

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.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society, 66, Portland Place, W.1.	Welbeck 5721
ABT	Association of Building Technicians, 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain, 9, Belgrave Square, S.W.1.	Sloane 0421
ADA	Aluminium Development Association, 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. School of Architecture, Manchester Municipal School of Art, All Saints, Manchester, 14	Ardwick 3480
ARCUK	Architects' Registration Council, 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects, 66, Portland Place, W.1.	Welbeck 5721
BAE	Board of Architectural Education, 66, Portland Place, W.1.	Welbeck 5721
BATC	Building Apprenticeship and Training Council, Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre, 9, Conduit Street, W.1.	Mayfair 2128
BCC	British Colour Council, 28, Sackville Street, W.1.	Regent 3613
BCCF	British Cast Concrete Federation, 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association, Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association, 25, Victoria Street, S.W.1.	Abbey 5422-3
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGC	British Gas Council, 1, Grosvenor Place, S.W.1.	Sloane 4554
BGF	British Gas Federation, 1, Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association, 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education, 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors, 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council, 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade, Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station, Bucknalls Lane, Watford.	Garston 2246
BSA	British Steelwork Association, Eggington House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSA	Building Societies Association, 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution, 28, Victoria Street, S.W.1.	Abbey 3333
CAS	County Architects Society, C/o A. Guy Chant, F.R.I.B.A., Salop County Council, 5, Belmont, Shrewsbury.	Shrewsbury 3031
CCA	Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Radlett 5616
CIAD	Central Institute of Arts and Design, C/o National Gallery, W.C.2.	Whitehall 2415
CIAM	Congres Internationaux d'Architectures Modernes, Dolderal, 7, Zurich, Switzerland	
CID	Council of Industrial Design, Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee, MOW, 42, Onslow Gardens, S.W.7.	Kensington 7070
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.	Sloane 4280
CUJC	Coal Utilization Joint Council, 54, Victoria Street, S.W.1.	Victoria 9851
DIA	Design and Industries Association, 9, Conduit Street, W.1.	Mayfair 5432
DOT	Department of Overseas Trade, 35, Old Queen Street, S.W.1.	Victoria 9040
EC	Electricity Commission, Savoy Court, Strand, W.C.2.	Temple Bar 7565
EJMA	English Joinery Manufacturers Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society, 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors, 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub Contractors, 21, Tothill Street, S.W.1.	Whitehall 9606
FBI	Federation of British Industries, 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission, 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries, 37, Chester Square, S.W.1.	Sloane 1002
FDMA	Flush Door Manufacturers Association, Stapleford Road, Trowell, Nottingham.	Ilkeston 623/4/5
FLD	Friends of the Lake District, Pennington House, Nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders, 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041
FRHB	Federation of Registered House Builders, 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England, 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group, 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881

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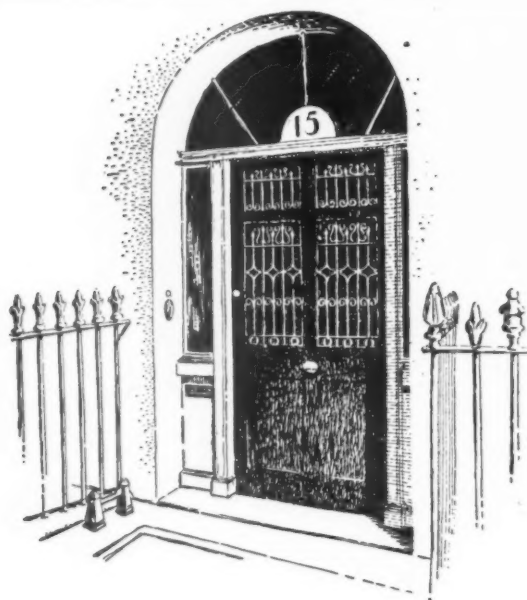
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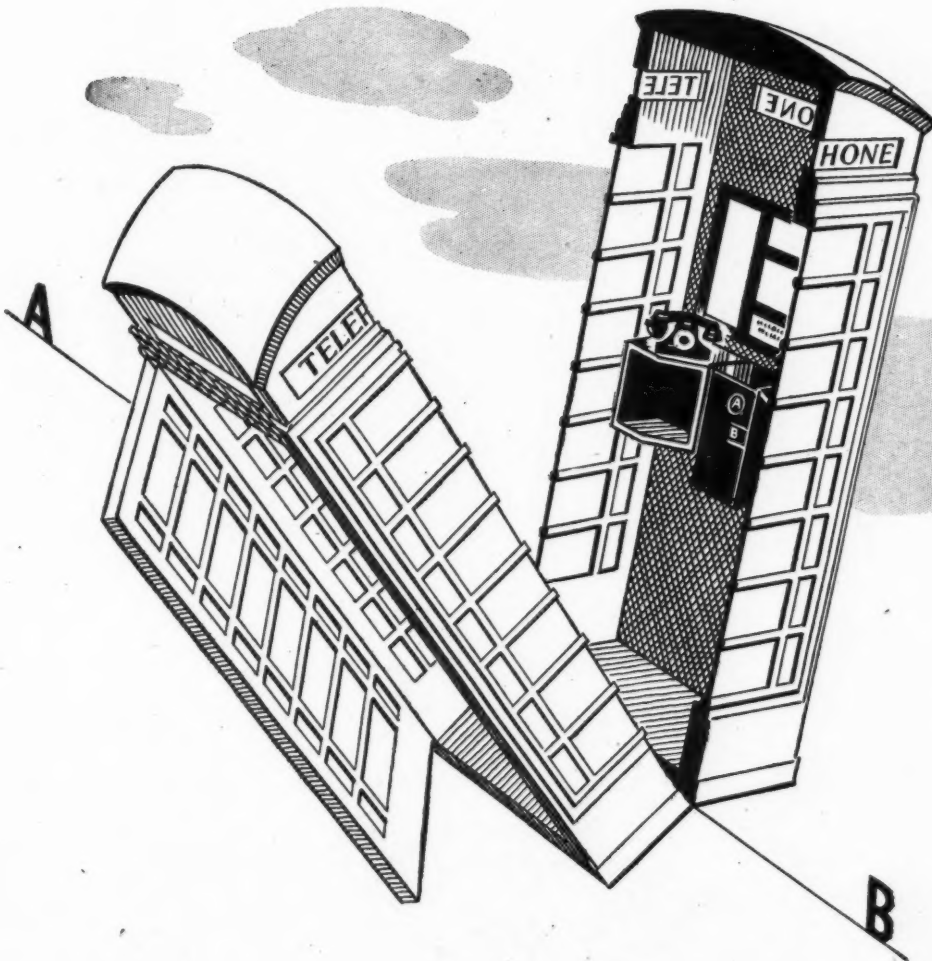
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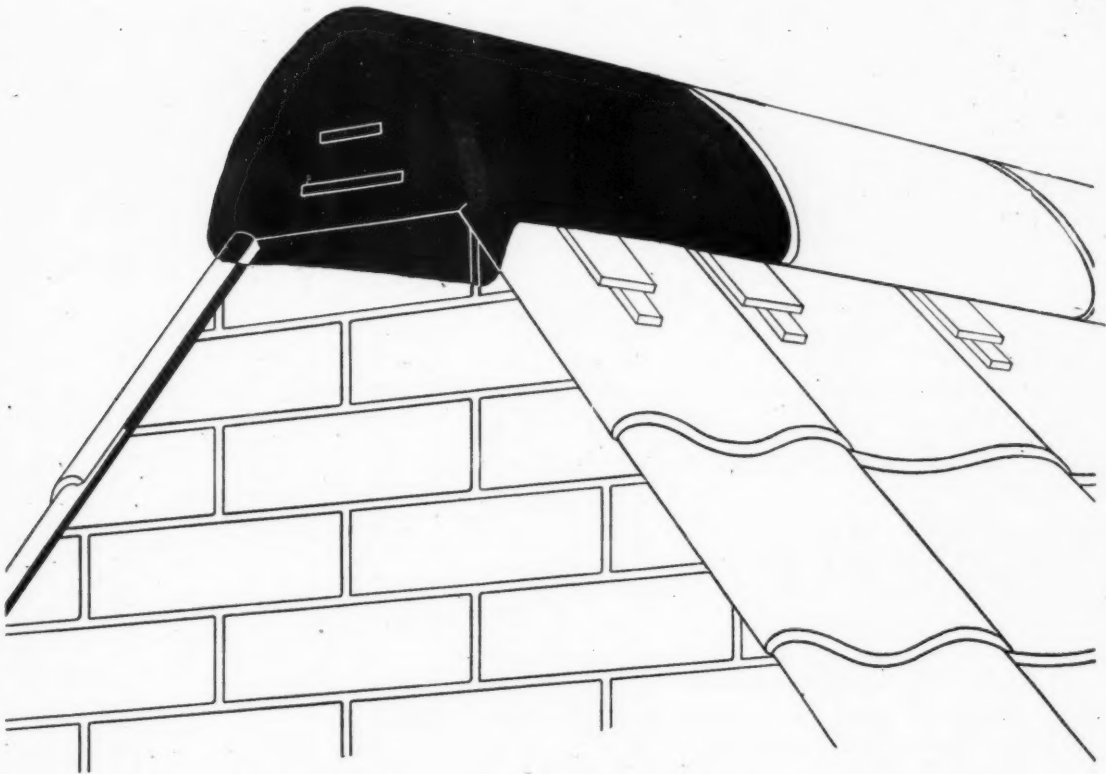
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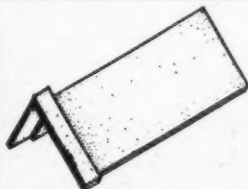


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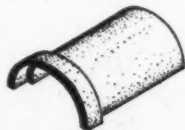
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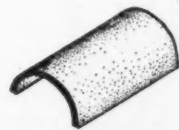
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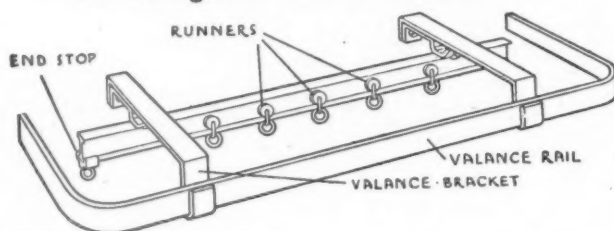
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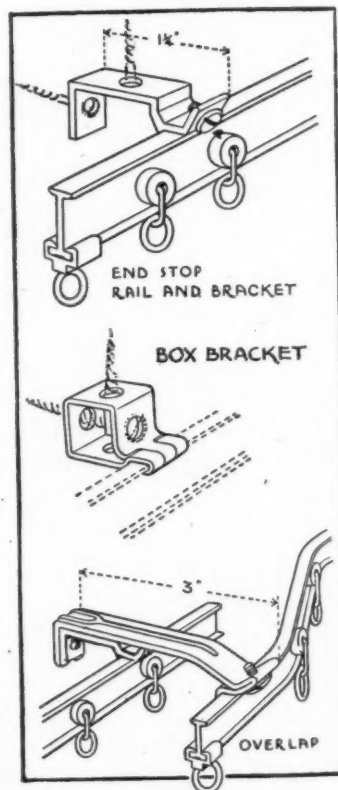
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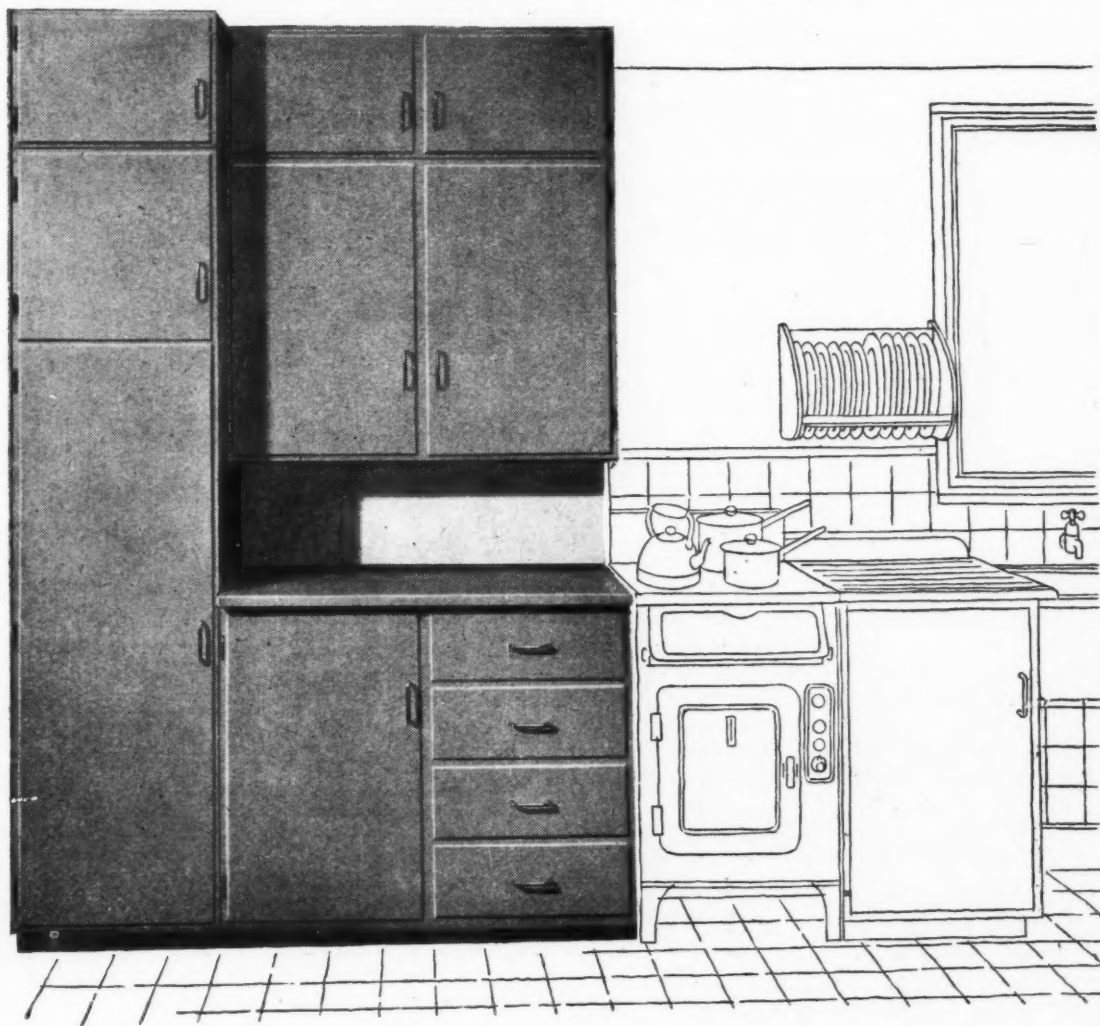
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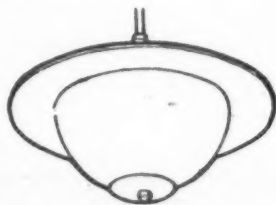
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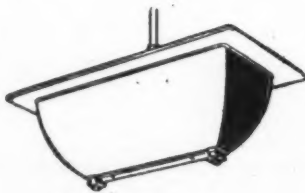
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POTTERY THROUGH THE AGES · NO. 6



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As in sculpture and architecture, so too in pottery the Greeks achieved a grace and perfection, a sense of balance and a mastery of harmonious proportions that have never been excelled. On the other hand, they contributed but little in the development of improved bodies and glazes.

Near Eastern, Egyptian, Cretan and Cypriot influences are reflected in early Greek wares but by 900 B.C. a distinctive Greek style began to evolve, foreshadowing the superb achievements of Athenian potters in the sixth and fifth centuries. At first, decoration was mainly formal and geometrical. Later, bands and borders were filled in with flowers and animal figures; and, finally—with growing mastery of the technique of figure-painting on curved surfaces—scenes from Greek mythology, history, social and domestic

life began to occupy more and more of the space although, usually, narrow bands of formal pattern were retained above and below the main design. Vases, cups, jugs and vessels of various shapes, with one, two or more handles were made for different purposes. Each type had its own special name such as the amphora, kylix, kantharos, lekythos, oinochoë and krater.

Two types of decoration are especially famous. In the "black on red", dating from the sixth century B.C., the figures were outlined with a sharp tool on the red body and filled in with a beautiful lustrous black coating, the composition of which is still uncertain. Incisions were made through this coating, bringing out details of features and dress in the underlying red colour. In the "red on black" wares, on the other hand, the figures themselves were left in red and the intervening spaces and internal details filled in with black. White and purple tints

for inserting details and polychrome decoration on a white ground were also employed. Between 300 and 200 B.C. a technique of relief moulding was frequently practised and this influenced Roman pottery at a later date.

Drinking cups were sometimes moulded in the shape of animal and human heads, anticipating the well-known Staffordshire "Toby" of the 18th century. In the sphere of pottery sculpture, the Greeks achieved an astonishingly high standard of beauty and modelling, especially in the terra cottas now called Tanagra figures after the place where they were first discovered.

Terra cotta was also used for utilitarian purposes such as making bricks, tiles, friezes, columns and drainpipes.

Vases, similar in type to the Greek, and doubtless made by immigrant Greek potters, have been found in Etruria, Asia Minor and Egypt.



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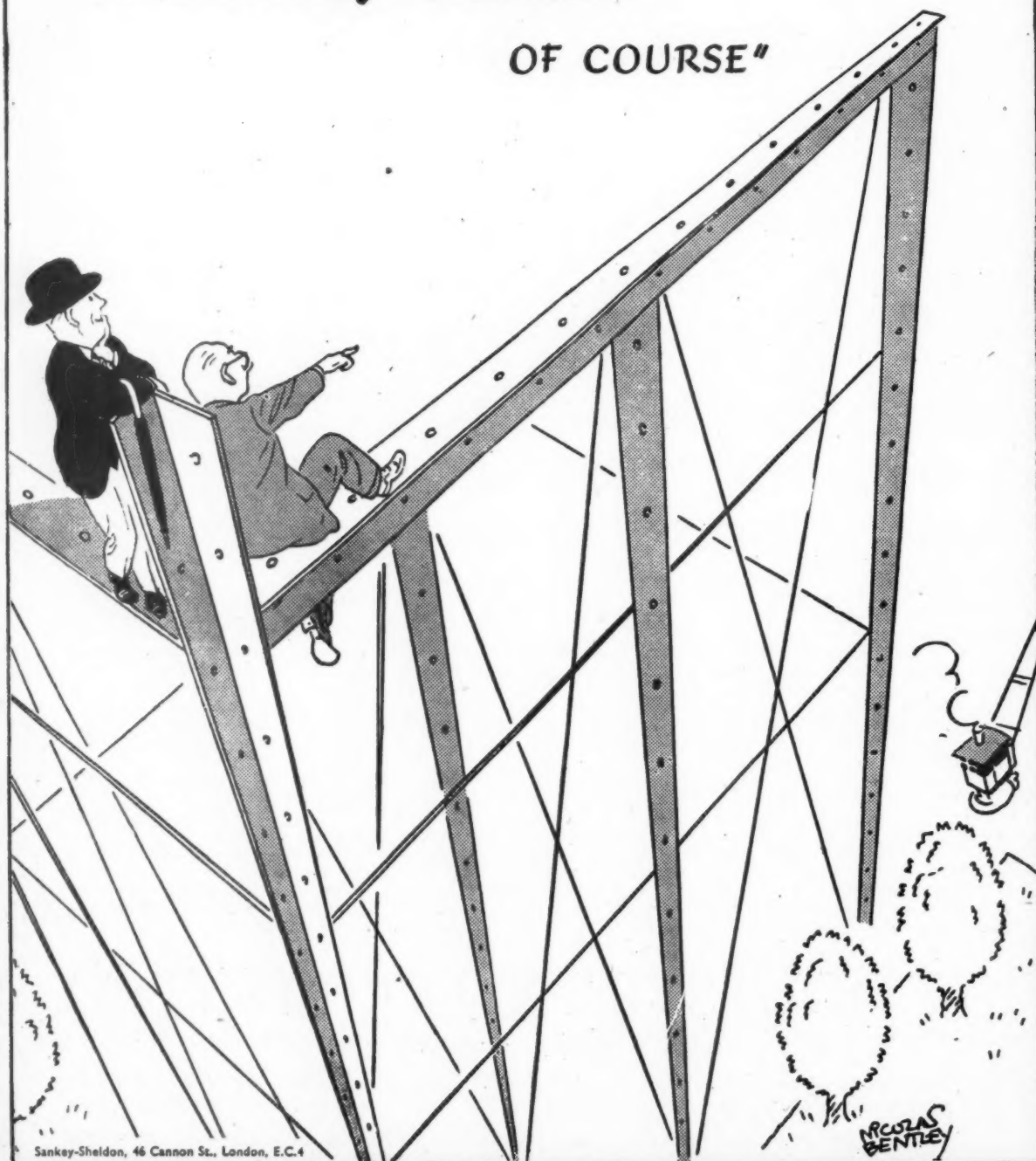
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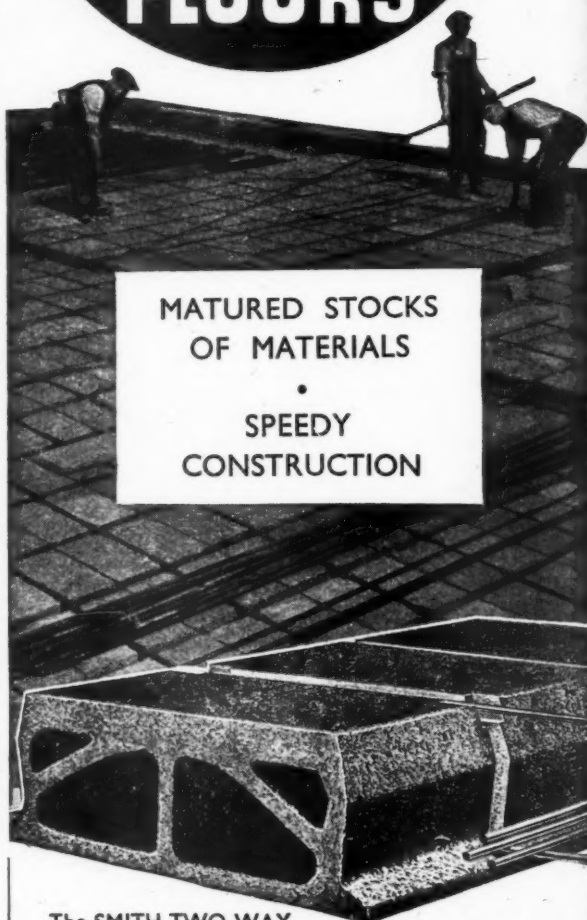
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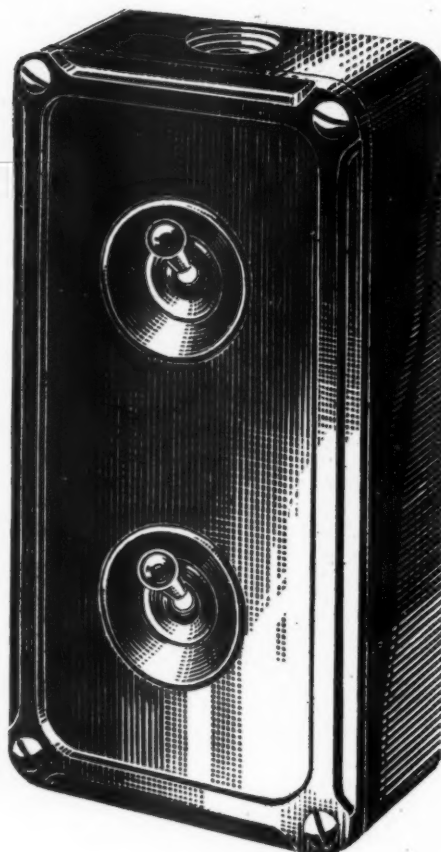


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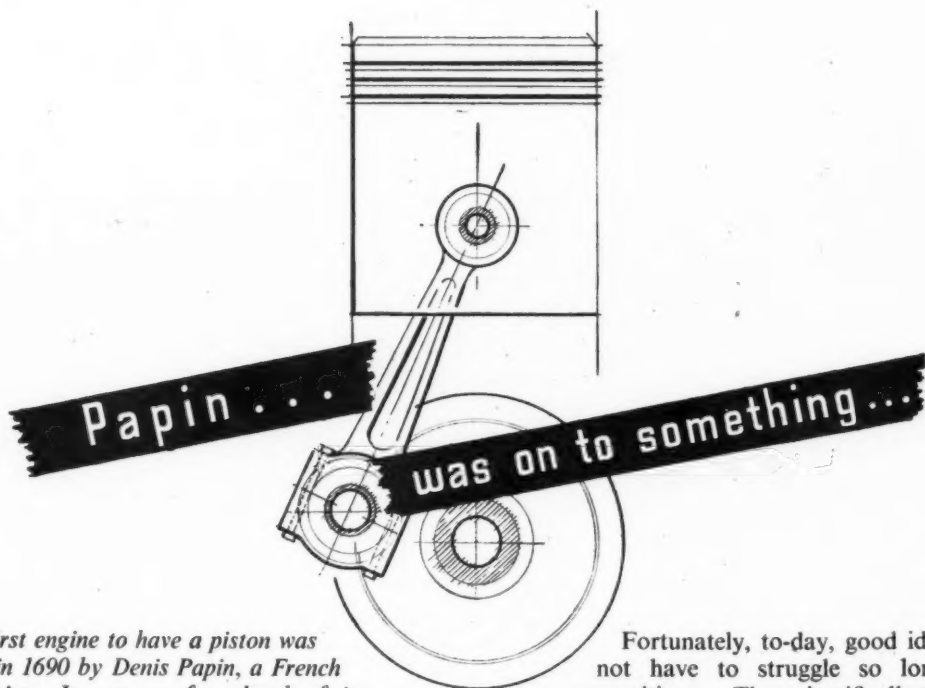
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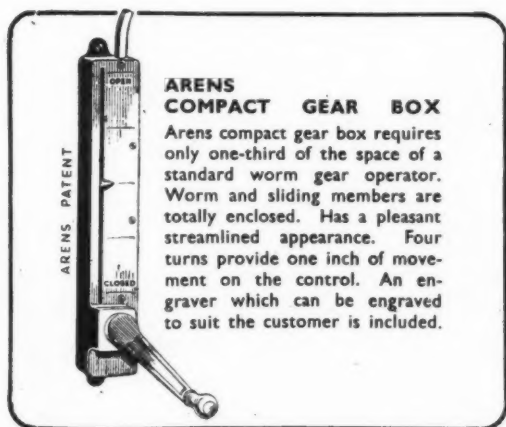
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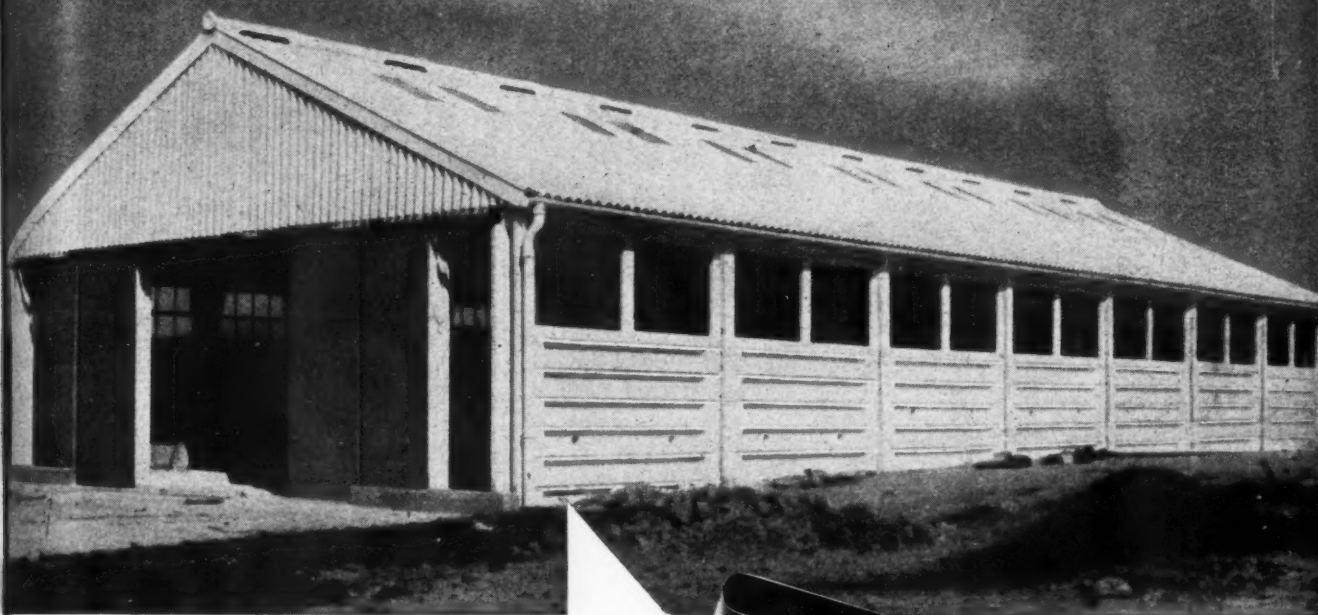
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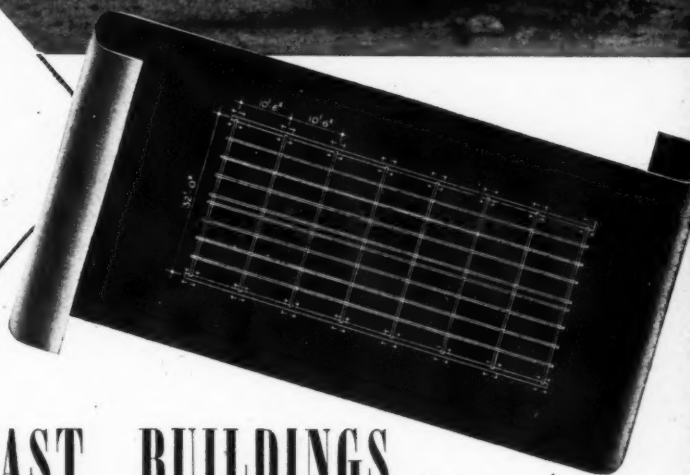
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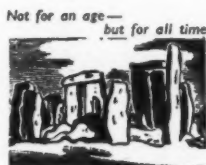
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WORKS THROUGHOUT THE COUNTRY

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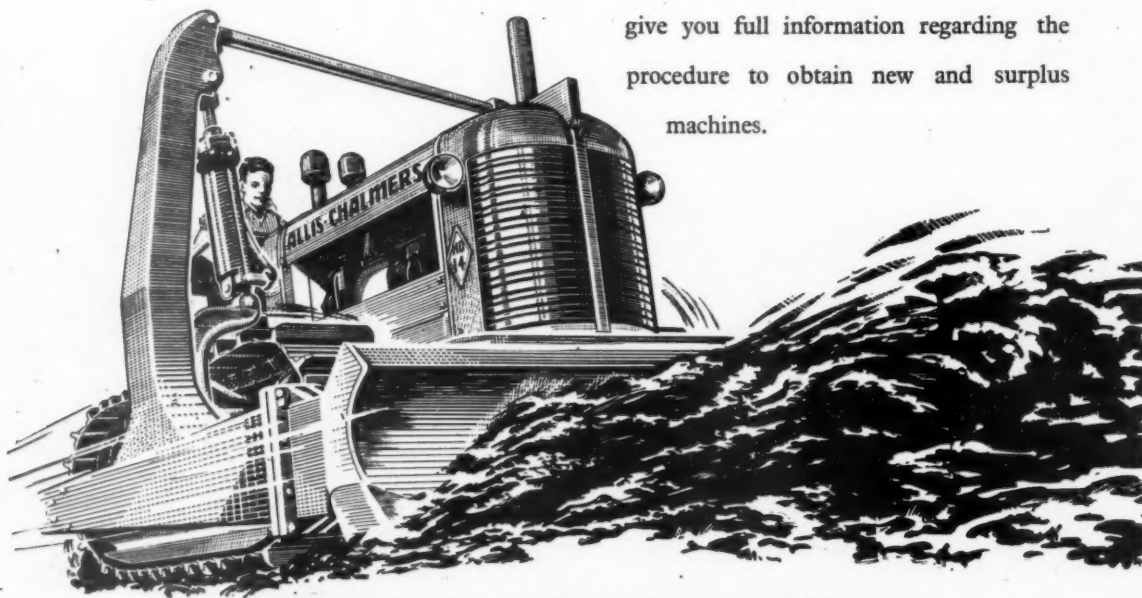
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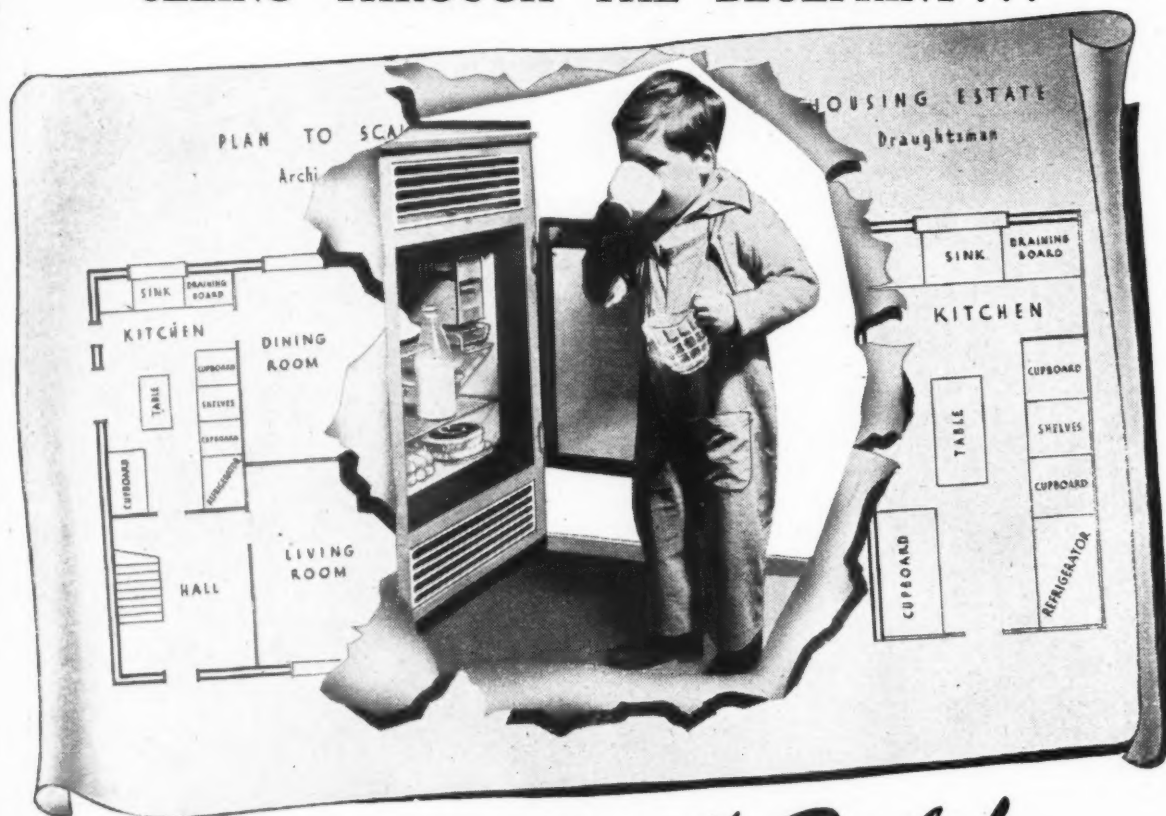
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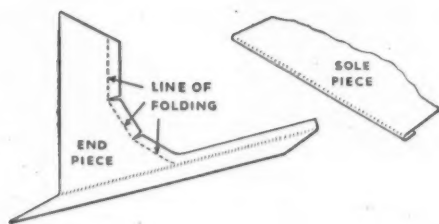


We could swear that if you were to write down the properties you wanted in a flashing material, what you wrote would be a pretty close description of copper.

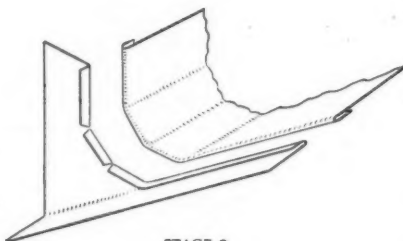
And yet (here's the mystery) plumbers don't always use it for flashings.

After all—take durability. You will not find a more durable material than copper. Or efficiency? What is more secure against wind and weather? Economy? Well, 26 s.w.g., for any flashing, costs less than 17·8. per square foot, even now. Ease of installation? This is so important, it calls for an actual example :—

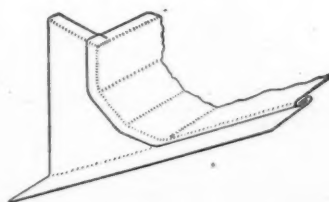
A qualified plumber who had never before made a welted chimney back gutter in copper studied this sketch and made one in twenty minutes.



STAGE 1



STAGE 2



STAGE 3

ANY QUESTIONS by architects, builders, plumbers and others interested in the use of copper flashings, and in any application of copper sheet, strip and tube in building and plumbing, are cordially invited.



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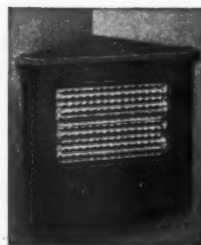
INSULATION

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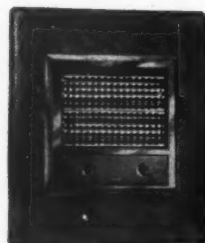
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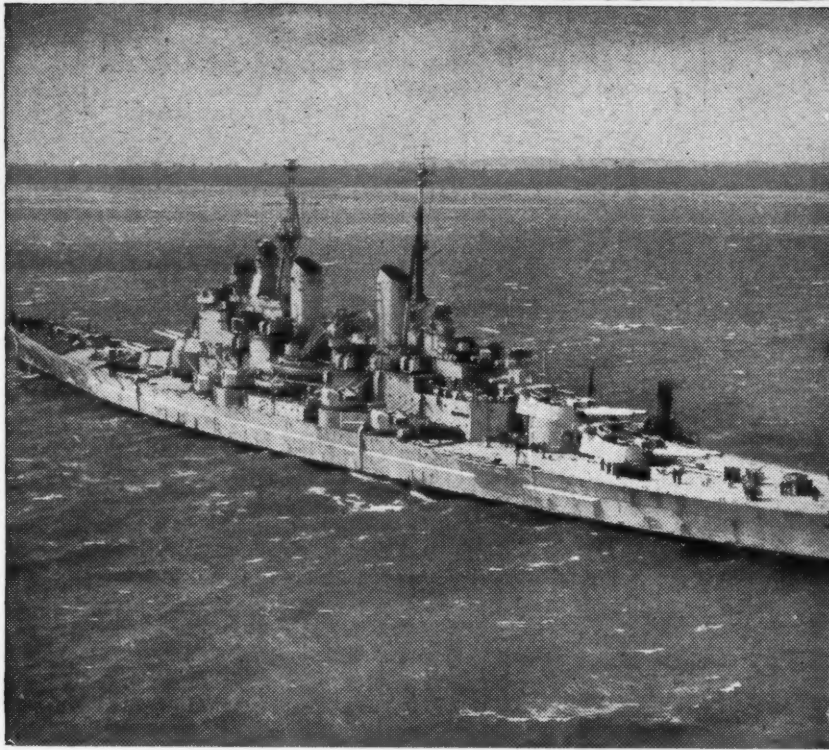
Although our present production is largely absorbed by urgent Government orders for Housing requirements, all enquiries will receive our keen and enthusiastic co-operation.

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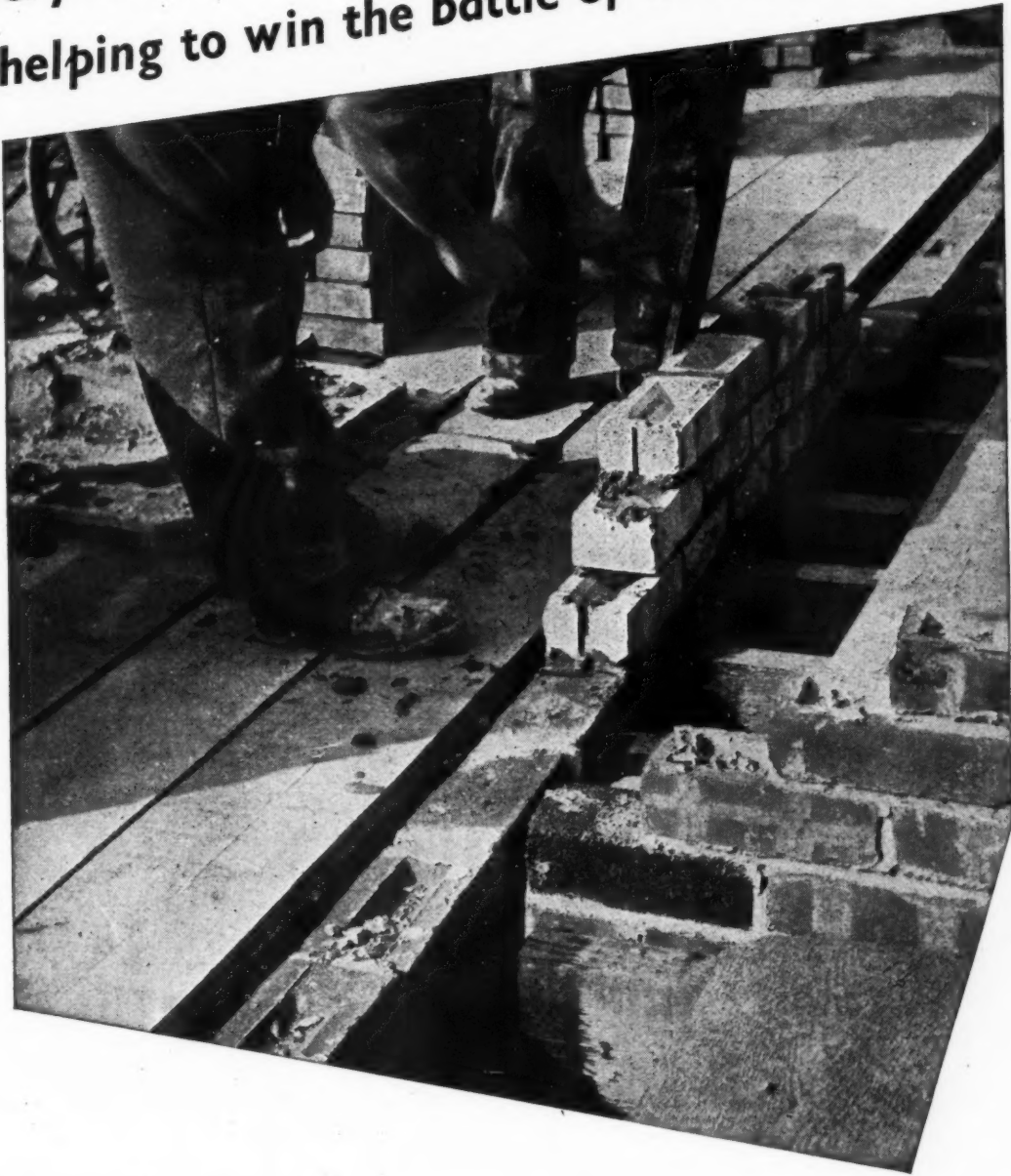


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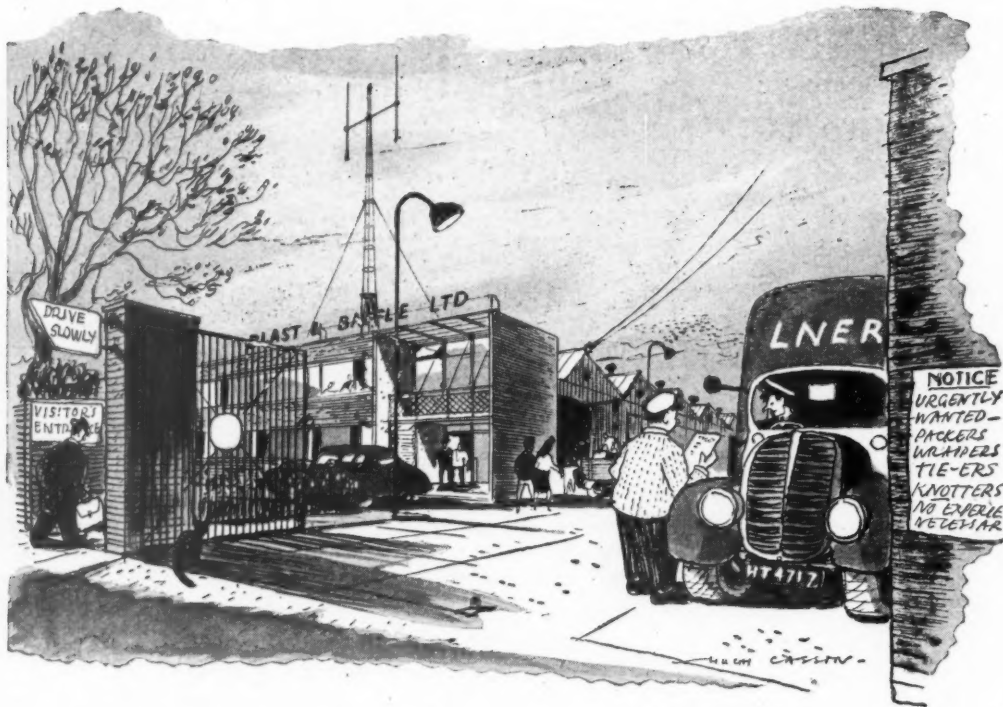
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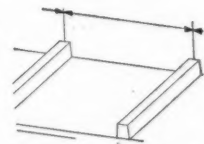
That is where zinc comes in. For zinc is so stubbornly protective. So resistant to rain, smoke, fumes and a dozen other sources of corrosion. So enormously long-lived. So economical in the long run. So easily laid and

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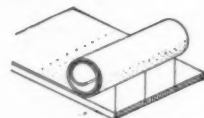
Take, for example, the roll cap zinc roofing of a pitched roof. On the right we illustrate a few details of the technique we recommend. These, of course, are only sidelights on a single method of zinc roofing.

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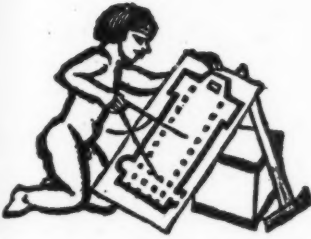
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DIARY FOR MARCH APRIL AND MAY

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.

GLASGOW. *Scottish Conference on Fuel Efficiency.* At Kelvin Hall. (Sponsor, Ministry of Fuel and Power, Fuel Efficiency Committee.) MAR. 25-27

Scottish Fuel Efficiency Exhibition. At Kelvin Hall. (Sponsor, Glasgow Corporation.) Until APRIL 5

LEEDS. L. S. Atkinson. *Modern Electric Lift Practice.* At the Leeds Corporation Electricity Department, Whitehall Road. (Sponsor, IEE, North Midland Installations Group.) 6 p.m. APR. 1

LIVERPOOL. J. Hacking. *The Generation and Wholesale Distribution of Electricity.* At the Philharmonic Hall, Hope Street, Liverpool. (Sponsor, IEE, Mersey and North Wales Centre.) MAR. 27

LONDON. *Steel Door Frames.* Exhibition at Henry Hope and Sons, Ltd., 17, Berners Street, W.1. The object of the exhibition is to overcome any practical difficulties that architects may foresee or experience in fitting steel door frames to the various types of walls and floors in use to-day. (Sponsor, Henry Hope and Sons, Ltd.) MAR. onwards

London Background. An exhibition of drawings and paintings by Tom Waghorn, at B. T. Batsford, Ltd., 15, North Audley Street, W.1. (Sponsor, B. T. Batsford, Ltd.) 10 a.m. to 5.30 p.m. Until MAR. 26

Spanish Paintings. Exhibition at the National Gallery, Trafalgar Square, W.C. (Sponsor, National Gallery and the Arts Council.) Until MAR. 23

Architects to Public Authorities. Last of the talks and informal discussions on *Office Organisation*, at the RIBA, 66, Portland Place, W.1. The speakers will be Hubert Bennett, Architect for the West Riding of Yorkshire; D. E. E. Gibson, City Architect for Coventry; and Kenneth Campbell, Miners' Welfare Commission. Chairman, R. H. Matthew, Architect to the LCC. (Sponsor, RIBA.) 6.30 p.m. MAR. 27

Ideal Home Exhibition. At Olympia, W. (Sponsor, Daily Mail.) 10 a.m. to 10 p.m. Admission 2s. 9d. Until MAR. 29

Duplex and Extendable Houses. Exhibition at The Housing Centre, 13, Suffolk Street, Haymarket, S.W.1. (Sponsor, HC.) Until APRIL 3

Recent Paintings by Michael Ayrtton and Humphrey Spender, and Original Lithographs by Bonnard, Lautrec, Vuillard. At the Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. Until APRIL 5

J. Owens. *Some Aspects of, and Problems Associated with, Reconstruction.* At Living-

stone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 5.30 p.m. MAR. 20

G. T. Pound. *Planning for Daylight.* At Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 5.30 p.m. MAR. 20

Design and Development in Domestic Solid Fuel Appliances. Conference at the Royal Society of Arts, 6, John Adam Street, Adelphi, W.C.2. 10.30 a.m. MAR. 21

Modern Homes Exhibition. At Dorland Hall, Regent Street, S.W.1. (Sponsor, Daily Herald.) MAR. 25

Noel Bercovici. *Some Trends in Modern Art.* At the International Arts Centre, 3, Orme Square, Bayswater Road, W.2. (Sponsor, IAC.) 8 p.m. MAR. 25

Professor P. Sargant Florence, of the University of Birmingham. *County Town.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) 1.15 p.m. MAR. 25
Builders' Benevolent Institution Centenary Festival Dinner. At Grosvenor House, Park Lane, W.1. (Sponsor, BBI.) 6.30 p.m.-for 7 p.m. MAR. 25

John Hutton, Hon. Secretary, Society of Mural Painters. *Mural Painting as a Vital Art.* At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 7.45 p.m. MAR. 26

A. W. Hendry. *Stress Distribution in Steel Portal Frame Knees.* At The Institution of Structural Engineers, 11, Upper Belgrave Street, S.W.1. (Sponsor, ISE.) 6 p.m. MAR. 27

Sidney Motion. *Valuation Problems Affecting Licensed Property.* At the Royal Institution of Chartered Surveyors, 12, Great George Street, S.W.1. (Sponsor, RICS.) 5.30 p.m. MAR. 31

John Summerson. *How We Began—The Early History of the AA.* At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 7.45 p.m. APRIL 16

MANCHESTER. Drawings by F. H. Baines and W. H. Blackburn. Exhibition at the Manchester Municipal School of Art, Cavendish Street, All Saints, Manchester, 15, of a selection of sketches made by the artists in such time as they had to spare from their duties during war service in India. The exhibition was first sponsored by the Royal India Society and is substantially the same as that held in London last year. Mr. Baines was a student at the Manchester Municipal School of Art. Until APRIL 2

NEWS

THURSDAY, March 20, 1947
No. 2719 Vol. 105

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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.

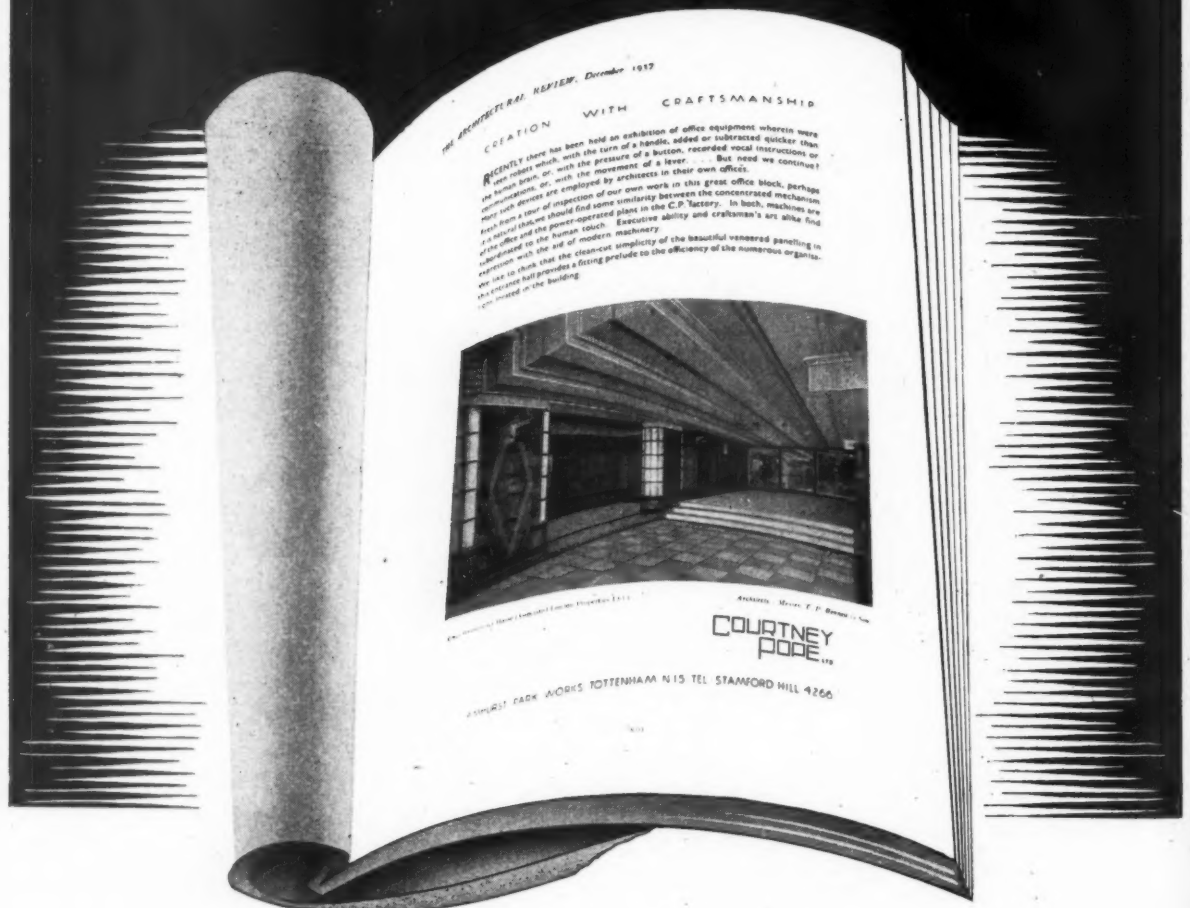
★ means spare a second for this, it will probably be worth it.

★★ 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.

★
Mr. Lewis Silkin, Minister of Town and Country Planning, has appointed REGIONAL CONTROLLERS to take charge of all administrative business for his Ministry in their respective areas in England and Wales. They are: M. B. Tetlow, Newcastle; H. E. C. Gatliff, Leeds; Sir Henry Price, Nottingham; P. T. Mansfield, Cambridge; Major-General N. A. Coxwell-Rogers, Reading; Brigadier R. Peters, Bristol; D. Trevor Williams, Cardiff; L. P. Elliott, Birmingham; P. L. Hughes, Manchester; and A. P. Hughes-Gibb, Tunbridge Wells. In each region there has also been appointed a regional planning problems, a research officer to collect information about regional resources, and an estates officer to advise on estates management. The object of these appointments, it is officially stated, is that local authorities should be able to consult easily and informally with officers of the Ministry on all aspects of planning work at an early stage.

WHEN CREATION WITH CRAFTSMANSHIP IS POSSIBLE AGAIN



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From AN ARCHITECT'S Commonplace Book

THE TWO KINDS OF ARCHITECTURE: I. [From The Architecture of Bureaucracy and the Architecture of Genius, by Henry-Russell Hitchcock (The Architectural Review, January, 1947).] The world of the mid-twentieth century will need some buildings by architects of genius, for only thus can the necessary monotony and the low level of plastic interest of bureaucratic architecture be balanced and relieved. But where, as in England, large-scale reconstruction is the overwhelming present need, individual monuments of distinction—admittedly economic, if not necessarily cultural, luxuries—must wait. While we wait for them, we must not ask of the vast quantities of building immediately required the qualities which they cannot be expected, given the necessary conditions of their production, to possess. But we must guard against the enticement of ideas and features which promise to give to bureaucratic building something of the special expressive power that can be legitimately provided only by architects of genius working as individuals. (The public monuments of Nazidom might serve as a warning. Moreover, England and America have their own horrible examples of twentieth century bureaucratic "monuments.") Likewise when opportunities arise to build focal structures, call them "monuments" if you will, the theatres, churches, libraries, municipal buildings and so forth which serve the community as a whole, symbolically as well as actually; their vigour and richness of expression ought to raise them out of the world of amenity into the world of art. If this is to be so, we must make sure that they are not left to bureaucrats to design.

★★

Mr. Lewis Silkin, M.P., Minister of Town and Country Planning, has appointed the following as members of the Development Corporation for the NEW TOWN AT HEMEL HEMPSTEAD, Herts.

Chairman: Lord Reith, formerly Minister of Works and Planning. Vice-chairman: R. H. Wilson, Joint Financial Adviser to the Ministry of Transport. Councillor Horace Dive, of the Hemel Hempstead Borough Council and Chairman of the Housing and Town Planning Committee. Councillor C. T. Higgins, of the Acton Borough Council and the West Middlesex Joint Planning Committee. J. E. MacColl, J.P., Barrister-at-law, Alderman on Paddington Borough Council. Alderman W. H. Ryde, of Willesden Borough Council. H. W. Wells, Former Chief Estates Officer in the Ministry of Town and Country Planning. T. H. Simmons, Chairman of the Town Planning Committee of the Herts. County Council and a former Mayor of Watford.

included engineering works associated with Royal Ordnance Factories and the Departments of Scientific and Industrial Research. A graduate (B.Sc.ENG.) of the University of London, he is a Member of Council of the Institution of Heating and Ventilating Engineers and an Associate Member of the Institute of Civil Engineers.

Mr. Barnes, Minister of Transport, has appointed a committee, under the chairmanship of Lord Waleran, to inquire into technical matters connected with PETROL STATIONS and the facilities which should be available in addition to the sale of petrol.

The terms of reference are: To consider and report upon; the technical considerations which should govern the number, capacity, and distribution of petrol stations in urban and rural areas; the minimum standard of service which stations should be required to provide, e.g., the provision of power inflation, the holding of stocks of lamps, fuses, etc., and the times of opening; whether stations should be divided into classes corresponding with defined standards

of service, and, if so, the approximate proportions in urban and rural areas. The Minister has invited the following to be members of the committee: Lord Waleran (chairman); C. T. Brunner, acting secretary of the Petroleum Board; F. Cousins, national organizer, Commercial Road Transport Group, Transport and General Workers' Union; Henry T. Duffield, chairman of the National Road Transport Federation, Limited; H. G. Gunn, Ministry of Fuel and Power; J. F. Hedley, Standing Joint Committee of the AA, RAC and the Royal Scottish Automobile Club; T. A. Jeffries, Deputy Chief Planning Officer, Department of Health for Scotland; Lieutenant-Colonel D. C. McLagan, former secretary of the Society of Motor Manufacturers and Traders; G. T. Pound, Ministry of Town and Country Planning; F. G. Smith, president of the Motor Agents' Association, Limited; A. E. N. Taylor, Assistant Chief Engineer, Ministry of Transport; H. R. Watling, Director of the British Cycle and Motor Cycle Manufacturers' and Traders' Union, Limited; and Dr. H. E. Watts, H.M. Chief Inspector of Explosives, Home Office. The secretary of the committee is J. Lesford, Ministry of Transport, Berkeley Square House, London, W.1, to whom all communications should be addressed.

Lancashire, Cumberland, and Westmorland County Councils have agreed to form a joint board under the Town and Country Planning Bill TO CONTROL THE DEVELOPMENT OF LAKE LAND.

One of the first duties of the board, says *The Times*, will be to formulate a 10-year programme for the preservation of the area, with special regard to preventing unrestricted building and commercial development.

Mr. H. H. Westbrook has been appointed Principal Engineer to the KENT COUNTY ARCHITECT'S DEPARTMENT.

Educated at Finchley County School, he commenced his engineering training with Richard Crittall and Co., Ltd., in 1926, and after eleven years' experience of commercial engineering he joined the Chief Engineer's Department of the London County Council. In 1940, he entered Government service in the Chief Engineer's Department of the Ministry of Works. His war time activities



Model of the replanning scheme for Kalinin, Central Russia. During the war the town was completely destroyed.



Stills

In our leading article and in a feature article this week the use of the documentary film for presenting architectural and technical problems is discussed. Above are some characteristic stills from the film *Children of the City*, made by Paul Rotha Productions. This film is a study in juvenile delinquency and shows the influence of environment on the development of city children. The

illustrations show the characteristic slum surroundings that constitute an important aspect of this problem. The film can be used to make clear the heart of the dilemma and to outline the remedy. Is it too much to hope that in the future the only way in which we shall be able to see the conditions to which at present we condemn our city children will be in such films as *Children of the City*?

★
The Minister of Town and Country Planning met representatives of the local authorities concerned with the projected establishment of a NEW TOWN AT AYCLIFFE, CO. DURHAM.

Mr. Silkin explained his intention that the new town will house a large proportion of the persons employed on the trading estate which is being established on the site of the Royal Ordnance Factory. The new

town will be designed for a total population of 10,000 persons. The representatives of the authorities unanimously accepted the Minister's proposals.

The first pair of HOUSES FOR FORESTRY COMMISSION workers to be completed in England since the war have now been occupied.

These are Swedish timber houses of permanent non-traditional type and are situated at Coalway Lane End, in the Forest of Dean. They are two of eight such houses intended for this site, where the remaining six will shortly be ready for occupation. The Forestry Commission's post-war policy of large-scale afforestation and replanting means that in addition to the provisions of houses for many workers already employed, a considerable number will also be required for those yet to be recruited to the forest service.

The National Trust has accepted from Mr. and Mrs. J. L. Behrend, of Burghclere, Hampshire, the gift of THE ORATORY OF ALL SOULS, BURGHCLERE, with an endowment for upkeep, in the belief that the well-known paintings, by Stanley Spencer which it contains should be preserved for the nation.

Lying four miles south of Newbury, the Chapel was built by Mr. and Mrs. Behrend in 1926-27 for Stanley Spencer, who, shortly after demobilization in 1919, had conceived the designs for these paintings. Dedicated in 1927 by the Bishop of Guildford, the Chapel, with its two flanking almshouses, is a memorial to a relative, Lieut. Harry Willoughby Sandham, R.A.S.C., who gave his life in the 1914/18 war. As soon as the chapel had been completed, Mr. Spencer commenced the paintings, which, entirely unaided, took him six years to finish. They depict various scenes from Mr. Spencer's daily life as a soldier in the first World War, when he served in the R.A.M.C. and in the Royal Berkshire Regiment on the Salonica front. They now represent a work of art of the highest importance and certainly the most decorative scheme of its period in England.

The 1947 edition of the RIBA pamphlet MEMBERSHIP OF THE RIBA has now been published.

Copies may be obtained from the Secretary, RIBA, price 2s. each, exclusive of postage. The pamphlet, in addition to information regarding the Examinations and Membership of the RIBA, contains full details regarding architectural training. Maps and schedules showing the local distribution of facilities available for architectural education in the British Empire are an important feature of the pamphlet.



Mr. E. J. Smith, the new President of the National Federation of Building Trades Employers. An active member of the Federation for over twenty years, he is chairman of the Building Advisory Committee at Cardiff Technical College and a member of the National Joint Production Council. President of the Cardiff Association in 1932 and 1935, and of the South Wales Federation in 1939, 1940 and 1941, he has been chairman of the Regional Joint Committee (for eight years), and of the Regional Joint Apprenticeship Committee. In 1904, he entered the building industry as an apprentice, and twenty-one years later founded the firm of E. J. Smith and Company, which he now directs.

USE MORE FILMS

WITH every new scientific and technical development comes a host of visionaries who see in that development a brighter future for the human race. Today, there is hardly a publication that has not insisted that the atomic age ushered in by Hiroshima will remove the drudgery of the kitchen by electronic apparatus. Thirty years ago it was a similar commonplace that the film would bring about startling changes in educational methods. While it would be foolish to deny the possibility of the dawning electronic age brightening into full daylight, it is clear that something has gone wrong with films. On the whole, it would not be an exaggeration to say that the instructional and educational films have not revolutionised educational technique.

During the war, however, great strides were made in developing the film for this purpose, particularly in the direction of the diagrammatic presentation of the theoretical bases of various technical developments, such as radar. Since the war, there have been a few film companies who have thought it worth while to produce films that have a didactic purpose, and there are some official film units producing instructional as well as documentary films, but on the whole, war-time experiences have been inadequately exploited.

Especially is this the case in the building industry. Within this industry, the architectural profession has shown the least initiative in making use of the new technique for education and propaganda. Some time has elapsed since the RIBA set up the Films Sub-committee of the Public Relations Committee, but that admirable step appears to have exhausted the impulse. The activities of this committee now seem to be largely confined to the preparation of a list of films. It looks as though a great opportunity has been missed. The architect is still disastrously, all too frequently, regarded as an expensive though decorative supernumerary in the building hierarchy.

No doubt the RIBA Film Committee is handicapped through lack of adequate funds, and cannot contemplate sponsoring film production. There remains, however, a number of steps that might be taken, and Mr. Paterson, in his article on another page, makes one proposal in particular that can be wholeheartedly supported. He suggests that a number of architectural schools should combine to provide financial backing for one or more films, to be made jointly every year. The RIBA is the body to which the schools will look for assistance in such an enterprise. Certainly, the Institute, which has played so important a part in the development of architectural education, could without impropriety, approach the schools on such a project.

The interest of the Ministry of Education could be aroused as the Ministry is directly concerned in the teaching of architecture at the Royal College of Art, and has already shown its interest by the formation of a committee, including teachers

and educationists, to advise on the use of films in education, and a Film Production Committee to put such advice into practice.

The inherent educational possibilities in films are no longer a matter of faith among the visionaries, but a matter of recorded experience. The architectural profession in Britain has for long been conscious of the tremendous social importance of its function for the welfare of the people. It has not yet been able to find the right channels through which it can awaken a responsive consciousness in the ordinary citizen. Perhaps the film could provide such a channel and skilfully used might well prove an antidote to the enervating irrelevancies of the average Californian filmic export.



The Architects' Journal

23 Queen Anne's Gate, Westminster, S.W.1
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N O T E S & T O P I C S

STILL THAT AD-MAN

Weeks ago I complained that the styling boys seem to have got their claws well into the US motor industry, but now my insular modesty compels me to record a fine British example. One of our new cars, a good one as far as I know, has a gear change which the sales staff have seen fit to describe as—believe me or not—Tiptomatic.

Years ago, as a very new car owner, I used to scoff at the sociologists who maintained that an automobile generation would lose the use of its legs, but really—Tiptomatic. - All done by little ballet skirted fairies, I suppose, prancing round in an air-conditioned gear box.

What is the building industry doing about all this? Astragal, ever at the service of suffering humanity, offers

you the Elfin Thermostat; invisible fingers to watch over you while you sleep and send you more BTU's before you know you want them.

BRITISH PAVILION, NEW STYLE

Art journals in this country have not often had a happy history. Theirs the happiness of no history unless from the first number they have gone out to please all and injure none or else have aimed point-blank at the connoisseur who uses his eyes primarily to verify dates and attributions. There have, too, been fairly successful flutters with, by, and for small coteries. Perhaps there is now a more responsive public for something midway between the unselective and the over selective. *The Arts* has launched its first number in an attempt to find it; now there is *The Pavilion*, a miscellany of British Art and Architecture [edited by Myfanwy Evans, distributed by Duckworth, price 12s. 6d.] to which successors are promised.

The editor claims that the contents have the unity of showing "some capacity of the British eye for seeing things to create something from them or seeing things to appreciate them." The bulldog line is tempered at the start by Wyndham Lewis in an article extolling the virtues of eclecticism, cosmopolitanism and international art. This would seem to be a smart rejoinder to those who have made an excessive virtue out of their cultural isolation through the war years and have gone shouting down neglected byways of English art, proclaiming British provincialism and salvation and seeing neither poetry nor promise anywhere else. Mr. Wyndham Lewis's is a

British cosmopolitanism, says the editor. We don't quarrel. It is excellent reading.

Then Mr. Betjeman with an introduction to the work of the Irish architect—gothicist and classicist—Francis Johnston. Leaving biographical facts and building dates to a neat tabulation and details of buildings to a series of photographs, Mr. Betjeman is able to concentrate in a short article a delightful introduction to the whole history of Irish architecture. Anthony West interprets the architecture of Languedoc and the ravages that the Albigensian heresy and its suppression alike made in the creative power of Southern France. There is plenty more, and the articles are worth reading twice. There are plenty of illustrations, and not all from the old blocks we know.

CAN OFFICIALS CREATE?

Mr. Leonard Howitt, City Architect of Manchester, hits back at me for attacking the trend towards the nationalization of the profession. He writes that "these repeated derogatory references to official architects can have no other effect than to annoy architects who practise their art in a salaried capacity and who resent the implication that architectural ability of high degree is the monopoly of those who are remunerated in another way."

He goes on: "To resurrect old bogies is a dis-service to the profession at a time when unity is essential. The space would be better employed in furthering the acceptance of the principle that all architectural work shall be carried out by architects directly responsible to the client or employing authority, and that none of our colleagues shall be subservient to members of other professions."

I do not want to deprecate official architects. At this juncture they have a valuable administrative job to do. My point is that if you believe architecture to be an art and not merely a matter of administrative routine, the creative architect must be able to work in an atmosphere of personal freedom. Far too big a proportion of building is now being concentrated in

official departments, and I still maintain that this is a bad thing in that it amounts to a steady and unobtrusive nationalization of the profession. It is the more to be deplored because these departments cannot cope with all the work that is being thrust upon them. There is plenty of talent outside official departments which is crying out for work and of which authorities could make better use on a freelance basis.

Whether officialdom is intrinsically an enemy of creativeness is a moot point. It certainly is so at present, if one is to judge by results, though even now one hears of salaried architects who, by fighting hard, maintain some freedom of expression. But such cases are not typical. It would be interesting to know what is the motive power behind these rare cases. I suspect that the power always comes from one very exceptional individual who refuses to accept frustration and has the rare ability to create in spite of, and not because of, his conditions.

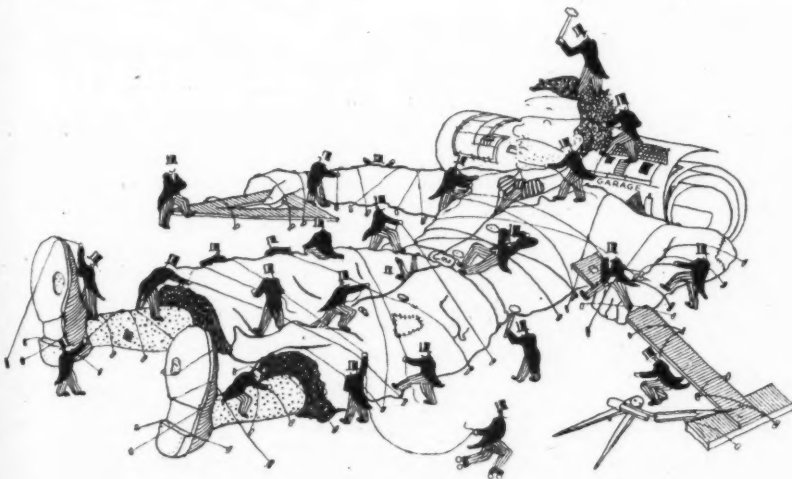
Certainly, Mr. Howitt is right in believing that "none of our colleagues shall be subservient to members of other professions." That is a first essential to improving official architecture. Nevertheless, this is not enough. I fear that much change—not only in the organization of official departments but also in the attitude of officialdom towards the nature of the

architect's services—will be needed before we shall be able to disagree with Camillo Sitte that "artistic individuality and enthusiasm for work of one's own responsibility are factors that do not fit into public administration."

Perhaps at this juncture we must accept the inevitable bureaucratization of the bulk of the building in the coming years. As Mr. Hitchcock wrote in his very intelligent article in the *Architectural Review* for January on *The Architecture of Bureaucracy and the Architecture of Genius*: "Where, as in England, large-scale reconstruction is the overwhelming present need, individual monuments of distinction—admittedly economic, if not necessarily cultural, luxuries—must wait." He also writes: "When opportunities arise to build focal structures, call them 'monuments' if you will . . . which serve the community as a whole, symbolically as well as actually, their vigour and richness of expression ought to raise them out of the world of amenity into the world of art. If this is to be so, we must make sure that they are not left to bureaucrats to design."

Incidentally, that this feeling of bureaucratic frustration is not confined to England is illustrated in a New Year card (illustrated below) sent by two young Danish architects, Tyge Holm and F. Grut, to a fellow sufferer in this country.

ASTRAGAL



1 9 4 7

A New Year card from two young Danish architects. See Astragal's note on Can Officials Create?



LETTERS

P. A. Dannenbaum

G. W. Hughes, M.B.E., L.R.I.B.A.
(Cox and Hughes, Chartered Architects)

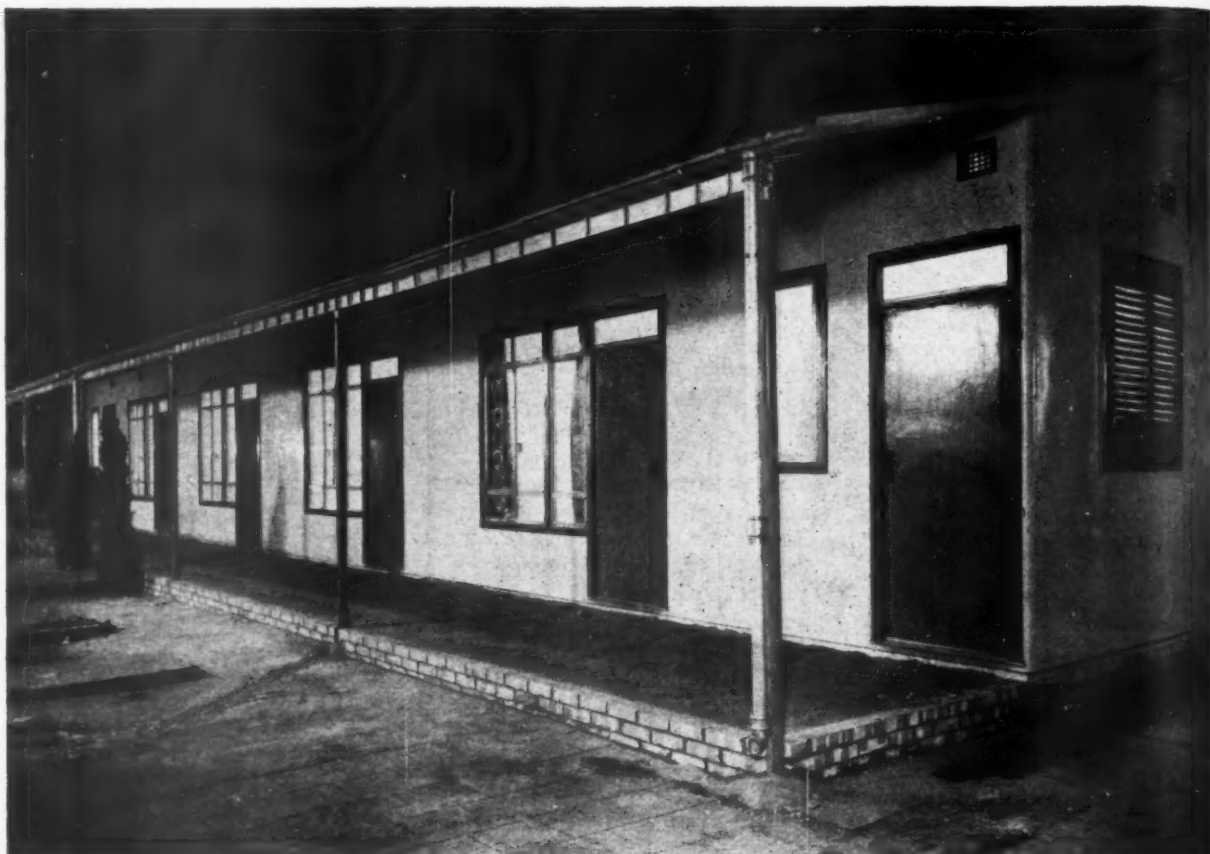
New London v. Better London

SIR,—In the Interior Decoration department at Twickenham Art School we had an informal discussion about London and its future planning, which later developed into a discussion on the St. Paul's neighbourhood. We were unanimous on one point—London must preserve forever its essential character of having gradually and informally grown. The quaint old byways must remain. St. Paul's Cathedral must not be set into another Esplanade des Invalides. In particular, the North side of St. Paul's Church Yard—the lovely little narrow street with shops on one side, and trees and the Cathedral on the other, must remain. Personally, I should like to venture this solution for the St. Paul's district:

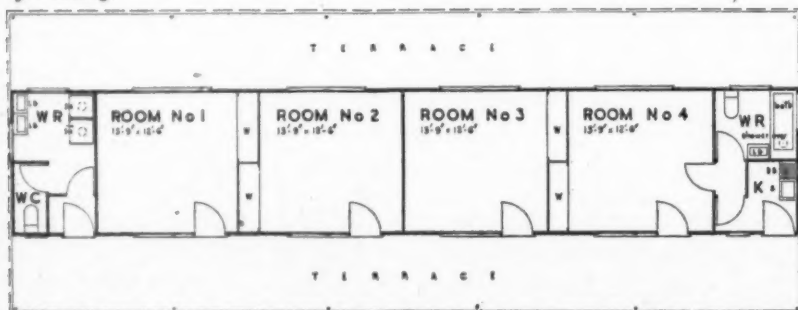
- (1) Formal vistas from the West and from the river.
 - (2) The North side of the Church Yard to remain completely unaltered.
 - (3) The bombed sites on the South and East to be laid out as informal gardens.
- How pleasant to walk around the Cathedral and see it in three different lights—from a boulevard, from an ancient byway, and from an open space.

I am sure that not only design students but nearly all Londoners agree that we do not want a "New London," though we realise the need for many positive improvements. Let what is new be really modern and let's preserve what's fine of the old. The planners give us too much of a modernised version of Baroque, and the Holden-Holford plan

ALUMINIUM FOR TROPICAL HOUSING



The light alloy industry greatly expanded for war production has been forced to seek new developments to keep the war-time factories in production. The latest of these developments is a hostel, illustrated here, intended for the tropics. There are four bed-sitting rooms in the unit with wash-rooms at each end. The foundations may be dwarf brick walls on a concrete slab or concrete piers at 6 ft. 6 in. centres in both directions. The floor is of light alloy panels in extruded framing of the same material. The panels are filled with cellular concrete of high thermal insulation value. The surface finish is sawdust concrete with limestone chipping aggregate. Both filling and finish are artificially cured. The walls are framed with light alloy and faced externally with light alloy sheeting. The panels are filled with cellular concrete and faced internally with plaster, applied mechanically at the factory. The roof is framed in alloy with corrugated sheeting of light alloy. The ceiling is fibreboard and insulated with fibre glass. The whole structure is termite proofed. The building has been developed by Structural and Mechanical Development Engineers, Ltd., of Slough. The architects are A. F. Hare and Partners. The same firm is developing this form of construction for other types of building.



The light alloy industry greatly expanded for war production has been forced to seek new developments to keep the war-time factories in production. The latest of these developments is a hostel, illustrated here, intended for the tropics. There are four bed-sitting rooms in the unit with wash-rooms at each end. The foundations may be dwarf brick walls on a concrete slab or concrete piers at 6 ft. 6 in. centres in both directions. The floor is of light alloy panels in extruded framing of the same material. The panels are filled with cellular concrete of high thermal insulation value. The surface finish is sawdust concrete with limestone chipping aggregate. Both filling and finish are artificially cured. The walls are framed with light alloy and faced externally with light alloy sheeting. The panels are filled with cellular concrete and faced internally with plaster, applied mechanically at the factory. The roof is framed in alloy with corrugated sheeting of light alloy. The ceiling is fibreboard and insulated with fibre glass. The whole structure is termite proofed. The building has been developed by Structural and Mechanical Development Engineers, Ltd., of Slough. The architects are A. F. Hare and Partners. The same firm is developing this form of construction for other types of building.

for the City which you published on July 18 last is no exception. Where we have boulevards, we need trees. Let's have trees in such roads as Portland Place, please.

East Twickenham

P. A. DANNENBAUM

Double Glazing

SIR.—With regard to the letter by Mr. R. F. Leather: There is no doubt whatever that double glazing is advisable from every point of view, and especially now that such stress is made on economy in fuel consumption.

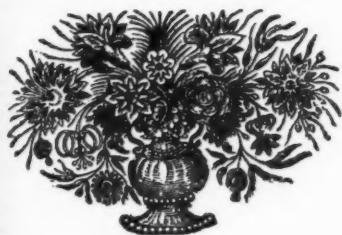
Double windows, as suggested by Mr. Leather, are obviously both expensive and wasteful in materials, but I must disagree that the cost of double glazed prefabricated units is of necessity prohibitive.

I have been in communication for some time past with manufacturers who produce products which may have proved suitable for use in the production of a cheap double glazed unit. A system using Prestik in tape form together with an asbestos cord spacer has, during a month's preliminary test proved satisfactory, and further practical tests are being made.

This unit consists of two sheets of twenty-one ounce glass with $\frac{1}{2}$ -inch space between and can be satisfactorily used in normal metal windows of universal section. As to the cost—Prestik necessary for a 2 ft. by 2 ft. unit would be approximately 1s. 4d., glass 7s. 4d., the asbestos tape 6d., and the whole can be assembled by anyone with the average intelligence in under 1½ hours.

G. W. HUGHES,
(Cox and Hughes,
Chartered Architects), Aylesbury

In our leading article this week we urge that the architectural profession should take practical steps to make full use of a contemporary medium for public relations in the widest sense. Mr. Paterson in his article deals in detail with the whole subject of the use of films for the building industry.



FILMS

Their Use in Architecture and Building

[by R. N. Paterson]

During the months immediately following the end of the war there developed a growing realization that films of the documentary, instructional and industrial type were destined to play a very important part in bringing about a rapid post-war reconstruction of professions and industries. Just how important films are in connection with such problems as housing and town planning is stressed by the fact that during the past months several very excellent documentary films dealing with the subject of post-war housing and its attendant problems have been shown in London cinemas and will later have a wide distribution throughout the country.

The architectural and allied building professions have, in the various adaptations of the documentary film a very valuable medium for public relations and the efficient education of the public in the appreciation of good architecture, and building design, as well as a visual aid to technical education that has already received the general approval of professional associations and the Ministry of Education.

Prior to the war the use of films as a means of visual education and as a documentary approach to the public had not been developed in a very wide field. Scientific bodies, particularly the medical profession, were the most frequent users of specialised films and Shell-Mex and the Empire Marketing Board did a great deal of pioneer work in the earlier development of the documentary film and its application to industrial and educational use.

When, however, war broke out the Government departments and the three Services needed, very quickly, a visual and popular medium through which to propagate essential facts and to act as an effective medium through which to train recruits in the technical branches of the Services. In every case the various departments found the answer in the adaptation of the documentary film. Apart from the official Ministry of Information films shown in cinemas throughout the country hundreds of special instructional films were made ranging in subject matter from simple tactics to advanced engineering theories. The technique of using animated diagrams to illustrate technical facts and to explain relevant statistics was developed along very original lines. Many of the technical training films made for the REME and other sections of the Services concerned with building and general architectural work will, as time goes along, be released from the security ban and will form quite a useful library of educational films for showing to student architects and builder's apprentices.

When the end of the war released the many documentary film producing units from their wholtime Government obligations there immediately took place a switch over from official films to those more suited to the urgent needs of professions and industries. Quite early after the cessation of hostilities there appeared the first of a now growing number of films dealing with housing problems. One of the first, made by Gaumont-British Instructional Pictures dealt with the experiments carried out at Northolt in connection with pre-fabricated steel houses. Since then many official as well as sponsored films have been produced dealing with housing and town planning, the most recent being a very long documentary called *Land of Promise* which, following its London screening, is being distributed throughout the country, and has already received the Certificate of Merit awarded by the Royal Institute of British Architects.

FILMS AND ARCHITECTURE

A great deal more, however, has yet to be done and a lot of co-ordination between all sections of the architectural and building professions is going to be necessary before the film and all its adaptations is fully harnessed to cover all activities of the allied spheres of the architect and builder.

Unlike the commercial industries which are using films to serve the primary purpose of selling manufactured goods and generally creating prestige for the industry concerned, films that can help the architect and builder must have a much more specialised and factual outlook, be capable of creating a candid and intimate relationship with the general public and, many, particularly those made for furthering the educational aims of two professions, must have a high academic quality.

Films dealing with town planning and housing, for example, must stress that these essential problems are solved by the combined efforts of many experts, and not merely by the work of the building profession alone. Quite a few of the documentary films on housing illustrate very clearly the building side of the problem but do not throw nearly enough light on the architect's share in town planning and the general re-construction of damaged areas.

TYPES OF FILM

Before going on to outline the various uses to which films can be adapted for the general benefit of architects and builders I want to make clear the difference between the normal 35 mm. film and its sub-standard counter-part, the 16 mm. size.

The full-size 35 mm. film is that which is used for normal cinema projection and being made of a celluloid base is extremely inflammable.

With its cumbersome projectors, and ancillary equipment, combined with the fact that the screening of 35 mm. film is governed by a series of vital Home Office regulations, this type of film is not suitable for showing in lecture halls, small rooms and similar buildings not equipped with static apparatus. Thus films intended purely for non-theatrical showing are printed on 16 mm. non-inflammable film and can be shown on portable projectors and, can be sent through the post with every safety. When the earlier sub-standard films were made a certain amount of confusion was caused by the fact that the sound track was sometimes on one side of the film and in other cases was on the opposite side but in 1936 a British Standards Specification No. 677/1936 was issued so that after that date a single method was made universal.

It is now customary to make 16 mm. versions of all 35 mm. documentary films and the Central Film Library and the National Film Library now contain sub-standard versions of most of the important documentary and educational films.

Films that are most likely to prove useful to the architect and builder, and to the two professions in a collective sense, can be divided into three important groups, which together form a complete film programme.



A scene from the MOI film The Proud City on the County of London Plan.

1: FILMS MADE FOR WIDE DISTRIBUTION

This group can be sub-divided into the following classes:

(a) Films made by professional film producing companies dealing in documentary style with national problems affecting the architect, builder, local town planning schemes, housing, as well as general interest films which encourage the public to appreciate good building and design.

(b) Films intended for wide distribution but sponsored by individual organisations, either industrial or professional, and which deal with special aspects of architectural and building matters, such as the recent film made for Taylor Woodrow Construction Company, which deals very completely with the erection of the Arcor Mark V temporary houses.

(c) Films sponsored by Government departments, which are released automatically to cinemas throughout the country. Examples of this type are the two Central Office of Information films, *The Proud City*, which outlined the LCC reconstruction plan, and the recent *Shaping the Future*, which deals with the national schemes for re-building and town planning.

The problem affecting all films made in classes (a) and (b) is one that faces all professions and industries who plan to make films for wide distribution to the general public, namely, how to obtain the widest showing through the cinema trade distributing companies. It is fortunate that housing and town planning problems are front page news at the present time and as a result of the nation-wide interest in this question of homes and reconstruction several documentary film producing companies have recently completed films that deal, most constructively, with the problems facing the architect and builder in their efforts to speed up rebuilding and town planning. Of these, Paul Rotha's *Land of Promise and An Englishman's Home*, produced by Exclusive Pictures, have had London screenings, and so has the J. A. Rank documentary *The Way We Live*, a long factual film on town planning which had restricted distribution through the Odeon circuit of cinemas. All this is very much to the advantage of the building and architectural professions, and as such films usually have specialists from both interests acting as technical advisers, the factual side is usually most authentic.

From the purely professional point of view, however, these popular types of documentary films lack the specialized angle so essential if the architect and builder's view point is to be given emphasis, and the opinions expressed in these films, which are naturally produced to appeal to the general public, are often inclined to express the producer's view rather than that of the professional architect and building craftsman.

Thus films coming under the (a) classification in this group are usually sure of fairly wide distribution throughout the country by reason of their evident box-office appeal, but when it comes to making films that have been sponsored by an organisation or an industry the distribution problem immediately becomes acute. At the present time there have been very few sponsored films made dealing with the subjects that interest the architect and builder. The few that have been produced really come under the group covering purely technical films intended for non-theatrical showing, an exception being the film on steel pre-fabricated houses sponsored some time ago by the British Iron and Steel Federation and given priority screening in most of the J. A. Rank theatres.

A sponsored film, if it is to have distribution to cinemas and thus regain at least a proportion of the production costs must have entertainment value and not be a mere recital of facts. Well-known documentary film producers, have, as I have indicated above, made successful films based on housing problems and there really is no reason why, with the co-ordination of every professional association connected with the building and architectural spheres that at least one popular documentary film could not be made that gave the public a clear and interesting picture of the co-operative working of architect and builder.

The great question of costs naturally arises, but with the pooling of resources, with each association contributing a share of the production costs, no individual organisation would be shouldering the complete burden. A 35 mm. documentary film costs from £1 to £5 for every foot of film, and a film with a running time of 30 minutes uses about 3,000 feet of film. Thus to make a really outstanding film which by reason of its popular appeal would be assured of a fair showing in cinemas, would cost from between £3,000 to £15,000 according to the amount of detail.

Alternatively, it would be much less costly to follow the example set by the Glasgow Corporation, who have decided to embark upon a film campaign dealing with civics and municipal matters using 16 mm. film only. They intend to spend £10,000 on the programme, and the first group of 12 films will cost, it is estimated, about £350 each.

By means of mobile projection units a group of 16 mm. films can be shown in town halls and lecture rooms, and if organised on a sound basis through the various local branches of the architectural and building professional associations it is possible to give 16 mm. films very wide distribution. A certain amount of the production cost can be regained by making a hiring charge to all private organizations and schools who would wish to use these films.

In class (c) of this group are included the many films made by the Central Office of Information, the British Council and others who make official films for showing in cinemas; and to organizations by means of official mobile film units. The Central Office of Information have made quite a number of films on housing and town planning and are offering to arrange film shows for any municipal authority who is interested in applying the visual method of approach to local ratepayers.

2: FILMS MADE FOR NON-THEATRICAL SHOWING

This group covers all 16 mm. films, with the exception of technical films made purely for educational purposes, made for showing to members of professional associations, builders' employees, municipal departments connected with town planning and housing, and includes films of a general public relations type which are made purely for private or non-theatrical exhibition and not as those included in Group 1: which are primarily for showing in public cinemas.

There is here the greatest scope for utilizing



Another scene from the MOI film *The Proud City* dealing with replanning and reconstruction of London.

films to assist the various branches of the architectural and building professions, and with co-ordination it should be possible as time goes along to build up a really complete library of films on every aspect of building, design, research and architectural appreciation. The RIBA has reformed its Films Committee and is busy at the moment viewing films and compiling a list of general architectural films as well as those on town and country planning and building, and a number of firms such as Taylor Woodrow Construction Co., the Cement Companies in conjunction with the Building Research Station at Watford, and a few others have made films of interest to both architects and builders. So far however there has been very little done in the way of co-ordinated effort to produce films that answer the needs of architects and builders alike. Films are needed that can be shown by municipal authorities in town halls that illustrate the building up of a town planning scheme, films that show step-by-step how a modern house is evolved from the first pencil outline on through the various stages until the final decorative process is reached.

Many industrial organisations have developed their own small 16 mm. film producing units and this is an idea that should be given some thought by architectural and

building associations. Working in conjunction with the Schools of Architecture, a small film producing unit composed of a team of professional 16 mm. experts supplemented by a number of architects and building consultants could make a series of very useful films. A central co-ordinating committee with headquarters in London could supervise the film-making programme and at the same time build up a film library and general information department supplying architects and builders with facts concerning films and to assist with the organisation of local film shows.

3: FILMS FOR SUPPLEMENTING THE TRAINING OF STUDENT ARCHITECTS AND BUILDING CRAFT APPRENTICES.

There is no doubt that visual aids to technical education are here to stay and technical schools throughout the country are planning to make use of films on all subjects included in their courses of study. The Ministry of Education are very much in favour of educational films but so far have only acted in an advisory capacity. A committee has now been formed composed of representatives of the Ministry, film production companies, teaching associations, local government authorities and others interested in visual aids, and technical education will have a place in this organisation. The architectural and building students and apprentices are badly served at the moment and apart from a few excellent films sponsored by manufacturers of building materials very little has been done to organise a definite programme of training films covering the various stages of instruction.

The great value of an instructional film lies in the facts that not only can theories be shown in diagrammatic form but practical illustrations of the theory in practice can give a sense of authenticity that blackboard demonstrations can never hope to achieve. The elucidation of a problem and the demonstration of the right and wrong methods of carrying out a practical operation can be shown clearly in a series of short 16 mm. films.

What has so far prevented the production of technical films for architectural students and building apprentices? First, of course, there is the old problem of costs, which, frankly, I feel is not quite so serious as most organisations think it is. If each of the prominent Schools of Architecture and the various professional associations allied to architecture and building were to plan the sponsoring of at least two short educational films a year, the result would soon build up a comprehensive range of very useful films. Some of the cost would be regained through hires to local technical schools and private organisations.

The RIBA is very interested in the future of architectural films and has re-established its Films Committee and through it an Appraisal Panel which is at present engaged on appraising and classifying films of a general architectural nature as well as those dealing with town and country planning and building. They hope, ultimately to prepare a complete list of these films. As far as teaching films and film shows of specialised productions are concerned, the RIBA feels that the shortage of 16 mm. sound film projectors will have a retarding effect on the number of teaching and technical films produced. Personally, I think that this problem can be overcome and have therefore made suggestions in this article how this can be done.

The Council for Visual Education is working hard to encourage the production of films that teach students the difference between good and bad design in connection with town planning and building in general.

The other difficulty that is retarding the production of technical educational films is of course the present shortage of projectors for showing 16 mm. sound films, although

the Ministry of Education, can now, I understand, supply a limited number to schools. A Board of Trade permit is still necessary for the purchase of projectors, but professional associations should have no difficulty in obtaining a permit.

As far as I can see the problem, the greatest need is for a wholehearted scheme of co-ordination bringing about the formation of a central architectural and building films committee whose task it would be to keep track of all educational films likely to be of interest to students and building apprentices and to accumulate funds from which to pay for the sponsoring of a certain number of films each year. I have already referred to the work that is being carried out by the RIBA Films Committee, and with the co-operation of kindred professional bodies the above scheme could be carried out quite economically.

PLANNING A FILM PROGRAMME

If architectural and building films are to be a real success it is necessary, as I have pointed out earlier in this article, to plan a co-ordinated film programme, and it has become a fairly accepted practice in most professional spheres to build the programme around the production of a major documentary film for wide distribution and to follow up with the production of smaller and more specialized films in the 16 mm. size for non-theatrical screening and for educational purposes.

By following this plan there is every chance of recovering most of the initial costs, and with the possibility of making just a little profit. The co-ordinated films committee would at first have to decide on the general outline of the major documentary film and in this case it should be a bright, factual and entertaining film showing the essential part played by architects and builders in shaping the reconstruction of towns and cities, showing the utilization of new materials, new methods of construction, and to stress the fact that all town planning is the joint effort of architect and builder. As the film must have popular appeal it must have story value, the commentary should be spoken by a well-known commentator, and if possible the introduction of a fictional character played by a well-known character star is a help towards encouraging cinemas to book the film. Once the outline has been decided upon it then becomes necessary to consult one of the many competent documentary film production companies who will then prepare a preliminary treatment before finally going ahead with the script and subsequent routine production work.

If this film is good and has a popular note of appeal the possibility of cinemas wishing to book it is fairly good, and once a firm of film distributors decides to handle the film on a commercial basis at least the return of most of the cost is a certainty. At the same time copies of the film are made in 16 mm. film stock for distribution to organizations and for showing by means of mobile film units.

Following the making of the major film the programme is then completed by producing a series of shorter and more specialised films dealing with subjects that are likely to interest the practising architect, and builder, and of course films that can further the training of the student and apprentice. Such a film can cost anything from £5,000 to £10,000, according to how much is spent on the documentary film, but if it is decided to concentrate on 16 mm. films only, then quite a useful number of films can be made for £2,000-£3,000.

SOME EXAMPLES OF AVAILABLE FILMS

There is no doubt that the two most outstanding of the more recent films of interest

to the architect and builder have been the two full-length documentaries *Land of Promise* and the town-planning film *The Way We Live*. *Land of Promise*, produced by Paul Rotha and awarded a Certificate of Merit by the RIBA, shows the housing problem from the social standpoint, and the theme is divided into three parts, *Homes As They Were*, *Homes As They Are*, and *Homes As They Might Be*. Each section explains, criticises and augments with statistics demonstrated by means of animated diagrams. The film is given further popular appeal by using voices of well-known film stars to speak the opinions of the casual observer, the housewife, history and Hansard. It is a film holding much that will interest the architect and builder, although many will feel that it does not devote enough time to the architectural viewpoint. The J. Arthur Rank film, *The Way We Live*, caused a mild sensation when it was completed, as the film renting organizations felt, at first, that it was not a good commercial proposition, but when finally it was shown in London the critics were full of praise for this commendable effort to bring the machinery of town-planning to the screen.

Using as an example of modern town planning the famous scheme to re-build bomb-damaged Plymouth, the *Way We Live* is essentially a popularised documentary, but for all that does give a clear, constructive picture of the evolution of a town-planning scheme from the first architectural blueprint through the stormy Council debates to a stage where the plan is accepted by the City as a practical re-building plan.

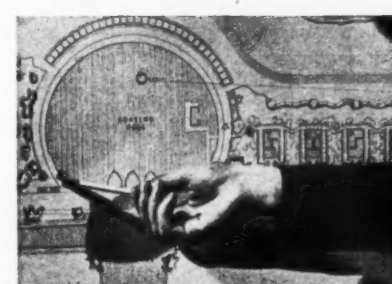
Other films made during the past twelve months for general distribution include *An Englishman's Home*, which includes an excellent survey of the various types of pre-fabricated houses; *Shaping the Future*, dealing with building problems and made for the Central Office of Information; *The Proud City*, dealing with the re-building of London, and *A City Re-born*, which shows the reconstruction of Coventry, two COI films, available, as are all official films, through the Central Film Library.

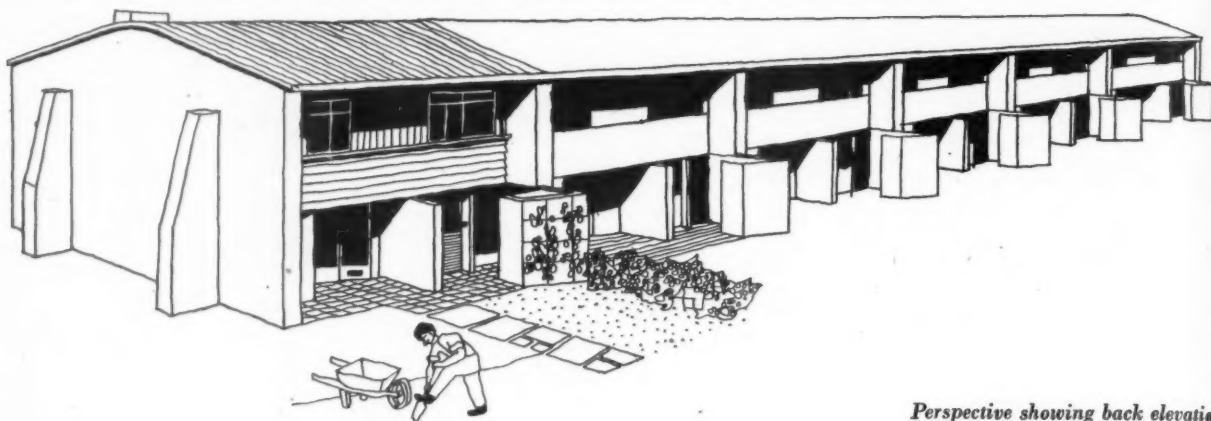
So much for films made for theatrical distribution, of which many more are on the way, but when one comes to the task of listing films made from a more specialised viewpoint then it is realised how few are the films that deal with technical matters affecting the architect and builder. So many are purely publicity films for a particular firm, or are 16 mm. versions of official films which contain a great deal that is of propaganda and not enough that is of technical value to the architect and builder.

I have indicated in the various sections of this article that there is, thus, a great deal of work yet to be done before the architectural and building professions can hope to achieve the full advantage of all types of films. The Service and Government departments proved that technical films can instruct as well as provide a visual link with the public.

Other professions, particularly the engineering industries, are making films that record researches and experiments and to cultivate an exchange of ideas between consultants and engineers. All this could be brought about an architectural and building spheres if a little co-ordination, and the pooling of ideas, was arranged between all professional architectural and building associations and firms together with a direct liaison with schools and municipal authorities.

Stills from films produced by Rotha Productions and Rotha Films. Top two, from *New Builders*, then from *Children of the City*, then *Land of Promise*. Bottom two, *Britain Can Make It*, No. 7, the *Mabelthorpe Plan*.





Perspective showing back elevation

PROJECT FOR TERRACE HOUSES

DESIGNED BY DENIS CLARKE,
HALL AND L. W. ELLIOTT

PRINCIPLES.—(1) To make the fullest use of the structural strength of the most satisfactory type of party wall for fire and acoustic requirements.

(2) To reduce the sections of steelwork to a minimum by using the space between ceiling and roof for deep, light girders, and by supporting all steelwork at the point of contraflexure.

(3) To eliminate foundations on both external face walls and under partitions.

(4) To segregate the use of materials so that they fulfil the functions most satisfactory to their type.

(5) To use both prefabrication and normal methods of construction in such a manner that the advantages of both can be used to the full.

CONSTRUCTION.—All loads are carried on the weight-bearing party walls. All other walls are non-structural.

Party walls are constructed on concrete blocks of sufficient strength to carry all the loads of the roof and first floor. Flues are at right angles to the wall face to give stability during erection; end walls are buttressed for the same reason.

Two light tubular warren girders spanning from party wall to party wall within the depth of the roof carry the roof trusses and, by means of suspension, the first floor. In this way all loads are transmitted to the party walls. The girders are placed back from the ends of the walls so that both the roof trusses and the first floor

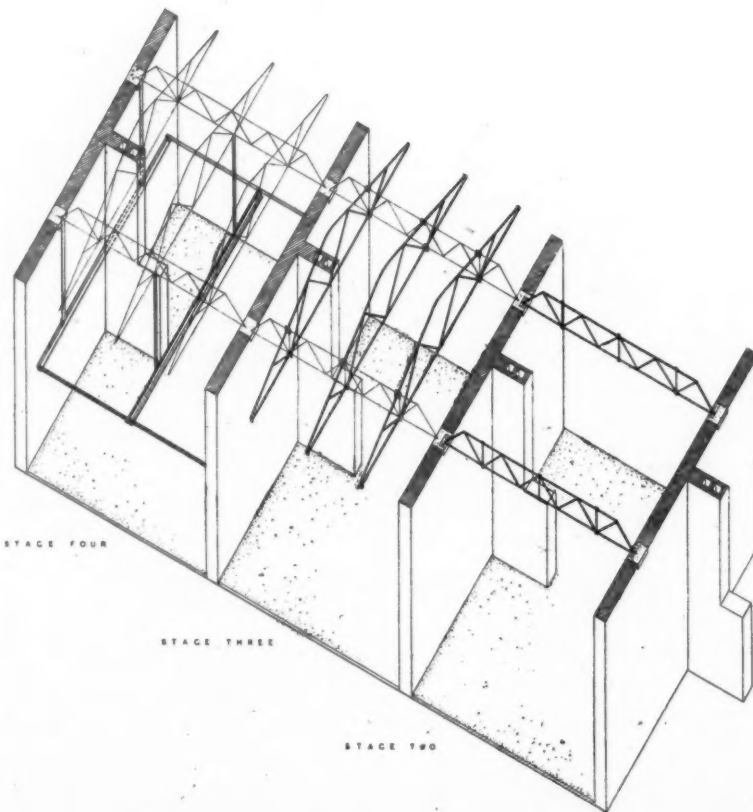
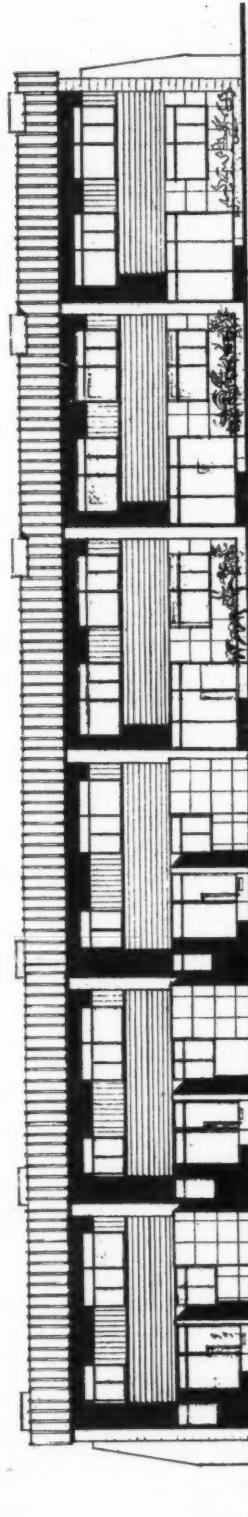
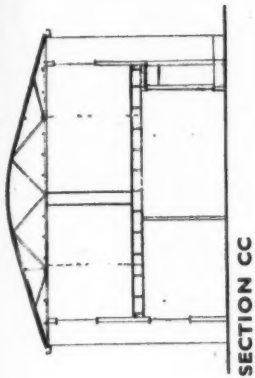
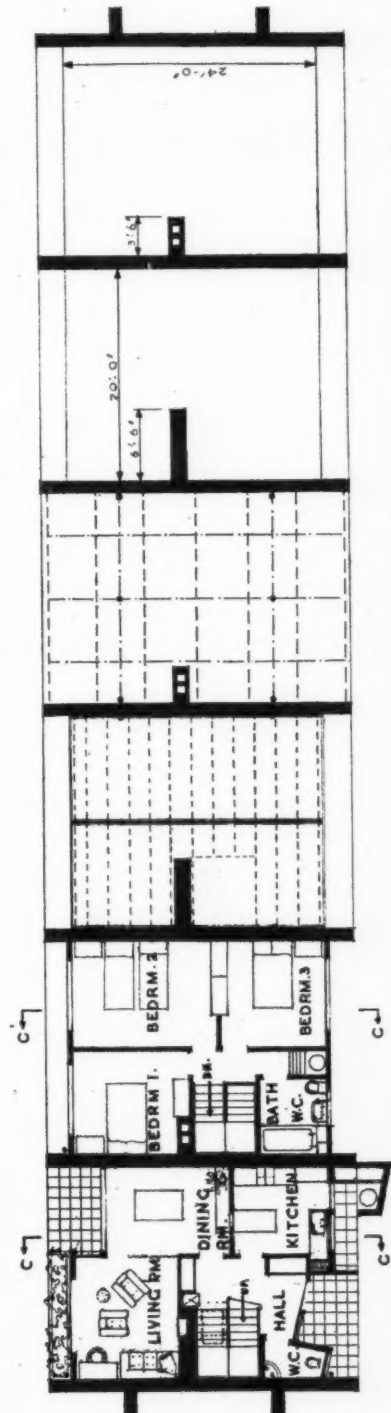


Diagram showing structural system. Stage One, slabbing and erection of party walls. Stage Two, positioning of warren girders. Stage Three, fixing of trusses and purlins. Stage Four, suspension of floor steelwork.



BACK ELEVATION

FRONT ELEVATION



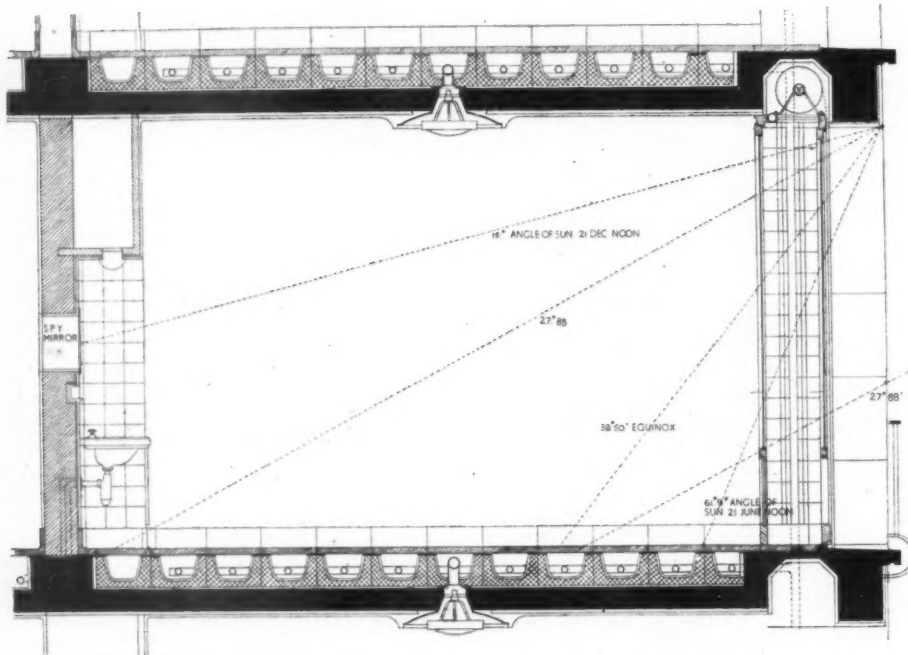
[Scale: 1/8" = 1'0"]

GROUND FLOOR FIRST FLOOR

beams are supported at their points of contraflexure. The first floor consists of a simple frame of steel angles supported by suspension from the roof girders. The joists are of timber. The whole floor is lag bolted to the party walls to prevent lateral movement. The face walls are concrete slabs and building blocks on the ground floor, and light timber frames faced with aluminium or steel on the first floor. Ground floor partitions are building blocks, while the first floor partitions are timber frames.

All members are pre-assembled or pre-cut to the most convenient size for site handling. Foundations, ground slab, party walls and flues can be built before the remaining components are delivered. Erection is simple and straightforward and no complicated erec-

tion schedules of the "engineering" type are needed. All members are of such a size and weight that they can be handled easily by two men and a simple block and tackle. No complicated and expensive plant is necessary for the manufacture of the components.



LONGITUDINAL SECTION

[Scale: 1" = 1'0"]

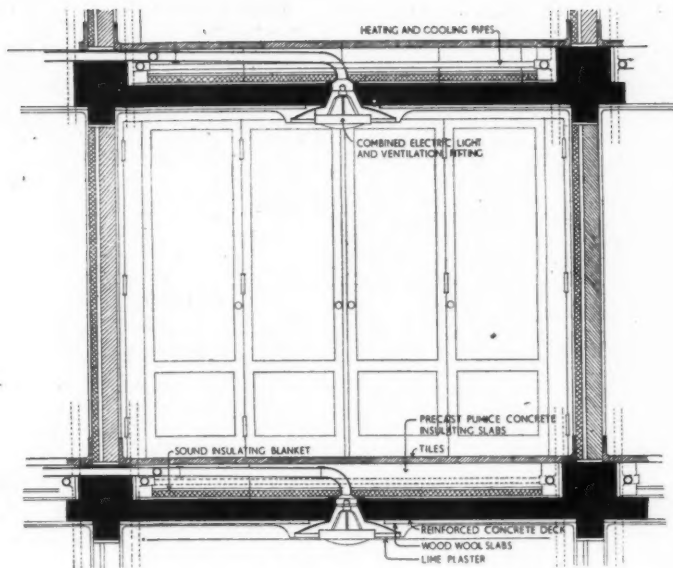
GERMAN SINGLE - BED HOSPITAL WARD

DESIGNED BY ERNST BALSER

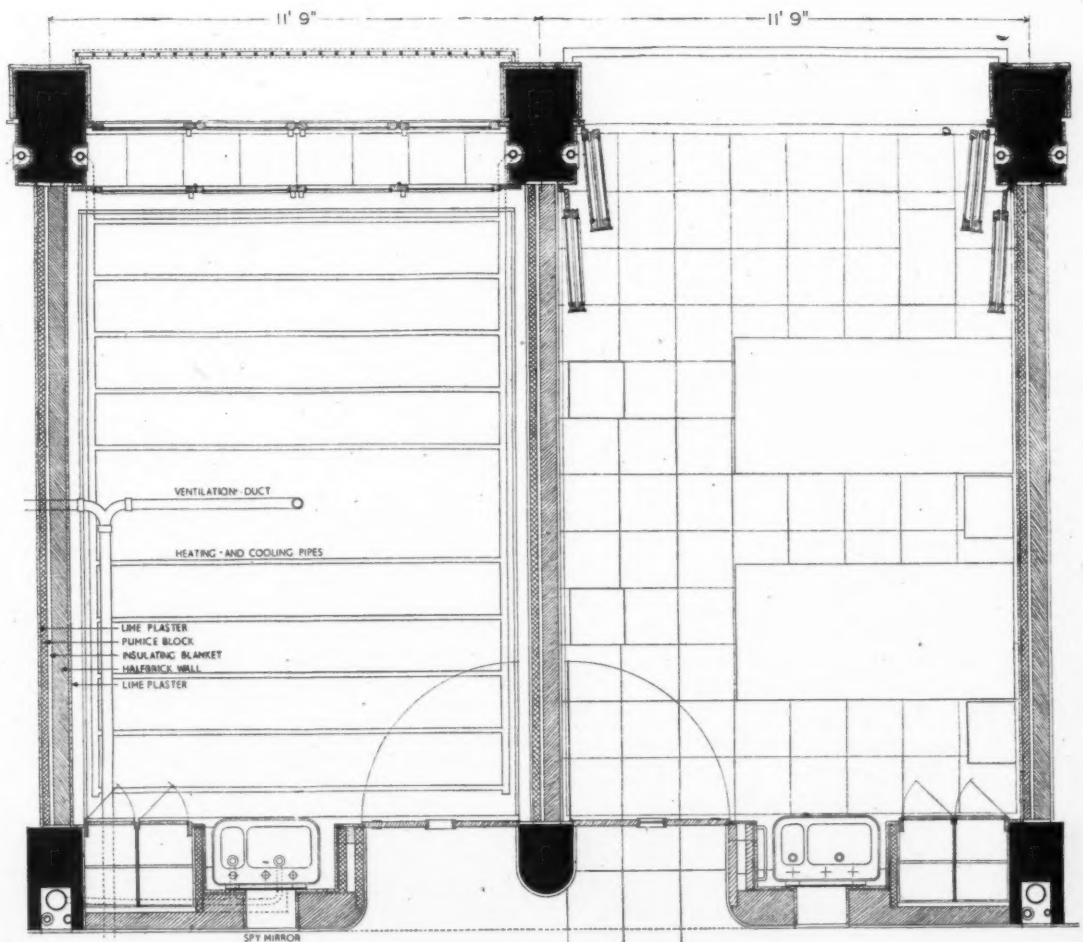
The drawings of a type hospital ward illustrated here, designed by Ernst Balser, architect of Frankfurt-am-Main, are traced from material obtained in Germany since the end of the war and now filed in the Ministry of Works Library [ref: (Q) NXI 24 1-4]. The plans are Crown Copyright and published with the permission of the Controller of HMSO.

The one-bed unit is designed for development of the hospital plan on a grid system, partition walls being omitted if two- or four-bed wards are wanted. This is facilitated by planning all the equipment in the corridor-wall, except for heating (or cooling) pipes in the floor and a combined ventilation and light fitting in the ceiling. Special features are the spy mirror

which enables the nurse to look at the patient from the corridor without being seen, and elaborate signalling system for patients' wants by use of a fitting like a telephone dial, but with symbols in place of numbers. It was made by Siemens and Halske, and was installed in, amongst other places, a wing of the Spandau Hospital, in an industrial suburb of Berlin.

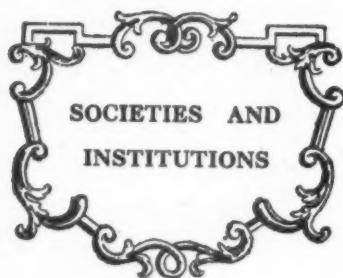


SECTION LOOKING
TOWARDS THE WINDOW



PLAN

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



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.

ASB

Hope Bagenal

February 5 at the RIBA. An Architectural Science Board lecture on NOISE AND THE NEW PLANNING, by Hope Bagenal, HON. A.R.I.B.A.

H. Bagenal: The subject of noise reduction needs a sympathetic but critical approach. As a subject it tends to create its own myths, therefore critical people under-estimate its importance. At the same time its results can be so disastrous to health and happiness that those who have suffered from it tend to over-estimate its importance. First, what are the risks we run in the new planning by misjudging it? The major risk—as I see it—is that we may be introducing loud noise sources onto a relatively quiet background. During the war country dwellers have been very much more conscious than formerly of the nuisance of new airfields but town dwellers have not had a comparable experience. We should then take for our pointer to the future the case of those country districts where conditions are endured, but much disliked, of a loud aircraft noise supervening irregularly on a relatively quiet background, and note that these conditions are more trying than the raising in urban areas of a continuous traffic background, or factory background. This in short is the menace of aircraft and of engine test houses. There are other serious risks—there is the risk of the further rise in the numbers of those whose sleep is disturbed by noise sources among average town dwellers. I would remind you that the Wartime Social Survey *Sound in Dwellings*, already puts this as high as 33 per cent.: this is serious.

A word on the evidence provided by this Survey. The inquiry was carried out for the Building Research Station during the war

by Mr. Dennis Chapman of the Social Survey and his staff.

In the day category there is a total of 40 per cent. who are troubled by sounds in which "children playing" heads the list with 18 per cent., followed by "road traffic" 14 per cent. and "domestic animals" 13 per cent.

In the night category there is the total of 33 per cent. already referred to: in which the most important sounds which disturbed people's sleep were those of road traffic, 13 per cent.; domestic animals, 12 per cent. Other disturbances of sleep are rail traffic, 7 per cent., children playing (much less at night), delivery vans, poultry.

Other comparisons are given as follows:—"the nuisance value, as distinct from the frequency, of sounds which "trouble" and "disturb sleep" may be shown if the number of people who are "troubled" and "disturbed" are expressed as a proportion of those who "hear each sound." This gives some figures as follows:—

By domestic animals, 37 per cent. troubled, 34 per cent. sleep disturbed.

By children playing, 30 per cent. troubled, 15 per cent. sleep disturbed.

By road traffic 20 per cent. troubled, 19 per cent. sleep disturbed.

By rail traffic, 17 per cent. troubled, 17 per cent. disturbed.

Another is the effect of living "near" a railway. The distance of 100 yards is taken as the limit of "near." "If all who hear, are troubled, and disturbed, by the sound of trains are divided into those who live within 100 yards of a railway and those who live further away, it is found that 55 per cent. of those who hear, 72 per cent. of those who are troubled, and 70 per cent. of those whose sleep is disturbed, live "near" a railway.

The comparison of complaints from traffic as from main roads, by-roads and in cul-de-sacs were 26 per cent. 11 per cent. and 4 per cent. This refers to being "troubled." The same picture is roughly true for disturbance of sleep by road traffic.

The cul-de-sac appeared to be superior in relation to almost every sound except that of rail traffic. (A quiet background can, of course, expose to loud distant noise.)

"A comparison of the different types of dwelling shows significant differences in the case of certain sounds, but these appear to be the result of the location of different types of dwelling rather than the insulating quality of their structure; thus a larger proportion of people living in flats hear "children playing," which is no doubt accounted for by the fact that a large number of the flats visited had a central courtyard used by the children as playgrounds. In contrast, people living in semi-detached houses heard more sounds of "domestic animals" and "poultry," presumably because these people had gardens and the flat dwellers had not.

The proportion of people living in terraced houses who were troubled by sounds was much higher than those living in semi-detached houses or flats—20 per cent. as compared with 13 per cent. and 9 per cent. This is no doubt due to the fact that very many terrace houses faced on to the street without the intervening front garden and that many flats are built away from the street altogether. The same is true in relation to the disturbance of sleep. The proportion of people living in terraced houses whose sleep is disturbed by the sound of road traffic is 18 per cent., compared with 10 per cent. of those living in semi-detached houses and 7 per cent. of those living in flats.

This survey is a pioneer; it attempts to give us figures and the information is thoroughly useful as far as it goes. It needs to be extended. It takes no notice of aeroplane noise; and it does not distinguish classes of background noise. In my opinion it needs to be related to background noise.

Briefly to summarise, we have, then, major external noise sources in order of menace somewhat as follows:—Road traffic, children playing, rail traffic, barking dogs. I would add factory noises and aircraft and their engine test houses.

Importance of Background Noise.—May I ask you to compare in your mind the case of the new town to be planned in open country where safe distance from noise sources can be ensured, and the opposite case where, in our ancestral industrial areas, housing is confronted with old "sandwich cities" where works have grown up in back gardens, where factories and housing estates come next to each other and where the working class population are bred and inured to noise, and want to live fairly near their work. Here are two different noise climates.

Extending this we can distinguish broadly three different empirical noise climates:—

1. Urban, having sustained traffic noise.
2. Quiet rural or suburban exposed to aircraft noise.
3. Industrial, having traffic plus factory noise.

To students of acoustics, "background" or masking level is well known; but its effect in practice must be better recognised by designers. A loud, familiar, non-irritating background will cut out a great deal of intruding noise which would otherwise be a nuisance. It is a blessing in disguise. An intruding noise of the same general quality will not be heard at all unless, very roughly, it is within 20 db of the background noise. It means for architects in practice that a sound-proofing specification must be very much more efficient on a quiet site than on a street front. It means that a comparatively light weight partition will serve in city offices which will not serve in the home; and in town planning it means that noise menace is intrusive noise, and intrusive noise is relative to the background. But in regional planning we are also altering the background.

Noise and Nuisance.—We must also attempt some assessment of noise nuisance. The sheer loudness of a noise is only one factor. There are two others: 1. its regularity or irregularity in time; and 2. some quality depending on its frequency components or pitch make-up. As an example of the first we have the train of exhaust noises from a gas or oil engine. In such noises there is a spoiled rhythm, it cannot be anticipated and resolved by the brain, and it is able to drive to desperation. Now this characteristic of the expectation of rhythm aroused and abused is easily recognised, and such noises reaching the window sills of dwellings are public enemies.

The second—some quality of the noise depending on its frequency components—is unfortunately very difficult to define, though it can be recognised. May I give you three examples:—

The siren in wartime has been designed to penetrate and to rouse; it warns of danger.

When an organist playing a march wishes to rouse a final excitement, he pulls out his reed stops and plays the same air but with a certain quality added.

When an infant cries it has a something in the sound which penetrates to the mother's ear through walls and partitions; but to others, not concerned with it, is intensely irritating. It communicates in a highly efficient way, the message "you must do something about me."

Now in these three and in many other instances there is a common ingredient, namely, a call to primitive action. The quality that annoys is the call to action when the individual is in thought, and the consequent frustration. It applies specially to class rooms and lecture rooms; book learning can only be communicated by a process easily broken into among the young by such inappropriate calls, acting both consciously and unconsciously.

And these three sounds also have in common the fact that certain kinds of *tone mixtures* appear to give them their relative sensation efficiency within a certain distance.

Regional Noise Sources Distinguished. I want you at this point to make a distinction which I consider important from the town planning point of view, namely between "regional noise sources" and "local noise sources." The regional noise sources are:—Aircraft rising and landing at the airfield; aircraft engine test houses; railway shunting yards. These regional noise sources may affect a whole neighbourhood up to 5 miles.

Aerodromes as regional noise sources present the designer with a series of conundrums. During the war we put up with air noises of all kinds and were grateful to our airmen.

We have now to envisage large civil airports having a heavy timetable of aircraft arriving and taking off (as many ultimately as 160 an hour), and these airports will become great centres of building development; we have large military airfields; flying schools; and experimental airfields for the large engineering development firms. These will all have their particular problems.

The extent of the fully developed civil airport is difficult to envisage. It may well include factories, warehouses, hotels, garages, amusement parks, and all with their buildings and attendant traffic. I would specially note private flying and air cargoes as new factors. Zoning and site planning on a very large scale is made necessary by aviation alone.

From the noise point of view, the most urgent need in respect of airfields is to keep dwellings, hospitals, and schools at a safe distance from mounting planes rising at a low angle. They mount into the wind so that the frequency of wind direction on any site is of first importance. The most frequent winds appear to be in the order of WSW, SW, W, and SSW. Various factors are weighed in choosing the orientation of the principal runway—very often it is SW. At Heathrow it is to be W. The choice gives the first rough indication of zoning requirements. In trying to assess safe distances along this principal axis to windward we have some facts as follows. A heavy airliner may need a runway of 3,000 yards (about 1½ miles), and after leaving the ground may mount at an angle which after two miles may bring her to only 500 feet. Later when momentum is gained the engines can go back to cruising speed and the noise is less. Clearly the angle of rise enters the problem: this for passengers is restricted by regulation out of consideration for their comfort. But variations are possible, and over existing residential property it would be reasonable to ask for a steeper rise. The level of the ground also enters. It should be noted in arriving at safe distances that complaints from Teddington have come about Heathrow which is some 6 miles to the NW: the complaints were of low flying and loss of sleep.

In addition to the principal runway there are the secondary runways to the other points of the compass, each with their up wind and down wind noise sources, but, owing to their being less generally used, giving fewer occasions of noise over a given time than the main runway. And so we get the kind of elongated star shape, or triangular criss-cross, having wedge-shaped areas between them. From this area dwellings and hospitals must be kept out. On the other hand, the occasional hotel occupant is not, in my view, so vulnerable. Schools, of course, are vulnerable, and it is undesirable that a teacher's voice should be drowned to a timetable. Aeroplane noise shakes roof structure and can set a whole building in vibration, and this is very difficult to counter. Warehouses, factories, garages, goods-yards, can from a noise point of view come closer. In the interested

suggested scheme for Baginton aerodrome, Coventry, industrial areas are shown in two of the wedges.

Authorities must, through their Regional Officer, notify the Air Ministry of any application to develop land within a given distance. Within a *radius of two miles* application must be notified for all dwelling houses, for all other buildings and for all works exceeding 10 ft. in height. Within a *radius of more than two and less than three miles* application must be notified for all buildings and works exceeding 35 feet in height. The regulations do not forbid but ensure that during an interim period they can be forbidden. Plans of the various airfields will be issued as soon as they can be prepared, showing the limits of sites, flightways, and other defined areas and when this shall be done it will then only be necessary for the departments to consider applications falling within the limits shown on the plans.

Test Houses for Aircraft Engines. These are often regional noise sources of a serious kind. During the war in rural districts they have been heard up to six miles. Very roughly there are at present three main types of engine:—The reciprocating or piston engine; the jet engine; the jet turbine engine. Engines must be run on the ground for test purposes during their development, on completion of manufacture, and after overhaul, and during some part of the test run they must be run with maximum power, and that is when very loud noise occurs. During the war attention was paid to silencing as far as emergency conditions permitted. It is now becoming accepted practice that test houses should have silencing equipment to prevent the escape of noise in the air stream, which must pass freely through the structure. Sometimes as much as 2,000,000 cu. ft. per minute must be allowed for. The propeller type of engine test house—that is for pistons and turbines—draw in air through an "intake" equipped with "splitters" or longitudinal partitions of special sound absorbing material, and it is discharged through a similar "exhaust." Jet engines are supplied with air through "splitters" and the jet is discharged through a relatively small steel apparatus designed to absorb noise without too much reducing thrust. This is called the "detuner." Jet turbines require both splitters and a detuner.

When asked what are the chances of efficient silencing at the source in the case of test houses, my own answer is that progress up to the present is promising, that very much more can still be done, and that if a wide application be made of the experience gained during the war a very great general improvement can be made.

But complaints are more numerous and more serious when testing is done at night. Therefore the question of the length of the test run, and of works organization, so as to avoid night tests may be an important one. Alternatively control of night testing may be necessary.

Local Noise Sources. These from the planning aspect can be roughly distinguished from the regional noise sources. Local sources in order of urgency are:—road traffic, rail traffic, playing children and schools, factory noises, domestic animals, noises from sports stadia and fair grounds, noises due to public services such as milk distributing centres. There is also the escape of wireless noise through windows in summer.

Assessment of Traffic Backgrounds. Some measurements taken by Dr. Davis with an objective noise meter (published in *Quiet*, January, 1938) are as follows:—

In the early morning in bedroom, facing street, having slightly opened windows with a moderately loud clock ticking, the level is 30 phons. This is raised to 40 phons by a pedestrian passing shod with nailed leather boots. A moderately quiet car moving off may give rise to 50 phons in the bedroom

near by. When the car doors are slammed this "gives even higher readings."

Again at night, the car and the door slamming recurs, but in addition there are voices raised in adieux above the 50 phons of the car. Then a noisy sports car giving a few bursts of engine racing as a preliminary to moving off could easily subject the sleeper (in the bedroom with slightly open window) to 70 phons.

By day pneumatic drills, riveters, noisy sports cars, reach 100 phons at 20 ft. distances in the open air; powerful motor horns 110. When vehicles accelerate rapidly mechanical noise reaches 90. Measurement of noise level in Oxford Street, Regent Street and Charing Cross Road give an average of 70 phons. Against Regent Street's 70 to 90 phons contrast the level taken in a parallel street screened from traffic at 55.

This assessing and classifying of loudness levels however roughly seems to me to be the proper basis for future control. If we should take the quiet suburban street as a standard, we can take 40 units at the (external) sill of a bedroom window on a street as a desirable limit. A window slightly open will reduce that 40 to 20 units which provides good but therefore vulnerable sleeping conditions.

If we take the 30 units for bedrooms *inside*, with windows slightly open, that would give us a permissible 30 db at the external sill. I suggest we accept for the moment a standard of 40 to 50 units at external sill of bedrooms.

This would mean that a housing estate should be some 300 to 400 ft. distant from a main arterial road. We have noted above that the distance of 100 yards was taken by the Chapman Survey as the distinguishing distance for "nearness" and that within that distance complaints went up rapidly. But here a word of warning. Clearly road traffic of goods in heavy lorries is going to increase enormously in the future and many more roads will have the trains of heavy lorries going all night. For such, a greater distance than 100 yards is desirable. The problem of the ring-road (or sub-arterial road) round big cities is a familiar one. It involves heavy traffic. In the inter-war period new houses were put up 40 ft. or less from the kerb. This in my own experience is not enough. You will probably agree with me that it is very much better to interpose open spaces and school playing fields as in the Moortown Estate plan, Leeds, or a golf course at as Welwyn Garden City.

In the new planning there will, in addition, be the shorter traffic passages as from the ring roads or the main arterial routes to the various "industrial areas," and to the railway station. How to keep these traffic tributaries away from the residential areas is one of the planners' jobs, very necessary from the noise point of view. At Stevenage, the industrial area is well placed between the railway and the new arterial road.

Since, with traffic noise, there is a considerable reduction by shading, dwellings coming unavoidably near could be defended by a type of plan that put the principal bedroom on the side away from the noise. Another method is to put blocks of flats arranged "end on" to the traffic and widely spaced.

Local roads for shopping may have as much as 70 phons at peak periods because buses and vans will be present changing gear. This, in my view, will provide a background suitable for a limited number of flats. The internal noises of flats are always a problem and they are reduced by a sustained traffic background.

These standards of traffic noise give us something to work on when approaching the problem of permissible noise and the new Industrial Areas.

(The remainder of the lecture will be printed in our next issue.)

TECHNICAL SECTION

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

INFORMATION CENTRE

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

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

2.4 planning: general LEGISLATION

Town and Country Planning Bill. (HMSO, Bill 26, 1947, 2s. 0d.) *Town and Country Planning Bill, 1947: Explanatory Memorandum.* (HMSO, Cmd. 7006, 1947, 4d.)

Main objects of Bill are (1) to set up a new planning system to meet present day requirements; (2) to produce a comprehensive solution of the problem of development values in land and thereby remove one of the main obstacles to good planning; (3) to provide Exchequer grants to assist local authorities in the purchase and clearing of land for the execution of plans. (For synopsis of Bill see A.J., 23.1.47.)

2.5 planning: general COAST EROSION

Foreshores and Coast Erosion. E. J. McKaig. (The Surveyor, January 24, 1947. Vol. CVI., p. 55.)

Discussion of whether coast protection works should be charge on national taxation. Important cause of erosion interference with natural conditions by badly designed defence works, attempts at reclamation; illustrated examples given. Need for centralised supervision of sea defences, definition of limits of Crown control "below H.W. mark" at present an ambiguous term.

2.6 planning: general APPROACH TO CITY PLANNING

Evoluzione Del Piano Regolatore (Evolution of the Conception of City Planning).

E. Tedeschi. (Metron, Italy, No. 6, 1946, pp. 35-44.)

Illustrated special article on need for more general and organic approach to city planning.

Provisions of Italian Town Planning Law of 1942 discussed with reference to execution of well defined master plans of unlimited duration, and to detailed operational plans to be undertaken at subsequent stages based on administrative and financial considerations and enabling gradual redevelopment of obsolete towns.

4.4 planning: urban and rural NEW TOWNS

New Towns. R. Squire. (The Builder, January 3, 1947, pp. 4-5.)

Useful summary of recent new towns developments in Great Britain. Definite location of Stevenage, Hemel Hempstead, Harlow and Crawley, and names of planning consultants appointed for undertaking initial surveys in connection with these. Other suggested locations of new towns. Legislation to date: Interim and Final Reports, and New Towns Act, 1946. Administration and Development Corporations. Objects behind creation of new towns. Need to consult public and enlist its co-operation. Warning against imposing plans from above on an unsuspecting population.

5.2 planning: public utilities USE OF SEWAGE SLUDGE

Activated and Digested Sewage Sludge in Agriculture and Horticulture. Sir Albert Howard. (Surveyor, January 3, 1947. Vol. CVI., p. 3.)

General paper by pioneer and leading authority on biological utilisation of human waste as counter to accelerated erosion, loss of soil fertility. Experimental use of sewage-works sludge described, large scale experiments suggested. Useful as indicating practical lines of approach to problem of conserving organic constituents of soil.

5.3 planning: public utilities M. WATER BOARD REPORT

Report for the Year Ended March 31, 1946. Metropolitan Water Board. (P. S. King & Staples, Ltd., 1946, 5s. 0d.)

Statistics of supplies, consumers, rainfall, water sources, etc.; programme of new works and reconstruction for next 15 years; protection of water works against enemy action in future wars.

6.2 planning: social and recreational LAYOUT OF SPORTS GROUNDS

Space Requirements for Athletics. P. W. Smith. (Parks and Sports Grounds, December, 1946, pp. 145-148.)

Plea for provision of increased permanent facilities for athletic training and competitions in view of present serious shortage of running tracks, stadia for field events, and equipment for training. Suggests provision of well-equipped stadium in all areas with population of 10,000. Detailed descriptions for layout of running tracks, 2½ acres athletic training station, and typical sports stadium. Fully dimensioned drawings.

7.3 practice DRAWING PAPERS

Drawing Papers (Tracing, Detail and Cart-ridge). B.S.1340-43: 1946. (British Standards Institution, 2s. 0d.)

Sizes, weight, surface finish and other details. Relationship of these to B.S. drawing board sizes worth noting.

14.2 materials: concrete PRECAST CONCRETE SLABS

The Mass Production of Precast Concrete Slabs. (Concrete & Constructional Engineering, December, 1946, pp. 359-365.)

Highly mechanised manufacture of stucco-faced reinforced concrete slabs 1 ft. 4 in. wide, 4 ft. long, 2 in. thick, used in walls and roofs of permanent buildings. Vibration and steam-curing. Output 200 slabs in one hour. 100 slabs require less than 15 man-hours.

14.3 materials: concrete AIR ENTRAINED CONCRETE

Air Entraining Admixtures Included in P.R.A. Specifications. (Engineering News-Record [USA] November 14, 1946, pp. 656-8.)

Advantage of air entrained concrete: improved resistance to weathering. Agent added at mill or mixer. Tests. Bibliography. (See Nos. 1675:16.11.44, 2228:29.11.45.)

Wide acceptance of air-entrainment for improving the quality of concrete is reflected in the approval that has been given for the use of special admixtures by agencies engaged in large-scale construction such as the War Department, Public Roads Administration, Bureau of Reclamation, and a growing list of state and city highway departments in USA. The proper use of air entraining admixtures requires some changes in concrete technology.

17.5 construction: general PRESTRESSED R. CONCRETE

Prestressed Reinforced Concrete. K. Billig. (Advance proof of a paper read at a meeting of the Reinforced Concrete Association on November 7, 1946.)

Short account of the history, principles and applications of prestressing.

Report on recent research and development abroad, partly based on an article by Pro-

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To Whom it may concern.

14th February, 1947

Dear Sir(s),

re: Wood Block Flooring for Housing.

We have received a letter from the Minister of Health, which reads as follows:-

Ministry of Health,

Whitehall, S.W.1.

31st December, 1946.

"Gentlemen,

I am directed by the Minister of Health to refer to your letter of the 17th December regarding the laying of wood block floors in your houses, and to say that no objection will be raised by this Department provided that the total timber used per house does not exceed the 1.6 standards allowable.

I am, Gentlemen,

Your obedient Servant,

(Signed) S. WILKINSON."

In these circumstances, we shall be happy to submit quotations for 1" Deal block flooring for any Housing Scheme you may be contemplating. Living rooms and Hall will take approximately one sixth of a standard of timber.

We have a large stock of 1" hardwood floorings, both in block and strip, in oak, birch, etc., already manufactured and will be happy to submit quotations for floorings to any building, as stated above, anywhere. Work can be commenced at short notice.

Should you have floors that have been badly worn, we can clean off, reface and waxpolish; we have several batteries of electrically and petrol driven surfacing machines available.

Please send us your enquiries.

Yours faithfully,

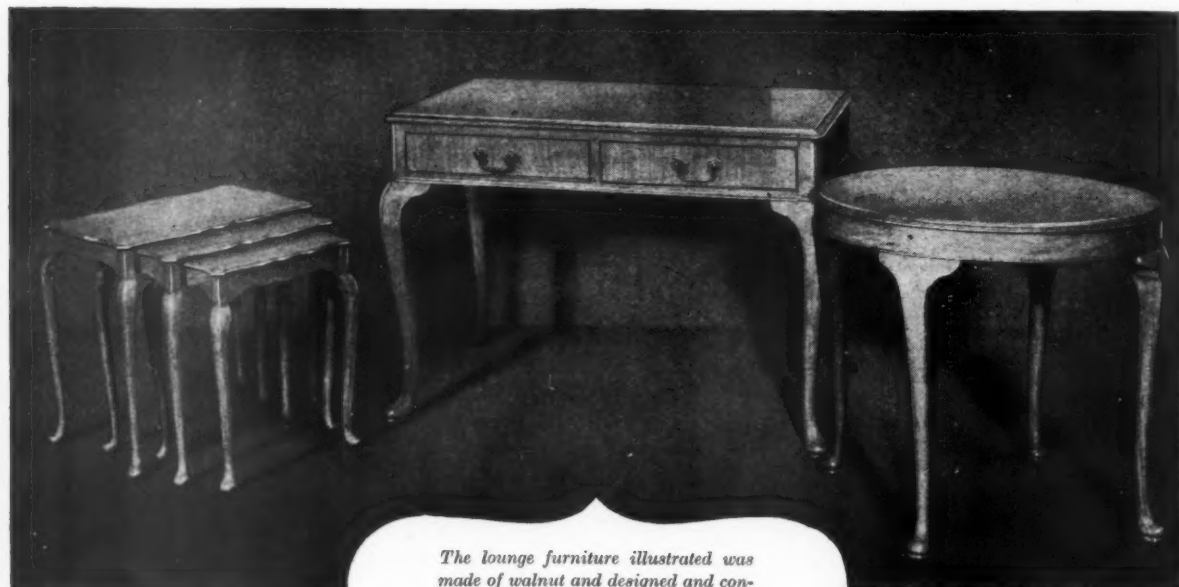
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The lounge furniture illustrated was made of walnut and designed and constructed by Messrs. Beresford & Hicks.

WHEN the skill of the modern craftsman is applied to the choicest of timbers the result can be work of outstanding beauty. There could be no better example of this than the furniture to be used by Their Majesties and Princess Elizabeth at the Victoria Falls Hotel, Rhodesia. The hardwood and veneers, together with the resin-bonded plywood cores and Blanchit for developing colour tones, were supplied by William Mallinson & Sons, Ltd.

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fessor Magnel (No. 2,442:21.3.46) and a Swiss publication (No. 2,855:19.12.46). The paper contains data on the properties of materials, types of construction, methods of prestressing. It will be published later with more details.

20.13 construction: complete structures HOUSING

Producing the Aluminium House. (The Architect and Building News, December 20, 1946, pp. 218-223.)

Mass production of 54,500 aluminium bungalows. Details of manufacturing process and structural details.

20.14 construction: complete structures HOUSING

Non-Timber Houses. (The Builder, December 27, 1946, p. 678.)

External walls in cavity brickwork, floor and roof construction in precast reinforced concrete.

22.4 sound insulation and acoustics ACOUSTICS: TEXT BOOK

Acoustics for Architects. E. G. Richardson. (Edward Arnold & Co., 1946. 5s. 0d.)

Short textbook on the nature of sound, auditorium acoustics and sound transmission. Eighty-eight pages and 29 illustrations.

This short book has three main divisions, one on sound as a science, a second on auditorium acoustics and the third on insulation.

The first section is lucidly written and covers adequately the most important parts of acoustical theory for architects. In the main the subject matter is long established, but some of the newer trends are briefly noted. There is a short historical chapter.

The second main subject is auditorium acoustics. It begins naturally enough with a discussion on reverberation, which includes useful references to the intelligibility of sounds, and there are brief notes on the reflection of sound and the influence of the shape of rooms. A chapter on the balance of acoustic power deals with public address systems.

The last section, on insulation, is less effective than the others. There is a longish note on how sound insulation tests are made and on common types of noise, but only a relatively brief mention is made of discontinuous construction. There are some illustrations from the book by Fitzmaurice and Allen of the Building Research Station. The book concludes with some "hints" on acoustical design.

When dealing with architectural applications the author appears to assume that he has to accept an aesthetic architectural vernacular, and due to this his contributions are neutral rather than constructive, and guidance is rather hard to find if a designer really wants to do a good job.

The insulation section seems out of balance, and perhaps it would have been better to omit it since there are established references in the subject available which treat it more satisfactorily for professional purposes. The references to discontinuous construction for instance mainly relate to a "soundproof" group of test chambers built by a commercial firm in this country, and it would be difficult to discover how to treat a practical case such as a pair of houses where the party wall has to meet a prescribed standard.

23.11 heating and ventilation HEAT INSULATION: DWELLINGS

Structural Insulation of Dwelling Houses

and Flats. A. C. Hutt, A.M.I.Mech.E. (Architect and Building News, January 17, 1947, pp. 40-49.)

Clear statement of fundamentals and valuable tabulated examples of construction with diagrams and heat loss data.

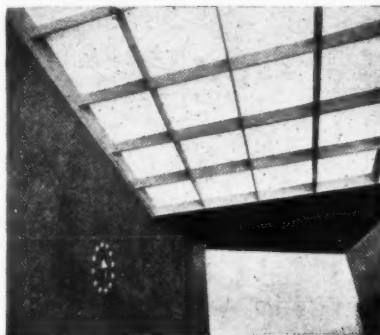
This article contains little that is new but provides a very clear picture of how heat losses occur in houses and of the value of insulation. The tabulated data is usefully illustrated with excellent diagrams and will serve as a valuable quick reference source to designers. Notes on walls, floors and roofs are practical and go a good deal further than discussing merely heat insulation.

24.10 lighting OFFICE LIGHTING

Laminated Plastic Panels Used in Office Lighting. (Lighting and Lamps [USA], October, 1946, p. 38.)

Complete ceiling as source; attractive illustration of egg-crate arrangement.

This is a very short note accompanying two illustrations of an office by W. B. Petzold, in America. The main feature is the ceiling. An egg-crate pattern of walnut strips crossing at 2 ft. intervals supports sheets of translucent plastic, covering most of the room. Above this are several fluorescent fittings.



Translucent egg-crate ceiling below fluorescent fittings, as lighting arrangement. See No. 24.10.

25.10 water supply and sanitation PLUMBING: FROST RESISTANCE

Prevention of Frost Damage to Water Installations in Small Houses. (J. of the RIBA, January 29, 1947. Vol. 54, p. 180.)

Isometric drawing of installation designed by Bournville Village Trust Architects' Department with special object on minimising frost damage; short explanatory text. Cold service pipe carried in stoneware duct to centre of house; supply pipes grouped, cylinder, tank and rising main together close to central flue stack; system designed to allow emptying completely. Pipework copper throughout. All cold water supplies taken direct off rising main (contrary to the requirements of some water authorities). No lagging shown to cold cistern in roof space, or indication that pipes are nowhere embedded in plaster, etc., on external walls; these are essential points which might have been added to otherwise very informative drawing showing sound practice with special emphasis on complete draining-down of system.

25.11 water supply and sanitation COPPER WASTE PLUMBING: USA

Are Copper Tube Soil, Waste, and Vent Stacks Next? T. N. Thompson. (Plumbing & Heating J., December, 1946, p. 45.)

Description of prefabricated copper one-pipe waste plumbing in 900 houses. Cast bronze fittings with sweated solder joints, pipes and connections fabricated off site. Costs claimed as competitive for technique. Article popular in style rather than technical. Eight illustrations, 7 from site photographs.

25.12 water supply and sanitation SWIMMING BATHS: PURIFICATION

Ozone Treatment for Swimming Baths. Anon. (Municipal Engineering, November 14, 1946, Vol. CXVIII, p. 274.)

Purification installation in large municipal bath. Sterilization by ozone, generated by electric discharge.

This short article describes the plant installed in the large municipal indoor bath at Coatbridge. The water is continuously circulated by electric pumps at the rate of 37,500 gallons per hour through pressure filters and sterilizer. Contact with ozone in a large chamber both sterilizes and re-oxygenates the water, as the ozone is converted back into oxygen during contact with the water. Ozone is locally generated by high voltage discharge in air. The same water is used for months at a time in the bath, and it is claimed that it remains exceptionally clear and sparkling. The installation may be taken as typical of good modern practice, and this description is therefore useful as a guide to probable requirements for housing plant, etc., for similar baths.

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

QUESTIONS AND ANSWERS

2886 GRANTS FOR DEVELOPMENT

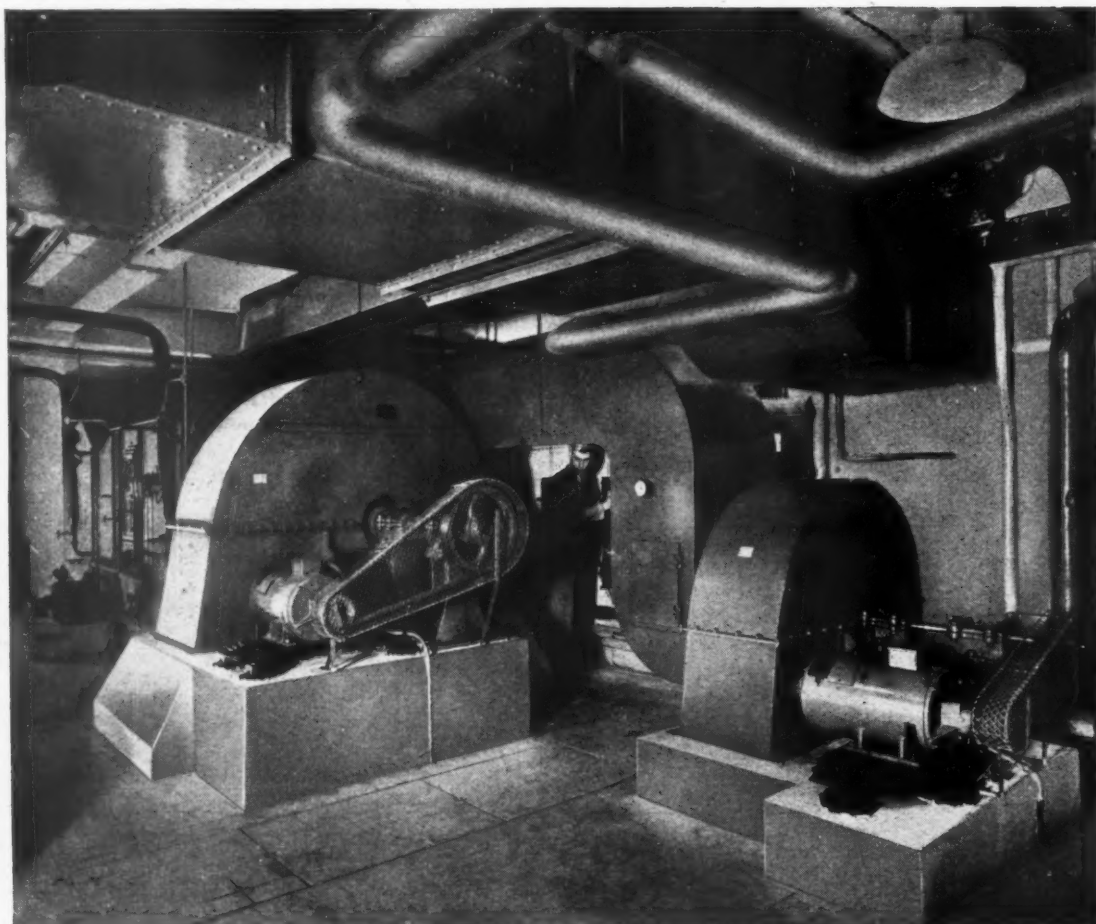
Q Apart from current restrictions on building, can you say if the provisions of Sect. 35 of the Town and Country Planning Act, 1932, or similar facilities, are still in force, so far as they extend to loan grants for development of satellite towns or garden cities?

A The provisions of Section 39 of the 1932 Act are still in force and extend to matters relating to the purchase of land for development of a garden city and to the extension of a garden city.

A satellite town cannot be brought within the meaning of a garden city; arising as it does out of the New Towns Act, 1946.

It is pointed out, however, that under the provisions of clause 104 (2) of the Town and Country Planning Bill, 1947, enactments specified in the eighth schedule to this Bill are the subject of certain repeals. Reference to this schedule shows that the 1932 Act is wholly repealed.

In the circumstances, it can be expected that procedure under Section 35 is not likely to be authorised by the Minister.



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

THE INDUSTRY

[by Philip Scholberg]

IDEAL HOME AGAIN

In this, the first Ideal Home to be held for eight years, there is very much more to see than one might expect. Preliminary announcements asserted that all the goods shown would be in production, a good selling point against the frustration induced by those all too frequent "Available later" tickets on so many of the better class goods at "Britain Can Make It." In practice it has not, as you may guess, been possible to apply this rule inflexibly, but in the sections of particular interest to the architect I could find only a few prototypes with no production date fixed. The majority of manufacturers can quote what they claim to be reasonably accurate delivery dates, even if some of them are six months ahead. Fuel cuts have of course sent production schedules all haywire, and the majority of delivery dates are subject to the proviso that the restart takes place without too many unforeseen difficulties.

Some mild fuss seems to have been made about the waste of manpower and fuel in running an exhibition of this kind, but the lighting current for prohibited hours is supplied by a battery of Diesel generators. They do not, of course, provide enough current for demonstrating electrical heating appliances, which can only be turned on between 12 and 2, or after 4, but at least this is better than the gas appliances, which may not be demonstrated at all. Apart from these restrictions, the whole exhibition appears almost normal. After the pre-war velaria and stainless steel linings for the main hall, it is faintly amusing to find that the *Daily Mail* has discovered "the innate beauty of the permanent glass in the structure," but the small degree of enforced austerity is not at all noticeable.

For the general public the main feature is the Village of Beginning Again, with six of the Government approved permanent prefabs grouped for some reason round a replica of Eros. The Wates, Airey, Orlit,

Scottwood and Tarran are here, also Airoh, which by implication now seems to be rated as permanent, which it probably is, at any rate structurally. For architects this section is useful for purposes of comparison, and in spite of the queues, is less trouble than the journeys to outer suburbia which are bad enough for Londoners and impossible for country visitors.

In the furniture section there are plenty of goods available, though many of the stands are crowded with poorly designed stuff in which the newer utility range stands out and looks by comparison very much better than it really is. Nothing much new here, except the light alloy tables and chairs by Ernest Race shown at "Britain Can Make It" and illustrated in these notes on October 3 last year. Radio cabinets show some improvement in design, some of the free-standing types suffering from none of the limitations which afflict the furniture manufacturer. Do not miss the self-changing radiogram with record storage and cocktail cabinet—about twice the length of the average sideboard and florid enough for a sure sale to eastern potentates.

In the electrical and gas sections there seem to be quite a number of models in production. Belling show a revised Baby Cooker which seems adequate for the small flat and is made with various cupboard and shelf fittings for storage, a simple little towel airer made in 60 and 120 watt sizes, and two excellent fires known as the County and Crescent. Rannah have a multi-point gas water heater (3½ gallons a minute raised 40-deg. F.) in prototype form, and their gas heated drying cabinets are also shown; they are also making stacking steel chairs and other furniture. Ascot, Ewart, and the other regulars are all showing, while Bratt Colbran have the same site under the north side gallery, where they seem to have been at every show I can remember. The electrical and gas industries as a whole have general propaganda exhibits, and various Government departments, Food, Fuel and Power, and Town and Country Planning, have also put on shows, all first class pieces of display, and informative. The Thor washing and washing-up machine is to be found in the Gallery, and is attracting lots of attention. Americans seem to complain that washing-up machines tend to leave stains on glassware, particularly in hard water districts, but the Thor people put out a washing powder which they say overcomes this trouble. Mention of hard water reminds me that Permutit and Silical both say that the demand for water softeners has increased enormously, a fact which I should be inclined to attribute to the soap shortage, though I should imagine that a softener

would probably show a financial saving on its own.

De La Rue show a handsome gas operated refrigerator of the absorption type, due to start production in June, and Hamco have some fires with a vitreous covered cement.

If your thoughts turn to food, the gallery is not what it used to be at handing out samples of oddments, but it is perhaps worth noting that you can buy a packet (but only one) of potato crisps (Stand 347), or at least you could on the opening day, otherwise the kitchen goods show little that is new.

AS ASTRAGAL remarked last week, the marvel is that the exhibition should have opened at all, and that there should be so much in it.

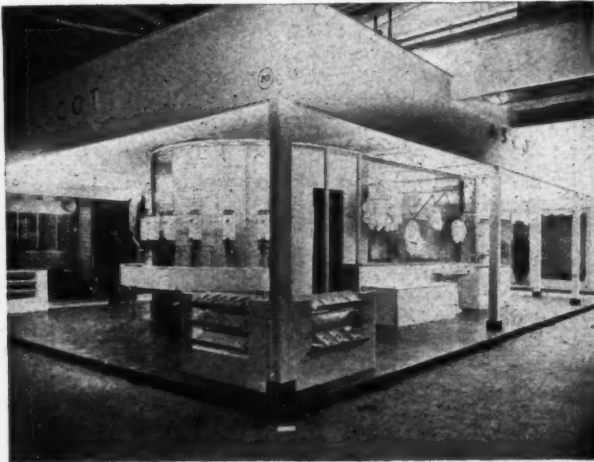
LOAD SHEDDING

The coal crisis has tended to obscure the fact that the power stations of this country are really not capable of carrying the load even with free fuel supplies, and a recent statement by the Central Electricity Board shows what the companies are up against. The rated maximum output capacity of all the stations in the country is 10,666 million kilowatts, and the peak demand, on January 30, was 10,920. Of the 10,666, about 1,500 are not available for one reason or another, losses due to breakdown have increased by 50 per cent. since this time last year, no doubt as a result of the enforced use of over-age plant, losses due to unsuitable fuel are also up 50 per cent. At the same time there has been a reduction of more than 50 per cent. in the loss of capacity due to overhauls, a very considerable achievement. It is of course possible to put overhauls off until the summer, but with the present shortage of generating capacity it looks as though it may well be necessary to go on shedding load during the summer.

Frequency reductions naturally affect all synchronous clocks, and in the past it has been the practice to increase the frequency during the night to correct them. But at the moment the frequency has to be reduced over such long periods that this is no longer possible.

GAS BURNER FOOTNOTE

Some weeks ago I commented on the growing use of non-aerated gas burners, and pointed out that water heaters nearly always make use of them as they cannot strike back. Radiation's technicians write to point out that the main reason is that non-aerated flames can be more easily packed into a small compass to burn a large amount of gas in a small cross sectional area while at the same time allowing full access for all the air needed to complete combustion.



Stands at the Ideal Home Exhibition. Left, the Ministry of Food's. Right, Ascot's.

The form printed below is to assist readers requiring up-to-date information on building products and services. If completed and posted to *The Architects' Journal*, 13, Queen Anne's Gate, S.W.1, the advertisers mentioned will be asked to supply information direct.

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal."

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Please ask manufacturers to send further particulars to:—

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Announcements

Mr. F. J. Fletcher, A.R.I.B.A., and Mr. T. A. Chance recently demobilised from the Forces, have entered into partnership and are practising as Fletcher and Chance, 49, Portland Square, Sutton-in-Ashfield, where they will be pleased to receive trade catalogues.

Messrs. Tretol, Ltd., makers of bituminous heat and acid resisting solutions, have sent us a copy of the second number of their *Building Topics*, a periodical devoted to the protection and maintenance of buildings. Included are special articles on *Protection of Foundations*, by A. S. Herkay; *Tretol Reps.*, introducing Mr. G. A. Ashwin, of London; and *Roofing Felt as Permanent Roof Protection*, by A. Smethurst. *Building Topics* is issued free by Messrs. Tretol, Ltd., 12-14, North End Road, London, N.W.11.

At the first annual general meeting of the National Federation of Master Steeplejacks and Lightning Conductor Engineers, held in London, the following officers were elected: President: Donald Campbell, of Messrs. J. W. Gray and Son, Limited, Vice-President: Albert Beaumont, of Messrs. F. E. Beaumont, Council: W. Bacon, of Messrs. William Bacon and Co., R. Gibbons, of C. Wilson (Steeplejacks), Limited, S. Larkins, of Messrs. W. Larkins, W. S. Mackney, of Messrs. W. E. Mackney and Son, and R. A. Price, of Messrs. R. C. Cutting and Co., Ltd.

Since the Reinforced Concrete Association was founded some fifteen years ago, the scope of interest and application of reinforced concrete has become much wider, and the number of people concerned with it much greater. The Association has accordingly broadened the basis of its membership, and while firms and companies will continue to be Members as heretofore, persons engaged in a technical capacity in any activity relating to reinforced concrete now

become eligible for election as Associates at an annual subscription of two guineas. The constitution has been revised, and the Association acquires many of the attributes of a technical society in which professional, scientific and industrial interests are brought together "to promote, encourage and improve the science, art and practice of reinforced concrete design and construction and all operations and expedients connected therewith." Activities within the purview of the Association are the engineering design, the architectural design and the construction of buildings, structures and roads; the manufacture of precast products; the production of aggregates, cement, reinforcement and plant, as well as research and technical education. A leaflet describing the objects and constitution and forms of application for membership may be obtained from the Association's offices at 94-98, Petty France, London, S.W.1.

The telephone numbers of Travis and Arnold, timber importers, of Astor House, Aldwych, London, W.C.2 are now HOLborn 6071/2/3.

The address of Mr. C. R. Cooper (late Major, R.E.) is now 49a, Fern Avenue, Newcastle-on-Tyne, 2.

Buildings Illustrated

Prefabricated Tropical Hostel (page 228). In connection with the exhibition of their Prefabricated Tropical Hostel, Structural and Mechanical Engineers, Ltd., acknowledge the co-operation of the following:—James Broderick & Co., Ltd., furniture; Preston Designs, Ltd., aluminium tables and chairs; Goodearl Brothers, Ltd., aluminium chairs; Suters, Ltd., curtains.

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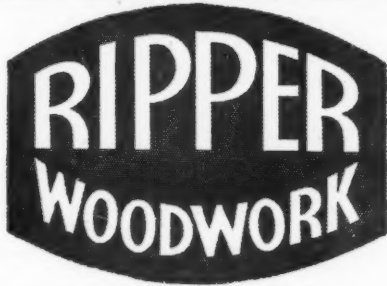
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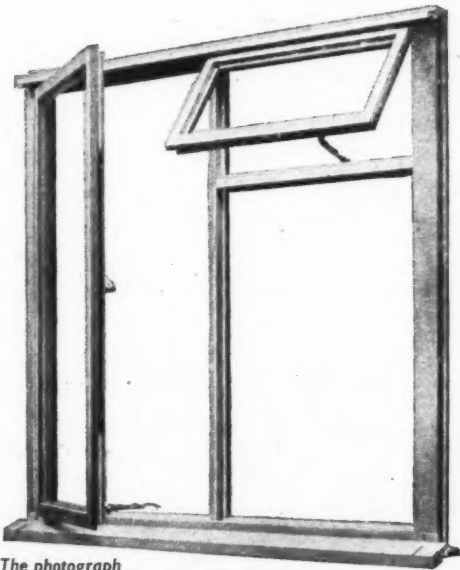
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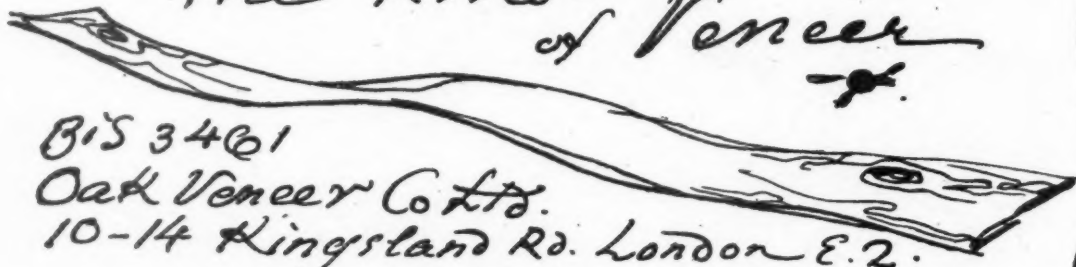


March

March is a month for quarterly payments. Many payments occur regularly and are usually fixed in amount—rent, insurance premiums, subscriptions, transfers from your own account to those of your family or dependants. The Bank can save you the trouble of dealing with such payments and the inconvenience which follows if they are overlooked. It will do your 'remembering' for you. Every month the Midland Bank makes thousands of such payments, ranging in amount from a few shillings to hundreds of pounds, the customers' instructions being known as "standing orders".

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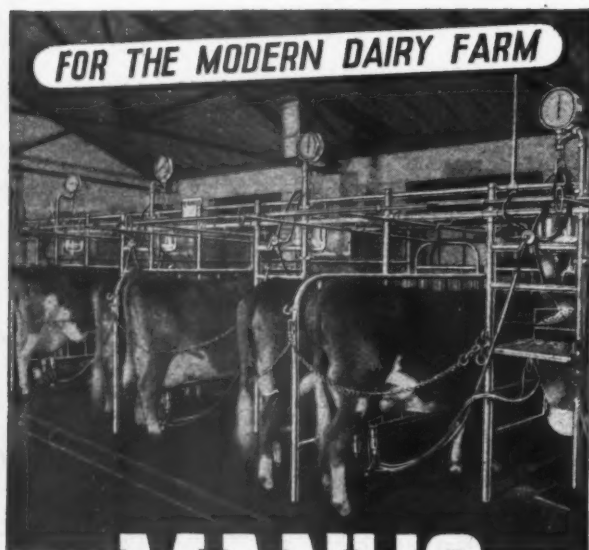
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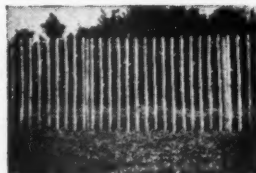
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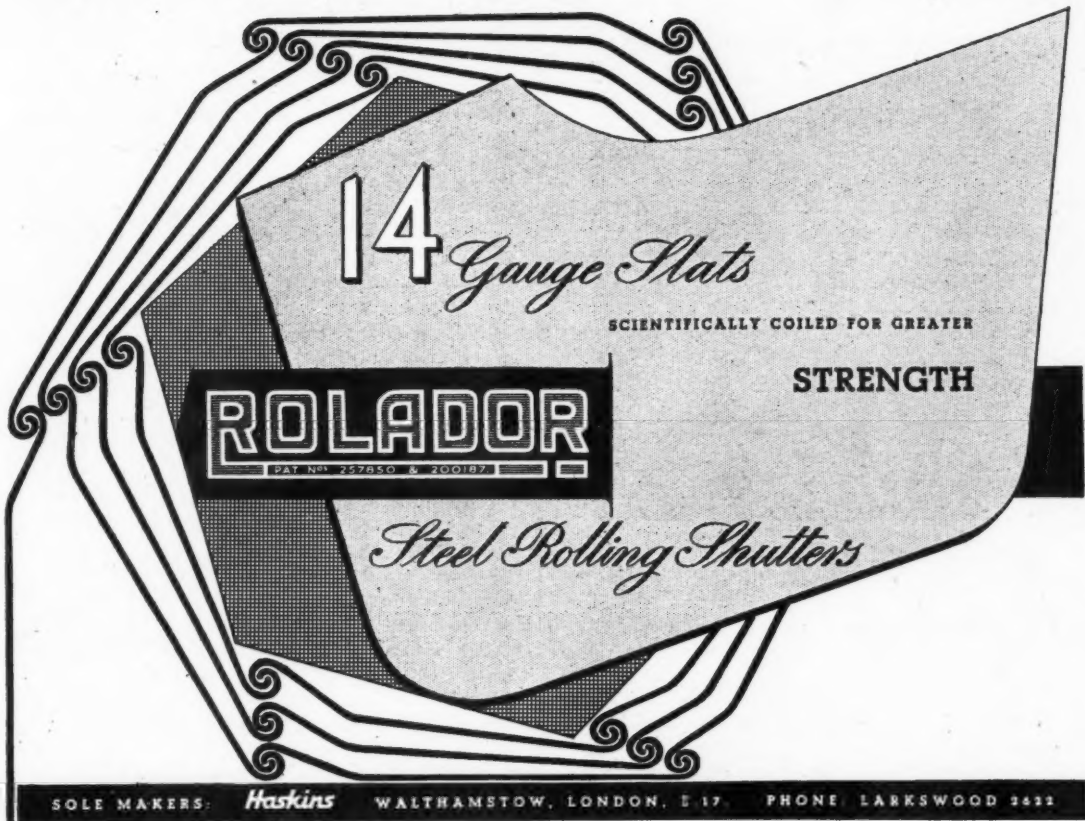
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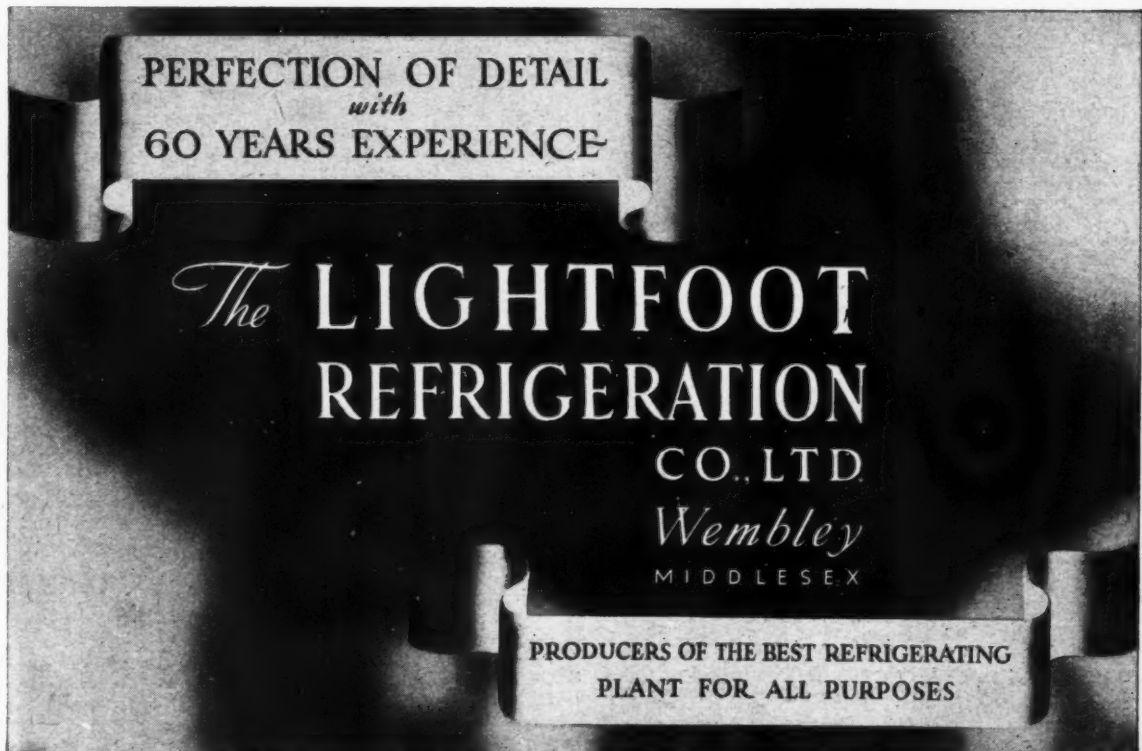
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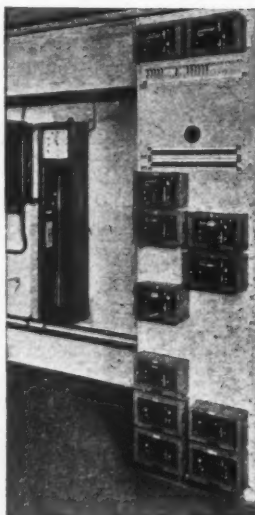


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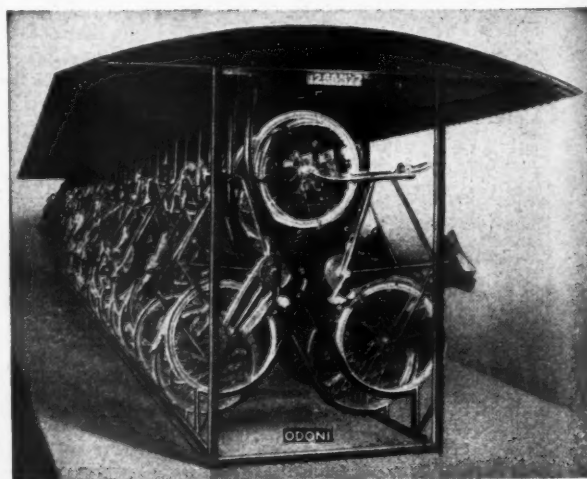
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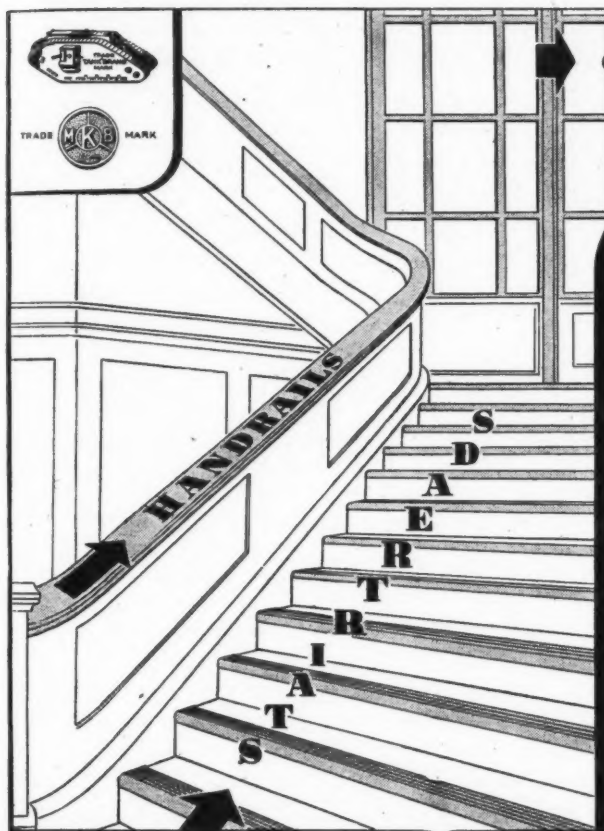
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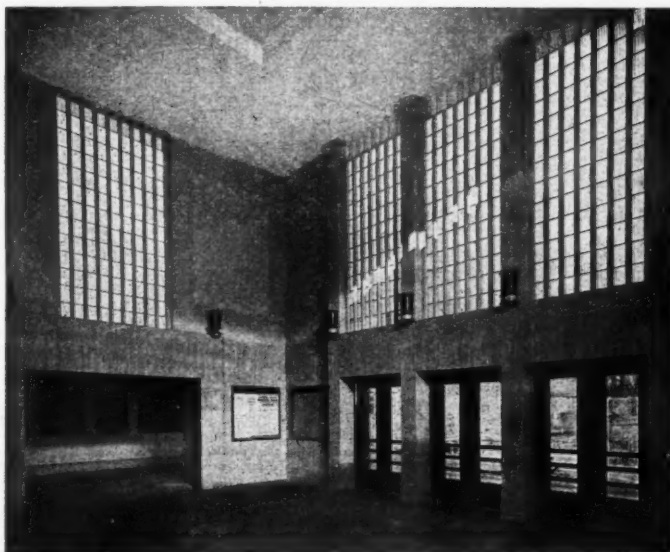
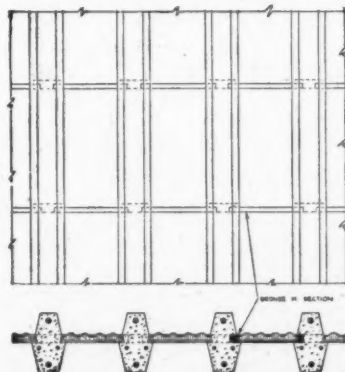
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Replies to Box Numbers should be addressed care of "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey.

Public and Official Announcements

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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, BAYON PLACE, LONDON, S.W.1. TEL. SLOANE 5615. 591

LONDON COUNTY COUNCIL.
QUANTITY SURVEYORS.

Vacancies exist for Quantity Surveyors, in the Housing and Valuation Department, for work in connection with the development of cottage estates and the construction of multi-storey dwellings, at consolidated salaries of up to £700 a year, the commencing salary in each case being determined according to qualifications and experience. Successful candidates will be required to contribute to the Council's Superannuation and Provident Fund, and will be eligible for appointment to the Council's permanent staff and for advancement on the occurrence of vacancies.

Duties will include:—

(a) Measurement of work in construction of houses, roads and sewers, preparation of interim and final bills; measurement and adjustment of sub-contracts; preparation of cost statistics, estimates, etc.

(b) Management of housing contracts of considerable value; interim valuations for payments; measurement of variations and settlement of final accounts.

Forms of application may be obtained from the Director of Housing and Valuer, The County Hall, Westminster Bridge, S.E.1. (a stamped addressed foolscap envelope required). Completed forms must be returned not later than seven days after the appearance of this notice. Canvassing disqualifies. (632) 597

BOROUGH OF WISBECH.
BOROUGH ENGINEER AND SURVEYOR'S DEPT.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant, Grade III, A.P.T. Division of the National Scale, £390-£435, plus cost-of-living bonus, at present £59 16s. per annum.

Applicants should have had general architectural experience. The appointment will be subject to the provisions of the Local Government and Other Officers' Superannuation Act, 1932, and to the successful candidate passing a medical examination, and to one calendar month's notice in writing on either side. The person appointed will be required to devote the whole of his time to the duties of the particular office. Applications, suitably endorsed, stating age, qualifications and particulars of experience, accompanied by copies of two recent testimonials, should be received by the undersigned not later than Saturday, 5th April, 1947. Canvassing, either directly or indirectly, is prohibited, and candidates should state in their applications whether to their knowledge they are related to any member of or holder of any senior office to the Council.

J. E. SIDDALL, Town Clerk.

Town Hall, Wisbech, Cambs.
3rd March, 1947. 525

COUNTY BOROUGH OF OLDHAM.
APPOINTMENT OF PRINCIPAL ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, in my Department, at a salary of £535-£600 per annum (plus cost-of-living bonus, at present £59 16s. per annum), being Grade VI of the National Scale of Salaries.

The successful candidate will be provided with housing accommodation if necessary.

Candidates must hold recognized Architectural qualifications, and must possess wide experience in the design of large private or public buildings. The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Conditions relating to the appointment may be obtained from the undersigned.

Applications, stating age and previous appointments, in addition to qualifications and experience, and copies of three recent testimonials, must reach the undersigned not later than Saturday, 5th April, 1947, in envelopes endorsed "Principal Architectural Assistant."

A. L. HOBSON,

Municipal Buildings, 75, Union Street, Oldham.
8th March, 1947. 561

SKIPTON URBAN DISTRICT COUNCIL.
TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at a commencing salary based on qualifications and experience, within the grade £360-£415-£465 per annum (A.P. & T., Grade II), plus war bonus, at present £59 16s. per annum.

The appointment will be subject to one month's notice on either side, and to the passing of a medical examination for superannuation purposes. Applications, on a form to be obtained from the undersigned, giving the names and addresses of three persons to whom reference can be made, should be sent, in an envelope endorsed "Temporary Architectural Assistant," to the Engineer and Surveyor, Town Hall, Skipton, not later than first post on Wednesday, the 26th March, 1947.

K. B. ROBINSON, B.Sc.(Eng.),
A.M.Inst.C.E.,
Engineer and Surveyor.

Town Hall, Skipton.
3rd March, 1947. 537

BOROUGH OF TWICKENHAM.

BOROUGH ENGINEER'S DEPARTMENT.
Applications are invited for appointment on the permanent establishment of the following posts:—

(1) SENIOR ARCHITECTURAL ASSISTANT. Salary in accordance with Grade A.P.T., IV/V, £440 to £530 per annum (plus war bonus). Applicants must have passed the Final Examination of the Royal Institute of British Architects.

(2) ARCHITECTURAL ASSISTANT. Salary in accordance with Grade A.P.T., III, £410-£415-£465 per annum (plus war bonus). Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects.

It is desirable that applicants for the above posts shall have had some experience with a Local Authority.

The successful applicants will be required to contribute to the Council's Superannuation Scheme, and to pass a medical examination.

The appointments are terminable by one month's notice on either side, and subject to the Corporation's Conditions of Service.

Applications, stating age, qualifications and experience, accompanied by copies of two recent testimonials, are to be received by the Borough Engineer, Municipal Offices, Twickenham, not later than 10 a.m. on the 4th April, 1947.

Canvassing, either directly or indirectly, will disqualify.

W. H. JONES,

Town Clerk.

Municipal Offices, York House, Twickenham.
March, 1947. 519

NORTH RIDING OF YORKSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of PRINCIPAL ASSISTANT ARCHITECT, Grade A.P.T., VIII, of the National Scales (£625-£700), plus cost-of-living bonus (at present £59 16s. per annum).

Applicants must be Members of the Royal Institute of British Architects, qualified by examination, and must have had experience in the control of staff, organization of work, and in the design and construction of Police and other general County buildings.

Appointment terminable by two calendar months' notice on either side, and subject to the Local Government Superannuation Act, 1937, and a satisfactory medical examination.

Forms of application are not being issued, but if further information is required it may be obtained from J. Catchpole, A.R.I.B.A., County Architect, County Hall, Northallerton. Applications, stating age, qualifications and experience, together with particulars of present and previous appointments, and the names and addresses of three persons to whom reference can be made, must be delivered to the undersigned not later than Tuesday, the 8th April, 1947.

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

H. G. THORLEY,

Clerk of the County Council.

County Hall, Northallerton.
1st March, 1947. 523

COUNTY BOROUGH OF SUNDERLAND.
EDUCATION COMMITTEE.

Applications are invited for the appointment of THREE JUNIOR ASSISTANT ARCHITECTS, in the Architect's Department, in accordance with the National Scales of Salaries, viz.:—

A.P.T., Grade I (£330-£375), or General Grade (£65-£300), according to age and qualifications.

The appointments will carry a cost-of-living bonus, at present £59 16s. 3d. per annum.

Applicants appointed to Grade I must have passed the Intermediate Examination of the R.I.B.A., or hold equivalent academic qualifications, unless being over 25 years of age they are not yet qualified owing to War Service.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the selected candidates passing a medical examination as required by the Council.

Applications, giving full particulars, qualifications, experience, age, present and previous appointments, accompanied by copies of not more than three recent testimonials, to be addressed and appropriately endorsed to the undersigned not later than first post Tuesday, 8th April, 1947.

W. THOMPSON,

Director of Education.

Education Offices, 15, John Street,
Sunderland. 569

THURROCK URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S DEPT.

Applications are invited for the following appointments:—

(a) CHIEF PLANNING ASSISTANT, at a salary in Grade V of the A.P.T. Division of the National Scale of Salaries, viz., £460-£415-£510 p.a., plus bonus, with experience in the preparation and administration of planning schemes, interim development and ribbon development control, and in planning generally.

(b) ARCHITECTURAL ASSISTANT, at a salary in Grade V of the A.P.T. Division of the National Scale of Salaries, viz., £460-£415-£510 p.a., plus bonus, with experience in the preparation of drawings, specifications and estimates in connection with building and architectural work usually undertaken by a Local Authority, and in the organisation of housing construction on a large scale.

(c) TOWN PLANNING ASSISTANT, at a salary in Grade II of the A.P.T. Division of the National Scale of Salaries, viz., £360-£315-£465 p.a., plus bonus, with experience in the examination of building and development proposals for compliance with Town and Country Planning requirements.

(d) ENGINEERING ASSISTANT, at a salary in Grade I of the A.P.T. Division of the National Scale of Salaries, viz., £330-£215-£375 p.a., plus bonus, with experience in the preparation of plans, specifications, and quantities for civil engineering works.

(e) SENIOR AND COST CLERK, at a salary in the Higher Clerical Division of the National Scale of Salaries, viz., £380 per annum × £15-£425 p.a., plus bonus, with previous Local Government costing experience.

The bonus for each appointment at present amounts to £59 16s. per annum.

The qualifications appropriate to the appointments are for:—

(a) and (c) Associate Membership Examination of the Town Planning Institute.

(b) Associate Examination of the Royal Institute of British Architects.

(d) Testamur, or part thereof, of the Institution of Municipal Engineers.

(e) Examination of Institute of Cost and Works Accountants, or equivalent.

The Council will consider the provision of housing accommodation for the successful candidates.

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937. Applications, stating age, qualification and experience, with copies of not more than three testimonials, appropriately endorsed, should reach the undersigned not later than first post on Tuesday, 8th April, 1947.

Canvassing will disqualify. Applicants must disclose in writing any relationship to any Member or Senior Officer of the Council.

A. E. POOLE,

Clerk of the Council.

Council Offices, Whitehall Lane,
Grays, Essex.

10th March, 1947. 550

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

Applications are invited for the under-mentioned appointments, in the Department of the Engineer and Surveyor:—

(a) SENIOR ARCHITECTURAL ASSISTANT. (Grade A.P.T., V/V.) Salary scale, £480-£620, plus cost-of-living bonus, at present £59 16s.

Applicants should have had considerable experience in the design and erection of general municipal architectural work and housing. Preference will be given to members of the Royal Institute of British Architects.

(b) ARCHITECTURAL ASSISTANT. (Grade A.P.T., IV. Salary scale, £440-£485, plus cost-of-living bonus, at present £59 16s.)

Applicants should have had experience in the design and erection of general municipal architectural work and housing.

(c) ASSISTANT QUANTITY SURVEYOR. (Grade A.P.T., III/IV. Salary scale, £410-£485, plus cost-of-living bonus, at present £59 16s.)

Applicants must have had experience in the preparation of bills of quantities, specifications, estimates, and the settlement of final measurements.

(d) BUILDING INSPECTOR. (Grade A.P.T., II/III. Salary scale, £390-£455, plus cost-of-living bonus, at present £59 16s.)

Applicants should have had practical experience of building work and a knowledge of Building By-laws. Possession of the Building Inspector's Certificate of the Institute of Municipal and County Engineers or similar qualification will be considered an advantage.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937; to the passing of a suitable medical examination; to the National Joint Council Scheme of Conditions of Service, and will be terminable by one month's notice on either side.

Forms of application can be obtained from the undersigned, to whom they should be returned, appropriately endorsed, not later than first post on Wednesday, 16th April.

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.

H. WELLS,

Clerk of the Council.

Council Offices, Uxbridge Road, Harrow
Weald, Middlesex. 579

BRADFORD EDUCATION COMMITTEE.

TECHNICAL COLLEGE, BRADFORD.
Applications are invited for appointment as Temporary ASSISTANT LECTURER, qualified to prepare students for the Sanitary Inspectors' Examination.

Membership of the Royal Sanitary Institute is essential, and additional qualifications in Sanitation and Building are desirable.

Basic salary according to the Burnham Award (£300-£255 per annum), with allowance for professional or industrial experience of £15 per annum up to a maximum of 10 years, plus a special allowance of £50 per annum.

Further particulars of the appointment and forms of application may be obtained from the Director of Education, Town Hall, Bradford, and completed forms should be returned to the Principal of the College as soon as possible.

THOS. BOYCE,

Director of Education.

February, 1947.

520

BOROUGH OF HARWICH.**JUNIOR ARCHITECTURAL ASSISTANT.**

Applications are invited for the appointment of a Junior Architectural Assistant, in the Borough Architect's and Planning Officer's Department of the Council, at a salary in accordance with the Miscellaneous Division of the National Scale of Salaries, viz., £255×£15 to £300 per annum, plus cost-of-living bonus (at present £59 16s. p.a.).

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

Forms of application may be obtained from my office, and must be returned (together with not more than two recent testimonials) not later than Tuesday, 15th April, 1947, endorsed "Junior Architectural Assistant."

Canvassing will disqualify a candidate.

Dated this 11th day of March, 1947.

G. F. CONGDON,

Town Clerk.

Town Clerk's Office, King's Quay
Street, Harwich.

566

CLACTON URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT (GRADE II).
Applications are invited for the above permanent appointment, in the Engineer and Surveyor's Department, at a salary in accordance with A.P. & T. Division Grade II, of the National Joint Council's Scales, £360 per annum, rising, subject to satisfactory service, by annual increments of £15 to £405, plus cost-of-living bonus (at present £59 16s. per annum).

Preference will be given to applicants who hold the Intermediate Examination of the R.I.B.A. or equivalent.

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

Forms of application may be obtained from Mr. W. Aiston, A.M.Inst.C.E., Reg.Arch., Engineer and Surveyor, Town Hall, Clacton-on-Sea, and must be delivered, duly completed, and accompanied by copies of not more than three testimonials, in a plain sealed envelope endorsed "Architectural Assistant," to the undersigned, by not later than first post on Monday, the 31st March, 1947.

Canvassing, either directly or indirectly, will disqualify.

Dated this 10th day of March, 1947.

CHARLES B. HEARN,

Clerk of the Council.

Town Hall, Clacton-on-Sea.

575

URBAN DISTRICT COUNCIL OF CRAYFORD.

ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments:

ARCHITECTURAL ASSISTANT:
Candidates should be Associates of the Royal Institute of British Architects or hold an equivalent qualification, and have had experience in housing and municipal building works. Some knowledge of Town Planning will be an advantage.

ENGINEERING ASSISTANT:
Candidates should be Associate Members of the Institution of Civil Engineers, or of the Institution of Municipal Engineers, or hold an equivalent qualification, and have had experience in general municipal engineering work.

The salaries for both appointments, which are permanent, will be in accordance with Grade IV of the National Scale, £440×£15 to £485 per annum (including London weighting), plus prevailing war bonus, at present £59 16s. per annum.

The appointments will be subject to (i) the National Scheme of Conditions of Service, (ii) the Local Government Superannuation Act, 1937, (iii), medical examination and (iv) termination by one month's notice in writing on either side.

Applications, on forms to be obtained from Mr. Francis Turner, Engineer and Surveyor, Town Hall, Crayford, must be received, with copies of two recent testimonials, not later than Saturday, 12th April, 1947. Canvassing will disqualify.

G. B. HODGSON,

Clerk of the Council.

558

CITY OF WAKEFIELD.**APPOINTMENT OF**

(a) CHIEF ENGINEERING ASSISTANT.

(b) CHIEF ARCHITECTURAL ASSISTANT.

QUANTITY SURVEYOR.

Applications are invited for the above appointments, in the City Engineer and Surveyor's Department, at the salaries stated.

(a) CHIEF ENGINEERING ASSISTANT.

Salary, Grade VII (£575-£650), plus cost-of-living bonus, at present £59 16s. per annum. Applicants will be required to supervise the Engineering technical staff, and should have had wide experience in all branches of Municipal Engineering. Town Planning experience will be considered an advantage. Applicants should hold a University Degree and/or be Associate Members of the Institution of Civil Engineers and the Institution of Municipal Engineers.

(b) CHIEF ARCHITECTURAL ASSISTANT.

Salary, Grade VII (£575-£650), plus cost-of-living bonus, at present £59 16s. per annum. Applicants will be required to supervise the Architectural Drawing Office and Quantity Surveying staff, and should have had wide experience in Municipal Architectural work, including Houses, Schools, Hospitals, etc., and should hold a Degree in Architecture and/or be Associates of the Royal Institute of British Architects.

(c) QUANTITY SURVEYOR.

Salary, Grade V (£460-£510), plus cost-of-living bonus, which is at present £59 16s. per annum. Applicants should hold an appropriate qualification, and be capable of preparing Specifications and Bills of Materials for all classes of Building work, and should also be experienced in measurement of work and final settlement of contractors' accounts.

Applications (in the form prescribed, which may be obtained from the City Engineer and Surveyor, Town Hall, Wakefield), stating age, present and previous appointments, with salaries, qualifications, and full particulars of experience, and enclosing two copies of recent testimonials, should be sent to the undersigned not later than Wednesday, 9th April, 1947.

W. S. DES FORGES,

Town Clerk.

Town Hall, Wakefield.

6th March, 1947.

560

BOROUGH OF MANSFIELD.

ENGINEER AND SURVEYOR'S DEPARTMENT.
Applications are invited for the following appointments, in the Borough Engineer and Surveyor's Department. The appointments are established posts, subject to the provisions of the National Scheme of Conditions of Service and of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination. The appointments will be terminable by one month's notice on either side. In addition to the salaries stated below, each appointment carries with it a cost-of-living bonus, which is at present £59 16s. per annum.

(1) SECOND ARCHITECTURAL ASSISTANT.

Grades IV/V (£420-£415-£415-£410-£415-£420-£510). Commencing salary, £435. Qualifications required, A.R.I.B.A.

(2) GENERAL ARCHITECTURAL ASSISTANT.

Grade I (£330-£315-£315-£315-£375). Qualifications required: Registered Architect, preference Inter. R.I.B.A.

Applications, suitably endorsed, giving details of experience, age, etc., together with copies of not more than three recent testimonials, to be delivered to the Borough Engineer and Surveyor, Carr Bank, Mansfield, not later than Saturday, 29th March, 1947. Canvassing, either directly or indirectly, will disqualify.

A. C. SHEPHERD,

Town Clerk.

Carr Bank, Mansfield.

7th March, 1947.

562

BOROUGH OF FINCHLEY.**ARCHITECTURAL ASSISTANT.**

Applications are invited for the above position, in the Housing and Town Planning Department, at a commencing salary of £460 per annum, rising by three annual increments to a maximum of £510 per annum, in accordance with Grade V (A.P. & T. Division) of the National Conditions of Service, plus £20 per annum London weighting, and cost-of-living bonus, at present £59 16s. per annum.

The appointment is a temporary one, but is expected to last for a number of years, and the provisions of the Local Government Superannuation Act, 1937, will apply.

Preference will be given to candidates possessing the recognized professional qualifications.

The attention of candidates is drawn to the difficult housing situation in the Borough, and it will be necessary for the person appointed to make his own arrangements for accommodation.

Applications, stating age, qualifications, and full details of experience, together with copies of three recent testimonials, must be delivered to the Acting Borough Housing and Town Planning Officer, The Avenue, Finchley, N.3, within fourteen days from the appearance of this advertisement.

Canvassing, directly or indirectly, will disqualify.

R. M. FRANKLIN,

Town Clerk.

Municipal Offices, Finchley, N.3.

8th March, 1947.

565

CITY OF WESTMINSTER.**TECHNICAL ASSISTANTS.**

The Westminster City Council invites application for appointments of Technical Assistants for the Civil Licensing Section (Temporary Establishment) of the Housing Department, on a salary scale in accordance with Grades I, II and IV of the National Scales of Salaries, viz.: Grade I, £350-£15-£395 per annum; Grade II, £380-£15-£425 per annum; Grade IV, £440-£15-£485 per annum, plus bonus (£59 16s.) per annum. (Commencing salary will be dependent upon the experience of the person appointed.)

Applicants, except existing members of the Council's staff, should not be over 45 years of age, and should have had good experience of the Building trade, and should possess a thorough practical knowledge of builders' quantities. The persons appointed will be required to check applications for Civil Building Licences, and plans and specifications in connection therewith, and to make surveys of premises for this purpose.

The appointment will be subject to the National Scheme of Conditions of Service; and to the provisions of the Council's Standing Orders, General Regulations and Superannuation Scheme. Canvassing will disqualify.

Applicants must state, in the order given, full name and address, age, war service, qualifications by examination, present appointment (how long held and salary), previous appointments, particulars of experience, date on which appointment could be taken up, and whether to their knowledge they are related to any Member or Chief Officer of the Council. Applications, accompanied by copies of two recent testimonials, should be sent in an envelope marked "Housing Department—Technical Assistants," so as to be received by the undersigned not later than 21 days after the date of this publication.

PARKER MORRIS,

Town Clerk.

Westminster City Hall, Charing Cross

Road, W.C.2.

7th March, 1947.

574

COUNTY BOROUGH OF BLACKBURN.**BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.**

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

(1) ASSISTANT QUANTITY SURVEYOR

(Grade V). Salary, £460-£510 (by three increments of £15, £15 and £21), plus cost-of-living bonus, at present £59 16s. per annum.

Applicants must have experience in the preparation of Bills of Quantities, Specifications, Estimates, and the settlement of final accounts. Preference will be given to Professional Associates of the Chartered Surveyor's Institution.

(2) ARCHITECTURAL ASSISTANT (Grade II).

Salary, £360-£405 (by three increments of £15), plus cost-of-living bonus, at present £59 16s. per annum.

Applicants must be Registered Architects, and must have had good general experience in the design and construction of public and municipal buildings.

The appointments will be subject to the provisions of the Superannuation Act.

Applications, appropriately endorsed, stating age, qualifications, experience, present and past appointments, together with not more than three recent testimonials, should be delivered to the Borough Engineer and Surveyor, Town Hall, Blackburn, not later than Friday, 28th March.

CHAS. S. ROBINSON,

Town Clerk.

559

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

Applications are invited for the following appointments:—

(a) TWO SENIOR ARCHITECTURAL ASSISTANTS.

Salary £535-£600.

(b) ONE ARCHITECTURAL ASSISTANT.

Salary £420-£465.

(c) ONE SENIOR ENGINEERING ASSISTANT.

Salary £460-£510.

(d) ONE SENIOR QUANTITY SURVEYING ASSISTANT.

Salary £535-£600.

Applicants for appointments (a) and (b) must be A.R.I.B.A., and have had extensive experience in the design and construction of public buildings, schools and municipal houses. In particular, one Senior Assistant must have had recent experience in the design and development of housing schemes, and one in the design and development of new schools.

Applicants for appointment (c) should be A.M.Inst.C.E. or A.M.Inst.M.E., and have had considerable experience of municipal engineering works.

Applicants for appointment (d) must have had extensive experience in quantity surveying and be P.A.S.I. or A.I.Q.S.

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

Applications, suitably endorsed, giving particulars of age, qualifications, experience, and present appointment and salary, together with copies of not more than three recent testimonials, should be delivered to the Borough Engineer, Town Hall, Luton, not later than Friday, 11th April, 1947. Canvassing will disqualify.

W. H. ROBINSON,

Town Clerk.

Luton.

6th March, 1947.

569

**COUNTY BOROUGH OF EAST HAM.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.**

Applications are invited from qualified persons for the permanent appointment of Architectural Assistant (Grade IV) in the Borough Engineer and Surveyor's Department.

Candidates must be Associate Members of the Royal Institute of British Architects or hold an equivalent qualification, and have general knowledge and experience of architectural work.

The salary will be in accordance with Grade IV of the National Salary Scales, i.e., £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum, plus London allowance (£20) and war bonus (at present £59 16s. per annum), but the commencing salary may be increased according to the qualifications and experience of the person appointed.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the Council's conditions of service for official staff in force from time to time, and the successful candidate will be required to pass a medical examination.

Applications on the form provided must be delivered to the Town Clerk, together with copies of three recent testimonials, not later than Tuesday, the 8th April, 1947.

Canvassing will disqualify.

(Sgd.) H. A. EDWARDS,

Town Clerk.

Town Hall, East Ham, E.6.
March, 1947.

583

**LONDON COUNTY COUNCIL.
VACANCIES FOR PLANNING STAFF IN THE
ARCHITECTS' DEPARTMENT FOR WORK ON
THE COUNTY OF LONDON PLAN.**

Applications are invited for a number of positions in the following grades:
PLANNING OFFICER (Grade III), up to £700 a year.

TECHNICAL ASSISTANT, up to £580 a year.
Commencing rate of pay will be according to qualifications and experience.

There will be opportunities for competing, on merit, in due course for permanent appointment and for positions in the higher grades on the occurrence of vacancies. Successful candidates will be subject to the Council's Superannuation and Provident Fund.

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 or surveying or town planning qualifications.

Other things being equal, preference will be given to candidates registered under the Disabled Persons (Employment) Act, 1944, and ex-Service men and women will also receive special consideration.

Application should be made to the Architect to the Council, County Hall, Westminster Bridge, S.E.1, for forms of application (enclosing stamped addressed envelope), returnable not later than ten days from this date.

Canvassing disqualifies.

983

**BERKSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF TECHNICAL STAFF.**

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

(a) **SENIOR ASSISTANT ARCHITECT**, at a salary of £460 per annum, rising by annual increments of £15 and one of £20 to a maximum of £510 per annum (A.P.T., Grade VI), plus bonus.

(b) **TWO ASSISTANT ARCHITECTS**, at a salary of £390 per annum, rising by three annual increments of £15 to a maximum of £435 per annum (A.P.T., Grade III), plus bonus.

The cost-of-living bonus is at present £59 16s. per annum.

Candidates for appointment (a) should be Associate Members of the Royal Institute of British Architects, or hold an equivalent qualification, and should preferably have had experience in the type of work carried out by County Councils and be able to take charge of contracts. The possession of a car is not essential, but would be an advantage, and car allowance will be paid on the Council's scale.

Candidates for appointment (b) should be Registered Architects, with considerable experience of preparing working drawings with the minimum of supervision.

All the appointments will be subject to the Local Government Superannuation Act, to one month's notice on either side, to the successful candidates passing a medical examination, and to the Council's General Conditions of Service for Administrative, Professional, Technical and Clerical Staff for the time being in force.

Other factors being equal, preference will be given to registered disabled persons.

Canvassing, directly or indirectly, will be a disqualification, and candidates making applications must disclose in writing to the Clerk whether to their knowledge they are related to any member or senior officer of the Council.

Application forms can be obtained on receipt of a stamped addressed envelope from the County Architect, 10, Abbots Walk, Reading, to whom they should be returned completed, together with copies of three recent testimonials, on or before Tuesday, 1st April, 1947.

H. J. C. NEOBARD,

Clerk of the Council.

Shire Hall, Reading.

556

METROPOLITAN BOROUGH OF HAMMERSMITH.

**APPOINTMENT OF ARCHITECTURAL
ASSISTANTS.**

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

ONE ARCHITECTURAL ASSISTANT (PERMANENT), Grade "G," £550-£20-£650, plus 23s. per week bonus.

Applicants must be Associates of the Royal Institute of British Architects, and have experience in the preparation of designs, working and detailed drawings for public buildings, and Municipal Housing Schemes and Flats.

TWO ARCHITECTURAL ASSISTANTS (TEMPORARY), Grade "H," £450-£20-£550, plus 23s. per week bonus.

Preference will be given to candidates who are Associates of the Royal Institute of British Architects and experienced in the preparation of designs and working and detailed drawings for public buildings and Municipal Housing Schemes and Flats.

In all cases the appointments are subject to the Council's Superannuation Scheme, to the National Scheme of Conditions of Service, and to the successful candidates undergoing a medical examination. The permanent appointment is subject to one month's notice on either side.

Forms of application may be obtained (on receipt of a stamped addressed envelope) from the undersigned, and must be returned not later than 14 days after the appearance of this advertisement.

Canvassing will disqualify.

W. H. WARHURST,

Town Clerk.

Town Hall, Hammersmith, W.6.
11th March, 1947.

582

CITY OF PLYMOUTH.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff, which are subject to the Local Government Superannuation Act, 1937, a satisfactory medical examination, and one month's notice on either side for termination.

The salary scale is that of the A.P. & T. Division of the National Scheme of Conditions of Service, and is subject to the addition of cost-of-living bonus, at present £59 16s. per annum.

SENIOR ASSISTANT QUANTITY SURVEYORS, Grade VI, £535-£600 per annum.

Applicants should preferably be Members of the Royal Institution of Chartered Surveyors (Quantities Sub-Division).

Candidates must not be over 40 years of age, but this condition may be relaxed in the case of a person up to 45 years of age employed by another Local Authority.

Applications, on forms to be obtained from the undersigned, accompanied by copies of not more than three testimonials, should be returned to me as soon as possible.

The Corporation will make housing accommodation available to the successful applicants who are married.

E. G. CATCHPOLE, A.R.I.B.A.,

City Architect.

Weston Lodge, Seymour Road, Plymouth. 505



**COUNTY BOROUGH OF BELFAST.
CITY ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the following appointments to be established posts:—

(1) **SENIOR ASSISTANT ARCHITECT**. Salary £350 x £25-£650.

Candidates must be qualified Architects, with a minimum of five years' practical experience as such, and Members of the Royal Institute of British Architects or other recognized Professional Association. Experience in the planning of Municipal Buildings and the administrative work of a Local Authority's Architectural Section will be an advantage.

(2) **ASSISTANT CHIEF BUILDING INSPECTOR**. Salary £400 x £25-£525.

Candidates must hold:—

(a) A University Degree in Civil Engineering, or

(b) Be Qualified Architects, or

(c) Be Associates of the Institute of Structural Engineers, and, in any case, have a sound and up-to-date knowledge of the theory of structures.

(3) **MECHANICAL ENGINEER**. Salary £350 x £25-£550.

Candidates must be Corporate Members of the Institution of Mechanical Engineers.

A higher commencing point of entry to the scales will be considered in the case of candidates possessing exceptional qualifications and experience.

In addition to the salaries stated, a cost-of-living bonus is payable, varying from £78 to £98 per annum, according to the amounts of salary.

Appointments will be subject to the Conditions prescribed in the Council's Grading Scheme for Officers, and in the case of Nos. (1) and (2) subject also to the Belfast County Borough Council (City Surveyor's Staff Qualifications) Order, Northern Ireland, 1941.

Candidates should not be over 45 years of age on the date of appointment.

Persons appointed will be required to pass a medical examination.

Forms of application and copies of the above-mentioned Conditions and Order may be obtained on application to the City Surveyor, City Hall, Belfast.

Applications, accompanied by copies of three recent testimonials, should be sent to the undersigned not later than 4 p.m. on 18th April, 1947.

Canvassing for the appointments in any form, oral or written, direct or indirect, will, if proved to the satisfaction of the appointing Authority, render candidates liable to disqualification.

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

JOHN DUNLOP,

Town Clerk.

City Hall, Belfast.

12th March, 1947.

585

**CARDIFF AND DISTRICT JOINT PLANNING
COMMITTEE.**

APPOINTMENT OF PLANNING ASSISTANT.

Applications are invited for the position of Planning Assistant, to the above-mentioned Joint Planning Committee, at a salary within A.P. & T. Grade I (£320-£375 p.a.) of and subject to the Scheme of Conditions of Service issued by the National Joint Council for Local Authorities, etc., Services. War bonus (at present £59 16s. per annum) will be payable in addition to the above salary. The appointment will be determinable by one month's notice on either side, and will be subject to the provisions of the Local Government (Superannuation) Act, 1937.

The successful candidate will be required to pass a medical examination. Applicants must disclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Joint Committee. Canvassing will disqualify.

Applications, stating age, educational and professional qualifications, particulars of experience in previous and present appointments, present salary, and accompanied by the names of two referees, must reach the undersigned not later than the 8th April, 1947.

S. TAPPER JONES,

Town Clerk and Clerk to the Cardiff and District Joint Planning Committee.

584

**COUNTY BOROUGH OF SMETHWICK.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at a salary in accordance with Grade V of the A.P.T. Division of the National Scales, £460-£510, plus war bonus (at present £59 16s. per annum).

The post is subject to the Local Government Superannuation Act, 1937, medical examination, and one month's notice on either side.

Applications will be considered only from those who have passed the Associateship Examination of the R.I.B.A. Applicants must not be over 45 years of age.

Applications, on form to be obtained from the Borough Engineer and Surveyor, accompanied by copies only of two testimonials, to be returned to him not later than 11th April, 1947.

E. L. TWYBROSS,

Town Clerk.

Council House, Smethwick.

12th March, 1947.

579

HUNTINGDONSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT. APPOINTMENT OF QUANTITY SURVEYING ASSISTANT (GRADE IV).

Applications are invited for the above-named appointment, salary in accordance with National Grade IV, £420-£415-£415-£465 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Applicants should be experienced in the preparation of Bills of Quantities, the checking of interim valuations, and the settling up of final accounts. Preference will be given to Professional Associates of the Royal Institution of Chartered Surveyors (Quantities Section) or equivalent qualification and experience with a Local Authority will be regarded as an advantage.

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

The appointment is terminable by one month's notice on either side.

Applications, stating age, qualifications, experience and date on which duties could be commenced if appointment, together with copies of testimonials, should be sent to Mr. T. H. Longstaff, M.Inst.C.E., F.R.I.B.A., County Architect, Walden House, Huntingdon, by not later than 31st March, 1947.

J. B. KELLY,

Clerk of the County Council.
County Building, Old Grammar School,
Huntingdon.

7th March, 1947.

551

CORPORATION OF LONDON. CITY SURVEYOR'S OFFICE.

APPOINTMENT OF TECHNICAL STAFF.
Applications are invited for the following appointments in the City Surveyor's Office:—

ARCHITECTURAL ASSISTANTS. Salary £450, inclusive of consolidated bonus.

Applicants 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 Institution of Chartered Surveyors (Building Sub-division).

The appointments are 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. There will be a possibility of establishment for suitable men, and temporary service will count for the purpose of superannuation. Such appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, 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., The City Surveyor, 55-61, Moorgate, E.C.2, giving the following particulars: Service with Armed Forces, age, qualifications or intentions in connection therewith, previous training, positions and experience, date when available to commence duties if selected, together with copies of two testimonials.

579

CITY OF CARDIFF.

CITY SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments, which are subject (i) to the Scheme of Conditions of Service approved by the National Joint Council for Local Authorities, (ii) to the Local Government Superannuation Act, 1937, (iii) to the passing of a medical examination by the successful candidate, (iv) to determination by one month's notice on either side, (v) a candidate must disclose in writing when making an application whether to his knowledge he is related to any Member of the Council or a holder of any Senior Office under the Council, and (vi) canvassing directly or indirectly will disqualify.

ADMINISTRATIVE, PROFESSIONAL AND TECHNICAL DIVISION.

(a) **CHIEF ARCHITECTURAL ASSISTANT** (Grade VI). Salary, £535 per annum, rising by three increments to £600. Applicants must have been responsible for the administration of a large drawing office, and had experience in connection with housing, schools and hospitals.

(b) **ARCHITECTURAL ASSISTANTS** (Grade IV). Salary, £420 per annum, rising by three increments to £465 per annum. Several vacancies exist in a temporary capacity which, in some instances, may become permanent positions.

(c) **ARCHITECTURAL ASSISTANTS** (Grade II). Salary, £360 per annum, rising by three increments to £405 per annum.

(d) **ARCHITECTURAL ASSISTANTS** (Grade I). Salary, £330 per annum, rising by three increments to £375 per annum.

(e) **ASSISTANT QUANTITY SURVEYOR** (Grade V). Salary, £460 per annum, rising by three increments to £510 per annum. Applicants should be Chartered Quantity Surveyors, and fully experienced in the preparation of Bills of Quantities and the control of major contracts.

The above salaries are exclusive of the present cost-of-living bonus of £59 16s. per annum.

Applications should be tabulated, showing age, qualifications, present and previous appointments, salaries, and list of buildings on which experience has been obtained, the names of three referees to whom reference can be made, and delivered to the undersigned within fourteen days.

S. TAPPER JONES,

Town Clerk.
City Hall, Cardiff.

547

Amended Advertisement.

**ROYAL BURGH OF INVERNESS.
BURGH ARCHITECT'S DEPARTMENT.**

APPOINTMENT OF QUANTITY SURVEYOR.
Applications are invited for the permanent appointment of a Quantity Surveyor, in the Burgh Architect's Department.

Salary on Grade IV, A.P.T., of the National Scale, £420-£465 per annum, plus cost-of-living bonus, at present £60. Salary to be fixed within the grade, according to qualifications and experience.

Applicants should hold an appropriate professional qualification, and be accustomed to the preparation of Bills of Quantities, Specifications, Estimates, and settlement of final measurements in accordance with the Scottish Mode of Measurement in connection with Housing Estates, Public Building, and general building work under the Local Authority.

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

Applications, stating age, qualifications, present and past appointments, and full details of experience, together with copy of one testimonial, must be sent to J. Blackburn, F.R.I.B.A., Burgh Architect, 11, High Street, Inverness, not later than 31st March, 1947, and endorsed "Quantity Surveyor."

JAMES CAMERON,

Town Clerk.
Town House, Inverness.
7th March, 1947.

592

CHESHIRE COUNTY COUNCIL. COUNTY PLANNING DEPARTMENT. APPOINTMENT OF COUNTY PLANNING OFFICER.

Applications are invited from suitably qualified persons, with previous experience in Town and Country Planning, for the permanent appointment of County Planning Officer.

Applicants should have considerable experience in Town and Country Planning, and should hold the following qualifications:—

(a) A.M.T.P.I., and
(b) Either A.R.I.B.A. or A.M.Inst.C.E.

The salary scale attached to the appointment is £1,500 per annum, rising by annual increments of £50, subject to satisfactory service, to a maximum of £1,700 per annum. Cost-of-living bonus and travelling allowance on a scale fixed by the County Council from time to time are also payable. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Canvassing, either directly or indirectly, will be a disqualification, and relationship to any Member or senior Officer of the Council must be disclosed.

The Council cannot assist in the provision of housing accommodation for the successful applicant.

Forms of application, together with full particulars as to the conditions and duties attaching to the appointment, which may be obtained from the undersigned upon receipt of a stamped addressed foolscap envelope, must be returned, duly completed, not later than the first post on 12th April, 1947.

GEORGE C. SCRIMGEOUR,

Clerk of the County Council.
County Offices, St. John's House, Chester.

591

HARROGATE AND DISTRICT REGIONAL PLANNING COMMITTEE.

(a) **ADMINISTRATIVE ASSISTANT.** A.P.T., Grade IV, £420-£465.

(b) **PLANNING ASSISTANT.** A.P.T., Grade III, £390-£435.

(c) **JUNIOR PLANNING ASSISTANT.** A.P.T., Grade I, £330-£375.

Applications are invited for the above appointments, in the Regional Planning Office, Harrogate.

Applicants for posts (a) and (b) should have had experience in town and country planning, and preference will be given to applicants who are Associate Members of the Town Planning Institute or are qualified by examination in Architecture, Engineering, or Surveying. Applicants for post (c) should have had theoretical and practical training in Town and Country Planning, Architecture, Engineering, or Surveying.

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

Applications, stating age, qualifications, education, and experience, together with the names of three persons for reference, should be submitted to the Regional Planning Officer, Market Buildings, Market Place, Harrogate, to reach him not later than the first post on Thursday, the 23rd April 1947. A list of the duties attached to each of the above appointments will be supplied on request.

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

Candidates, when making application, must disclose in writing whether to their knowledge they are related to any member of, or the holder of any senior office under, the Regional Planning Committee.

J. M. DODDS,

Honorary Clerk.
Municipal Offices, Harrogate.
12th March, 1947.

595

COUNTY BOROUGH OF WEST HAM. APPOINTMENT OF DEPUTY BOROUGH ARCHITECT AND PLANNING OFFICER.

Applications are invited for the above post, at a salary of £950×£50×£50-£1,050 (plus bonus £60) per annum.

Full particulars of duties, terms of appointment and application form (which must be used in making application), may be obtained from Thomas E. North, F.R.I.B.A., Borough Architect and Planning Officer, 100, West Ham Lane, E.15, to whom it must be returned not later than 11th April, 1947.

E. E. KING,

Town Clerk.
West Ham Town Hall, Stratford, E.15.

546

CITY OF PLYMOUTH. CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the Permanent Staff, which are subject to the Local Government Superannuation Act, 1937, a satisfactory medical examination, and one month's notice on either side for termination.

The salary scale is that of the A.P. and T. Division of the National Scheme of Conditions of Service, and is subject to the addition of cost-of-living bonus, at present £59 16s. per annum.

(a) **TWO ASSISTANT ARCHITECTS.** Grade IV, £420-£465 per annum.

(b) **THREE ASSISTANT ARCHITECTS.** Grade III, £390-£435 per annum.

Applicants should preferably be Members of the Royal Institute of British Architects.

Candidates must not be over 40 years of age, but this condition may be relaxed in the case of a person up to 45 years of age employed by another Local Authority.

Applications on forms to be obtained from the undersigned, accompanied by copies of not more than three testimonials, should be returned to me as soon as possible.

The Corporation will make housing accommodation available to the successful applicants who are married.

E. G. CATCHPOLE, A.R.I.B.A.,

City Architect.
City Architect's Department, Weston
Lodge, Seymour Road, Plymouth.

577

ADMINISTRATIVE COUNTY OF LONDON. PRELIMINARY NOTICE OF INTENTION TO CONDUCT QUALIFYING EXAMINATIONS FOR THE OFFICE OF DISTRICT SURVEYOR.

Preliminary notice is given that in the autumn of 1947, the Board appointed by the London County Council in accordance with Section 77 of the London Building Acts (Amendment) Act, 1939, will conduct, at the request of the Council, an examination of persons desirous of obtaining a certificate of proficiency to perform the duties of district surveyor. The examination will be held in London, and it is the intention to hold subsequent examinations annually.

Possession of this certificate carries eligibility to compete for appointment to vacant positions as District Surveyor, at maximum salaries ranging from £1,200 to £1,800 a year (inclusive), or as Assistant District Surveyor, at an inclusive salary scale of £840×£40-£960 a year.

Regulations governing candidature, and the syllabus for the examination, will be available shortly, and will be obtainable from the Architect to the Council, The County Hall, Westminster Bridge, S.E.1, to whom requests for further information should be addressed, accompanied by a stamped addressed envelope. (727)

555

Tenders

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

ERECTION OF MAISONNETTES—COWPER'S ROW SITE, STREATHAM.

Tenders are invited for the erection of two Blocks of Maisonnettes, on the Cowper's Row Site, Streatham. The approximate size of each block is 27 ft. by 28 ft., and four storeys in height. Each block will contain eight Maisonnettes.

Applications for Forms of Tender and Bills of Quantities must be made to the Architect, Mr. Clifford E. Culpin, F.R.I.B.A., 3, Southampton Place, W.C.1, not later than 21st March, 1947, accompanied by a deposit of three guineas (which will be refunded upon submission of a bona fide tender and return of all documents). Drawings and Conditions of Contract may be inspected at the offices of the Architect during the month of March, 1947.

Tenders, enclosed in sealed envelopes, endorsed "Tender—Erection of Maisonnettes, Cowper's Row Site," must be delivered to the Town Clerk, Municipal Buildings, Wandsworth, S.W.18, not later than 12 noon on Thursday, 10th April, 1947. The Council do not bind themselves to accept the lowest or any tender.

By Order,

R. H. JERMAN,
Town Clerk.
Municipal Buildings, Wandsworth, S.W.18.
5th March, 1947.

550

Architectural Appointments Vacant

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

HENRY C. SMART & PARTNERS, Architects, 120, Moorgate, E.C.2, require Assistant; working drawings, details, surveys, etc. Write, stating age, experience, and salary required.

913

SURVEYORS—London Architects have vacancies for Surveyors, with experience of war damage work; salary, £500-£625 per annum. Write, stating age, experience, and when free. Box 645.

JUNIOR (14-16) required in Chartered Architect's office; general office work, with prospects in profession. Clark, 44, Gt. Russell Street, W.C.1. Museum 4400 888

INTERNATIONAL Correspondence Schools require for immediate full-time employment Junior Architectural Assistant; qualified by R.I.B.A. examination. Write or phone (HOLBORN 3971), stating age, experience, and salary required, to Director of Instruction, International Correspondence Schools, 71, Kingsway, W.C.2.

APPLICATIONS are invited by the Co-operative Wholesale Society, Ltd., for appointments as **ASSISTANT ARCHITECTS**; applicants should be good draughtsmen, with a sound knowledge of general construction, and experience in commercial and industrial work will be an advantage; salary up to £500 per annum, according to qualifications (plus cost-of-living bonus); good prospects of promotion for competent assistants; successful candidates will be required to pass a medical examination for entry into compulsory superannuation scheme. Applications, stating educational qualifications and experience, to be addressed to the C.W.S., Ltd., Architect's Dept., 1, Balloon Street, Manchester, 4. 953

ARCHITECTURAL ASSISTANTS required immediately in busy office (Senior and Junior); senior able to take charge of allocated jobs; state age, qualifications, experience, and salary, to Ruddle & Wilkinson, F./L.R.I.B.A., Long Causeway Chambers, Peterborough. 966

REQUIRED immediately, in country office, **CHIEF ASSISTANT**; qualified or equal to in ability, and experienced in all duties; able to take charge of jobs; state qualifications and salary required, with testimonials. Box 515.

AN ARCHITECTURAL ASSISTANT, aged 25/35, is required by a large industrial concern in the Manchester district; applicants must be capable of preparing from sketch plans, working drawings, details and specifications, supervising work during progress, measuring up for final accounts; the position offers good prospects and interesting work to a keen and capable assistant; experience of industrial building work essential; applications should be made in own handwriting, giving details of experience, training, qualifications, and salary required. Box 513.

SENIOR, also **ASSISTANT ARCHITECT** (permanent) required for Reading office; senior not less than 33 years old; salary up to £500; assistant, salary up to £325. Full particulars of experience, etc., to Box 536.

WANTED, for busy West End Architect's office, experienced **SENIOR ASSISTANT**; capable of taking charge of important work. Apply Box 580.

LONDON PASSENGER TRANSPORT BOARD—Applications are invited for appointments on the temporary staff of the Architect's Office as follows:—**ASSISTANT ARCHITECTS**, **ARCHITECTURAL ASSISTANTS**, **STRUCTURAL ENGINEERING ASSISTANTS**. Salaries range from £250 to £465 per annum, according to ability, qualifications and experience, plus war advance, at present £72 16s. per annum. Applications, which should give a brief outline of training and experience, to be sent to the Staff Officer (ER/E.408), 55, Broadway, Westminster, S.W.1. Applicants may also telephone ABBey 1234, Extension 194. 977

ARCHITECT'S ASSISTANTS, R.I.B.A. Final or Intermediate standard, required in expanding country practice (present staff of six), for working up and taking charge of good class domestic, including alterations and restorations, farm buildings and layouts, and R.D.C. (village) housing; state age, experience, and when free; salary, £4/£10 per week, according to ability. G. Forsyth Lawson, L.R.I.B.A., 25a, High Street, Banbury, Oxfordshire. 557

BUILDING SURVEYOR ASSISTANT required by firm of Architects, Central London; experience in London practice desirable; possibility of eventual partnership for right man. Write, stating qualifications and salary required, to Box 553.

SENIOR ARCHITECTURAL ASSISTANT required by firm of Central London Architects; good draughtsman essential; general practice, including schools. Write, stating experience and salary required, to Box 554.

ARCHITECTURAL ASSISTANT required immediately in S.E. Kent practice; R.I.B.A. Inter. standard; permanent position for the right man, with good salary by arrangement, according to experience. Box 563.

SIR JOHN BURNET, Tait & Lorne have a vacancy for an experienced **ASSISTANT**. Reply, giving usual particulars, to 10, Beilford Square, W.C.1. 554

ARCHITECTURAL ASSISTANT required immediately; R.I.B.A. Intermediate exam., and practical office experience necessary. Joseph Emberton, F.R.I.B.A., 121, Chiltern Court, Baker Street, N.W.1. Welbeck 3565. 567

BUILDING SURVEYOR, good draughtsman, required for housing work; war damage experience desirable. Vigers & Co., 4, Frederick's Place, E.C.2. 545

SURVEYOR DRAUGHTSMAN required for Oil Company duty in Persian Gulf areas. Applicants must have had considerable practice in survey, levelling, the setting out of work, and the production of their own plans. Previous survey experience in Middle East an advantage. Age limit 30—desirably single, as no married accommodation available for at least first three years. Salary progressive, from £500 p.a., quarters/messing and allowances between the range of £250 for the bachelor to £480 for the married man with three children. Provident and Pension benefits. Replies, quoting reference X/25(4), to Box 1563, c/o Charles Barker & Sons Ltd., 31, Budge Row, London, E.C.4. 586

ARCHITECT'S ASSISTANT required immediately; alteration and maintenance work, and able to write specifications; hospital experience desirable, but not essential; salary, £350-£400. Apply, stating age and experience, to the Surveyor, London Hospital, Whitechapel, E.1. 587

WANTED, for a Railway Civil Engineer's Office in Edinburgh, Temporary **ARCHITECTURAL ASSISTANTS**; capable of preparing working drawings from rough sketches, estimating and supervising works in progress; State age, qualifications, and salary expected, to Box 589.

SENIOR and JUNIOR ASSISTANTS required for general practice in the town of Cardigan. State age, experience, and salary required, to Howard Williams & Partners, 2, St. Andrews Place, Cardiff. 590

ARCHITECT'S ASSISTANT (Junior or Senior) required; Tyneside; South Country applicants invited. Box 594.

Architectural Appointments Wanted

EX-SERVICEMAN (30) seeks situation as **DRAUGHTSMAN**; keen and desirous of gaining experience; knowledge of joinery and domestic dwellings. Box 269.

QUALIFIED Polish Architect seeks employment in London area; previous experience design of prefabs in London; 10 years' experience, Warsaw, as General Architect; excellent English references. Box 270.

CHARTERED ARCHITECT, with wide experience in England and overseas, desires responsible appointment; administrative ability, competent designer and draughtsman. Box 272.

YOUNG ARCHITECTURAL ASSISTANT, with 3 years' office and outside experience, requires employment; preferably in South London; further details will be given on application. Box 273.

KEEN Youth seeks employment with Country Architect; will accept small salary if opportunity given to study. Reply Box 271.

REGISTERED ARCHITECT and Land Surveyor (37) desires change; 20 years' general experience all classes of work; would prefer position mainly surveying and levelling large areas, buildings, etc., setting out roads, sewers, housing and schemes generally, in conjunction with architectural and civil engineering work; salary, minimum £11 p.w. Reply Box 274.

SENIOR ASSISTANT requires responsible position; experienced in modern industrial and commercial work, flats, housing and hotels; competent in design and construction, good draughtsman, and accustomed to take complete charge. Box 275.

ARCHITECT'S ASSISTANT (B.Arch. Hons.), 33, requires appointment in Plymouth-Torquay area about May, preferably with a view to partnership; some capital available. Box 277.

CLERK OF WORKS desires post in London area; 1st class pre-war London experience; alert and adaptable; sound knowledge of all trades, and fully capable all duties. Box 276.

ASSISTANT (30), student at Milan (Italy) Polytechnic 1934-38, would like full or part-time work with progressive Architect whilst preparing for Inter. R.I.B.A. after several years' absence from architecture through circumstances and war service; would start on small salary if work interesting and scope for advancement. Box 279.

ARCHITECTURAL ASSISTANT (27) requires position, Bristol district; 7 years' experience housing and domestic work. Council housing schemes, surveys, etc., including 14 years as Clerk of Works on Council housing; neat draughtsman; sketches, working drawings, etc. Box 278.

Other Appointments Wanted

Four lines or under, 2s. 6d.; each additional line, 1s.

ARCHITECT'S ASSISTANT seeks spare-time work; will undertake preparation of working drawings, perspectives, etc. Box 941.

PERSPECTIVES and Sketch Plans, etc., by Architect, with own office. Box 945.

ARCHITECT, Home Counties, requires position with London practice with view to partnership, wherein own practice can be amalgamated; experience in complete control of all types buildings. Reply, in confidence, to Box 543.

ARCHITECT, B.A., A.R.I.B.A., desires spare-time work; perspectives, detail drawings, surveys (N. Midlands area), etc.; rapid and experienced draughtsman. Box 573.

ARCHITECT offers part-time assistance in own office; surveys, sketch designs, working drawings, supervisions, etc.; 18 years' experience; own car. Box 593.

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

OLD-ESTABLISHED Architect's Practice for Sale; retiring; equipped office; North Staffordshire. Box 571.

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LONDON Suburban Architects' and Surveyors' practice for sale owing to death of Principal; offers excellent opportunity to Architect desiring to take over sound business, old established and with work in hand, under management; lease on offices; in good condition; reasonable price will be accepted. Refer in first place to Selby 6, Ingoldby Mansions, Avonmore Road, London, W.14. 588

Miscellaneous

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WANTED—Copy of "The Fabric of Modern Building," by E. G. Warland. Please write to Singleton, 228a, Chingford Road, E.17. 573

SALES REPRESENTATIVE requires part-time instruction in reading plans, blueprints, drawings, etc. Apply Box 545.

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R.I.B.A. and T.P. INST. EXAMS. Private Courses of Tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, 212, Euston Road, N.W.1. Tel.: EUS. 776a.

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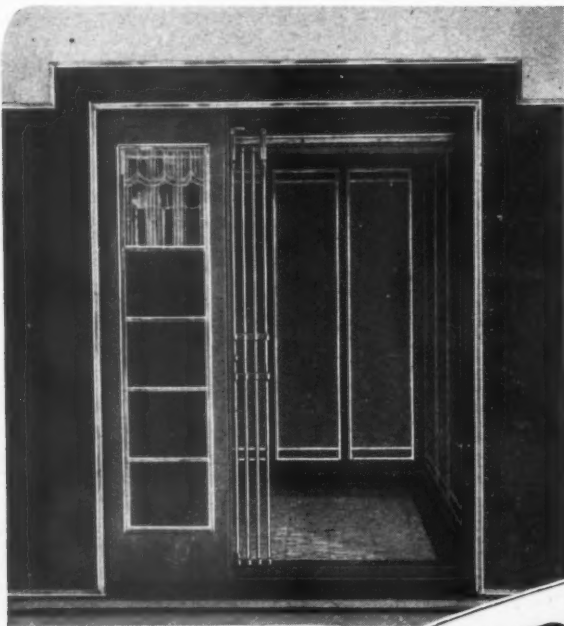
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Bath Cabinet Makers & Artcrafts, Ltd.	xxiii	Fullwood & Bland, Ltd., R. J.	xxv	Rippers, Ltd.	xxiii
Belling & Co., Ltd.	xxiii	Gent & Co., Ltd.	xxv	Sankey, J. H., & Son, Ltd.	xxviii
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Brent Metal Works	xxv	Haskins Rolling Shutters	xxv	Sharnan, R. W., Ltd.	xxviii
Briggs, William, & Sons, Ltd.	xxv	Henderson, P. C., Ltd.	xxv	Siegmart Fireproof Floor Co., Ltd.	xxviii
British Electrical Development Assoc.	xxv	Henleys Telegraph Works Co., Ltd., W. T.	xxv	Simplex Electric Co., Ltd.	xxviii
British Gas Council	xxv	Hollway, W. F., & Brother, Ltd.	xxv	Smith, E. H. (Croydon), Ltd.	xxviii
British Insulated Callender's Cables, Ltd.	xxv	Imperial Chemical Industries, Ltd.	xxv	Smith's English Clocks, Ltd.	xxviii
British Ironfounders' Assoc.	xxv	Insulite Products Corporation, Ltd.	xxv	Smith's Fireproof Floors, Ltd.	xxviii
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British Rubber Development Board	xxv	Iverson Electrical, Ltd.	xxv	Sterling Textile Industries, Ltd.	xxviii
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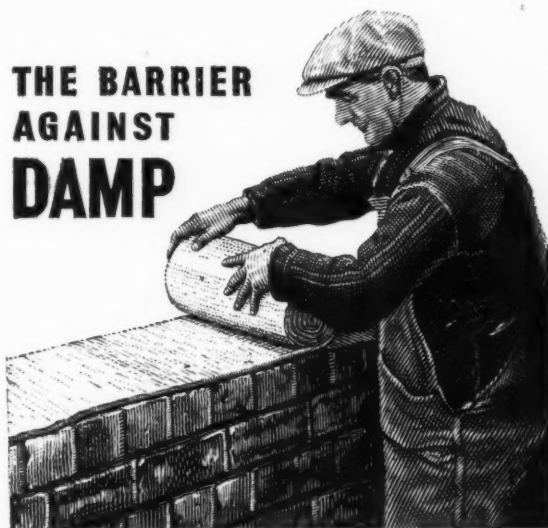
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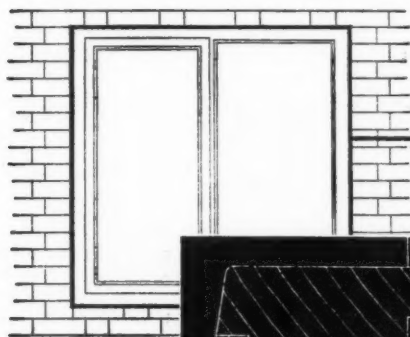
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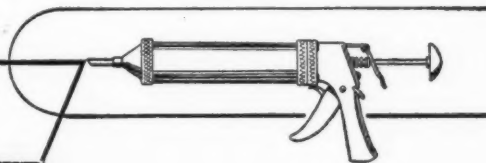
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