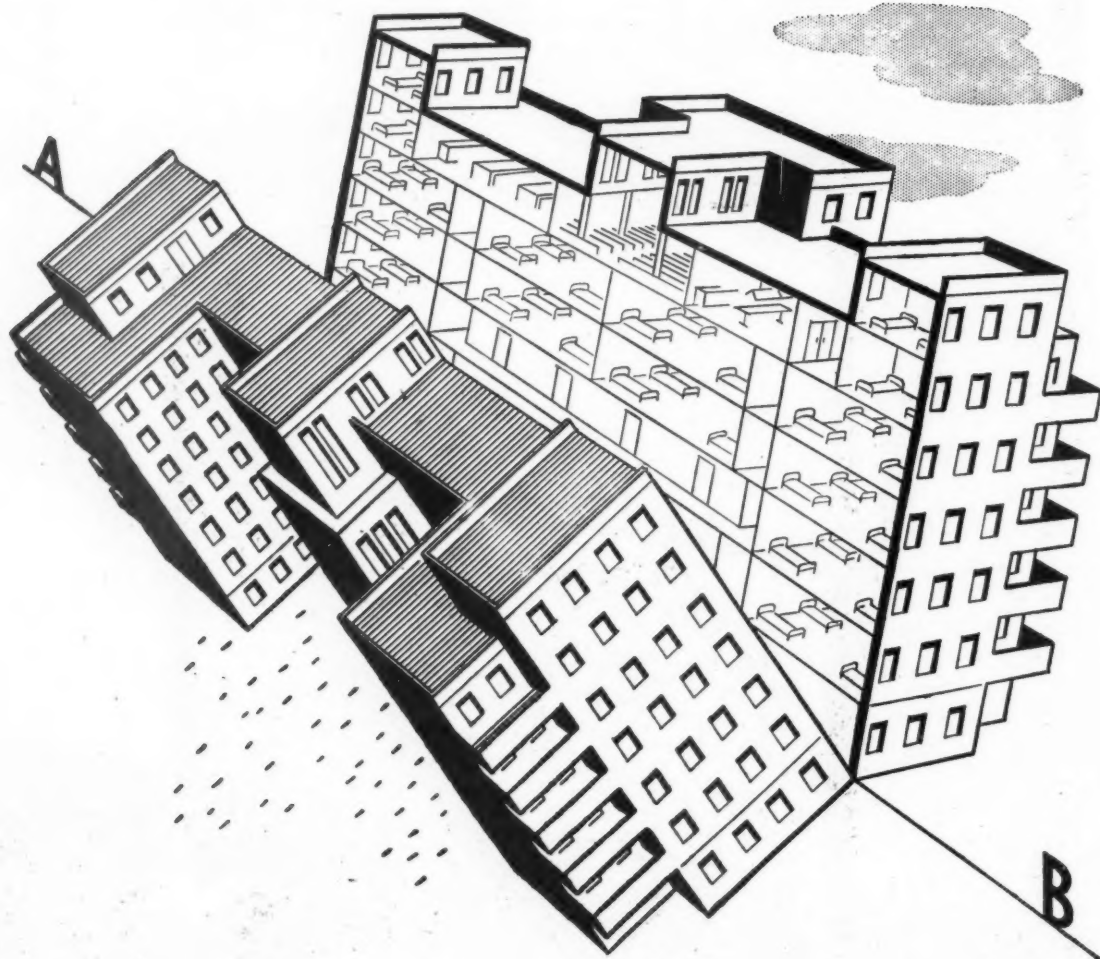
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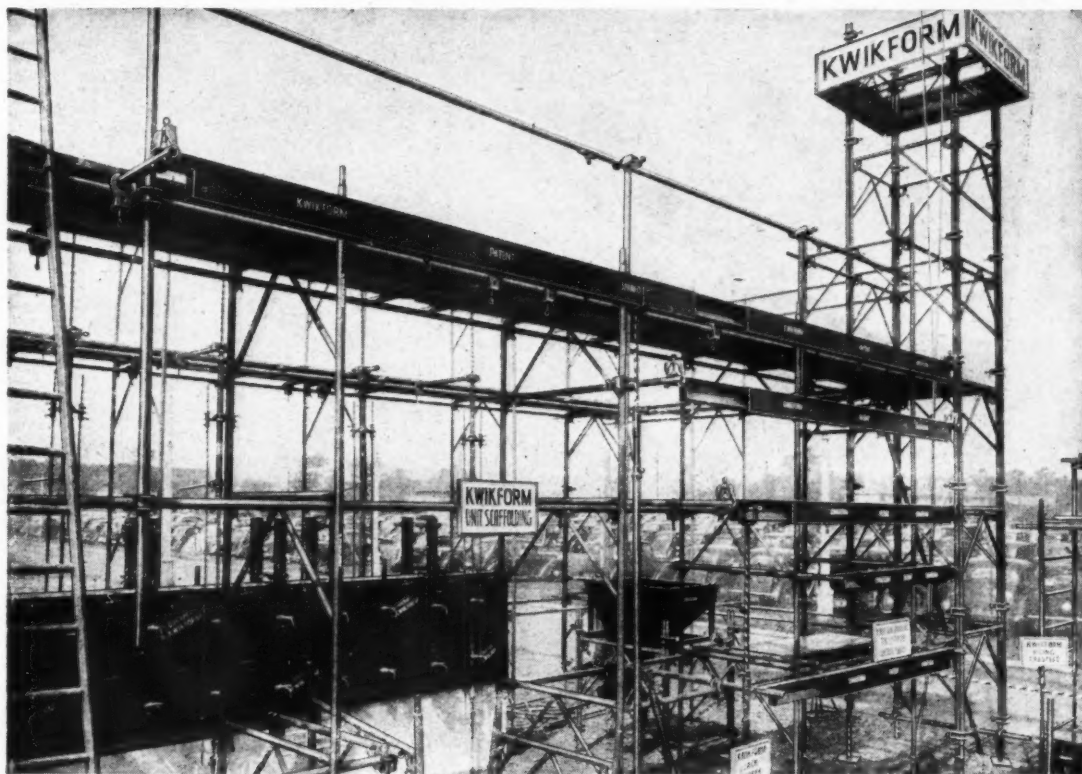
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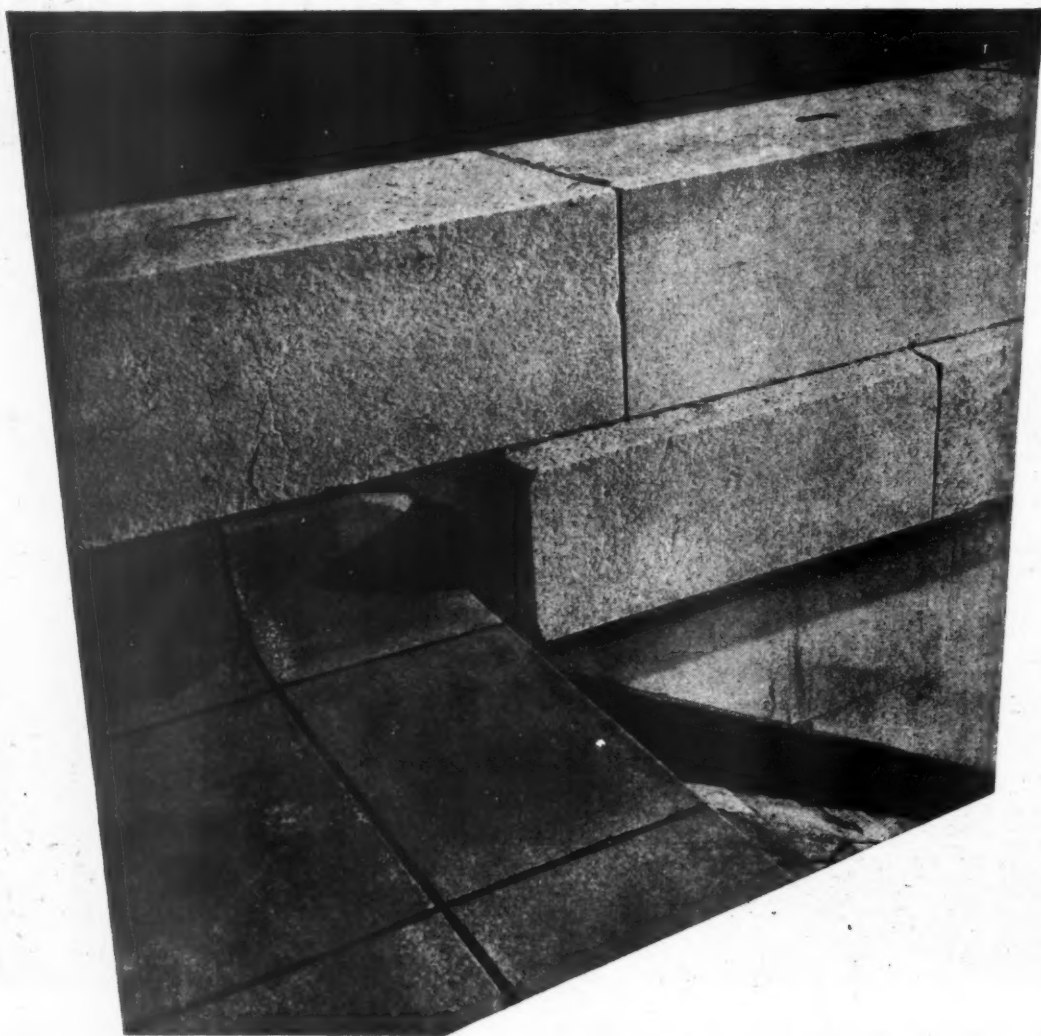
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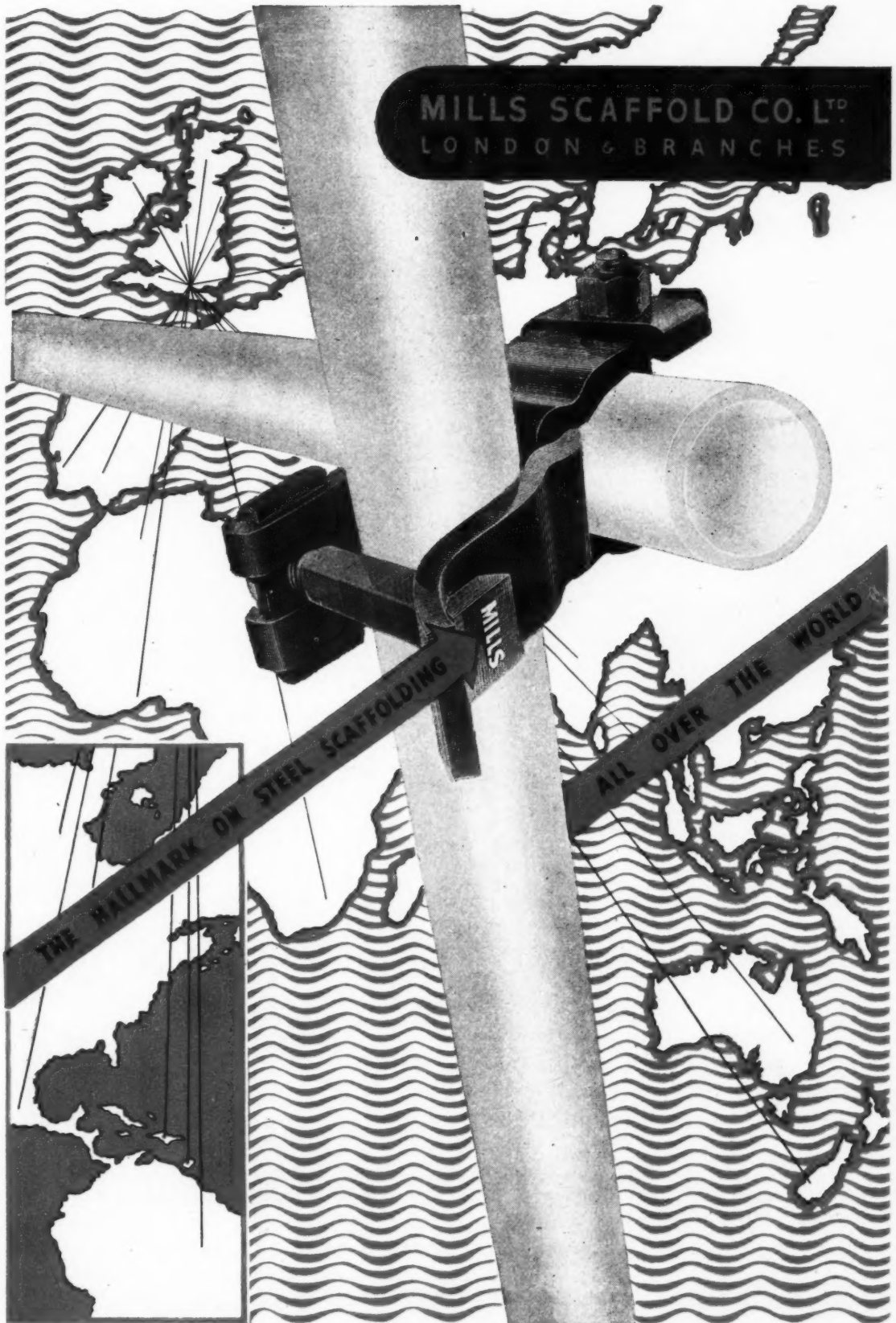
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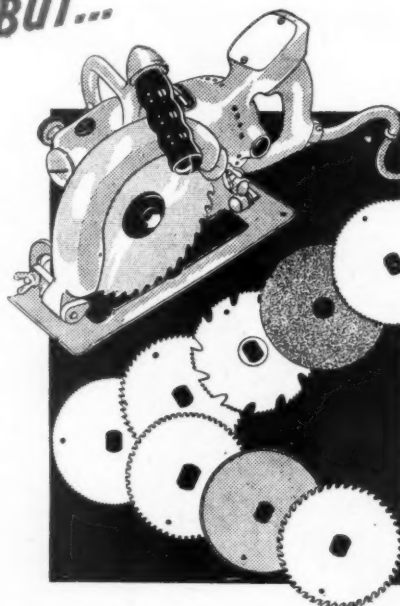


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Almost all public baths and many private villas were heated by flues in the walls and beneath the floors, containing terra cotta pipes—such as shown in our illustration—through which hot air was distributed.

Vitrified stoneware pipes were used to convey water supplies, and terra cotta pipes to drain unhealthy marshes. Many of these are still in use—as serviceable as when they were first laid nearly 2,000 years ago.

Roman brick and tile-work was equally durable. The central tower of St. Alban's Abbey, for example, was built by the Normans of Roman bricks taken from the dismantled walls of Verulamium. Terra cotta, sometimes painted with unfired pigments, was used in building and embellishing many temples and public

buildings, especially for columns, capitals, mouldings and cornices. Friezes and panels, moulded in bas-relief, were often fixed to the walls with leaden nails. Life-size statuary and smaller figures for votive purposes were also made in terra cotta.

Magnificent mosaic pavements, many inspired by Greek designs, were a striking feature of Roman architecture. They were constructed with amazing patience and skill from pieces of coloured marble, jasper, agate, porphyry, glass and other materials. Fragments of baked clay were used to form the reds, buffs and browns—and it is a further tribute to the durability of pottery that in many villas which have been excavated the pottery portions, unlike the rest, show hardly any signs of wear.



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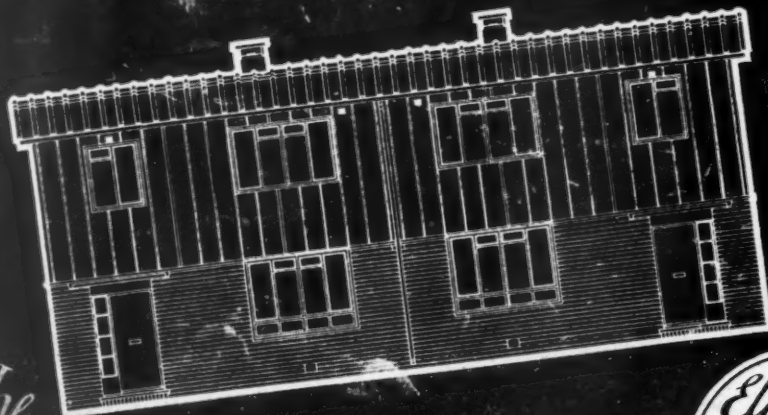
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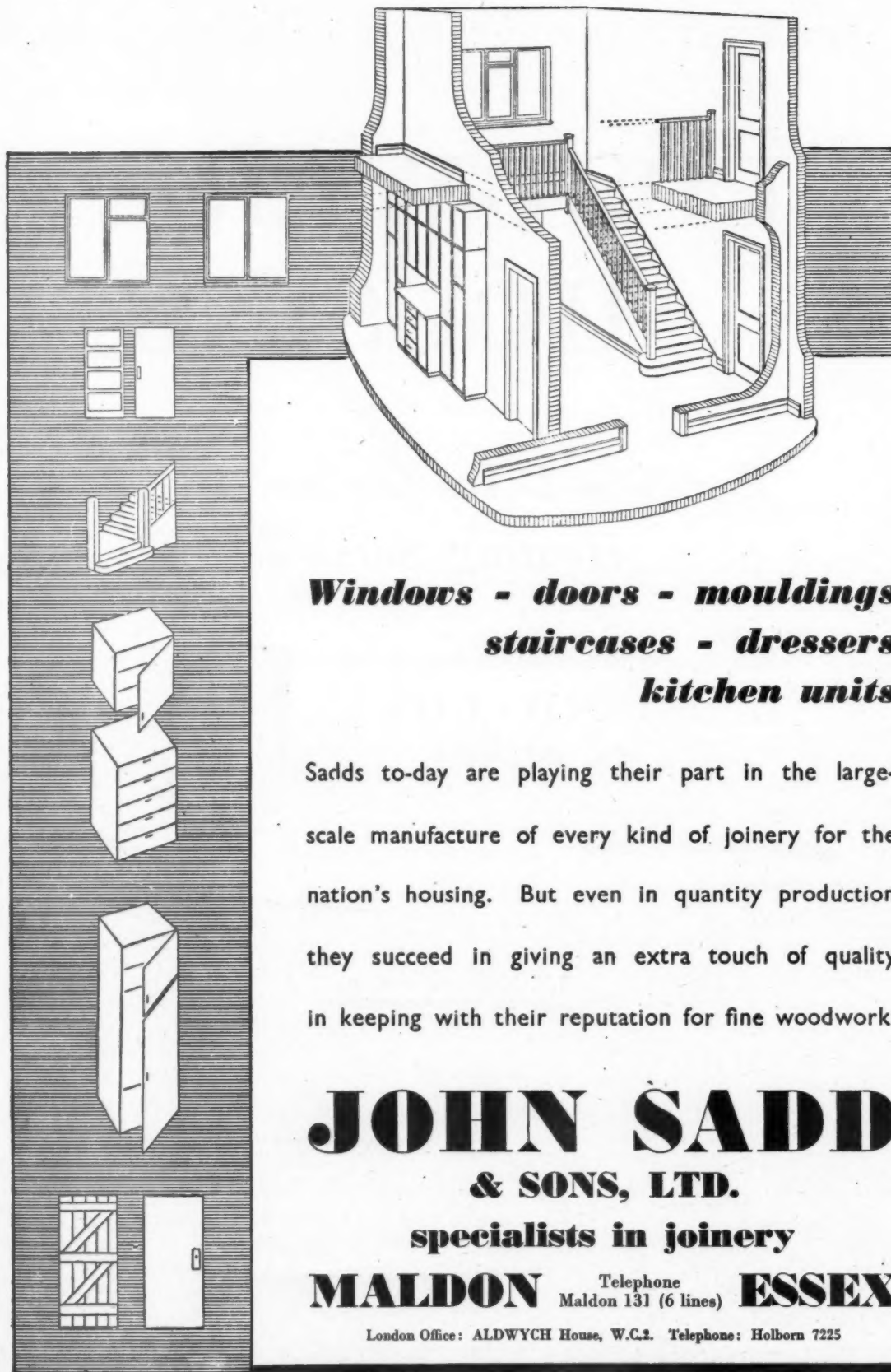
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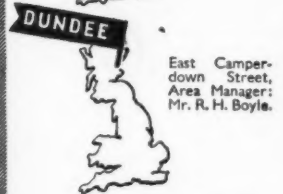
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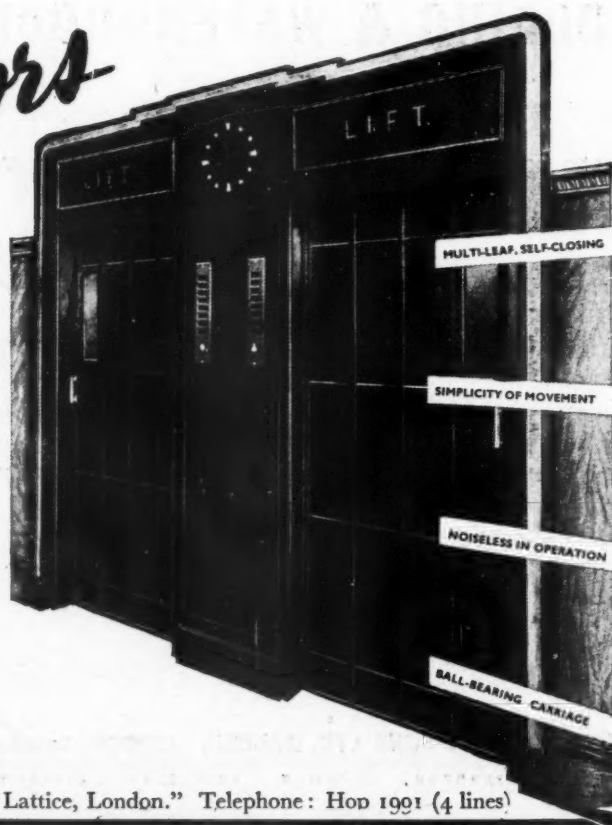
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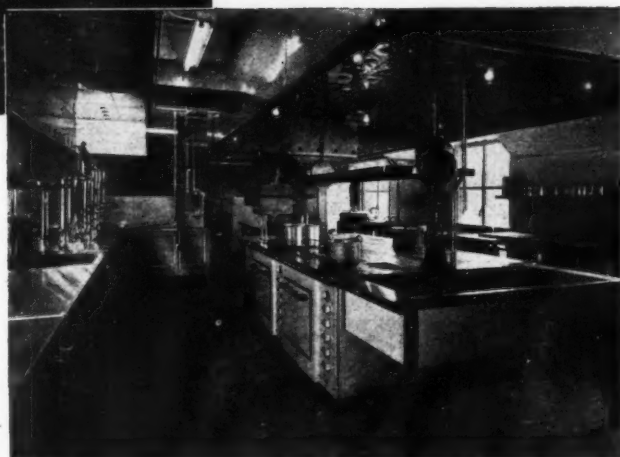


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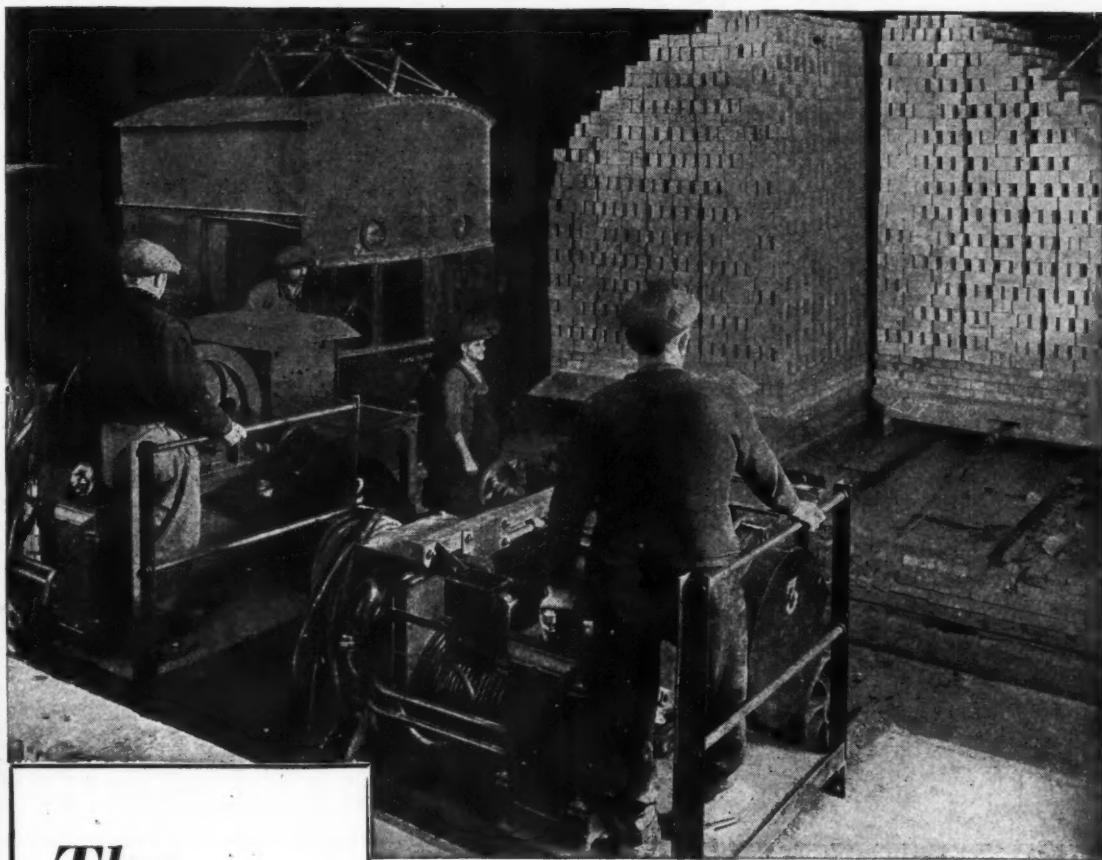
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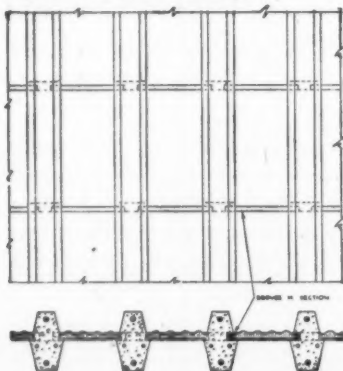
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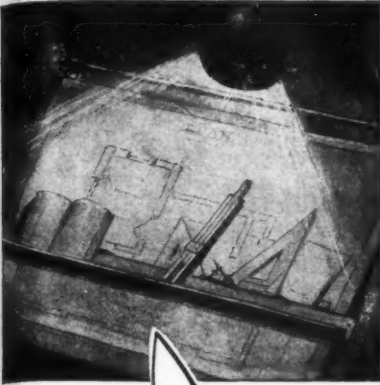
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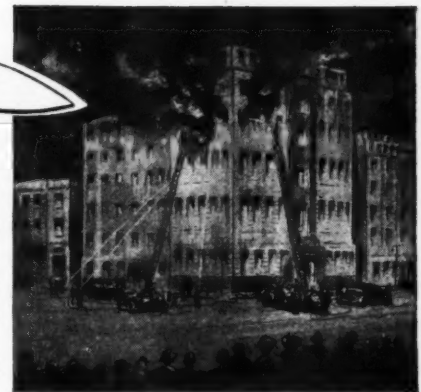
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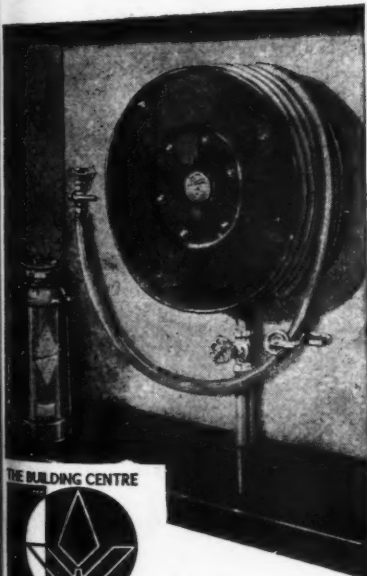
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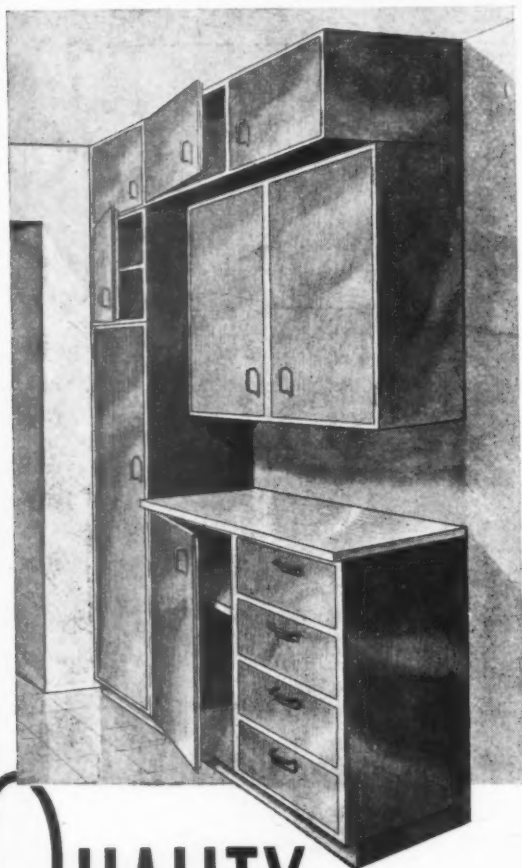
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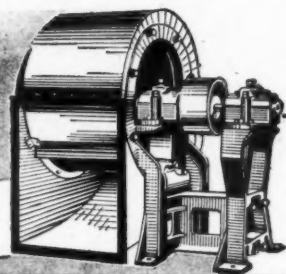
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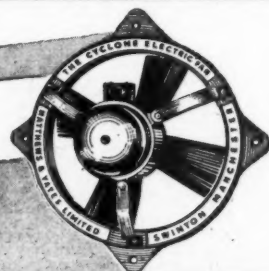
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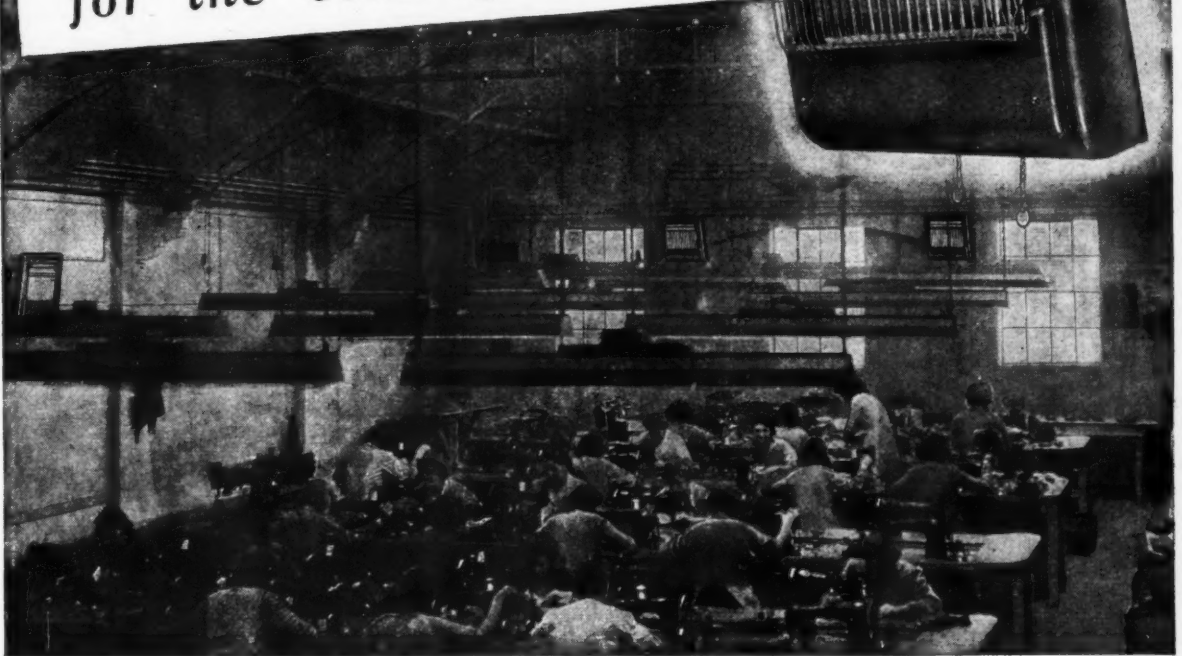
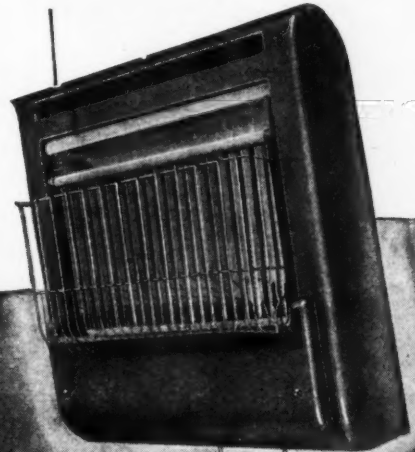
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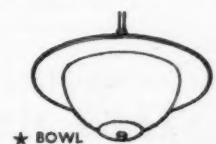
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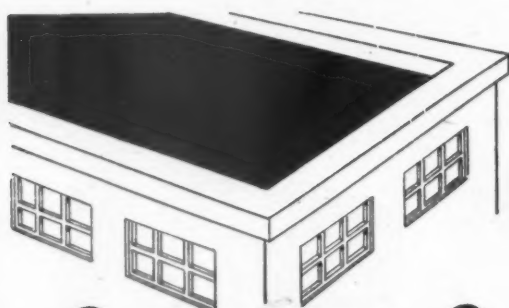
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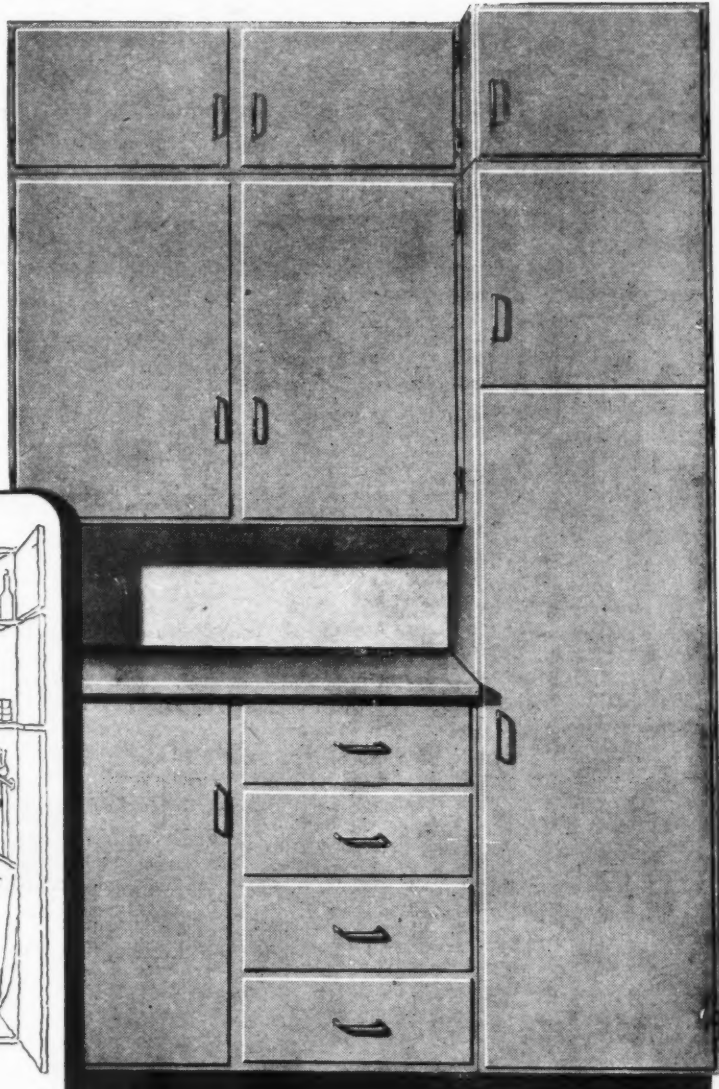
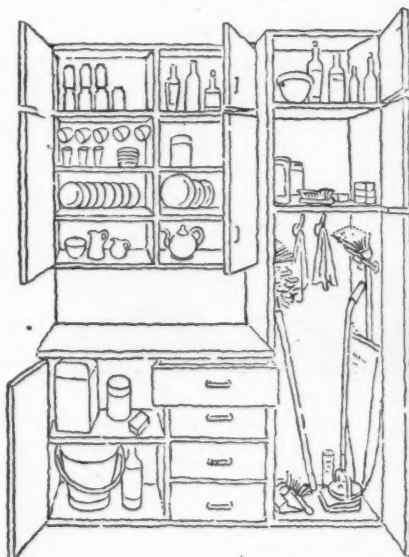
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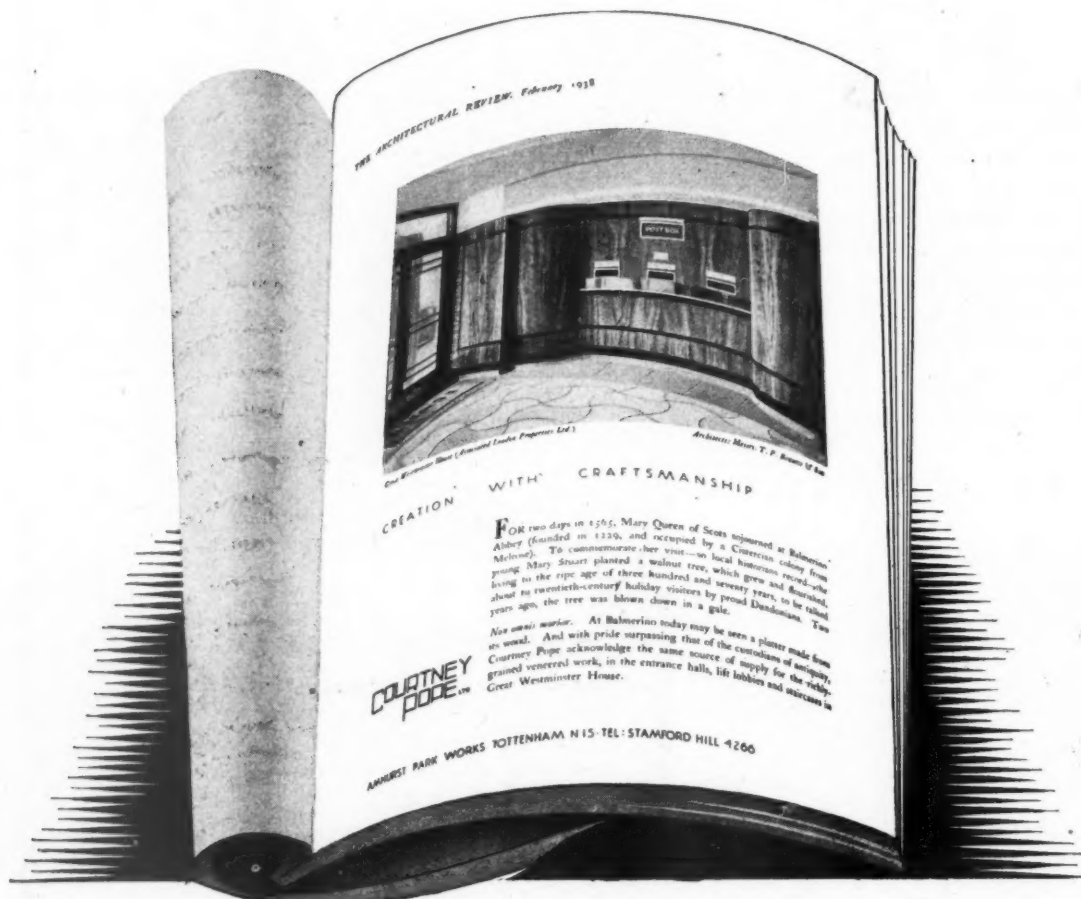
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THE ARCHITECTS' JOURNAL for August 28, 1947

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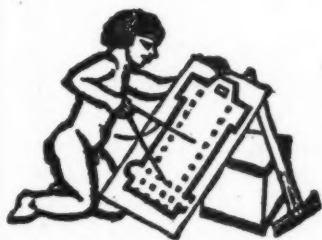
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DIARY FOR AUGUST SEPTEMBER AND OCTOBER

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.

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

CAMBRIDGE. *Building Science Exhibition.* (Sponsor, DSIR.) UNTIL AUG. 30

CARDIFF. *Building Science Exhibition.* (Sponsor, DSIR.) SEPT. 29-OCT. 11

EDINBURGH. *Enterprise Scotland 1947.* An exhibition of industrial design. At the Royal Scottish Museum, Edinburgh. (Sponsors, Scottish Committee of the CID.) UNTIL SEPT. 30

Architecture in Scotland. At George Heriot's School, Lauriston Place. (Sponsor, A.C.G.B.) UNTIL SEPT. 8

LONDON. *Exhibition of Colombo Cathedral Competition Designs.* The winning and other designs entered in the competition for the proposed Cathedral of the Holy Cross, Colombo, Ceylon. At 68, John Adam Street, Adelphi, W.C.2. (Sponsor, RSA.) Monday to Friday from 9.30 a.m. to 5.30 p.m., Saturday from 9.30 a.m. to 12.30 p.m. UNTIL AUG. 30

Settings for Pictures. A display of pictures in settings of antique and modern furnishing. At Heal's, 196, Tottenham Court Road, W.1. UNTIL SEPT. 1

Industrial Wales. An All-Wales and Monmouthshire Exhibition. At Olympia. The main purpose of the exhibition is to make more widely known the importance of Wales as an existing and potential industrial centre, and to demonstrate the wide variety of products now manufactured there. (Sponsor, Industrial Association of Wales and Monmouthshire.) AUG. 28-SEPT. 13

Exhibition of Work by Candidates for RIBA (Archibald Dawney) Scholarships. At RIBA, 66, Portland Place, London, W.1. The Scholarships are intended to foster the advanced study of all forms of construction, and are tenable at the Schools of Architecture recognized for exemption from the examinations of the Royal Institute. (Sponsor, RIBA.) 10 a.m.-7 p.m. (Sat. 10 a.m.-5 p.m.) SEPT. 8-15

"The Miner Comes to Town" Exhibition. At the C.O.I. Exhibition Centre, Marble Arch. There will be nine sections dealing with all aspects of the mining industry. (Sponsor, COI for MFP and NCB.) SEPT. 11-OCT. 23

Exhibition of Architectural Lettering. At Friends House, Euston Road, N.W.1, 3-6

p.m. *English Monumental Sculpture*, a talk by Frederick Burgess, A.R.C.A. Percy Delf Smith, R.D.I., the President, in the chair. (Sponsor, The Guild of Lettering Craftsmen.) 5 p.m. SEPT. 27

Woman's Fair Exhibition. At the Dorland Hall, Regent Street, S.W.1. (Sponsor, "Woman.") SEPT. 23-Nov. 22

IHVE Jubilee, 1897 to 1947.

The President and Council have arranged the following celebrations:

Autumn Meeting of Council. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1, 2 p.m. OCT. 7

Banquet and Dance. At the Savoy Hotel. Dancing from 9 p.m. to 12.30 a.m. 6.30 for 7 p.m. OCT. 7

Autumn Special Meeting of Members. At the Institution of Mechanical Engineers, Storey's Gate. Paper by Mr. C. G. Vokes, A.M.I.MECH.E., A.F.R.E.S., M.S.A.E., on *Air Filtration*. 2.30 p.m. Tea 5.30 p.m. OCT. 8

District Heating. At the Institution of Mechanical Engineers, Storey's Gate. A special "Jubilee" paper by C. G. Carruthers. 5.30 for 6 p.m. OCT. 8

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

Twenty-second Building Exhibition, 1947. at Olympia. (Sponsors, H. Greville Montgomery, A.R.I.B.A. (HON.) and Hugh R. C. Montgomery, M.C.) Nov. 19-Dec. 4

SOUTHAMPTON. *Building Science Exhibition.* At the Art Gallery, Civic Centre. (Sponsor, DSIR.) SEPT. 6-20

THE HAGUE. *Fuel Economy Conference.* Particulars from the British National Committee, World Power Conference, 201-2, Grand Buildings, Trafalgar Square, London, W.C.2. SEPT. 2-9

WESTON-SUPER-MARE. *Exhibition of Plans and Models for the Redevelopment of the Borough by Clough Williams-Ellis and Lionel Brett.* UNTIL AUG. 31

N E W S

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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.

★

A working group of Department of Health and Glasgow Corporation planning specialists to carry out a fact-finding survey which would be the basis of a MASTER PLAN FOR GLASGOW has been suggested by the Rt. Hon. Joseph Westwood, M.P., Secretary of State for Scotland.

Discussing the city's future, Mr. Westwood said that it might be of material assistance to the Corporation if a working group could be set up comprising the experts of the Department of Health on the one hand and the Corporation officials on the other to go into the whole matter of the standards to be applied to Glasgow's future housing and other development areas. Such a group might comprise experts in planning, architecture, education and public health, and would be free to call in other experts as and when opportunity arose. If this group could get into working partnership over a short series of meetings to consider the various development areas of the city, the Corporation would then have a clearly agreed set of standards to which their future development might be related.

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From AN ARCHITECT'S Commonplace Book

THE MIDAS TOUCH. [From Space, Time and Architecture, by S. Giedion (Harvard University Press).] Architects have imitated other periods, taken over their special shapes and techniques, in the hope of escaping from transitory work and achieving a timeless rightness. And after a short time their buildings have become lifeless masses of stone, in spite of the incorporation into them of details from works of eternal beauty. These men possessed the exact contrary of the "Midas touch"—everything they put their hands on turned to dust rather than to gold. Today we can see why. History is not simply the repository of unchanging facts, but a process, a pattern of living and changing attitudes and interpretations. As such, it is deeply a part of our own natures. To turn backward to a past age is not just to inspect it, to find a pattern which will be the same for all comers. The backward look transforms its object; every spectator at every period—at every moment, indeed—inevitably transforms the past according to his own nature. Absolute points of reference are no more open to the historian than they are to the physicist; both produce descriptions relative to a particular situation. Likewise there are no absolute standards in the arts: the nineteenth-century painters and architects who thought certain forms were valid for every age were mistaken. History cannot be touched without changing it.

★
Mr. N. Tweddell A.R.I.B.A. has been appointed CHIEF ARCHITECT to HARLOW Development Corporation for the new town of Harlow.

Aged 40, he received his architectural training at the Durham University School of Architecture under Professor Cordingley. After gaining experience in large-scale building in two architect's offices in London he set up in private practice in 1936. Called up as a Territorial gunner on the outbreak of war, he was released in the autumn of 1945 as a Lt.-Colonel, having commanded the Experimental Wing of the School of Anti-Aircraft Artillery since 1942. On leaving the Army he was first appointed Deputy Director of Permanent Prefabricated Housing Development at the Ministry of Works and later Assistant Director of Works on Housing. Mr. Tweddell takes up his duties on September 1. He proposes to organise his work as a number of small design units, each comparable to a medium-sized private office.

clarations (on form B.M. 106, when printed) to the effect that they hold priority certificates in support.

★
Mr. H. Kellett Ablett, A.R.I.B.A., A.M.T.P.I., has been appointed CHIEF ARCHITECT to HEMEL HEMPSTEAD Development Corporation for the new Town of Hemel Hempstead.

Aged 43, he was articled with the late firm of Messrs. Ormerod, Pomeroy and Foy, F.R.I.B.A., Architects, Bolton. From 1925-28 he served with Mr. G. de C. Fraser, F.R.I.B.A., Architect, Liverpool, and was Senior Assistant Architect, City of Oxford, from 1928-35. In 1935 he was promoted Chief Assistant Architect and Deputy Planning Officer, City of Oxford. From 1946 until his new appointment he was Housing Architect to the City of Nottingham.



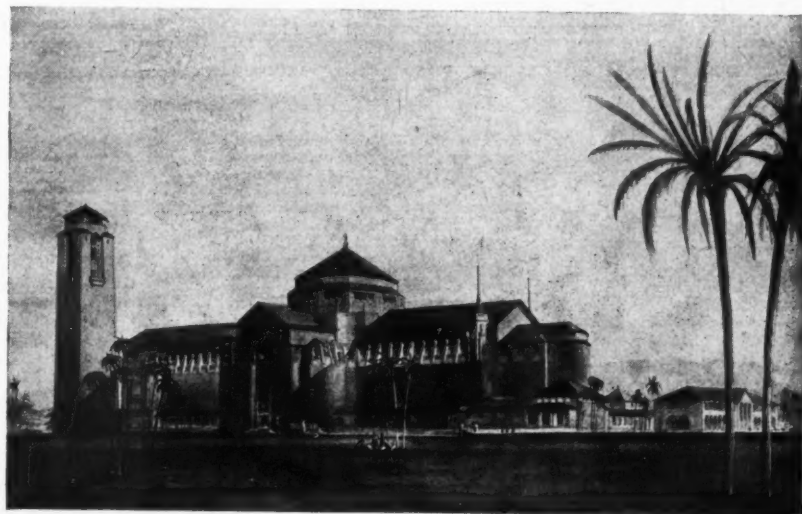
Mr. H. Kellett Ablett who has been appointed Chief Architect to Hemel Hempstead Development Corporation for the new town of Hemel Hempstead.

Further details have been given of the simplified W.B.A. PRIORITY SCHEME which comes into force on 1st September, with statutory penalties.

It will be illegal to obtain or to supply against a priority certificate greater quantities of materials than are authorised by that certificate. Further, from October 1, it will be illegal for a firm to supply materials against a non-priority order while a current priority order on the firm remains unfulfilled.

Materials and fittings covered by the scheme are: Building bricks, commons and facings in thousands; rainwater gutters, rainwater pipes and soil pipes, whether cast iron or asbestos cement, and their fittings; hard-wall plaster; plasterboard; cast iron or pressed steel domestic baths; domestic type lavatory basins and sinks, other than stainless steel; W.C. pans; lead sheet, lead pipe and copper pipe of certain gauges and bores; domestic ranges and stoves of certain types; clear sheet glass from 18-32 oz.; metal electrical conduit and boxes; electrical 3-pin plugs and sockets up to 15 amp.; electrical main switches, switchfuses and fuseboards up to 60 amp. and electrical wall and ceiling switches of domestic type up to 15 amp.

Priority certificate forms have been revised and reduced in number from four to one. The new forms (B.M. 104) will serve as applications for priority and priority certificates. Purchasers of materials will retain the priority certificates they are granted but will accompany their orders by suitable de-



The designs submitted in the competition for the proposed Cathedral of the Holy Cross, Colombo, Ceylon, are being exhibited at the Royal Society of Arts, John Adam Street, London, W.C.2, until August 30th. The Assessor, Sir Giles Gilbert Scott, O.M., R.A., P.P.R.I.B.A., awarded the First Premium, £500, to Roger A. P. Pinckney, F.R.I.B.A., and Arthur F. E. Gott, L.R.I.B.A., of London; the Second Premium, £200, to F. X. Velarde, B. Arch., F.R.I.B.A., of Liverpool; and the Third Premium, £100, to J. B. Wride, A.R.I.B.A., of Cardiff. The illustration shows a perspective of the winning design. See A. J. May 15.



Jobs in the Making: Animals' Hospital

This hospital for our Dumb Friends League is to be built in Brixton to the designs of Christopher Nicholson. In addition to providing accommodation for complete hospitalisation, wards, clinical rooms, consulting rooms,

lethal chamber and mortuary, there is provision for committee rooms, offices and two flats for resident veterinary surgeons. Details of the project appear on pages 185 to 187.

The FOURTH BUILDING CONGRESS under the auspices of the Building Industries National Council will be held at Folkestone on Tuesday and Wednesday, November 18 and 19, 1947.

The Congress will be divided into four sessions:—1. The Present Position: A discussion on what is being done, what are the obstacles to progress, and what should be done to expedite progress. 2. What Lies Ahead: A discussion on the future prospects of the industry, the demand for building, the availability of labour and materials. 3. Research and Training: A discussion on research in the building industry, the assimilation into practice of new technical developments, education and training for the industry. 4. Problems of Organization: A

discussion on the operations of the industry under conditions of full employment, the report on "Placing and Management of Contracts," distribution and transport problems. Each session will be opened with brief addresses by four experts in their particular subjects; each of these speakers will present printed papers which will be circulated to delegates in advance. Admission to the Congress is by ticket, price 1 guinea, obtainable from the Building Industries National Council, 11, Weymouth Street, London, W.1.

The Minister of Health states: no further LICENCES are to be issued by local authorities for the erection of houses, other than houses built in replacement of war-damaged houses, without the prior approval of the Principal Housing Officer.

The decision has been reached because of the present shortage of labour and materials, the necessity for completing as quickly as possible the houses already under construction, and the importance of securing that the largest possible numbers of houses are available for letting to those in most urgent need. He has also had regard to the necessity in present circumstances for taking special steps to meet the housing needs of agricultural workers, miners and key workers.

Mr. A. Charles Light B.A. (Lond.), F.R.I.B.A. has been appointed to the newly established CHAIR of ARCHITECTURAL DESIGN in THE UNIVERSITY of NEW ZEALAND.

His architectural education was obtained as a Bartlett Exhibitioner in University College, London, under Professor A. E. Richardson. Among his Academic successes were the award of the Ronald Jones Prize and the RIBA Donaldson Medals. In 1928 he gained the degree of B.A. with First Class Honours and became one of the very few Architectural Students to be awarded a Commonwealth Fund Fellowship. Attached to Columbia University, New York City on this Fellowship he carried out post-graduate study and travelled extensively in the United States, Mexico and Canada for two years, returning to take up posts in Dublin University, the Welsh School of Architecture and the Leeds School of Architecture. From Leeds Mr. Light was appointed Head of the School of Architecture, Kingston-upon-Hull, and during the war has been attached to the Leeds University Senior Training Corps.

The creation of the "Specialist" Chair of Architectural Design to which Mr. Light has been appointed has been rendered possible by the rapid development of the School of Architecture, Auckland University College, under Professor Cyril R. Knight, Dean of the Faculty. This Dominion School is the first to act on the recommendation of the RIBA Special Committee on Architectural Education to create more Chairs within the Schools of Architecture.



Mr. A. Charles Light who has been appointed to the newly established Chair of Architectural Design in the University of New Zealand.

C. I. A. M.

IN one of his books, Le Corbusier suggests that the architectural revolution is accomplished and that from China to Peru Sir Reginald Blomfield's "Modernismus" is accepted by men and Governments. While this is too large a claim, for neither has a mature contemporary architecture emerged, nor is there official recognition everywhere of a need for such an architecture, there is no doubt that important changes have occurred in architectural and planning ideas. The growth of such ideas is undoubtedly largely due to the efforts of Le Corbusier, Walter Gropius, Lluís Sert, Sigfried Giedion, and their collaborators through the agency of CIAM.

CIAM (Congrès Internationaux d'Architecture Moderne) was founded at La Sarraz in Switzerland in 1928. Now, almost twenty years later, the sixth Congress is to be held at Bridgwater, in Somerset, at the invitation of the English branch of CIAM—the MARS Group. The occasion is not without its importance. The renewed collaboration of architects from the whole world, interrupted during seven years of war, indicates that civilized association has not been entirely lost. The choice of England for the first post-war Congress is proof that a contemporary architecture is no longer regarded in this country as a cuckoo's egg, or at least the cuckoo is actively engaged in ejecting the academic chaffinches.

The development of the themes considered by previous Congresses is of interest as it is paralleled, as might be expected, by the experiences of many architects. From a consideration of the "minimum house" as a basic living unit, and the logical and economic layout of housing sites, attention was turned to the growth, development, decay, and possible re-birth of towns. These stages are represented by the CIAM publications "The Minimum House," "Rational Lay-out of Sites," and "Can Our Cities Survive?" So many architects have been impelled to turn from a consideration of the individual house to its relation with its neighbours, and then to a consideration of the town as the community unit of which the individual house forms only a part. These themes were based largely on purely technical considerations and the architectural character was held to be determined by the technical requirements of the problem and its solution. Now, however, CIAM seems to be looking forward to a study of the more human aspects of architecture, and especially to the study of man's emotional relationship with his environment. Since the first purpose of this year's Congress is the reconstruction of CIAM after the war years, much of the time at Bridgwater will be taken up with an exchange of reports about the present situation in the various countries, but it is also proposed—as a preliminary to a more ambitious treatment of the subject in the following Congress—to discuss the emotional needs that a living contemporary architecture must meet and the visual implications of contemporary planning developments. The immaturity of an architecture pre-occupied only with technical problems

has become obvious even to its most ardent exponents. All architects will welcome the presence in this country of such distinguished figures as Walter Gropius, Le Corbusier, Pierre Jeanneret, J. Ll. Sert, van Eesteren and Giedion and the other delegates to the Congress and will look for new illumination of their art from the discussions at Bridgwater.



The Architects' Journal

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N O T E S

&

T O P I C S

WHERE DO WE GO FROM HERE?

That the dollar crisis is bound to have repercussions on the building industry is obvious enough, but my guess as to what they will be is probably as unreliable as yours. The original cuts included ten million pounds worth of imported timber, and most of the dailies suggested that this would involve a drop of 80,000 or so in the housing target. Nobody seems to know just where this figure came from, but it was singularly unanimous and sounded as though it were official. But Mr. Bevan countered by saying that the housing programme was unaltered, though he subsequently announced that all private house building was barred, save for one microscopically small loophole.

Now, a day or two after Mr. Dalton's surprise broadcast, we seem to be back at square one again, waiting for the financial planners to throw a double six and to be told who is to work harder at what. All the world is short

of dollars, and there is no means of telling how many of the other countries which sold us timber really wanted dollars for Buicks all the time and not the goods we can supply in exchange. But whatever happens to timber and other goods, it looks as though food will have to have top priority, and it will hardly be possible to plan anything else until that is settled. Mr. Herbert Morrison, in his speech on Saturday, told us that housing for miners and agricultural workers would be at the top of the list. My guess is that surplus building labour may be diverted into other industries.

ENTERPRISE SCOTLAND

Thanks to a fair amount of advance trumpet-blowing there was, at any rate before Monday's opening, a general impression that Enterprise Scotland would turn out to be better than Britain Can Make It. I confess I am a shade allergic to the fiery cross marathon runner ballyhoo, and anyway, apart from being a signal to repel invaders, it was from time to time an invitation to a little quiet raiding, and therefore is perhaps not quite the most appropriate symbol for attracting overseas buyers.

So far as the exhibition itself is concerned there is far less space at the Royal Scottish Museum than there was at the V. and A., but Mr. Basil Spence regards this as being something of an advantage, as it has meant a higher standard in the exhibits. I have turned my more reliable Edinburgh spies on to the job, and they will let me know how successful, or severe, the various selection committees have been in their choice.

THE THREE UNKNOWNNS

Parlour guessing game of the moment is: who is to be Chief Architect to the new town of Stevenage, who is to be the new Professor of Civic Design at Liverpool and who is to be the new Director of the CID? (Yes, the Council for Industrial Design, not the other one.) Rumours are rife, and in one

case a short list has long ago been considered and applicants interviewed. It is understood that competition for these three plums has been keen though the successors to Holford, of Liverpool, and Gordon Stephenson, who has been looking after Stevenage for the MOTCP, and has prepared the outline plan, and Leslie, of the CID, will have no easy task to maintain the standards set by their predecessors.

Those responsible for the appointments are apparently finding it difficult to make up their minds; meanwhile, Stevenage, like a riderless horse, is galloping off into the blue. Liverpool students are preparing their minds for the beginning of term without knowing whether their model is to be the RA plan for London or St. Dié, and the CID is directorless.

NEW TOWNS

The report in this issue of the A.J. that Chief Architects, Mr. Ablett, for Hemel Hempstead, and Mr. Tweddell, for Harlow, have been appointed, shows that the Corporations for the first four satellite towns have settled down to staffing up in earnest. The roster is not quite complete, as I have suggested in my note above, but the picture is filling out enough to get an idea of the layout of the higher direction of a new town.

The hierarchy seems to be somewhat on these lines: the Chairman of the Corporation at the top of the tree, then his Vice-Chairman, followed by the Chief Executive Officer, who is a sort of embryo Town Clerk, then, floating somewhat nebulously, the Consultant Town Planner and Architect, finally, the Chief Architect, and the Chief Engineer to the Corporation. The precise functions of these various individuals is still not quite clear.

The problem of the relation of the technical man to the administrator is a source of perpetual heartburning in local authorities of all shapes and sizes. Even in the new towns, where everything is brand new and presumably based on an ideal situation, the answer is a trifle dusty and obscure. Indeed, the Reith Report gave little help in this embattled field. The committee apparently decided that the planner as planner had no place at all in the hierarchy.

ASTRAGAL cabled FRANK LLOYD WRIGHT "please cable comments on design for UNO HQ." Frank Lloyd Wright replied:

ARCHITECTURE HAS NEVER COME OUT OF COLABORATION ALIVE.
EACH LABORER COULD DO BETTER BY HIMSELF. OUT OF THIS COMMITTEE FOR DESIGNING UNHQ HAS COME A SINISTER EMBLEM FOR WORLD POWER. THIS MONSTROUS COMMERCIALIZED TOMBSTONE FOR THE GRAVEYARD OF PEACE.
UN THEREIN IS ON THE RECORD FOR DOLLAR FACISM WHILE NAMING ITSELF ANTIFASCIST. MUST ITS ARCHITECTURE LIKE THE SITE ITSELF BE A MERE SUBSIDY IN THIS AFFAIR BETWEEN NATIONS?=-

FRANK LLOYD WRIGHT.

WHAT D'YUNO?

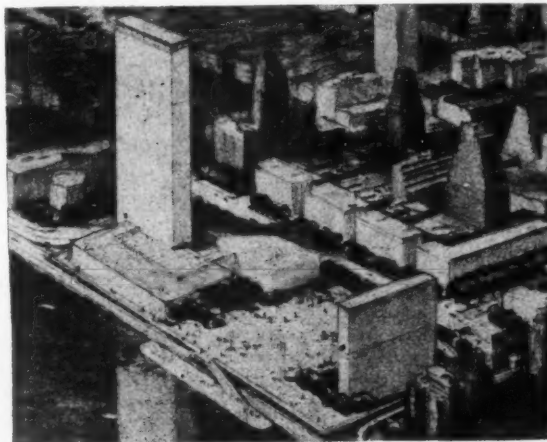
I asked Frank Lloyd Wright for his comments on the new UN headquarters illustrated in the AJ last week, and from Spring Green, Wisconsin, came the cable reproduced above. Though it appears there was a surprising measure of harmony at the discussions of the "committee for designing UNHQ," and the final plan was unanimously approved, the whole process has aroused great comment in architectural circles throughout the world.

My picture on this page is a "rendering" of the possible appearance of the scheme to remind readers of the idea. Frank Lloyd Wright, his vision by no means impaired, expresses an uneasiness about the whole headquarters story that many others feel. I would

refer readers to the AJ leading article on January 30.

I understand that all the eminent architects who have been so industriously hurtling to and fro across the Atlantic have now fulfilled their responsibilities and the whole project is about to sit on the lap of the UN General Assembly in September. So far only plans and volumes exist; the architectural treatment has got no farther than impressions and artists' renderings by Mr. Hugh Ferriss and others. Who will be responsible for the design? Wallace K. Harrison is freely tipped as being almost certain to be reappointed. What of Le C., of Markelius, of Niemeyer, and the rest? Architects can only keep their fingers crossed and hope that we shall not have a miniature Radio City.

ASTRAGAL



A "rendering" of the design for the UN headquarters on the site on New York's East River given by John D. Rockefeller, Jr. See Astragal's note above.



LETTERS

J. Smith

Why Not Form a New Organization?

SIR.—With regard to the doubts raised as to the advisability of the RIBA acting as a negotiating body between architects and assistants in matters under dispute. Why not form an organization called, say, the British Association of Technologists, open to members below the position of principal of the professions of civil, structural, mining, municipal and county, electrical, and mechanical engineers; architects, town and country planners, land and quantity surveyors, industrial chemists, etc.?

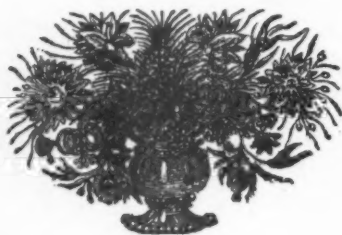
There could be a branch of the organization in each area, each branch having a sub-committee to deal with the welfare, salary scales, and conditions of each profession, as well as the co-ordination and furthering of ideas between the various professions. This work could be done without interfering with the normal functions of the local learned societies and trade unions.

With continual wage increases, shorter hours, and five-day weeks, the living conditions of the less academic section of organized labour are rapidly catching up with and will soon surpass those of that section where a high standard of qualification, expensive training, and examination is required. The latter, I feel, should always be one step ahead than the less skilled worker.

Newcastle

J. SMITH

Ian Bowen recounts the history and effect of Regulation 56AB and shows that it formed part of a coherent policy for the building industry in war-time. He points to difficulties and dangers resulting from its partial abolition. This article will be followed by others on the re-organisation of the industry.



Re-Organisation of the Building Industry

[by Ian Bowen]

I.—The Amendment of Regulation 56AB

CRITICS OF THE BUILDING INDUSTRY

Architects work, like some other artists, through other people's work; the composer relies on the orchestra, the writer of plays on the producer and the players, and the architect on the building industry. Nobody denies that there are some first-class building firms in this country; skill in the traditional crafts, although difficult to assess or measure, also seems to be much higher, on the average, in Britain than in most other countries, except, perhaps, Italy. But the medium through which the British architect works is nevertheless in many respects unsatisfactory.

Recently, Mr. Mackay, speaking with close personal knowledge of a building firm's activities, referred to the building industry as "the most archaic and inefficient in the country."* There were, he complained, very few of the big-type of builder in the industry. Price itself was tied up with the high overheads of this inefficient industry. Moreover, he blamed the industry rather than the Government for the failure to develop pre-fabrication on mass-production lines. There are 58 different types of concrete house on the market to-day, he observed. "If the people who are planning these private-enterprise businesses had had initiative and ability they could have done better."

Mr. Bevan, speaking in the same debate, found fault with the output of building labour, again partly because of the mal-organisation of the industry. The output of building labour he found to be "not as much as we are entitled to expect." But this was "merely a general reflection on human nature. It appears fundamental to all of us that we do not do our best work under sustained ideological inspiration. We have to have some more material reward." Hence, from now on there are "no inhibitions whatsoever, either implicit or explicit, against building with incentives or with payments by results."

This referred to the abolition, as from Friday, July 25, of some of the provisions of Defence Regulation 56AB.

THE ORDER PROMULGATED JULY 25, 1947

It may be as well to look behind the House of Commons rhetoric to see precisely what has been done.

Defence Regulation 56AB was introduced in July, 1941, to compel the registration of all building and civil engineering undertakings in the country.

Among its other provisions, the Defence Regulation stated that every registered undertaking must observe terms and conditions of employment which are neither more nor less favourable than those laid down in industrial agreements or by arbitration and the conditions on hours of employment laid down in directions issued by the Ministry of Works.

These are the two provisions the abolition of which Mr. Bevan announced.

As will be seen from the text, the provisions themselves did not impose payment by results at all. (This was pointed out by Mr. George Hicks in the course of the debate.) What the provisions imposed was uniformity of conditions of pay and of hours of work throughout the industry. Each undertaking had to sign its acceptance of these provisions before it could be registered. The Ministry of Works had power to revoke licences to building or civil engineering undertakings which ignored these provisions, and this power was exercised and its provisions enforced.

ADVANTAGES TO THE EMPLOYEES OF 56AB

Defence Regulation 56AB was the cornerstone of a carefully-thought-out plan for control of the building industry. The plan was a war-time plan, and most of its main outline was conceived in the first half of 1941, legislated for in the second half of that year, and operated right up to the end of the war. Remnants of it still linger on. On points of detail the plan may have been open to criticism, but at least it worked effectively; unemployment in the industry was reduced from 21,000 to 6,000, a huge building programme was carried out with a depleted labour force, and industrial disputes were at a record low level in this industry throughout the war.

Certain very definite advantages were gained by the operatives from the working of 56AB. It was made illegal for any undertaking to fail to operate nationally-agreed conditions of pay. This was a victory for the principle of a nationally-agreed standard of wages unparalleled in any other industry. National agreements now received the force of law.

PAYMENT BY RESULTS DURING THE WAR

Under Regulation 56AB an Essential Work Order for the building and civil engineering industries was issued in June, 1941, which provided for a national scheme of payments by results. Mr. Bevin, then

Minister of Labour, made a statement justifying the introduction of this system. Protracted attempts were made right up until November, 1941, to induce the unions and the employers' organisations to put forward an alternative scheme of their own, which the Government declared itself willing to consider as an alternative to its own scheme. But the alternative was not forthcoming; the appeal was ignored.

The "industry," as joint meetings of representatives of the employers' and operatives' federations are sometimes called, co-operated on the actual working of payment by results by appearing on panels to advise the Government on the schedule of payments, etc. But in season and out of season the operatives' leaders lost no chance of denouncing the system as such. The employers, though not quite so unanimously, lost few opportunities of denigrating the Government for its scheme and of grumbling about the absurdly high costs involved through payment by results. It was often said by their spokesmen that the schedule had fixed targets that were disgracefully low.

What was *not* said, of course, was that the employers themselves could not agree on a schedule with the operatives. Over the war as a whole output was not unsatisfactory. The earnings of building workers rose, but not out of proportion to the rises in other industries. Output averaged about 40 per cent. above basic targets on measured work. Bricklayers laid about 60 bricks per hour, on the average, which, in view of the age-composition of the labour force, might be considered reasonable. Payment by results *worked*; the men—as opposed to their leaders—liked it on the whole and threatened to strike on sites where it was not applied. Above all, the fairness of a nationally-imposed system cut down industrial unrest.

REGULATION 56AB AS PART OF A PLAN

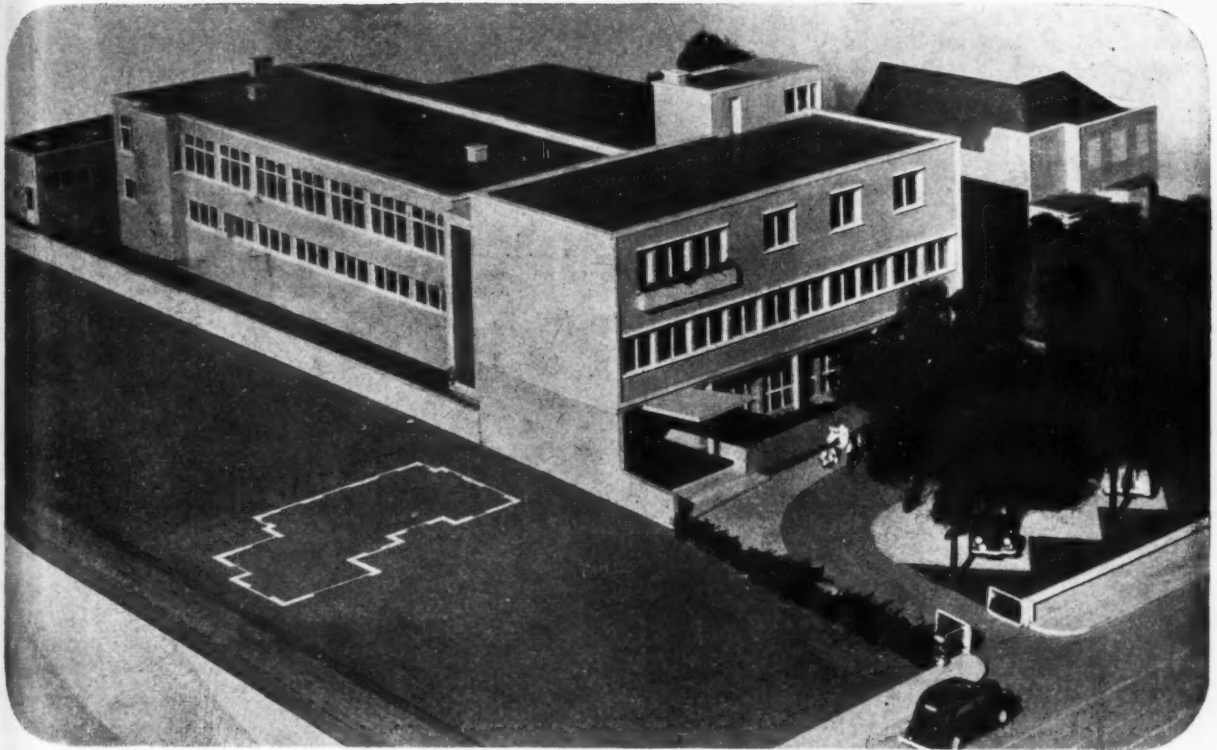
The historical perspective of the war years is necessary to understand the present situation.

Why, it may be asked, did the trade union leadership remain so doggedly opposed to payment by results? Why has it agitated against the very clause in Regulation 56AB which gave all national agreements the force and backing of law?

This short-sighted obscurantism has originated in the traditional desire of the trade unions to cut out piecework of all kinds in favour of time rates. The trade union leaders would presumably like the fullest possible bargaining weapons in their own hands. This they reckon to get when time rates only have to be negotiated. They rely on their own strength as a union to enforce national agreements and think that they can ignore "control from Whitehall." They think of themselves as belonging to an industry; if it is controlled, they are controlled too.

This point of view is not consistent with that of the rank-and-file operatives. The abolition of the provisions of 56AB may at last cause loss of confidence in some of the present leadership of their unions. For at one blow the force of law behind uniformity of conditions has been removed and a free for all to introduce payment by results piecemeal has been started; how this has occurred, as a result of later procrastinations, will be described in a later article, but meanwhile it may be observed that the present situation will give rise to dangerous anomalies of wages and conditions between site and site and district and district; all the inflationary and irresponsible bidding up (or down) of the price of labour by competing employers, which Regulation 56AB stopped none too soon in 1941, is now permissible. Sporadic industrial quarrels are certain to arise.

* Hansard, 28-7-47, Col. 71



ANIMALS' HOSPITAL AT BRIXTON

DESIGNED BY CHRISTOPHER NICHOLSON

GENERAL.—The function of this building which will be constructed as soon as conditions allow, is to provide a hospital where animals of various shapes and sizes can receive medical attention or euthanasia. The building may possibly be used in the future as the headquarters of Our Dumb Friends League. Accommodation is to be provided for reception and consulting rooms, offices and general premises for Our Dumb Friends League, operating rooms, wards, food storage and preparation; mortuary, two flats for resident veterinary surgeons, and garages for the League's Central London ambulances.

THE SITE.—Faces west on to the Brixton Road and is in an area scheduled by the L.C.C. for residential development. It was therefore necessary to keep back from the road activities likely to be offensive to the adjoining residents. To minimise possible annoyance from noise and smells, all activities connected with

animals are confined to the back of the site, and these offices are given the maximum exposure to light and air.

THE PLAN.—All administrative functions and living quarters for the two veterinary surgeons are housed in a three-storey block facing the main road and 50 ft. back from it. This block screens the animal section from the road. On the ground floor are to be found the offices and committee rooms, and a staircase leads to the waiting room and consulting rooms above. A separate entrance and staircase provides access to the flats above. From the first floor, with its dispensary, waiting and consulting rooms, a bridge gives access to the hospital block at the back.

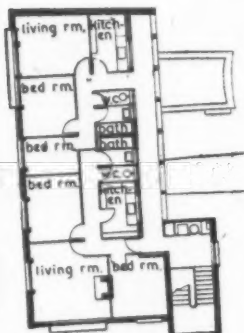
Each of the flats on the second floor has a living-room and two bedrooms with kitchen and bathroom. In the basement are the boiler room, fuel store and general storage space.

The rear block, containing wards

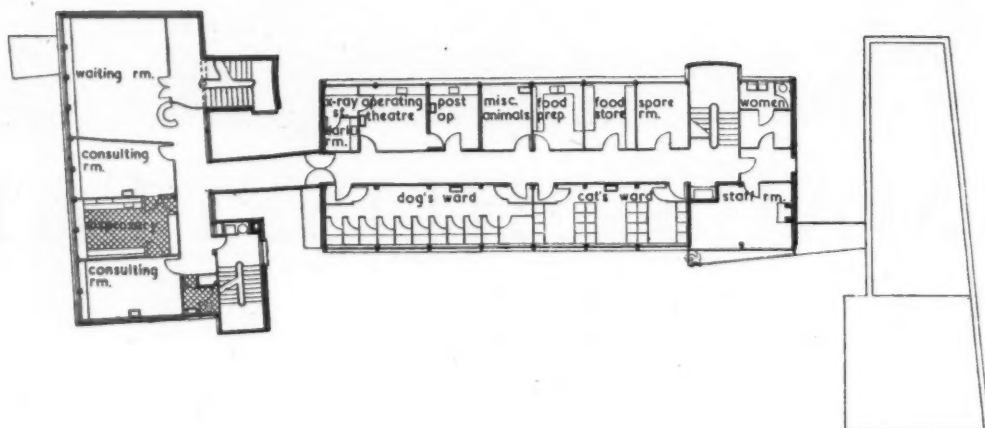
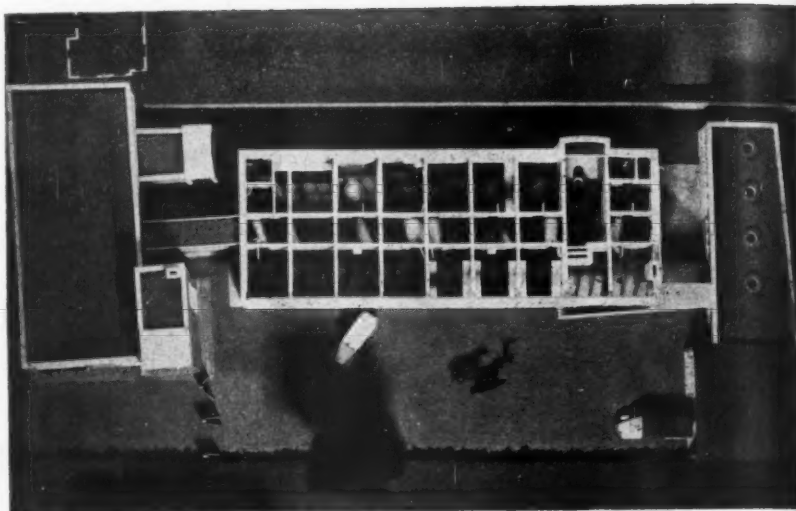
and surgical unit, is connected with the administrative unit on the first floor only. The main entrance is at the back of the site, where a lift and staircase give access to the wards on the first floor. The ground floor is largely devoted to garages for ambulances and cars, and a small mortuary and lethal chamber opening off the entrance hall. On the first floor are the wards for small animals, such as cats and dogs, clinical rooms, operating theatre and staff room. Special attention is paid to the sound-proofing of this part of the building. Lavatory accommodation for both sexes is provided on both floors. At the back of the site is a single storey building containing loose-boxes for horses and a garage for horse ambulances.

STRUCTURE.—The front block is a reinforced concrete frame, the column spacing on the ground floor being wider than that above to allow greater freedom of planning on this floor. The frame is

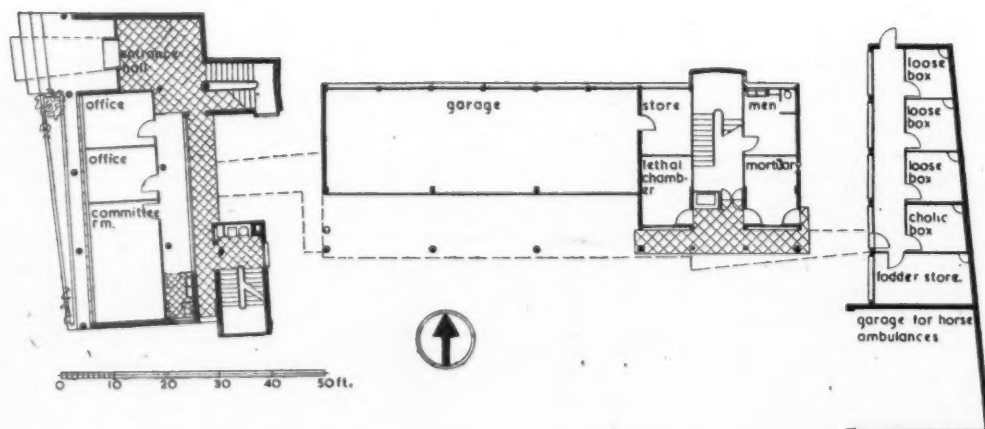
On right, the model seen from above with the roof of the ward block removed.



SECOND FLOOR PLAN



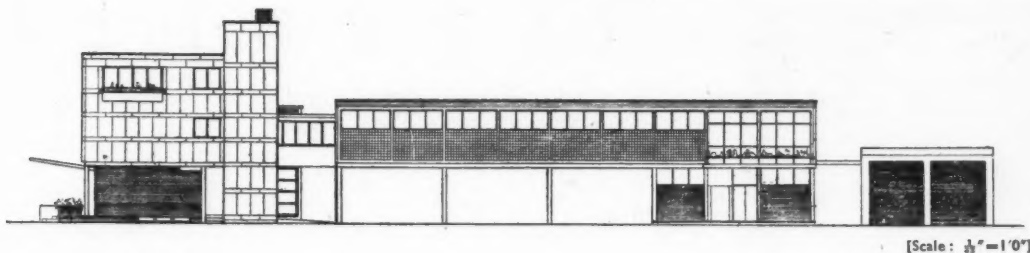
FIRST FLOOR PLAN



GROUND FLOOR PLAN

[Scale : $\frac{1}{8}$ " = 1' 0"]

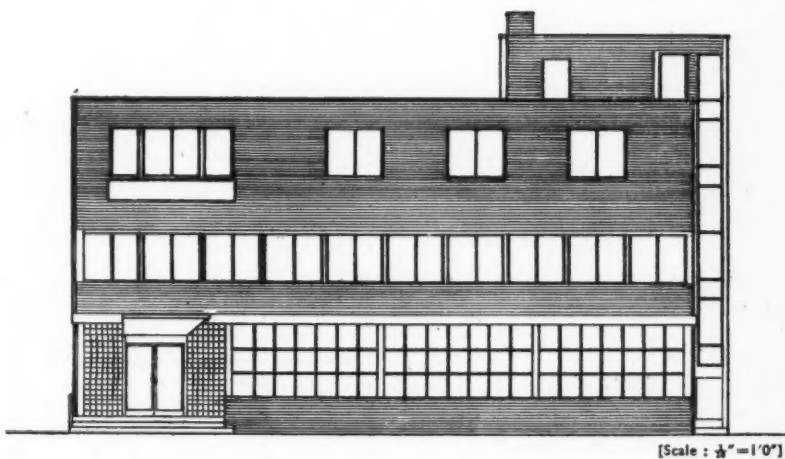
ANIMALS' HOSPITAL AT BRIXTON

[Scale: $\frac{1}{4}$ "=1'0"]

designed to take a possible future third floor. External walls are 11-in. cavity. The ward block is also a reinforced concrete frame structure, alternate columns on the first floor being carried through the ground floor. This block is also designed to take an additional floor. Walls are 11-in. brick with 2-in. cavity. The single storey block is 9-in. brickwork rendered. Roofs and floors are reinforced concrete slabs. The roof to the single storey block has a reinforced concrete barrel vault.

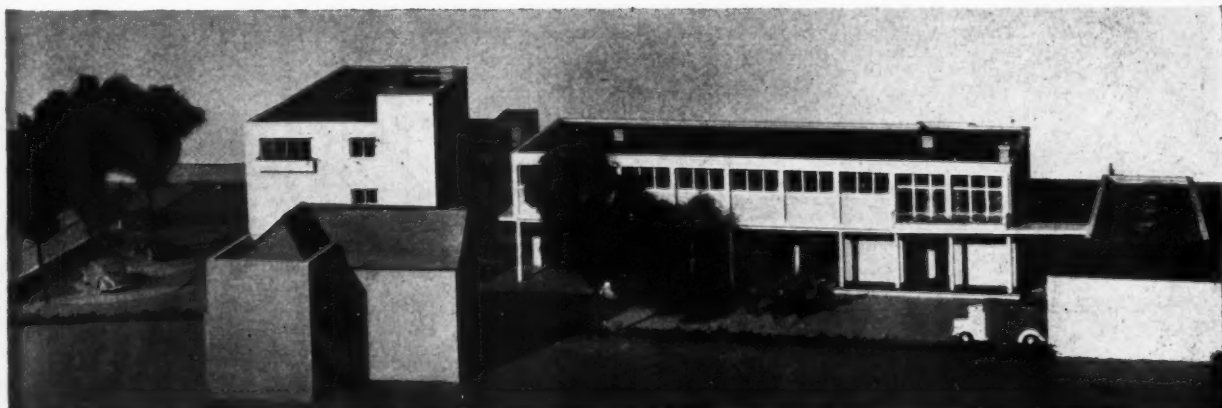
EXTERNAL TREATMENT.—

Front block, ground floor has a continuous glass façade. The entrance is set in glass bricks with a projecting reinforced concrete canopy over the door. The two side walls and the service staircase are faced with reconstructed stone slabs on the first and second floors. The south elevation of the ward block is faced with 6-in. by 6-in. quarry tiles set back from the line of columns, the latter being rendered.

[Scale: $\frac{1}{4}$ "=1'0"]

The associate architect is Gontran Goulden; the model was made by Cockade, Ltd.

Top, South elevation, administrative block on the left, ward block in the centre and loose boxes and garage on the right, middle, elevation from the road, bottom, a view of the model from the south, entrance to the ward unit is on the right.



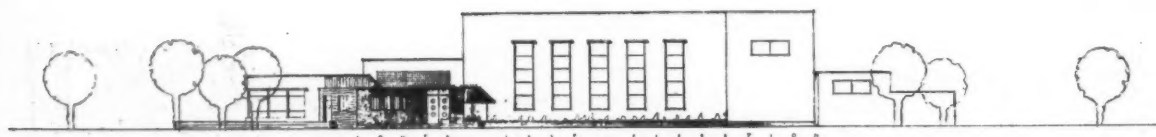
ON DESIGNED BY CHRISTOPHER NICHOLSON



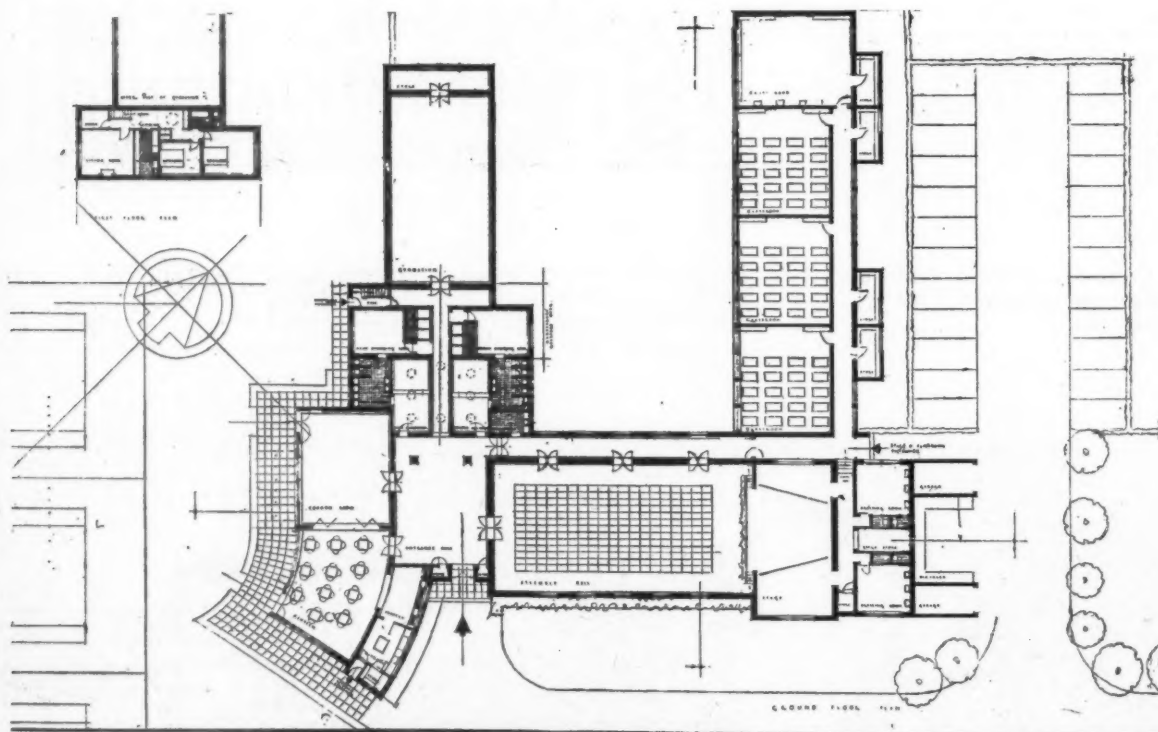
Mr. Norman S. Johnson

E I S T E D D F O D A W A R D

The award in the Architecture class of this year's Royal Welsh National Eisteddfod held at Colwyn Bay, North Wales, on August 4, was made to Norman Squire Johnson A.R.I.B.A., A.M.T.P.I. The subject set was a Youth Centre and County College. The assessor was T. Elwyn Lloyd, F.R.I.B.A. Mr. Johnson, whose winning scheme is illustrated below, is Deputy County Architect for Anglesey.

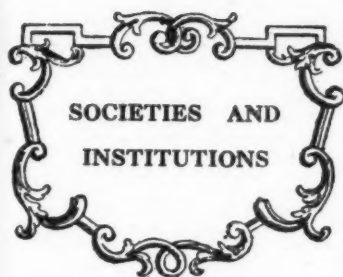


SOUTH EAST ELEVATION



PLAN

A YOUTH CENTRE & COUNTY COLLEGE



Speeches and lectures delivered before societies as well as reports of their activities, are dealt with under this title, 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 cover. Except where inverted commas are used, the reports are summaries, and not verbatim.

BBC

Wren's City Churches

August 16. At Broadcasting House, London. Talk on WREN'S CITY CHURCHES, by John Summerson and H. Goodhart-Rendel.

John Summerson: The great fire of London broke out on September 2, 1666, and burned for four days. A vast number of houses and 87 churches were destroyed. A week later the King issued a Proclamation announcing a rebuilding programme, and appointing three Commissioners for Rebuilding the City; one of these Commissioners was Dr. Christopher Wren. The commissioners were to join hands with three surveyors appointed by the City. This joint Committee of six got to work rapidly, so that in February, 1667, an Act for Rebuilding the City received the Royal Assent. Among other things, this Act imposed a duty on coal to finance the rebuilding, a duty so small at first as to be practically useless; but a second Act in 1670, trebled the duty and assigned a proportion of it to the Churches. This revenue proved ample to rebuild all the Churches that were needed. All were not rebuilt. Thirty-five out of the lost 87 were suppressed and their parishes united with others. This left 52—52 new churches to be built, and of these all but one, the last of them, was built under the direction of Wren. Oddly enough, it is not absolutely clear how Wren came to be responsible for the Churches. We know of no document actually assigning the care of the churches to him rather than to his colleagues, or indeed, of limiting his responsibility to churches and nothing else. But it is clear that his responsibility was so limited; apart from St. Paul's and the Churches, Wren did nothing whatever in the City.

Now who was Dr. Wren? In the year of the Fire and of his appointment as a Commissioner he was thirty-four. I don't

suppose many people in the City had heard of him, but in some other circles he already enjoyed great fame. The King knew all about him; Charles II knew him as a philosopher (or, as we should say, a research scientist) whose work ranged over an immensely wide field; he knew him as an astronomer (he had accepted his model of the moon for the Royal Cabinet), as an anatomist, as a prolific inventor and, of course, as an architect of proved skill. But if Wren was known at Court he was probably more at home elsewhere—at Oxford, where he had graduated, and built the Sheldonian Theatre, at Cambridge, where Pembroke Chapel was his very first architectural work and, most of all perhaps, round the green baize table in the rooms of the Royal Society where he shone as one of the very brightest lights in the circle in which only Newton's genius was to shine brighter.

What were the reasons which induced Wren to narrow his energies down from the multiple issues of science to the less speculative field of architecture? I think they were, first, that he was a scientist who, in the long run, valued practical applications more than the extension of theory. Also, he was ambitious, in no sinister way—I mean only that he hadn't the mind of a don; he was no dreamer; he wanted to exercise his powers in a concrete and conspicuous way. And so from the age of about 28, it was opportunities of building which he looked for. Even before the Fire these were coming to him in fair numbers, and his interest in architecture became an all-absorbing passion after his visit to Paris in 1665.

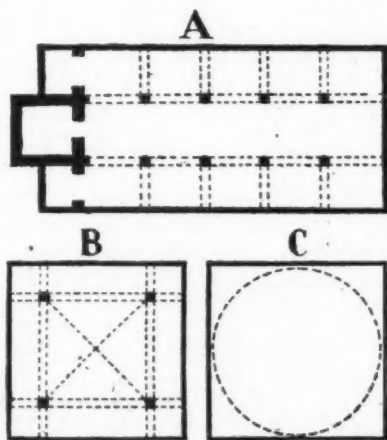
After the Fire there was not the slightest doubt about Wren's future. There were only 3 or 4 other men in England who could possibly have tackled the rebuilding of St. Paul's and the Churches, and of these Wren was unquestionably the most brilliant. He was a sort of Minister of Works, but with a direct professional responsibility for the design of certain buildings—for all Royal buildings and in respect of the City, for St. Paul's and these 52 Churches. It's very important to understand just what Wren's position was, because it has a direct bearing on his work as a designer. He was an administrator—a senior civil servant if you like—and had he wished to he could have delegated all matters of architectural design. Being Wren—well, he didn't. What his responsibility for design really signified is best discovered by looking closely at the procedure followed in the building of a City

Church. The first move would come from the parishioners. They would form a committee and raise money to pay the deposit required by the City authorities before building could begin. Then one of them would go and call on Dr. Wren and ask for a "model." Not a model in our sense; a model in the 17th century often meant simply a design—often expressed in rudimentary terms. Sir Christopher would come to the City, meet the Committee and be entertained, perhaps to dinner; one parish has quite a decent sum against the entry "giving the Dr. a treat." What passed at these discussions between the scholar-scientist and the merchants and merchant-tailors, coopers and haberdashers, of course we don't know, but up to a point we can guess. The City men were not exactly connoisseurs; taste was not much cultivated in the City. The more enlightened of them would, no doubt, be aware that there was a New Architecture which had something to do with Italy and something to do with domes, an architecture in which Sir Christopher Wren was a very great expert; and although they cannot have seen much of it they might easily be persuaded that this architecture, with its symmetry and spaciousness, would suit their purpose as well or better than the architecture they had always known.

On the other hand, there will also have been the conservatives, the men who took the view that what had been good enough for their puritan fathers was good enough for them, and that nothing was to be gained by departing radically from the old idea of a church—a long building with a nave and aisles divided by columns, and a steeple at the west end. Questions of style would not greatly concern these people, but they would want, roughly speaking, a familiar lay-out; and if their old church had had a striking tower or spire they would want something as striking and perhaps rather similar in silhouette.

Wren had to satisfy these committees and reconcile conflicting views, a task which to a man of his immensely superior knowledge and tactful sympathetic disposition would not be difficult. But he had also to fit each new church on to the site of its predecessor, often using old materials and even old foundations. The three main themes which Wren used in planning his churches are: first, the "traditional" plan. This is the plan of the vast majority of our old churches—a nave with aisles, and a tower at the west. Wren thought very well of this old-fashioned type of plan and used it in some of his biggest churches, nearly always with galleries over the aisles. But he used other plans as well; as different as possible from this type and relatively new to Englishmen. Those other plans all come under the general head of "central space" plans—that is to say, instead of having long processions of pillars and arches from west to east, from entrance to altar, they consist essentially of one covered space symmetrical both ways. The plan is a square in Wren's two principal methods of using this central space idea. In one case the square is simply covered by a dome. In the other case four columns are introduced, making a square within a square. These themes can easily be combined by the simple expedient of covering the central square with a dome instead of a cross-vault. Separately or in combination they can be elaborated. They can even be combined with the "traditional" type of plan, so that a nave with aisles breaks into a central space—a "crossing" with a dome above it. St. Paul's Cathedral is a combination of this kind on a vast scale, and among City churches the most elaborate example is St. Stephen's, Walbrook.

Wren's work for the City churches chiefly consisted in applying fundamentally simple geometrical ideas to the far-from-simple or geometrical sites of the 51 churches. Here he would make out a case for a domed



The diagram illustrates three basic themes used by Wren in his churches in the City of London: (a) the traditional church plan with nave and aisles and a west tower; (b) the 'Greek Cross' plan, with columns at the corners of the central space; (c) the domed square.



A photograph taken shortly before the war of St. Stephen's, Walbrook; view looking east.

square, with an oblong compartment added, into which a vestibule and the base of a tower would fit; here he would start with the cross-plan but modify it by making the compartments oblong; here he would exchange the circular dome for an octagonal vault—and so on. Each site and its limitation suggested a different solution.

Wren's work did not stop with the determining of the church plan. But from that point onwards his control of the design became very much looser.

Sometimes, as, no doubt, at St. Paul's, control of detail was precise and absolute. But in most of the churches he did little more than "give the model," i.e., settle the general form and disposition of the building. In many cases it would be rash to ascribe even the proportions or the spacing of doors and windows to Wren himself.

Wren's City Churches must be considered as things quite as closely bound up with the building craftsmanship of the late 17th century as they are with the personal genius of Wren. Wren was the initiator, the director, and supervisor, but under him there was plenty of room for other people to have their way, and it was often a far less scholarly and accomplished way than Wren's. Wren imposed the plan—the general form of the church. He imposed these rather novel formulas—the cross plan and the dome; and it is worth remembering, by the way, how very unfamiliar the idea of a dome would be to the average Englishman of 1670. The results achieved in these churches have meant different things to different people. Some have found the partnership between Sir Christopher's scholarship and the builder's lack of it productive of a sort of charm; others (particularly foreigners) have felt the looseness of architectural control distressing in the extreme.

H. S. Goodhart - Rendel :

Wren, like many other great men, would, I think, have been surprised and little pleased by the indiscriminateness of his posthumous renown. He would not, I feel sure, have been surprised or displeased by what surprises and displeases his blind worshippers—by the fact that outside England nobody has ever taken the architecture of his London churches very seriously. With the ingenuity that to him was both a strength and a danger, he coaxed the regular architecture of his time to cover their irregular old sites with the minimum of avoidable deformity. He re-used old foundations sometimes, veneered old walls sometimes, heightened and remodelled old towers

sometimes; and, although at other times he built everything anew, he was hardly ever free to place the bounding walls of his design anywhere else than where had stood the bounding walls of an ancient design entirely different from his. If he did more than mend and make do, he seldom had a scope wider than that of the resourceful person who converts an old pair of trousers into a fashionable skirt.

The results he has achieved have until lately been praised more for their artifice than for their art. The picturesqueness and charm that we find in them is a recent discovery. The Victorians, indeed, while admiring Wren's steeples, thought the bodies of his churches so disgusting as to make it a pious duty to change them out of all knowledge. This duty they often had the means and opportunity to perform, and even when those were wanting they could and did change much by removing pews and galleries, cutting up and reshaping furniture, repainting, repaving, and excluding daylight by means of heavily coloured glass. Sir Gilbert Scott, working, as usual, at great expense, jockeyed the interior of St. Michael's, Cornhill, to within quite a short distance of Italian Romanesque. Street made an astonishing, and in its way beautiful, design for completely Ruskinising St. Dionis Back-church, steeple and all, and was stopped from executing it only by the decision to remove the church altogether.

Recently we have come to deplore the Victorian innovations, and to destroy them, when we have been able, even more completely than their perpetrators destroyed what preceded them. And all the time, while Victorian and post-Victorian architects have been pursuing these contrary activities, the Church authorities, tempted by swollen site-values, have been selling for total demolition as many churches as public opinion would allow them to. The Germans have lately assisted in this liquidation with some vigour.

Of those that remain the most admired is St. Stephen's, Walbrook, and if ingenuity were the highest architectural quality few buildings could rank above it. At roof level it is a cruciform church, having an octagonal central space covered by a dome. The cross is padded out with aisles so as to fill completely a simple rectangle. At floor level a simple rectangle is all that it is, containing supports that carry the complex superstructure. Owing to the complexity of that, its supports have widely different functions to perform, and, in any rational theory of architecture, should be varied in shape and size in accordance with their functions. If the arches, vaults, and dome above them were heavy and real, their supports would have to be so varied of necessity. But the arches, vaults, and dome are neither heavy nor real, being made only of wood and plaster, so that Wren has been able to do all the work there really is to do with slender Corinthian columns precisely uniform. The result is a conjuring trick. An oblong room with some columns standing about on its floor seems to change into an elaborately organised composition as the design goes up. A few little accidents occur on the way, such as arches that do not fit what they stand upon; and the parts of the rectangle not needed in the drama are covered miserably enough with plain, flat ceilings. But the total scenic effect is striking, and the cleverness amuses, like that of a really brilliant pun. The church has often been called a masterpiece, and I think that it really is one. But a masterpiece of wit—hardly of architecture.

In no other church did Wren attempt such elaborate equivocation as he did in St. Stephen's, but in many others he indulged his delight in curious contrivance. Not in the constructional contrivance of which he was master; there was no occasion for that. The Londoners of Wren's time had neither experience of nor desire for monumental

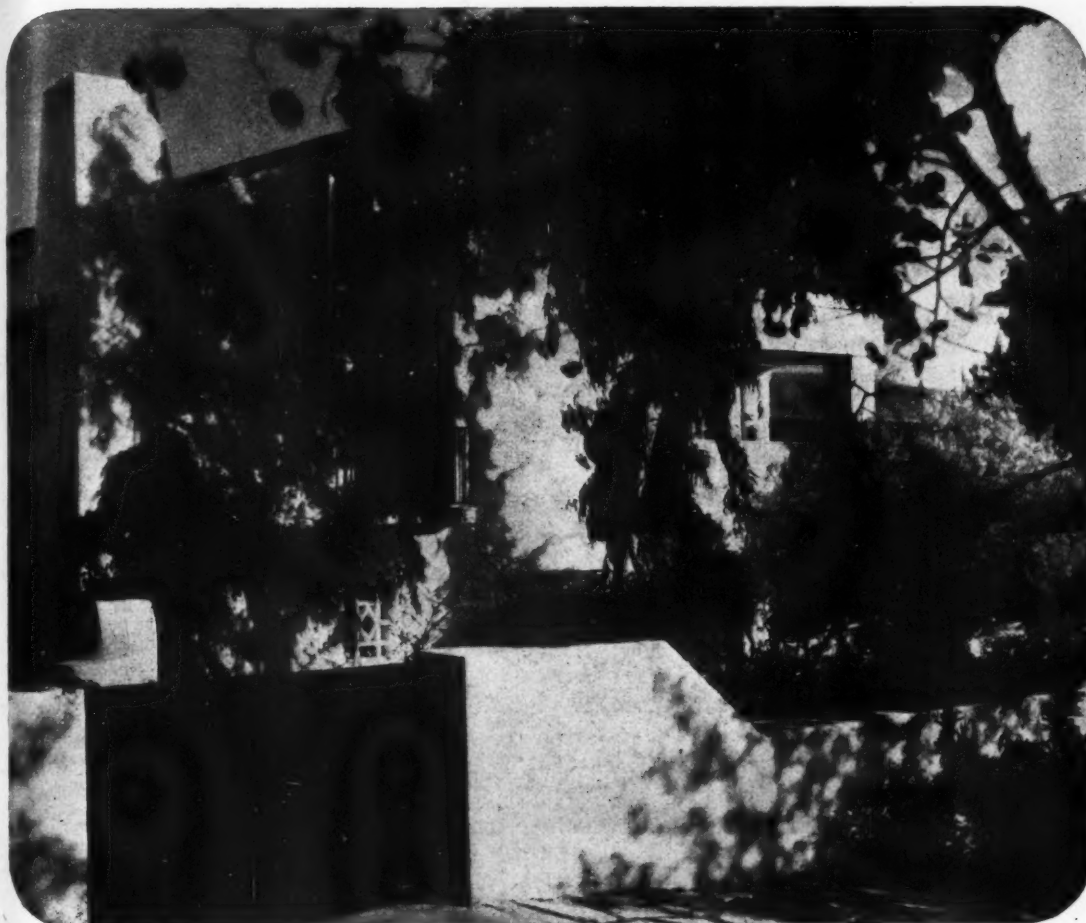
churches like those being built in other European cities, with their columns, lintels, arches, and—often—vaults of real masonry. The Wren of the London churches, like the Nash of the Regent's Park terraces, moved in a dream-world of plaster make-believe, where lintels could leap from anywhere to anywhere and neither vaults nor domes needed any abutment. Wren, contriving with shapes rather than with realities, produced in his churches what the purist must regard more as notions for architecture than as architecture itself. They have the value not of finished pictures but of sketches, which, like many sketches, give an extraordinarily clear insight into their maker's mind.

In all these interiors it is the ceilings that matter, the ceilings that float above the mass of woodwork designed to accommodate the piled-up congregations assembled during the few hours in the week when the buildings were unlocked. A Protestant church, being in its nature an occasional auditorium, presents an architectural problem entirely different from that presented by a Catholic church, which is a place of continual resort; and Wren's written words testify that he understood this very well. His first obligation was to place people where they could best hear the preacher, his second to box them in as snugly as possible from draughts and indiscreet observation. It would have been futile, therefore, for him to spend much effort upon the design of walls, which galleries and pews would throw completely into the background. Provided that the walls were pierced with large windows fairly evenly spaced, all that was necessary had been done. Pillars or piers might be needed for the ceiling's support, and these could struggle through the woodwork without essential loss of visibility. What else was not seen might be assumed.

From the outside, the walls of most of Wren's churches are hardly more easily seen than they are on the inside. Skirted by narrow lanes, closely beset by neighbouring buildings (probably always no lower than themselves), they seem seldom to have tempted their designer to take much trouble about them, and what comeliness they possess is chiefly that of the accidentally picturesque. Obviously, Wren concentrated all his skill and pains upon the wonderful collection of towers and spires, for which these churches supplied the opportunity, and here, at last, we see his power displayed. They have hardly anything to do with the churches to which they are attached, but show in themselves a variety of invention that has seldom, if ever, been surpassed.

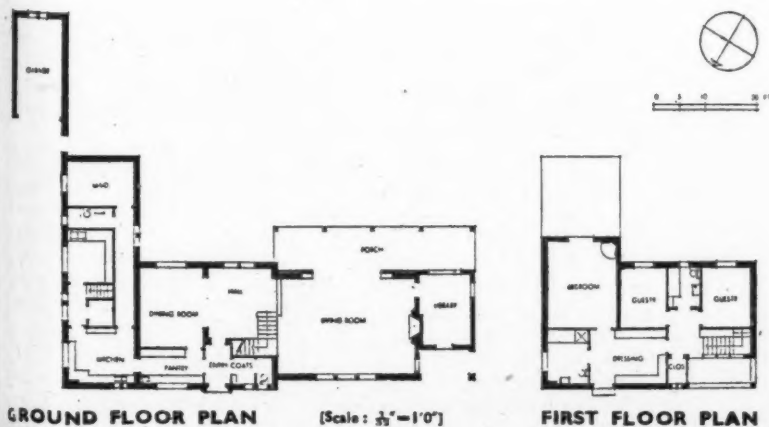


St. Stephen's, Walbrook; A reproduction of a mid-eighteenth century engraving by C. Marshall.



H O U S E I N A T H E N S

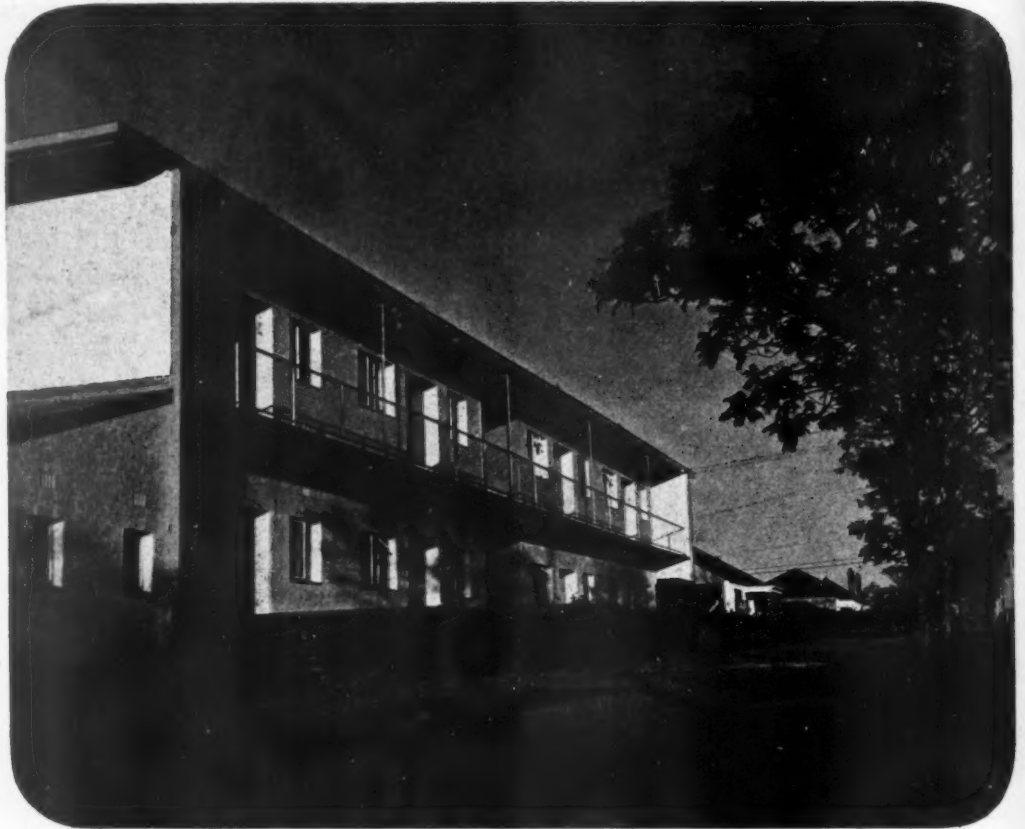
DESIGNED BY P. A. SAKELLARIOS



This little house, white walled and shaded by trees, is typical of much contemporary Greek architecture. The ground floor is open in its planning, with dining room, hall and living room forming a continuous space. Three bedrooms and a dressing room are provided on the first floor. A balcony opens from the first floor landing.

Top, view of the house from the road on the north side. Construction is in local materials and tradition-rendered brick walls and Roman tiled roof. Left, ground and first floor plans.

*View of entrance
front with first
floor gallery.
Bottom, the slotted
eaves.*



FLATS

AT PRETORIA, S. AFRICA

DESIGNED BY MARGARET CASSON



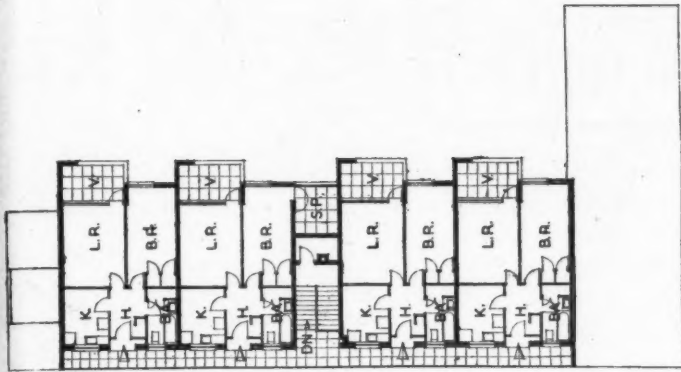
GENERAL.—This small block of two-room flats was designed to meet an acute shortage of this kind of accommodation in Pretoria. Only a very slender budget was available so the job had to be designed with the utmost economy.

SITE.—The flats are built at the rear of the client's garden, and the entrance is to the south, this is the sunless aspect in the southern hemisphere, being the equivalent of a northern exposure in England. The flats overlook the garden on the north side. Separate quarters for the native staff is provided at one end with lock-up garages for tenants at

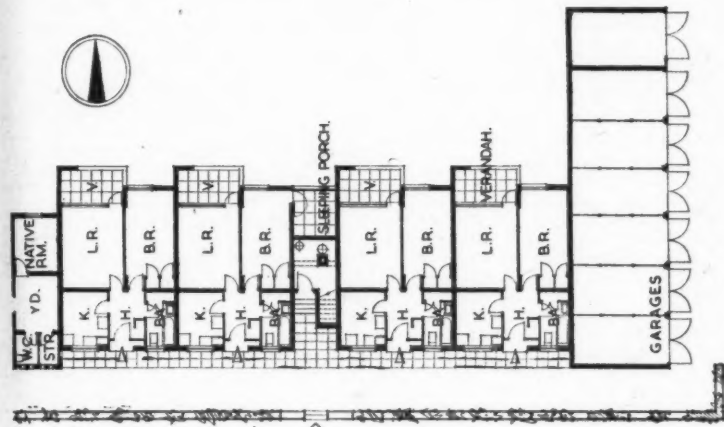
the other end. The building covers the maximum area permitted on the site, and the number of flats is the minimum needed to provide an adequate return for the investment.

THE PLAN.—For reasons of economy, the simplest plan form was adopted, a central staircase with gallery access to all flats. The balconies or "stoeps" are staggered to increase privacy and avoid one balcony being overlooked by the other. The central flats are given an additional sleeping porch.

CONSTRUCTION.—11-in. cavity brick external walls colour-washed a pinkish white. The steel case-



FIRST FLOOR



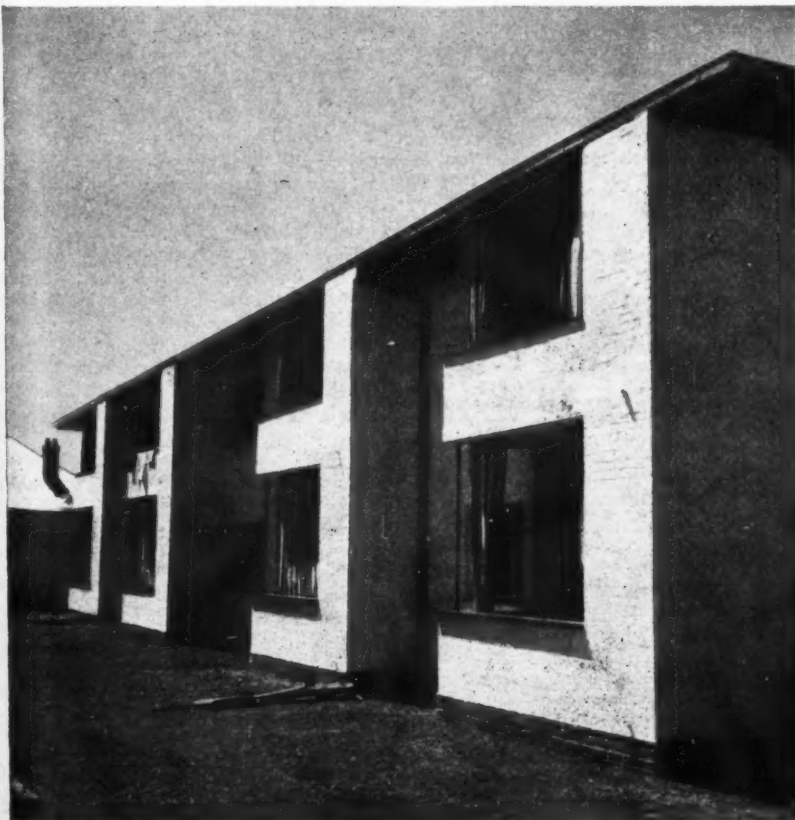
GROUND FLOOR

[Scale: 1/4" = 1' 0"]



ment windows are painted white. Floors are reinforced concrete with quarry tiles on the balconies, kitchen and bathroom. The living room and bedroom floors are finished in strip Oregon pine. Internal walls are breeze block plastered. The roof is of corrugated iron painted grey. The wide overhang to the eaves is slotted for ventilation and painted pale blue. Drain pipes are painted grey while the balcony railings are a pale lemon yellow. The balconies have striped canvas sun-blinds.

EQUIPMENT.—The kitchens are equipped with electric cookers and refrigerators. In each flat there is a coal cupboard in the hall, a heated linen cupboard in the bathroom and a hanging cupboard in the bedroom.



Top, the access gallery on the first floor, and left, view from the north-west, showing balconies.

TECHNICAL SECTION

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

INFORMATION CENTRE

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

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

2.16 planning: general

LOCATION OF INDUSTRY

Basic Industrial Location Factors: Guide for Evaluating an Area's Resources for Industrial Development. US Department of Commerce. (US Government Printing Office, Washington, 1947.)

Guide to procedure in determining groups of industries best fitted to a particular area. Charts.

Factual analysis of fourteen basic factors influencing location of industry covering following aspects: (1) Location, volume and quality of production material; (2) size, quality and production of available labour force; (3) suitability of sites, cost of land and available industrial floor space; (4) sources and cost of power supply; (5) quantity, quality and cost of available water; (6) types and cost of available fuel; (7) transportation facilities; (8) proximity to markets; (9) distribution facilities; (10) competitive advantages to new industries; (11) living conditions, including housing, social and recreational facilities; (12) laws and regulations in regard to prospective industries; (13) tax structure of area; and (14) climatic conditions. Charts showing interdependence between basic factors and various industries. Key list of industries employing an average of not more than 250 employees per establishment.

Informative American publication investigating problem of location of industry from purely commercial point of view.

3.7 planning: regional and national

LAND CLASSIFICATION

Gloucestershire, Somerset and Wiltshire Land Classification. University of Bristol Reconstruction Research Group. (J. W. Arrowsmith Ltd., Bristol, 1947, 12s. 6d.)

Memorandum illustrated by survey maps summarizing results of investigations undertaken to classify land use in Gloucestershire, Somerset and Wiltshire.

Problem of classification of land for agricultural purposes. Importance of soil surveys. Comparison of existing methods of land classification as used by Land Utilization Survey of Britain and by West Midland Planning Group. Description of method used by University of Bristol Reconstruction Research Group. Survey of geographical, geological, and soil features. Examination of relationship between land categories and soil series. Outline of distribution of land categories within region.

Informative statement on land classification technique.

4.19 planning: urban and rural

PLANNING PROGRESS: RURAL AREAS

The Scott Report: Where Are We Now? John Wilton. (Town and Country Planning, Summer, 1947, pp. 58-63.)

Review of rural planning and development progress in connection with the five year programme envisaged under Scott Report.

Preliminary results of housing survey now being carried out in rural districts. Large percentage of totally unfit houses. Need for 300,000 new dwellings. Housing progress under rural authorities more advanced than housing in urban areas, probably due to easier acquisition of sites. Controversial issues regarding erection of Airey type rural houses. Case for rural housing priority in view of its importance to expansion of agriculture. Repetition of mistake of siting houses outside villages, thus creating units isolated from village life. Need for decision in regard to future structure of local government in rural areas. Slow progress towards Scott Report's recommendations for preservation of rural amenities.

4.20 planning: urban and rural

NEW TOWN PLANNING

Design and Development of a New Town. R. Nicholas, City Surveyor, Manchester. (Paper read before the Institution of Municipal Engineers, July, 1947.)

Detailed paper delivered at Public Works Congress, London, July, 1947. Illustrated.

Discussion mainly concerned with towns provided to relieve out-worn congested areas of larger cities. Determination of new town size. Minimum and maximum distances between new town and mother conurbation. Investigation of factors influencing location covering road, rail and air communications, surface characteristics, geological structure and value of agricultural land; availability of

public services, standards of development and total area of land required accordingly. Detailed description of procedure regarding preparation of outline plan. Most instructive table showing time programme and estimated cost for the construction of a new town based on subsequent erection of five neighbourhoods, giving number of years required together with number of men employed and figures for estimated expenditure per man-week for various types of constructional works.

4.21 planning: urban and rural

ROYAL LEAMINGTON SPA: PLAN

Royal Leamington Spa: A Plan for Development. Prepared for the Council by C. H. James and S. Rowland Pierce. (The Corporation, 1947, 7s. 6d.)

Historical survey and present state of Borough. Major factors of development plan. Fully illustrated. Two appendices.

This master plan for the future development of Leamington is based on terms of reference laid down by the Corporation in May, 1945, asking the consultants to make provision "for the development of the Borough (and such land adjoining the present area of the Borough as may be judged necessary for the proper planning of the area . . .) as a spa and inland health resort and conference centre and a place for residence and light industries."

The town is an interesting example of early nineteenth century architecture, and in its earlier and central part conforms to a recognizable plan. A historical survey of its general development and growth is followed by a detailed account of the major factors of the development plan, which deal with the present state of transport, industry, public services, residential and commercial areas, open spaces, educational and health facilities, and with the improvements considered necessary to develop the town in accordance with the terms of reference.

Appendix I contains a useful short summary of town planning legislation since 1909, ending with a reference to the Town and Country Planning Bill, 1947. Appendix II gives a list of survey maps prepared in connection with the plan but not included in the report.

5.12 planning: public utilities

ROAD STATISTICS

Basic Road Statistics 1947. British Road Federation. (The Federation, London, 1947, 1s.)

New edition of yearly standard reference on all important road matters. Figures brought up to date where possible. Contents essentially the same as 1946 edition (see No. 2801, 7.11.46), except for additional table showing number of highway authorities in Great Britain. Good deal of official information still not available limiting usefulness of some tables considerably.

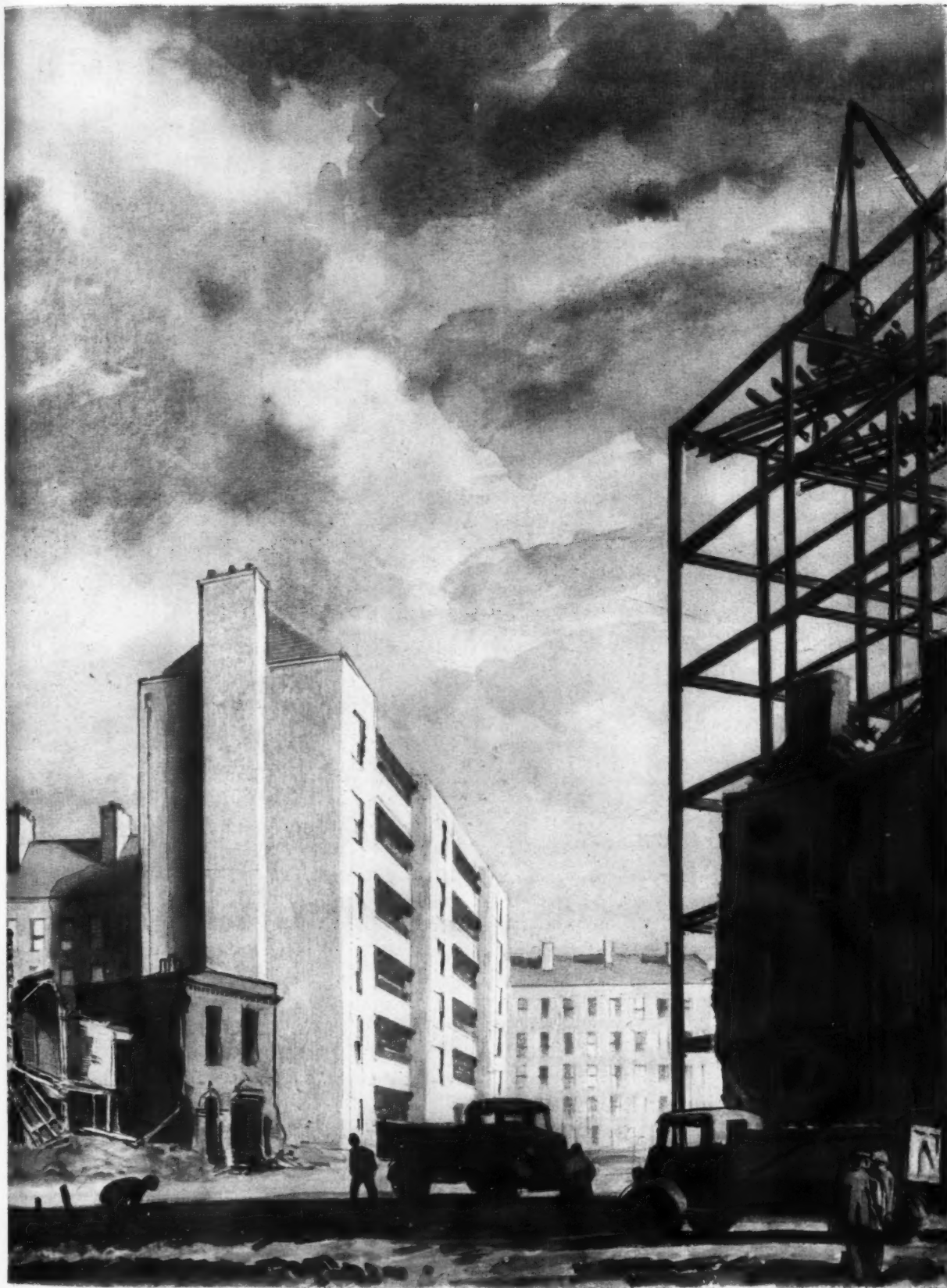
5.13 planning: public utilities

SCIENTIFIC TRAFFIC STUDIES

Traffic Performance at Urban Street Intersections. E. L. Erickson. (Traffic Quarterly, [USA], July, 1947, pp. 254-267.)

Important study of phenomena of traffic streams at street intersections in urban areas, undertaken in view of present lack of research data and in view of need for quantitative measurements and their analysis. Illustrated.

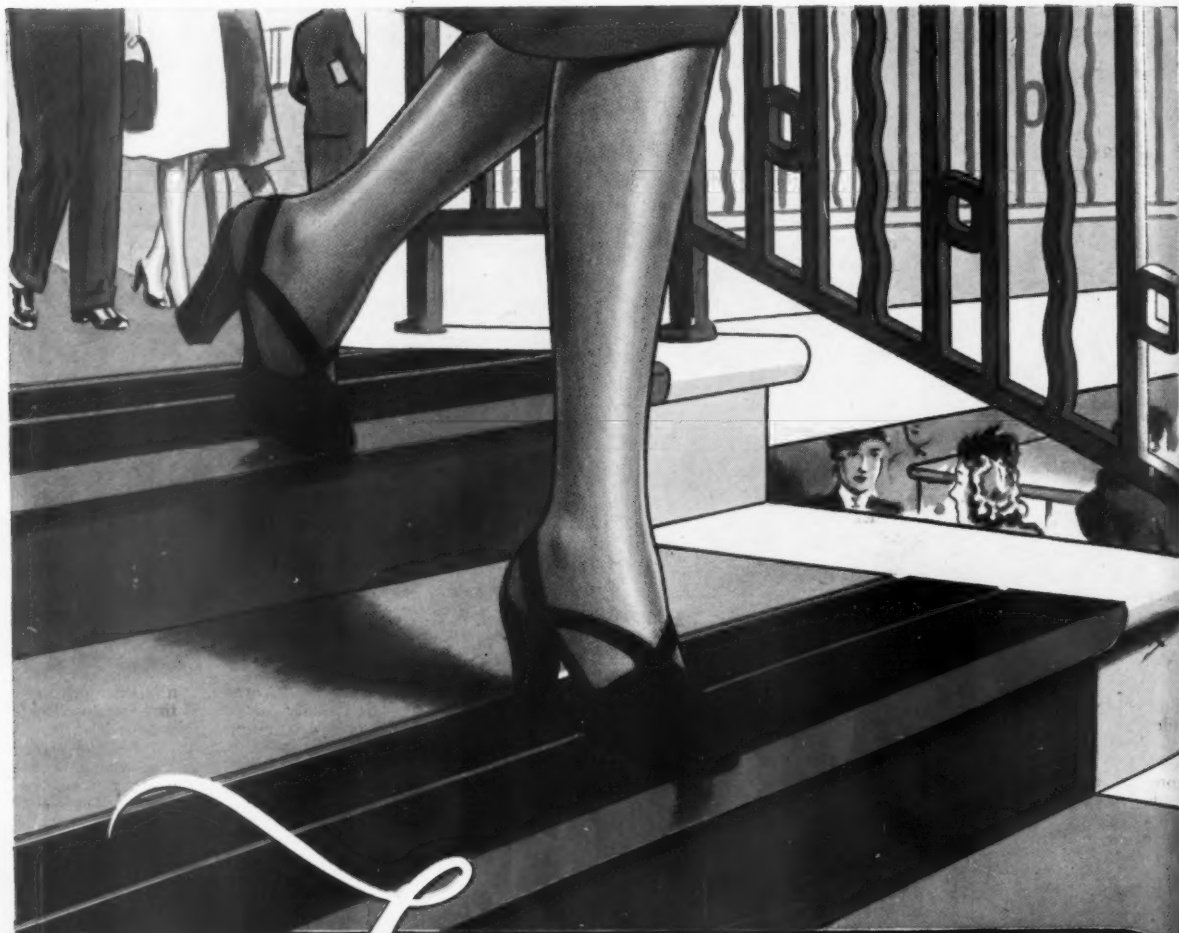
Review of exploratory investigations made by Bureau of Highway Traffic at Yale University into time-space relationships at urban road intersections. Methods of observation and analysis using photographic records of



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specific phases of traffic operation at different locations. Derivation of tentative constants of traffic behaviour. Application of mathematical theory using these constants of behaviour for solution of particular problems of congestion.

8.5 surveying and specification BUILDERS' ESTIMATING

A.B.C. of Builders' Estimating. R. G. Bailey, A.I.A.S. (Crosby Lockwood and Son Ltd. 2s. 6d.)

A guide to estimating dealing principally with "Labour Constants" or the output per man hour that can be expected in the building industry at the present time, and also with the quantities of materials required per unit of measurement.

At the present time no book which attempts to give up-to-date prices can remain accurate for very long, but the rates of wages and prices of materials in a particular district can readily be ascertained, and what bothers the average estimator is present-day "Labour Constants," or output per man hour. This is the subject with which Mr. Bailey is primarily concerned, and he has given quite simply and in alphabetical order his Labour Constants for some 250 of the operations most commonly met with in house building and similar work.

Although the Preface refers solely to labour costs, notes are also given on materials—the quantities of materials required per unit of measurement, e.g., a yard cube of concrete, and the percentage for waste which should be allowed. No one could expect a standard work on estimating for half-a-crown, but a complete analysis of the more common operations in the Building Trade to which local rates of labour and prices of materials can be applied is by no means to be despised. The whole book is clearly set out, and as a handy means of reference must be considered very good value.

10.16 design: building types HOUSING NEEDS

Survey of Housing Needs. A New Approach to Housing Management and Finance. J. Metcalfe. (National Housing and Town Planning Council, London, 1947, not priced.)

Informative paper delivered at Annual Conference of Local Authorities in London and Home Counties, London, July, 1947.

Need for scientific study of benefits to be derived from utilising housing accommodation on council-owned estates now under-occupied. Disadvantages of official policy in mainly adhering to three-bedroom houses instead of also providing adequately for small family units and single persons. Failure to make utmost use of building resources available in relation to needs of community. Description of interesting results disclosed by survey undertaken by Kearsley Urban District Council in order to ascertain housing needs in relation to family units. Comparison of relative costs (particularly in regard to rent charges) of various dwelling types showing large overall saving, both in capital expenditure and rent charges, if using a building programme based on actual needs as shown by survey. Discussion of problems encountered in relation to proposed policy of large-scale exchanges between council tenants in order to make fullest use of accommodation now under-occupied. Useful details of survey technique adopted and conclusions.

10.17 design: building types SAFETY REQUIREMENTS

Safety Requirements in Housing. C. W. Craske. (The Surveyor, June 20 and 27, 1947, Vol. CVI, pp. 315 and 329.)

Common causes of domestic accidents considered in relation to design. Staircases, kitchens, placing of shelves, hearths, balconies, windows, dust-chutes. Points obvious enough but frequently neglected. Noted that many hearths now made do not satisfy byelaw fire safety requirements. 6 diagrams.

12.5 material: metal LEAD SHEET AND PIPE

Lead Sheet and Pipe. (Lead Industries Development Council. Bulletin No. 115, July, 1947.)

Short general survey of manufacturing processes and uses of lead in building. Data on physical properties, tabulated weights, thicknesses, of sheet and pipe. Illustrated. Useful information summary, especially for students.

14.6 materials: concrete PRECAST CONCRETE

The Future of Precast Concrete. D. A. Stewart. (Engineering, July 18, 1947, pp. 51-2.)

British precast concrete industry has made no outstanding contribution to products or machinery. Has promising future provided it takes advantage of the knowledge at its disposal.

The industry in this country is still in the stage of development and takes little advantage of the results of recent research and improvements in machinery. Generally speaking, the technique throughout the industry has not emerged from the period of superstition and rule of thumb. The shortage of man-power and timber, likely to prevail for many years, increases the demand for precast concrete products, which, at present, is far from being met.

For future development more mechanisation, carefully designed plant, control of the mix and close supervision are required.

19.25 construction: details BELL FRAME

An "Inert" Bell-Frame for Audley Church, Staffs. T. R. Robinson. (The Architect and Building News, July 25, 1947, pp. 76-78.)

Latticed steel girder to minimise thrust.

The most important consideration in the design of bell-frames from the structural point of view is to keep the horizontal forces transmitted to the tower walls within safe limits. The article describes a structure which satisfies this requirement in most cases. Its favourable behaviour has been confirmed by tests.

19.26 construction: details FOUNDATIONS

Deep Building Excavation in Cincinnati Required a Bold Design of Cross-Bracing. Alonzo D. Quinn. (Engineering News-Record [USA], July 10, 1947, pp. 30-33.)

Excavation for the Terrace Plaza Hotel, Cincinnati (see No. 10.8), up to a maximum of 55 ft. 6 in. below street level. One building underpinned, another prevented from subsiding by installation of steel-sheet piling with prestressed cross-bracing and horizontal prestressed steel girders reacting against the building frame.

20.31 construction: complete structures CHURCH IN REINFORCED CONCRETE

Church of St. Barnabas, Tuffley, Gloucestershire. N. F. Cachemille-Day. (The Builder, July 25, 1947, pp. 91-94.)

Reinforced concrete framework. "Diagrid" roof over the nave of 40 ft. span and the chancel of 20 ft. span. Number of supporting columns reduced to a minimum. Interesting feature: reinforced concrete cross 25 ft. 3 in. high on roof of belfry.

20.32 construction: complete structures PRECAST CONCRETE STOREHOUSE

Precast Concrete Storehouses. Arsham Amirikian. (Journal of the American Concrete Institute, June, 1947, pp. 1097-1116. See also Civil Engineering [USA], July, 1947, pp. 25-28.)

Two storehouses covering 200 ft. by 600 ft. each entirely in precast concrete. Basic features of design, fabrication and erection of the framing.

The two new concrete storehouses at US Naval Supply Depot, Mechanicsburg, Pa., are claimed by the author to constitute a pioneering undertaking. They are of single storey type, each building 600 ft. long and 200 ft. wide, exclusive of a 16 ft. canopy at roof level, covering the platform on one side. The height from the floor slabs to the apex of the frames is about 24 ft. The building consists of 3 bays of 66 ft. span each, in the longitudinal direction the columns are at 20 ft. centres.

The structure has many interesting features. All the members of the frames have hollow cross sections, composed of pairs of channel-shaped elements, bolted together. The main frames are erected with two hinges in each span, and so jointed that the live load acts on a continuous rigid frame of four legs.

The roof is precast in ribbed panels of 20 ft. by 5 ft. All the casting operations were carried out at the site in winter in concrete moulds. For air temperatures below 50° F. warm water and heated aggregates were used and castings were carefully protected against frost during the night. The castings were removed from the moulds 24 hours after pouring the concrete and stored in stacks for air curing.

The framing of the first building was erected in about 40 days, that of the second building in 18 days.

20.33 construction: complete structures PRECAST CONCRETE STOREHOUSE

Precast Concrete Warehouse Construction. Louis P. Corbetta. (Journal of the American Concrete Institute, June, 1947, pp. 1117-1124.)

Description from the contractor's point of view of construction problems of two large warehouses in precast concrete (see No. 20.32). Cost data.

20.34 construction: complete structures CANTILEVER BRIDGE

The New Howrah Bridge, Calcutta. Design of the Structure, Foundations and Approaches. A. M. Ward and E. Batson. Construction. G. E. Howorth and H. Shirley Smith. Discussion. (J. of the Institution of Civil Engineers, May, 1947, pp. 167-257.)

Cantilever bridge of 1,500 ft. span with a suspended deck between main piers, providing accommodation for eight lanes of traffic, including two tramway tracks and two cantilevered footways. On the approaches roadway and footways of reinforced concrete construction, independent of the superstructure. (See No. 1060:11.2.43.)

The first article contains a detailed description of the history of the bridge, its foundations, superstructure, approaches and an extract of the more important clauses in the design specification. The second article



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is written from the contractor's point of view and deals with the work on the site. This bridge is the third largest of its type in the world and has many new features, both in the design and in the method of erection. Both articles are well illustrated.

23.35 heating and ventilation INSULATION OF PIPES, ETC.

Pre-formed Thermal Insulating Materials for Central Heating and Hot and Cold Water Supply Installations. BS 1334: 1947. (British Standards Institution. 3s. 6d.)

Physical characteristics of materials. Thickness recommended. Appendices giving test methods and data on heat loss and methods of calculating efficiency and recommendations regarding application and finish.

The main purpose of this Specification is to give easily understood recommendations for the amount of insulation to be provided for pipes and tanks in hot and cold water installations. This information is clearly tabulated. One of the appendices also makes recommendations for methods of fixing and finishes of pre-formed insulation. In addition there is a good deal of more technical information on methods of calculating heat losses from pipes and the thermal efficiency of insulation according to varying conditions. This latter part of the Specification will be of more interest to engineers, but the earlier part provides a quick and useful guide to good practice.

23.36 heating and ventilation PANEL HEATING: WARM AIR

Radiant Panel Heating with Warm Air. (Arch. Record [USA], June, 1947.)

Description with drawings and photographs of house at Toledo, Ohio, heated by warm air ceiling panels.

This is a fairly full description of a method of heating now beginning to be used in USA. The whole of the ceiling area of the house functions as a low temperature panel heater, but instead of the more usual water pipes buried in a slab the heat is provided by warm air which is forced through a 4 inch deep false ceiling space. Baffles are used in this ceiling space to ensure proper distribution, and it is to be noticed that in all cases the air circulates first around that part of the ceiling nearest the external walls. The chief advantage of this system is that the low thermal capacity of the ceiling enables a quicker control of the heating than is possible with the more usual form of panel heating. Air circulation in the example shown is by means of a $\frac{1}{2}$ h.p. fan.

In addition to illustrating the heating, several good points about insulation are illustrated. In particular there is a detail showing the method of providing edge insulation to the solid ground floor slab, a practice which recent research in America has shown to be well worth while in cold climates, though it is doubtful whether it is necessary in England. except perhaps where any floor panel heating runs near to the external walls.

23.37 heating and ventilation INSULATION

Bibliography of Thermal Insulation in Building. (Building Digest, July, 1947.)

Bibliography of 97 items plus subject index.

24.37 lighting RING MAIN WIRING

The 13-amp. Socket-Outlet. By Megohm. (Electrical Times, July 17, 1947.)

Describes new standard socket outlet and fused plug designed for use with ring main

wiring in houses. Good description of typical wiring circuits.

Now that a BS for a fused plug and socket outlet is finally agreed, there is likely to be a considerable increase in the use of ring main wiring in houses. Architects will find this article a clear and brief description of the system illustrated by wiring lay-out for two houses varying in size. The system should often mean appreciable saving in cost.

25.27 water supply and sanitation PIPE TABLES FOR HOUSING SCHEMES

Simplified Sewer and Water Main Calculations for Housing Schemes. C. C. Judson. (Surveyor, July 4, 1947, Vol. CVI, p. 345.)

Tables of sizes for water mains, foul and surface water sewers, for small estates up to about 50 houses. Assumptions on which tables are based seem justified, and similarity of most sites makes such figures particularly useful. Midland Region of Ministry of Health has accepted these tables as satisfying their design requirements. Worth noting as an office time-saver, so long as limitations of the method are appreciated.

25.28 water supply and sanitation KITCHENS: DESIGN FOR HYGIENE

The Hygiene of Catering Establishments. W. Riley. (The Sanitarian, July, 1947, Vol. 55, p. 300.)

Discussion of hygiene requirements of canteen and restaurant kitchens. Comparison of statutory powers with American codes. Practical interest to those concerned with design or equipment of such premises. Numerous references. Not illustrated.

25.29 water supply and sanitation SANITATION: LARGE BUILDINGS

Sanitation of Large Modern Buildings. F. C. Cook. (The Sanitarian, July, 1947, Vol. 55, p. 308.)

Survey of drainage and plumbing practice in certain large pre-war London buildings (unnamed). Special reference to problems of basement drainage and prevention of flooding; flat planning to take advantage of one-pipe system; arrangement of pipework in ducts, internal or external. Useful short summary of what has long been orthodox practice. 9 illustrations of floor plans and pipework.

25.30 water supply and sanitation COLD WATER PLUMBING

Main Calculations Relating to the Sanitation of Buildings. (Surveyor, July 4 and 18, 1947, Vol. CVI, pp. 339 and 365.)

Estimation of pipe sizes, simultaneous demand, flow required at appliances, in normal buildings for cold water services. Suggestions for practical basis of calculation, and worked example. 3 diagrams.

The sizing of indoor water service pipes is arrived at by anything from guess-work to elaborate calculations based on assumptions usually quite invalid. The author's intention is to suggest a practical compromise between the two extremes. He provides an empirical graph for estimating "simultaneous demand" as a proportion of the full demand from all cold water points in the building, and a nomogram diagram for estimating pipe diameters based on recent research into the rates of flow in galvanized steel tubes. There

is also useful practical data on the required discharge from appliances including showers. This useful paper concludes with the calculation of a practical example according to the methods suggested.

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

QUESTIONS AND ANSWERS

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A We have referred the matter to both the Colour Council and the Natural History Museum, and in each case the reply was that no colour acts as a deterrent to flies entering a room. However, if windows are painted with, say, blue or orange, this naturally makes the room darker, and it has been found that flies do not so readily enter a darkened room.

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Announcements

The British Industries Fair 1948 will be held in London and Birmingham from May 3-14. Forms of application for exhibiting space will shortly be sent to manufacturers known to be interested in the Fair. On receipt of the application form intending exhibitors are urged to notify promptly their requirements in order to facilitate early allotment of space.

Messrs. Lambert and Oliver, L./L.R.I.B.A., Chartered Architects, have moved to 35, South Street, Bridport.

The Building Apprenticeship and Training Council scholarship offered in conjunction with the London Master Builders Association has been awarded to Ronald William Russell, 93, Heanley Road, Manor Park, E.12, a registered apprentice with Messrs. J. and R. Roof Ltd. The scholarship is one of £200 per annum and the apprentice will now take a full-time course for a Higher National Diploma for three years at the LCC Brixton School of Building.

A large and representative company of principals of technical colleges, building teachers and building industrialists attended a luncheon at the Manchester College of Technology in honour of Mr. J. L. Manson, O.B.E., B.S.C.ENG. (LOND.), M.I.STRUCT.E., on his impending retirement as Staff Inspector of Building of the Ministry of Education. As His Majesty's Inspector for the past twenty-eight years Mr. Manson has devoted invaluable service to the cause of building education, and as a mark of appreciation the opportunity was taken at the luncheon of presenting him with a wrist watch and cheque. Some of Mr. Manson's outstanding achievements are associated with the establishment of Building Science as an essential

element of Building Courses, in organizing and guiding the movement which provides for National Certificates and Diplomas in Building, and in the formation of Junior Technical Schools of Building.

The Metal Window Senior Scholarship (presented by the British Metal Window Manufacturers' Association Ltd.), tenable at the Architectural Association School of Architecture, London, for two years (value £50 per annum), has been awarded this year to Mr. Patrick J. Coles of Poole, Dorset.

The North of Scotland Hydro-Electric Board have placed the main contracts of the Cowal Constructional Scheme. This project is designed to supply the electricity demands of consumers in the Cowal district of Argyllshire and the Islands of Bute and Cumbrae. The power station, situated on the shores of Loch Striven, will have a capacity of 6,000 kilowatts, producing annually 14 million units. Crowley Russell and Co. Ltd., Glasgow, have been given the contract for the major part of the civil engineering work covering the construction of the Glen Tarsan and Glen Lean Dams, the main tunnel, aqueducts and road diversion. The Harland Engineering Co. Ltd., Alloa, are to supply and erect the water turbines and electric generators of the Loch Striven generating station.

The National Pitched Roofing Council has issued its report on the pitched roofing competitions sponsored by the Council and held at Architectural Schools in Great Britain and Eire. Copies, obtainable from the Council at Drayton House, 30, Gordon Street, London, W.C.1, have been sent to Schools of Architecture.

A. F. Hare & Partners announce that their address is changed to: 19, Evelyn Mansions, Carlisle Place, London, S.W.1. Telephone: VICTORIA 0960.

The Timber Development Association, Limited, hope to hold Timber Technology Classes throughout the country during the 1947/48 session. Classes will start in September.

The Board of Trade has made the Control of Timber (No. 48) (Imported Plywood Prices) Order which came into force on August 18 and provides new prices for imported plywood. The new prices are in the form of a new Division A to the First Schedule of the Control of Timber (No. 36) (Plywood Prices) Order, 1944. The varieties of imported plywood priced in the new schedule cover a much wider range than those in the previous schedule, and the prices are adjusted to the current costs of the different types and specifications of imported plywood. The amount of the increase varies according to type and specification. Copies of the Order (S.R. & O. 1947 No. 1621) are available, price 4d., through any bookseller or newsagent, or direct from H.M. Stationery Office, Kingsway, London, W.C.2, and branches.

Change of address: Insulite Products Corporation, Ltd., have moved to new offices at 10, Hobart Place, London, S.W.1. (Telephone: Sloane 0428/9.) The London offices of British Mouldex Rubber Co., Ltd., are at 2, Caxton Street, Westminster, S.W.1. (Telephone: Abbey 3252).

Mr. Cecil C. Handisyde, A.R.I.B.A., A.A.DIPL., has reopened his practice in London as Architect and Consultant at 4, Ridgmount Street, W.C.1 (MUSEUM 9906), and would be pleased to receive catalogues.

Correction

Estimating Housing Needs is the title of Mr. Alexander Block's book mentioned in our issue for July 31. (Architectural Press, 10s. 6d.)

Mirage on his mind

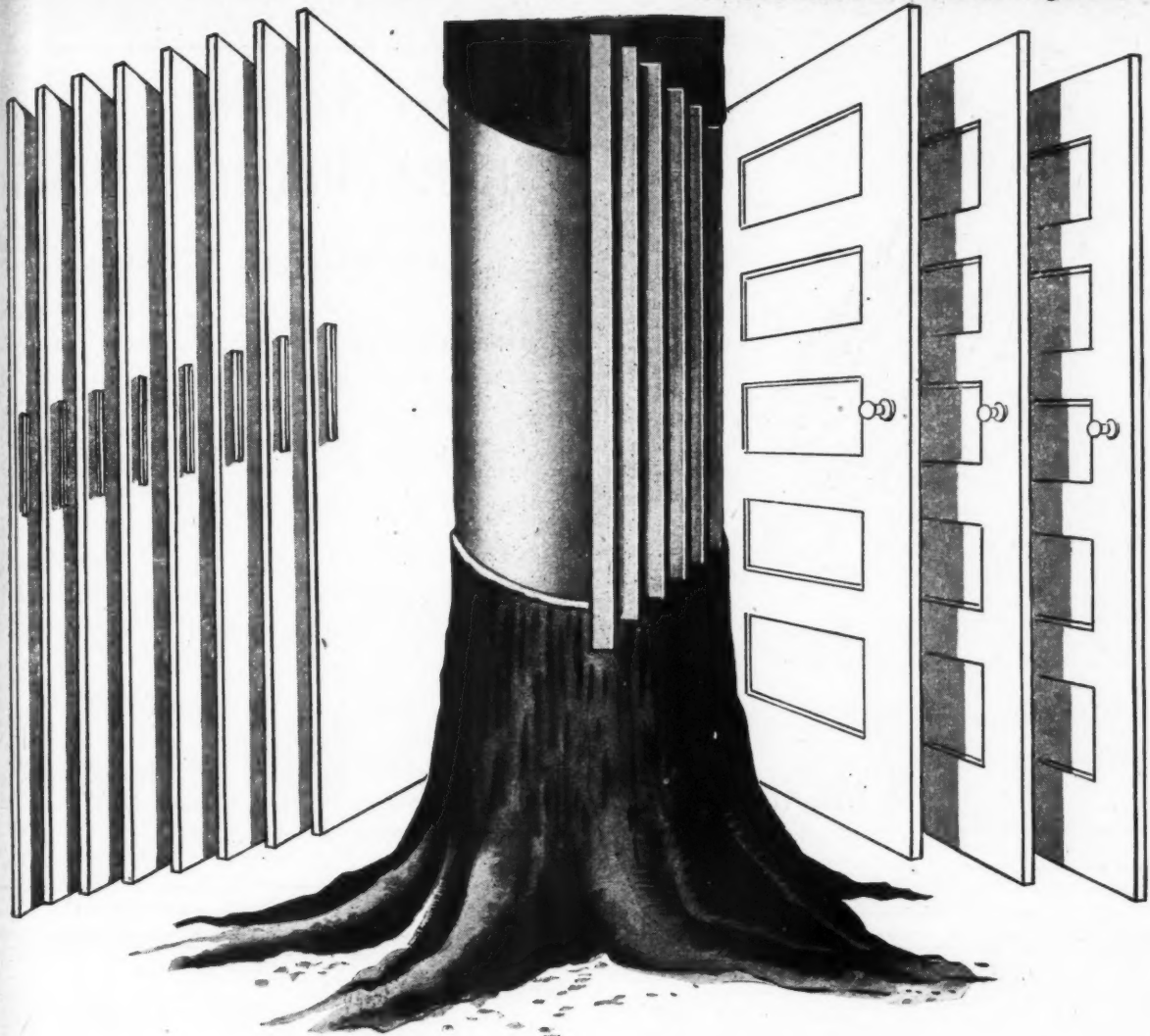
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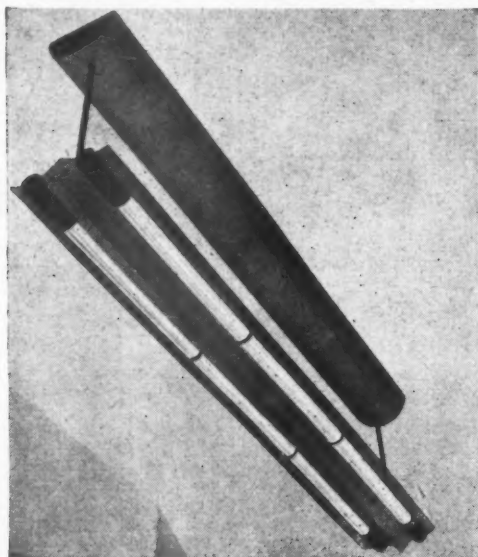
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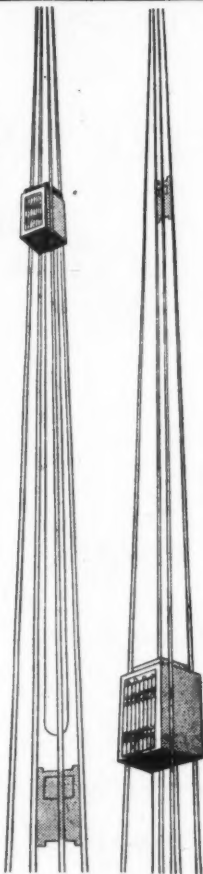
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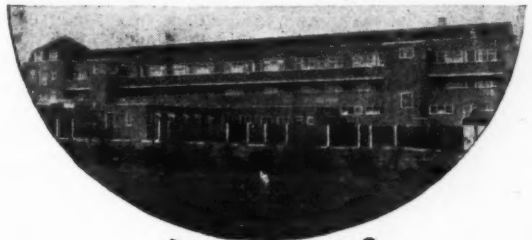
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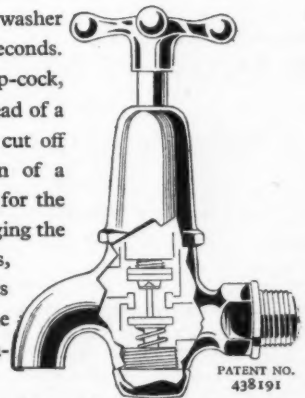
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LONDON COUNTY COUNCIL

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President, 1946/47

H. H. Murray, P.F.A.S., F.F.S.(Eng.)

Objects

Incorporated as a professional Centre to uphold and improve the status of Surveyors and Quantity Surveyors engaged in the Building and Allied Trades. To regulate, maintain and extend the customs and usages of the profession. To maintain and improve the high standard of professional etiquette, and to promote among its members a sense of professional solidarity. To provide for its members principles of professional procedure, a Scale of Professional Charges, and to subscribe to the Rules of Professional Conduct. To hold examinations qualifying for membership of the Faculty. To publish a monthly Journal to the general interest of the profession, and for the mutual co-operation, assistance and protection of practitioners.

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A.F.S. (Eng.) (Quant.) for Associates		} Incorporated Quantity
L.F.S. (Eng.) (Quant.) for Licentiates		

Membership

The Executive Council are open to receive applications for membership on practice qualifications from Surveyors engaged in the profession. Examinations are held Bi-Annually for entrance to the Quantity Surveyors section.

Further particulars and application forms may be obtained on application to THE SECRETARY, (d).

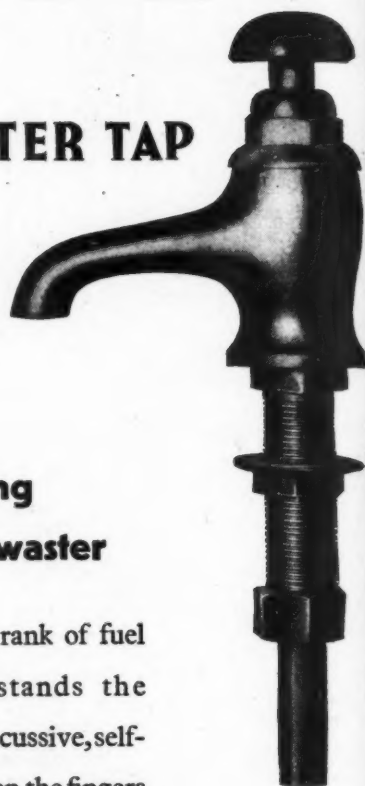
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CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: 75, Eaton Place, London, S.W.1. Tel. Sloane 5615. 991

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

Applications are invited for positions in the following grades:

PLANNING OFFICER, Grade III, up to £700 a year.

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

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

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

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

Canvassing disqualifies. (1680) 535

UXBRIDGE URBAN DISTRICT COUNCIL. ENGINEER'S AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, on the unestablished staff of the Council, at a salary in accordance with Grade III of the A.P.T. Division of the National Scale (£410 to £465 per annum, including London weighting, plus cost-of-living bonus, at present £59 16s.). Applicants should be Registered Architects, with a good general architectural experience, especially in the design of small dwellings, and preference will be given to applicants holding a recognized professional qualification.

The appointment will be subject to the National Joint Council Scheme of Conditions of Service, to the provisions of the Local Government Superannuation Act, 1937, to the passing of a medical examination, and to one month's notice on either side. Applications, endorsed "Architectural Assistant," stating age, whether married or single, present and previous appointments, qualifications, and giving details of experience, together with the names and addresses of three persons to whom reference may be made, should be forwarded to H. E. G. Stripp, Esq., A.M.I.C.E., F.S.I., Engineer and Surveyor, 263, High Street, Uxbridge, not later than 6th September, 1947. Candidates are required to disclose in writing whether to their knowledge they are related to any member or senior officer of the Council. Canvassing, either directly or indirectly, will disqualify.

JOHN POOLE,

Clerk of the Council.

Council Offices, Uxbridge.

5th August, 1947. 562

BOROUGH OF SLOUGH.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the permanent appointment of GENERAL ASSISTANT ARCHITECT, on Grade A.P.T. IV, of the National Scale (£420-£465 per annum), plus cost-of-living bonus, at present £59 16s. per annum.

Applicants should have had previous experience with a Local Authority, and must be Registered Architects.

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

Applications must give details of experience in housing, Municipal building design, and administration; and state age, qualifications, present appointment, and the names and addresses of two architects to whom reference can be made.

Canvassing, either directly or indirectly, will disqualify, and candidates must disclose in their applications whether to their knowledge they are related to any member or senior officer of the Council. Applications in sealed envelopes, endorsed "General Assistant Architect," must be received by the undersigned not later than noon on Monday, 15th September, 1947.

NORMAN T. BERRY,

Town Clerk.

Town Hall, Slough.

28th August, 1947. 656

SKIPTON URBAN DISTRICT COUNCIL.

JUNIOR TECHNICAL ASSISTANT.

Applications are invited for the appointment of a Temporary Junior Technical Assistant, at a salary within A.P.T. Grade I, of the National Scale (£230-£275), plus bonus, at present £59 16s.

The duties will be mainly in connection with the provision of traditional and permanent prefabricated houses, and the necessary roads and sewers, etc. It is anticipated that the duration of the appointment will not be less than two years; and it will be subject to one month's notice on either side, and to the passing of a medical examination for superannuation purposes.

Applications, giving particulars of age, qualifications and experience, and also stating the names and addresses of three persons to whom reference can be made, should be received by the undersigned not later than first post on Friday, 5th September.

K. B. ROBINSON, B.Sc., Eng.A.M.Inst.C.E.,

Engineer and Surveyor.

Town Hall, Skipton.

8th August, 1947. 574

CORPORATION OF LONDON.

CITY SURVEYOR'S OFFICE.

APPOINTMENT OF TECHNICAL STAFF.

Applications are invited for the following appointment in the City Surveyor's Office:— ASSISTANT ARCHITECT AND SURVEYOR. Salary up to £475 p.a. (inclusive of consolidated bonus), according to age, qualification and experience.

The applicant should either have qualified or be about to qualify for Associate Membership of the Royal Institute of British Architects or Associate Membership of the Royal Institute of Chartered Surveyors (Building Sub-division).

The appointment is for the present on a temporary basis and will be concerned principally with the reinstatement of war damage to a variety of types of properties. In the event of establishment to the permanent staff temporary service will count for the purpose of superannuation. Such appointment will be subject to the provisions of Local Government Superannuation, and applicants will be required to pass a medical examination.

Previous experience with a Municipal body is not essential.

Applications, endorsed "Technical Staff," to be made to George Holliday, F.S.I., City Surveyor, 55-61, Moorgate, E.C.2, giving the following particulars: Service with Armed Forces, age, qualification or intentions in connection therewith, previous training, positions and experience, date when available to commence duties, if selected, together with copies of two testimonials. 979

NEW ZEALAND GOVERNMENT.

STATE HYDRO ELECTRIC DEPARTMENT.

Applications are invited for the following appointments:—

(i) ELECTRICAL DRAUGHTSMEN.

(ii) ENGINEERING AND ARCHITECTURAL DRAUGHTSMEN.

The appointee will be required to remain in the service of the Government for at least three years.

In view of the housing situation preference will be given to single applicants.

Salary on appointment will be between £435-£460 (N.Z. currency) per annum, but this would be increased to applicants with special qualifications or experience, and opportunities exist for advancement. Allowance will be made for fares and expenses.

Further details available from the High Commissioner for New Zealand, 415, Strand, London, W.C.2, with whom applications will close on 12th September, 1947. 625

CITY OF SALFORD.

Applications are invited for the undermentioned appointments in the Architectural Section of the City Engineer's Department:—

(a) JUNIOR ARCHITECTURAL ASSISTANT. Salary £360 to £405 per annum (A.P. and T. Division, Grade II).

(b) JUNIOR ARCHITECTURAL ASSISTANT. Salary: Males, £160 at 21 years of age, rising to £300 per annum at 30 years of age; females, £128 at 21 years of age, rising to £240 per annum at 30 years of age (General Division).

In addition, cost-of-living bonus is payable, at present amounting to £60 per annum (males) and £48 per annum (females).

Applicants for appointment (a) should have passed the Intermediate Examination of the R.I.B.A. and have had experience in general architectural work and be able to prepare working drawings.

Applicants for appointment (b) should be good draughtsmen, possess a sound knowledge of building construction, and be capable of preparing working drawings under supervision.

The appointments will be subject to (1) the provisions of the Local Government Superannuation Act, 1937; (2) the National Joint Council Scheme of Conditions of Service as adopted by the Council; (3) the passing of a medical examination.

Relationship to any member or Senior Officer of the Council must be disclosed.

Applications, giving details of age, training and experience, together with copies of two recent testimonials, and endorsed clearly as to the appointment for which application is submitted, should be addressed to the City Engineer, Town Hall, Salford, 3, and forwarded so as to be received not later than 15th September, 1947.

H. H. TOMSON,

Town Clerk. 636

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

Applications are invited for the following appointments:—

TWO SENIOR ASSISTANT ARCHITECTS, for Education Work.

Candidates for the above appointments must be members of the R.I.B.A. by examination.

The salary for one position will be in accordance with Grade VI (£555-£600) and for the other, Grade V (£460-£510) of the A.P. & T. Division of the National Scheme for Local Government Officers, plus the current cost-of-living bonus of £59 16s.

Both appointments will be subject to the Corporation's Conditions of Service and Superannuation Scheme, and the successful candidates will be required to pass a medical examination.

The appointments are temporary, but it is possible that permanent positions may develop.

Applications, accompanied by three recent testimonials, must reach me not later than Friday, 5th September, 1947.

In accordance with the Town Council's resolution, the successful candidates will be entitled to the tenancy of a temporary bungalow in the Borough for the duration of service with the Newport Corporation.

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

Borough Architect.

Town Hall, Newport, Mon.

14th August, 1947. 628

URBAN DISTRICT OF HARROW.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the permanent appointment of an Architectural Assistant, in the Department of the Engineer and Surveyor, at a salary in accordance with A.P.T. Grade IV (£440-£485 per annum, plus cost-of-living bonus) of the National Scheme of Conditions of Service.

Applicants should have had good experience in the preparation of schemes for houses and flats, and should preferably have had experience in the architectural work of a local authority.

Preference will be given to candidates holding appropriate and recognized qualifications.

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

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

Applications, on forms to be obtained from the undersigned, must be returned not later than Saturday, the 6th day of September, 1947.

Testimonials are not required, but candidates are requested to give the names and addresses of not more than three persons to whom reference may be made for particulars of qualifications and other matters.

It should be noted that the Council is unable to offer any assistance in obtaining housing accommodation for the successful candidate.

H. WELLS,

Clerk of the Council.

Council Offices, Harrow Weald Lodge,

Harrow, Middx. 621

SURREY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF QUANTITY SURVEYOR.

Applications are invited for the appointment of a Quantity Surveyor, Grade VIII, at a commencing salary of £525, rising by annual increments of £25 to a maximum of £700 per annum, plus London allowance of £20, and cost-of-living bonus, at present £59 16s. per annum.

Applicants should possess approved qualifications and experience, and preference will be given to those who are Members of the Royal Institution of Chartered Surveyors (Quantity Division). They should be capable of undertaking all stages of the work for the preparation of Bills of Quantities, including preliminary estimates; the preparation and settlement of final accounts; site measurement; and preparation of interim certificates.

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-on-Thames, not later than the 6th September, 1947.

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

DUDDLEY AUKLAND,

Clerk of the Council.

County Hall, Kingston-on-Thames. 613

HERTFORDSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

ASSISTANT ARCHITECTS AND QUANTITY SURVEYORS.

Applications are invited from members of the appropriate Institutions for the following appointments:—

Assistant Architects. Salary £460-£510, plus cost-of-living bonus, at present £59 16s. p.a.

Assistant Architects. Salary £360-£405, plus cost-of-living bonus, at present £59 16s. p.a.

Assistant Quantity Surveyors. Salary £460-£510, plus cost-of-living bonus, at present £59 16s. p.a.

Assistant Quantity Surveyors. Salary £420-£465, plus cost-of-living bonus, at present £59 16s. p.a.

Applicants need not have had previous Local Government experience.

Applications, together with three references, should be received by the Clerk of the County Council, County Hall, Hertford, not later than Saturday 13th September, 1947. 652

**CORNWALL COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.**

Applications are invited for the following appointments, on the established staff of the above-named Council:—

(1) **DEPUTY COUNTY PLANNING OFFICER**, at a salary of £900 a year, together with cost-of-living bonus (at present at the rate of £59 15s. a year). Candidates should possess the minimum qualifications of Corporate Membership of the Town Planning Institute, and Associate Membership of the Royal Institute of British Architects, and must have had practical experience in the application of the latest planning legislation and technique.

(2) **PLANNING ASSISTANT (RESEARCH)**, at a salary of £535 on Grade VI of the national grades, together with cost-of-living bonus (at present at the rate of £59 15s. a year). Candidates should possess a University degree in geography, economics, geology, or a kindred subject, and must have a general background of knowledge and research experience on subjects relating to population, regional and economic geography, communications and services, and natural resources.

The successful candidates will work under the direction of the County Planning Officer. The appointments will be subject to the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination. Canvassing, either directly or indirectly, will disqualify, and every candidate must disclose in his application whether to his knowledge he is related to any member of the Council or to the holder of any senior office under the Council.

No forms of application are issued, but applications, with full details of age, education, qualifications, experience and salary in present post, together with copies of three recent testimonials, should be sent to the County Planning Officer, County Hall, Truro, not later than the 19th September, 1947.

E. T. VERGER.

Clerk of the County Council.

County Hall, Truro. 630
23rd July, 1947.

BOROUGH OF HESTON AND ISLEWORTH.

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

(a) **CHIEF PLANNING ASSISTANT.**

Salary in accordance with Grade VII of the A.P. and T. Division, at the rate of £275-£285-£250 per annum, plus London weighting of £20 per annum and cost-of-living bonus, at present £59 15s. per annum.

Applicants must have obtained the qualifying examination of the Town Planning Institute or an equivalent diploma in town planning recognized by that body. It will be an advantage if applicants hold additional examination qualifications of another professional institution of standing.

Applicants must have had considerable experience in Town and Country Planning, including the preparation of planning schemes and the operation of Interim Development Orders. Experience in the control of staff will be deemed an advantage.

(b) **TWO SENIOR ARCHITECTURAL ASSISTANTS.**

Salary in accordance with Grade V of the A.P. and T. Division, at the rate of £240-£250-£220 per annum, plus London weighting of £20 per annum and cost-of-living bonus, at present £59 15s. per annum.

Applicants must hold the examination qualifications for the Associateship of the Royal Institute of British Architects or a University degree or diploma in architecture approved by the Institution.

Applicants must have had good experience in architectural design of a general character, and preference will be given to candidates experienced in housing and other local government work.

The appointments are permanent, and terminable by one month's notice on either side, and are subject to the provisions of the Local Government Superannuation Act, 1937, and the National Scheme of Conditions of Service. The successful candidates may be required to pass a medical examination.

Forms of application may be obtained from the Borough Engineer and Surveyor, 22, Lampton Road, Hounslow, Middlesex, by sending a stamped addressed envelope. Applications on the forms provided, endorsed (a) "Chief Planning Assistant," or (b) "Senior Architectural Assistant," to be delivered to the Borough Surveyor not later than noon on Monday, 15th September, 1947.

Canvassing will disqualify.

HAROLD SWANN.

Town Clerk.

August, 1947.

SOUTHAMPTON COUNTY BOROUGH.

BOROUGH ARCHITECTS' DEPARTMENT.

APPOINTMENT OF SENIOR BUILDING INSPECTOR.

Applications are invited for the appointment of a Senior Building Inspector (permanent), Grade VI, £535-£560, plus cost-of-living bonus, amounting to £59 15s. 3d. per annum.

Candidates must be suitably qualified by examination, and have had considerable experience of similar work with a Local Authority.

Applications should be made on the form obtainable from Denis Winston, M.A., B.Arch., A.R.I.B.A., M.T.P.I., Civic Centre, Southampton, to whom they must be delivered not later than 15th September, 1947.

637

LONDON COUNTY COUNCIL.

Required, at the Brixton School of Building, Ferndale Road, S.W.4, as soon as possible, Four Full-time LECTURERS, qualified to teach subjects selected from the following:—(a) Building Construction, (b) Quantity Surveying, (c) Land Surveying, (d) Structural Engineering, (e) Architectural Design. The appointments are temporary in the first instance, but may subsequently be made permanent. Commencing salary £300 p.a., and a London allowance of £36 or £48, according to age or teaching experience, plus an addition of £15 p.a. for each year of approved industrial experience up to a maximum of ten years, together with an increment for each year of previous full-time teaching service. The maximum is £525, plus the London allowance. Application forms from the Principal at the School. (2705) 633

**COUNTY OF WARWICK.
COUNTY ARCHITECTS' DEPARTMENT.
ASSISTANT QUANTITY SURVEYOR.**

Applications are invited for the above-mentioned post on the Established Staff, at a commencing salary of £480, rising by increments of £25 and £30 to £525, plus cost-of-living bonus, at present £59 15s.

Applicants should have a good technical education, and experience in the preparation of valuation accounts, the analysis of prices, and the preparation of approximate estimates is essential. Preference would be given to a member of the Royal Institute of Chartered Surveyors, but this is not essential.

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

Application forms can be obtained from and should be returned to C. H. Elkins, County Architect, Shire Hall, Warwick, by 14th September, 1947.

L. EDGAR STEPHENS.

Clerk of the Council.

Shire Hall, Warwick. 642
August, 1947.

CITY OF NOTTINGHAM.

HOUSING DEPARTMENT.

The Nottingham City Council invite applications for the appointment of HOUSING ARCHITECT, at a salary of £250 per annum, plus temporary cost-of-living bonus, which at present amounts to £59 15s.

The gentleman to be appointed must be a Fellow or Associate of the Royal Institute of British Architects, and must have had experience in the layout of estates, the design of dwelling houses, and in the letting of contracts for the erection of houses and the supervision of the constructional work under the contracts. Membership of the Surveyor's Institute will be regarded as an additional advantage, but is not an essential qualification for the appointment.

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

The person appointed will be required to devote the whole of his time and attention to the duties of his office, and no private practice will be permitted.

The appointment will be subject to termination by three months' notice on either side.

Applications, stating age, qualifications and experience, accompanied by not more than three recent testimonials, should be enclosed in an envelope endorsed "Housing Architect" and delivered to me not later than Monday, the 8th September, 1947.

Canvassing in any form will be a disqualification.

J. E. RICHARDS.

Town Clerk.

The Guildhall, Nottingham. 643

CUMBERLAND COUNTY COUNCIL.

APPOINTMENT OF SENIOR PLANNING ASSISTANT.

Applications are invited for the position of Senior Planning Assistant, at a salary of £460 per annum, rising by annual increments of £15 and £20 to £510, plus cost-of-living bonus (at present £59 15s. per annum), and a car and subsistence allowance in accordance with the County Council scale.

The appointment is subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to undergo a medical examination, the appointment to be terminable by one month's notice in writing on either side.

Applicants should be Members, or Associate Members, of the Town Planning Institute, and a qualification in architecture will be an advantage. The commencing salary on the grade will be determined according to the candidate's previous experience.

Applicants must be fully conversant with the Town and Country Planning Acts, and Orders made thereunder, and be thoroughly competent to carry out field work, plotting, and the preparation of plans.

Applications, stating age, qualifications, experience and previous appointments held, accompanied by copies of three recent testimonials, and endorsed "Senior Planning Assistant," should be sent to the County Planning Officer, Citadel Chambers, Carlisle, not later than Wednesday, 10th September, 1947.

G. N. C. SWIFT.

Clerk of the County Council.

The Courts, Carlisle. 638
14th August, 1947.

**HEPTON RURAL DISTRICT COUNCIL.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.**

Applications are invited for the position of Architectural Assistant to the above Council. The commencing salary will be at the rate of £420 per annum, plus cost-of-living bonus (£59 per annum).

The Council's permanent Architect is expecting to be retiring in the near future, and subject to satisfactory service the person appointed will be promoted to the position. Applicants should be registered Architects, and should have had experience in the designing of municipal houses, the preparation of specifications and quantities, should be good draughtsmen, and have a sound knowledge of building construction.

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

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, and accompanied by two recent testimonials, should reach the undersigned not later than noon, on 17th September, 1947. Canvassing, either directly or indirectly, will be deemed a disqualification.

E. H. BLACKBURN.

Clerk to the Council.

District Bank Chambers, Hebden Bridge. 649
12th August, 1947.

**BOROUGH OF WORTHING.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.**

APPOINTMENT OF JUNIOR ARCHITECTURAL ASSISTANT.

Applications are invited for an Assistant Architect, at a salary in accordance with Grade II of the Administrative, Professional and Technical Division of the National Joint Council Scale of Salaries, i.e., £360, rising to £405 per annum, plus cost-of-living bonus, at present £59 15s. per annum.

Preference will be given to candidates who are Associate Members of the Royal Institute of British Architects and to persons with experience of Municipal architectural works.

The appointment will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate passing satisfactorily a medical examination. The appointment will be terminable by one month's notice on either side.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must be delivered to the office of the Borough Engineer, Town Hall, Worthing, not later than first post on Saturday, the 13th September, 1947.

ERNEST G. TOWNSEND.

Town Clerk.

Town Hall, Worthing. 645
14th August, 1947.

ANGLESEY COUNTY COUNCIL.

COUNTY ARCHITECTS' DEPARTMENT.

Applications are invited for the following permanent appointments in the County Architects' Department:—

(a) **ONE CHIEF ASSISTANT ARCHITECT.** Salary, Grade VII, commencing at £575 per annum, and rising to £650 per annum. Applicants should be Registered Architects, and members of the Royal Institute of British Architects, with considerable experience in the design of educational buildings, supervision of technical staff, etc.

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

(c) **TWO ASSISTANT ARCHITECTS.** Salary, Grade IV, commencing at £420 per annum, and rising to £465 per annum. Applicants should be Registered Architects, with good experience in general architectural work, and preference will be given to members of the Royal Institute of British Architects.

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

Cost-of-living bonus, at present £59 15s. per annum, is payable in addition to the salary scales quoted above.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidates passing a medical examination. The appointments are of no subject to 3 months' notice on either side in the case of appointment (a) and to one month's notice on either side in the case of appointments (b), (c) and (d).

Applications in plain envelopes, appropriately endorsed, stating age, training, qualifications, experience, and past and present appointments, accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than Monday, 8th September, 1947.

WILLIAM JONES.

Clerk of the County Council.

Shire Hall, Llangefni, Anglesey. 641
15th August, 1947.

GOVERNMENT OF NORTHERN IRELAND.

CIVIL SERVICE COMMISSION.
VACANCY FOR A DIRECTOR OF WORKS.

Applications are invited for the post of Director of Works in the Ministry of Finance for Northern Ireland.

Subject to a probationary period of two years, the post is permanent and pensionable, and the conditions of service will be as prescribed from time to time in the General Regulations governing the Civil Service of Northern Ireland.

Qualifications: A candidate must be of British nationality, and must

(a) be a Corporate Member of the Royal Institute of British Architects or of the Institution of Civil Engineers;

(b) have had considerable experience in the exercise of his profession, and be capable of directing large-scale architectural or civil engineering schemes; and

(c) possess wide administrative experience and be accustomed to the general supervision of a large professional staff.

Duties: The successful candidate will be responsible for the general direction of the technical activities of the Works Division of the Ministry. The technical Branch of the Division, containing the following Sections:

Architects,
Civil Engineers,
Mechanical and Electrical Engineers,
Quantity Surveyors,
Supplies (Technical),
is responsible for the carrying out of all professional and technical services in regard to the provision and maintenance of Government works and buildings throughout Northern Ireland, together with functions, both advisory and executive, in regard to Arterial Drainage and Hydro-electric Schemes, Harbour Works, Housing, Factories, etc. The Branch also acts in an Agency capacity for the United Kingdom Ministry of Works in relation to Imperial works and buildings in Northern Ireland for which that Ministry is responsible.

Remuneration: The scale of salary attaching to the appointment is £1,600 per annum, increasing by annual increments of £50 to a maximum of £1,800 per annum, inclusive. The commencing salary within this scale will be settled in the light of the qualifications and experience of the successful candidate.

Preference will be given to suitably qualified candidates who served with H.M. Forces during the 1914-1918 or 1939-45 war.

Closing date for receipt of applications: Applications must be made on the prescribed form, which may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast, and must be returned duly completed, with copies of two recent testimonials, so as to reach him not later than 30th September, 1947. 651

METROPOLITAN BOROUGH OF

PADDINGTON.

HOUSING DEPARTMENT.

Applications are invited for the following appointments on the permanent establishment of the Council:—

(a) ARCHITECTURAL ASSISTANTS (3).—Appointments, graded III and IV, of the A.P.T. Division of the National Joint Council's Scheme of Conditions of Service, at commencing salaries of £410 per annum, rising by annual increments of £15 to a maximum of £485 per annum, inclusive of London "weighting," plus cost-of-living bonus, at present £59 16s. per annum for men and £48 2s. per annum for women.

Candidates must be suitably qualified, and preference will be given to Associates of the Royal Institute of British Architects, or those in an advanced stage of preparation for the final examination of that Institute.

(b) CLERKS OF WORKS (6).—Appointments in Grade III of the A.P.T. Division of the National Joint Council's Scheme above-mentioned, at commencing salaries of £410 per annum, rising by annual increments of £15 to £485 per annum, inclusive of London "weighting," plus cost-of-living bonus, at present £59 16s. per annum.

The duties which will be carried out under the immediate direction of the Superintendent of Works, will include the supervision of new housing and other works; adaptation and repairs; and general maintenance; carried out either by direct labour or contractors.

Applicants must have had wide experience in a similar capacity, and preference will be given to those qualified by examination.

(c) QUANTITY SURVEYORS' ASSISTANTS (4).—Appointments, graded I and II, of the A.P.T. Division of the National Joint Council's Scheme above-mentioned, at commencing salaries of £350 per annum, rising by annual increments of £15 to a maximum of £425 per annum, inclusive of London "weighting," plus cost-of-living bonus, at present £59 16s. per annum for men and £48 2s. per annum for women.

Applicants should have experience in all branches of building work, and should be familiar with all aspects of a Quantity Surveyor's duties, including preparation of estimates, bills of quantities, abstracts, contract documents and cost statistics, and be able to measure up for interim and final certificates and to settle final accounts. Preference will be given to candidates preparing for the examination of the Royal Institution of Chartered Surveyors (Quantities Section).

All the above appointments will be subject to one month's notice on either side. The persons appointed will be required to pass a medical examination and to contribute to the Council's Superannuation Scheme.

In regard to appointment (a)—Architectural Assistants—forms of application and conditions of

appointment can be obtained from the undersigned on receipt of a stamped, addressed, foolscap envelope, and they must be submitted to me, together with copies of three recent testimonials, not later than 22nd September, 1947.

No forms are being issued for appointments (b) and (c)—Clerks of Works and Quantity Surveyors' Assistants—and applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be delivered to me not later than the 22nd September, 1947.

Canvassing, either directly or indirectly, will disqualify.

W. H. BENTLEY,

Town Clerk.

Town Hall, Paddington, London, W.2. 660

DUNDEE COLLEGE OF ART SCHOOL OF ARCHITECTURE.

The Governors of the Dundee Institute of Art and Technology invite applications for the following positions:—

(1) SENIOR LECTURER AND STUDIO INSTRUCTOR. Salary scale: Men, £600, by £25 to £750; women, £480, by £20 to £560.

(2) LECTURER AND STUDIO INSTRUCTOR. Salary scale: Men, £450, by £15 to £685; women, £400, by £15 to £575.

Applicants should be members of the R.I.B.A., and should preferably be holders of a degree or diploma of a recognized School of Architecture.

Special experience in Constructional Subjects will be an additional qualification.

Placing on salary scales will be according to qualifications and experience.

Applications should be lodged as soon as possible, and should be on the prescribed form, copies of which, with full particulars, may be obtained from the undersigned.

G. R. HALL,

Clerk and Treasurer.

Bell Street, Dundee. 657

CARDIGANSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

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

(a) QUANTITY SURVEYOR, Grade IV, plus cost-of-living bonus (at present £59 16s. per annum).

(b) ARCHITECTURAL ASSISTANT, Grade IV, plus cost-of-living bonus (at present £59 16s. per annum).

Applicants for (a) must have experience in preparation of Bills of Quantities, Specifications, Estimates and Settlement of Final Accounts, and must have passed the final examination of the Chartered Surveyors' Institute in Quantities.

Those for (b) must have experience in design and construction of modern school buildings. Preference will be given to those who have passed whole or part of the R.I.B.A. Final Examination.

Applications, stating age, qualifications, experience, present position and salary, together with not more than three recent testimonials, should be sent to the County Architect, County Hall, Aberaeron, Cardiganshire, not later than 20th September, 1947.

IVOR EVANS,

Clerk of the Council.

County Council Offices, Aberystwyth. 581

8th August, 1947.



Architectural Appointments Vacant

4 lines or under, 5s.; each additional line, 1s. 6d.

DIOCESAN Surveyor requires ARCHITECTURAL ASSISTANT, for work in old churches and general practice; Inter. standard considered. Full particulars to Lawrence H. Bond, 11, Elmer Street, Grantham. 960

SENIOR QUANTITY SURVEYOR required for Architect's office. Reply, with particulars and salary required, to Box 543.

ARCHITECTURAL ASSISTANT required immediately in London office; must be good draughtsman of intermediate standard; some experience of industrial buildings an advantage. Box 556.

JUNIOR ARCHITECTURAL ASSISTANT required, London W.C. district; state age, experience and salary. Box 626.

ARCHITECTURAL ASSISTANT required for Chief Works Engineer's Office in Group of Engineering Companies; age about 30/35; able to carry out own surveys and prepare designs, specifications and estimates for building, structural steel, and reinforced concrete work; office in West Riding of Yorkshire; salary around £600 p.a. Write, giving full details of experience, education, age, and salary, to Box 615.

ONE SENIOR ARCHITECTURAL ASSISTANT required. Write, stating age, experience, and salary required, to Chief Architect, Bristol Aeroplane Co., Ltd., Filton House, Bristol. 582

ARCHITECT, with experience in design of country housework, estate and farm buildings, required for office practising over large area; office situated Herefordshire. Apply, stating qualifications, experience, and salary required, to Box 583.

TEMPORARY ASSISTANCE.—Architects require experienced Assistant to prepare, at home, working drawings for reconstruction of interesting building in Central London; probably about two months' work. Write, stating qualifications, and age, Box 589.

PROGRESSIVE posts offered to young qualified ASSISTANTS; salary, £400 p.a. Apply, stating age and experience, to Mackintosh & Partners, 11, Orchard Street, Bristol, 1. 692

CHIEF QUANTITY SURVEYOR required by Davis Contractors, Ltd.; Municipal housing experience essential; write, stating experience over past 15/20 years; real opportunity for the right man. Davis Contractors, Ltd., 352, Kilburn High Road, London, N.W.5. 603

TWO JUNIOR ASSISTANTS required at once in London office of Architect, who have had at least three years' office experience; salary, £320 to £350 p.a., according to experience. Reply, stating age, training, experience, and qualifications, to Box 610.

ARCHITECTURAL ASSISTANT required, South London office; competent to prepare working drawings, surveys, specifications, for licensed houses, shops and factories. Write, stating age, salary and experience, to Box 963.

SENIOR ARCHITECTURAL ASSISTANTS.

Senior Architectural Assistants are required to fill vacancies for permanent and pensionable positions in the Head Office of the Premises Department, Ind Coope & Allsopp, Ltd., Burton-on-Trent. Applicants should be either Associates of the Royal Institute of British Architects or trained at a recognized School of Architecture, but consideration will be given to students nearing the required standard for the final examination; they should have a good general experience in design and construction, and be capable of taking charge of jobs from the initiation of sketch plans to completion of the work, including supervision of the juniors who will be allotted to them and the work on the site. Experience in the design, decoration and furnishing of licensed premises and Breweries would be an added asset, but is not insisted upon. They will also be required to pass a medical examination and contribute to the generous Staff Superannuation Scheme in force.

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Commencing salaries will be up to £500 p.a., plus cost-of-living bonus of £67 10s., according to qualifications and experience.

Particulars of training, experience, past and present appointments, and qualifications, together with testimonials, and stating age, data available, and whether married or single, to be sent to the Manager, Premises Department, Ind Coope & Allsopp, Ltd., 148, Station Street, Burton-on-Trent.

While no housing accommodation can be immediately offered to successful applicants, the Company will assist as far as possible. 640

ARCHITECT'S ASSISTANT required immediately; qualified intermediate standard. Apply, stating all particulars, to L. D. Tomlinson, F.R.I.B.A., Pilgrim House Chambers, Boston, Lincs. 647

ARCHITECT'S ASSISTANT, with some experience, required immediately for Dublin office. Reply, stating qualifications and salary expected, Box 648.

WANTED.—Experienced **SENIOR ARCHITECT'S ASSISTANT**. Apply in writing, stating full particulars, to Sir George Oatley, 12, Great George Street, Bristol, 1. 644

THE MIDLAND JOINERY WORKS, LTD..—Burton-on-Trent, require a first-class experienced **DRAUGHTSMAN ESTIMATOR**. Apply in confidence, giving fullest particulars. 635

LONDON PASSENGER TRANSPORT BOARD.—Applications are invited for appointments on the temporary staff of the Architect as follows:—Assistant Architects, Architectural Assistants, Structural Engineering Designers and Quantity Surveyors. Commencing salary from £300 to £600 per annum, according to ability, qualifications and experience. Applications, which should give a brief outline of training and experience, to be sent to the Staff Officer (ER/E456), London Passenger Transport Board, 55, Broadway, S.W.1. 923

QUALIFIED ARCHITECTURAL ASSISTANT required, with knowledge of building construction; varied work, including measuring and surveying country jobs; salary according to ability. Caroe & Partners, 3, Great College Street, Westminster, S.W.1. 650

A GOOD Appointment awaits **TWO ASSISTANTS**, experienced in the design of cinemas and theatres. Details and salary required to Box 905.

JUNIOR ARCHITECTURAL ASSISTANT required. Write, stating age, experience, and salary required, to Portess & Richardson, Lloyds Bank Chambers, Peterborough. 659

Architectural Appointments Wanted

QUALIFIED ARCHITECT, age 35 years, experienced in office administration and can take charge of staff; specialized in hospital planning, housing, flats and shops, including general business properties; war damage claims a further speciality; salary, £250 to £300 p.a. Box 390

KEEN and capable **ASSISTANT** requires position in Newcastle-upon-Tyne; ex-Service-man; aged 28; passed R.I.B.A. Final Exam., July, 1947. Box 393.

A R.I.B.A. (25), with 9 years' continuous experience (qual. 2 years), requires responsible position with London architects, offering scope and appreciating initiative; excellent experience schools, housing, and industrial design; competent designer and draughtsman; ability to carry out works without supervision. Box 394.

JUNIOR ARCHITECTURAL ASSISTANT (18), exempt from Military service, rapid tracer, experienced in measuring and plotting and general office routine, requires change of experience; London or district. Box 396.

ARCHITECTURAL STUDENT, with R.I.B.A. Intermediate, and 6 months' office experience, seeks position in Glasgow architect's office. Box 397.

ARCHITECT (23), just graduated, requires post as **ASSISTANT**; preferably with private firm in or around Liverpool. Box 395.

Other Appointments Vacant

Four lines or under, 5s.; each additional line 1s. 6d.

CLERK OF WORKS (age 32-36), married, required for resident post on staff of important company at Belize, British Honduras; interesting and progressive post for keen, energetic man; written application (typed), giving full details of experience. Box 658.

SHORTHAND-TYPIST required in Architect's and Surveyor's Dept. of Dr. Barnardo's Homes; previous experience essential; canteen meals; non-contributory pensions scheme. Write, giving full details experience, age, salary required, to Chief Architect, 14, Stepney Causeway, E.1. 655

Other Appointments Wanted

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THE MIDLAND JOINERY WORKS, LTD..—Burton-on-Trent, require **REPRESENTATIVE**, or **COMMISSIONED AGENT**, in the following districts: South Wales; North London, operating preferably from Luton. Apply in confidence, giving fullest particulars. 634

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4 lines or under, 5s.; each additional line, 1s. 6d.

FOR SALE.—Desk, oak roll top, and two tubular chairs for sale, £25; good condition; can be seen Victoria. Box 586.

FOR SALE.—"Architects' Journals," complete 1937, 1938, 1940, 1942, 1943; most parts of 1934, 1936, 1939, 1941, 1944. Victoria Weston, Barby Hall, Selby, Yorks. 654

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The ashes are available, and may be inspected, at the following addresses:—

Ferrybridge Power Station, Ferrybridge, Yorks (tel.: Knottingly 80).

(This station is on the Great North Road, about three miles from Pontefract.)

Thornhill Power Station, Ravensthorpe, Dewsbury (tel.: Dewsbury 144).

Mexborough Power Station, Grey's Bridge, Mexborough, Yorks (tel.: Mexborough 3232).

Barnsley Power Station, Gawber, near Barnsley, Yorks (tel.: Barnsley 2473).

All these power stations have access by both road and rail, and at Ferrybridge and Thornhill there is also access by canal barges. Enquiries may be sent direct to the above addresses, or to The Yorkshire Electric Power Company, Bramhope, near Leeds (tel.: Leeds 73411). 653

AVAILABLE from stock, 350 Coal-fired Cooking Stoves, various sizes and types, to cook for small or large numbers; bargain prices.—Illustrated list free from Box 2168, G.T.C., Ltd., 82-94, Seymour Place, London, W.1. 661

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Educational Announcements

4 lines or under, 5s.; each additional line, 1s. 6d.

R.I.B.A. QUALIFYING EXAMINATIONS. Mr. C. W. Box, F.R.I.B.A., M.R.San.1. Courses of Correspondence and Personal to Studia 115, Tower St., London, W.C.1. (Tel.: Easton 3966)

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DAY SCHOOL.

The Day School of Architecture is fully recognized by the Royal Institute of British Architects and by the Town Planning Institute. The Final Diploma Examination of the School is a qualification for registration under the Architects (Registration) Act.

The course embraces all aspects of Architectural Education, including Town Planning, Interior Design, Structural Design and Equipment, and the Science of Building Materials.

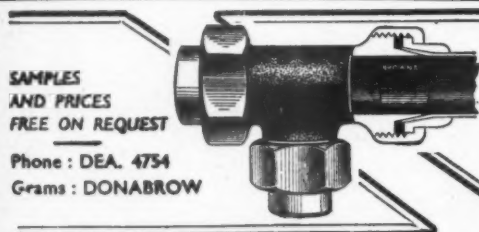
The Day Schools of Surveying and Building offer courses in Building, Quantity, and Valuation Surveying, and in Building Technology. Session commences 16th September, 1947.

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Prospectuses, giving full particulars of courses, fees, etc., may be obtained on application to the undersigned.

J. C. JONES, Director of Education. 595

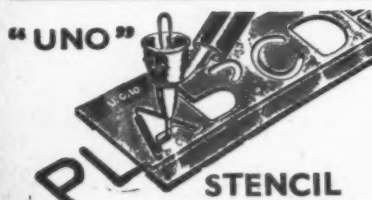


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 Prospectus and further details may be obtained on application to the undersigned.
J. C. JONES,
Director of Education. 646

UNIVERSITY OF MANCHESTER.
 The next Session commences on Thursday, 2nd October, 1947. 651

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 Principal: T. J. DRAKELEY, D.Sc., Ph.D.(London), F.R.I.C., F.I.R.I.
 Head of Department of Architecture: T. E. SCOTT, F.R.I.B.A.

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 The Five Years' Course qualifies for exemption from the Final Examination for Associateship of the R.I.B.A. and for registration under the Architects (Registration) Act, 1931-1938. Students who complete satisfactorily the first Three Years of the course are granted exemption from the Intermediate Examination of the R.I.B.A.
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 Students under the age of 18 may be admitted free.

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Special Design classes, and lectures on the Theory of Structures, Hygiene, Materials, Specifications, and Professional Practice in preparation for the Final Examination of the R.I.B.A.
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Architects Benevolent Society	xliv	Expanded Metal Co., Ltd.	iv	Mills Scaffold Co., Ltd.	xv
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Bakelite, Ltd.	viii	Ferodo, Ltd.	liii	Musgrave & Co., Ltd.	xlv
Bassett-Lowke, Ltd.	iv	Flush Door Manufacturers' Assoc.	xxiv	Nobles & Hoare, Ltd.	vi
Bate, Jabez, & Co., Ltd.	xxiii	Foyles	x	Northern Polytechnic	liii
Bath Cabinet Makers & Artcrafts, Ltd.		Franki Compressed Pile Co., Ltd.	x	Oliver, Wm., & Sons, Ltd.	xv
Benham & Sons, Ltd.		Frazzi, Ltd.	xxviii	Paragon Glazing Co., Ltd.	xv
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Camelon Iron Co., Ltd.	xx	Lead Industries Development Council	xxvii	Thornborough & Son (Manchester), Ltd.	xxvii
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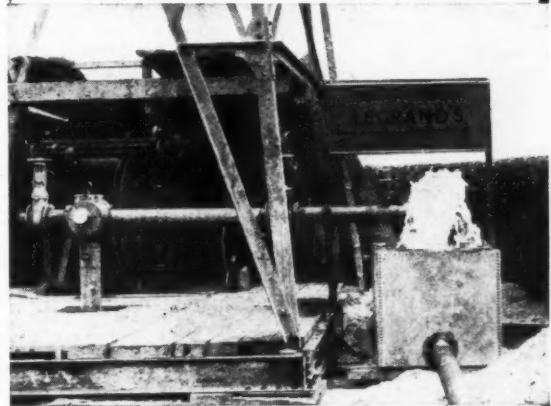
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