

# THE ARCHITECTS' JOURNAL



## standard contents

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

## NEWS and COMMENT

Diary

News

Architects' Commonplace Book

Astragal's Notes and Topics

Letters

Societies and Institutions

## TECHNICAL SECTION

Information Sheets

Information Centre

Current Technique

Questions and Answers

Prices

The Industry

## PHYSICAL PLANNING SUPPLEMENT

## CURRENT BUILDINGS

## HOUSING STATISTICS

Architectural Appointments  
Wanted and Vacant

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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. 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, Castle Hill Avenue, Berkhamstead, Herts.	"Dyneley,"
ABS	Architects' Benevolent Society, 66, Portland Place, W.1.	Welbeck 5721
ABT	Association of Building Technicians, 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain, 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association, 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association, School of Architecture, Manchester Municipal School of Art, All Saints, Manchester, 14	Ardwick 3480
ARCUK	Architects' Registration Council, 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects, 66, Portland Place, W.1.	Welbeck 5721
AScW	Association of Scientific Workers, 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education, 66, Portland Place, W.1.	Welbeck 5721
BATC	Building Apprenticeship and Training Council, Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre, 9, Conduit Street, W.1.	Mayfair 8641/6
BCC	British Colour Council, 28, Sackville Street, W.1.	Regent 3613
BCCF	British Cast Concrete Federation, 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association, Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association, 25, Victoria Street, S.W.1.	Abbey 5422-3
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGC	British Gas Council, 1, Grosvenor Place, S.W.1.	Sloane 4554
BGF	British Gas Federation, 1, Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association, 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education, 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors, 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council, 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade, Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station, Bucknalls Lane, Watford.	Garston 2246
BSA	British Steelwork Association, Eggington House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSA	Building Societies Association, 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution, 28, Victoria Street, S.W.1.	Abbey 3333
CAS	County Architects Society, C/o A. Guy Chant, F.R.I.B.A., Salop County Council, 5, Belmont, Shrewsbury.	Shrewsbury 3031
CCA	Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Radlett 5616
CIAD	Central Institute of Art and Design, 41, 42, Dover Street, W.1.	Regent 3074
CIAM	Congrès Internationaux d'Architecture Moderne, Doldertal, 7, Zurich, Switzerland	
CID	Council of Industrial Design, Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee, MOW, 42, Onslow Gardens, S.W.7.	Kensington 7070
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W. Sloane 4280	
CUJC	Coal Utilization Joint Council, 54, Victoria Street, S.W.1.	Victoria 9831
DIA	Design and Industries Association, 9, Conduit Street, W.1.	Mayfair 5432
DOT	Department of Overseas Trade, 35, Old Queen Street, S.W.1.	Victoria 9040
EC	Electricity Commission, Savoy Court, Strand, W.C.2.	Temple Bar 7565
EJMA	English Joinery Manufacturers Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society, 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors, 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub Contractors, 21, Tothill Street, S.W.1.	Whitehall 9606
FBI	Federation of British Industries, 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission, 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries, 37, Chester Square, S.W.1.	Sloane 1002
FDMA	Flush Door Manufacturers Association, Stapleford Road, Trowell, Nottingham.	Ilkeston 623/4/5
FLD	Friends of the Lake District, Pennington House, Nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders, 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FRHB	Federation of Registered House Builders, 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England, 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group, 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881

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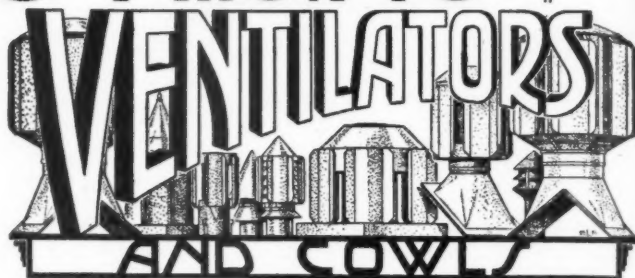
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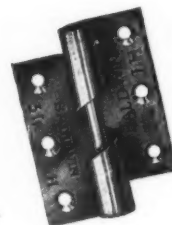
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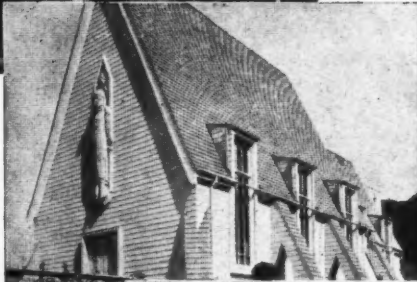
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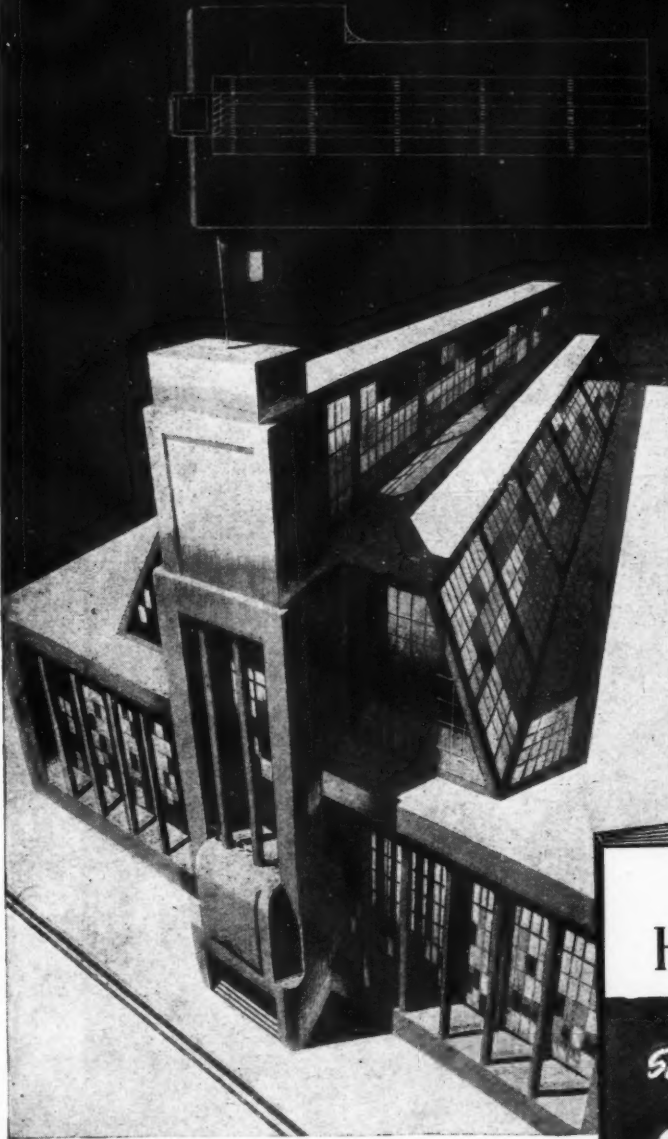
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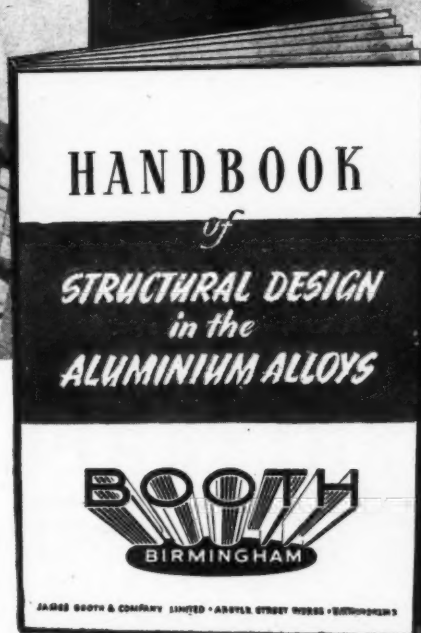
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# DESIGN



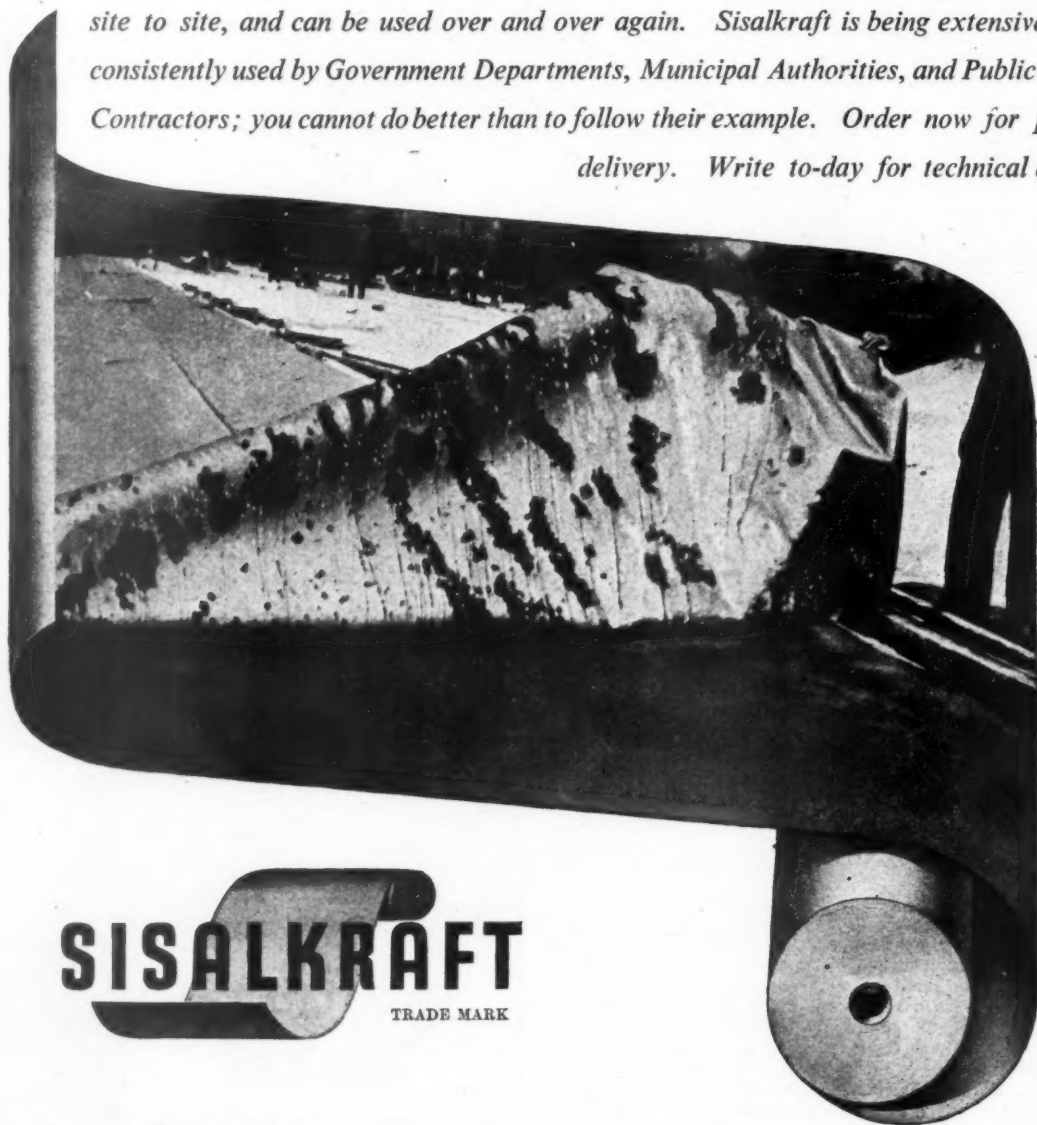
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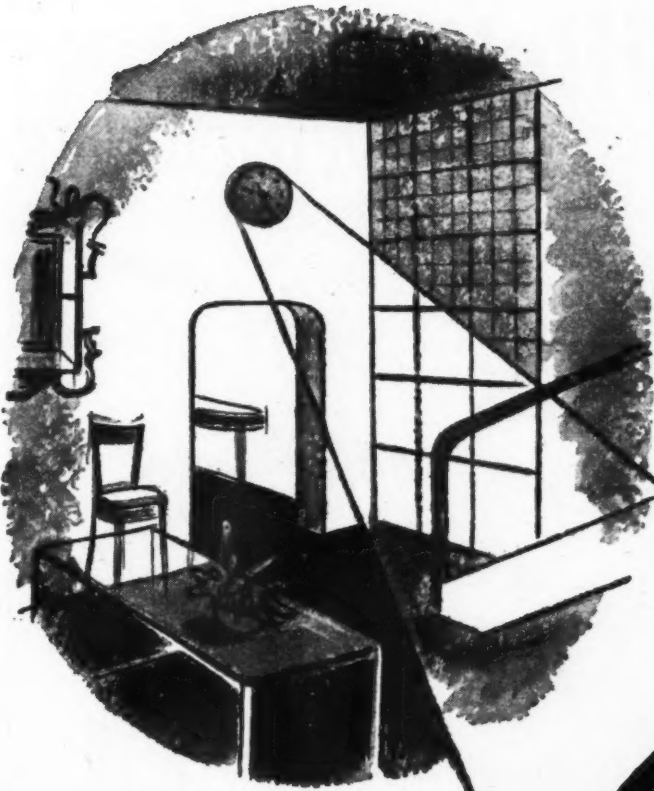
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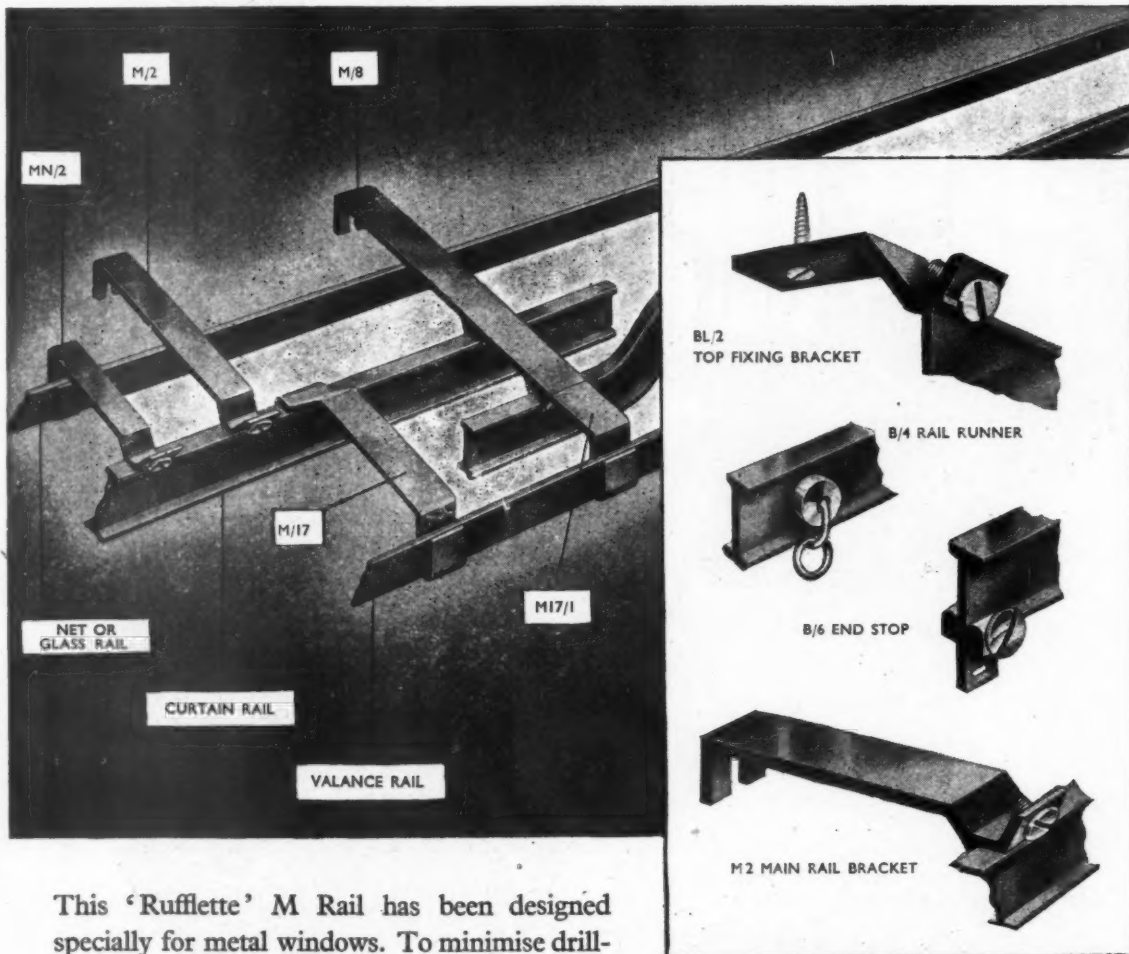
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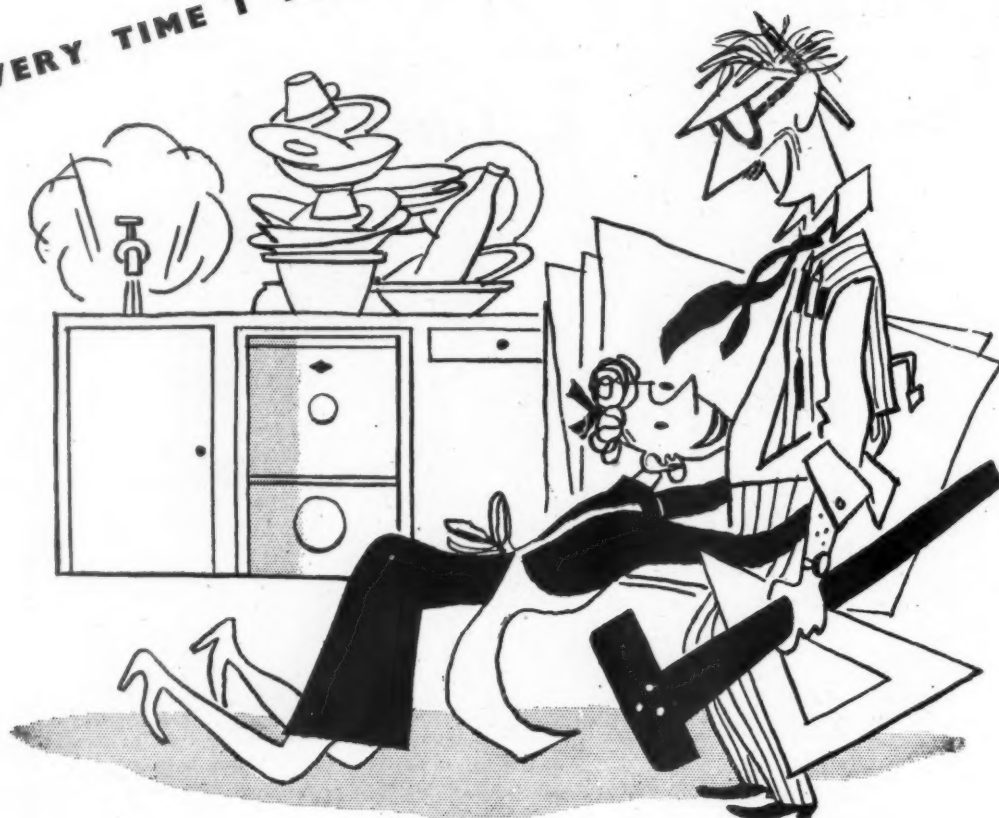
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# Glazing Bars and Timber Content



Will the present timber ration allow the inclusion of windows with glazing bars? Architects who prefer this type to the simple unbarred casement can find the answer from the table on the right, which shows the timber content of the EJMA range of windows with no bars, with lay bars only, and with both vertical and horizontal bars.

It will be seen that the additional amount of timber used is very small, and, in fact, fully-barred windows are being specified in a number of housing schemes.



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## PRINCIPLES OF NOTATION

The first figure gives the number of lights in width, the letters indicate the type, and the last two figures the height in feet and inches. Example—The window illustrated is type 2V46.

P — Plain (no vent).      N — Narrow.  
V — Vent.                      S — Sublight.  
T — Through Transom.

## TIMBER CONTENT in decimals of a standard.

INP26	-004	-004	—
INP36	-005	-005	—
INV26	-004	-004	—
INV36	-004	-005	—
INV40	-004	-005	—
IP26	-005	-005	-006
IP36	-006	-006	-007
IP40	-006	-006	-007
IP46	-007	-007	-007
IV26	-005	-005	-006
IV36	-005	-006	-007
IV40	-006	-007	-008
IV46	-006	-008	-008
IT46	-008	-008	-009
IT50	-008	-009	-009
IP550	-008	-009	-009
2V26	-008	-009	-009
2V36	-009	-010	-011
2V40	-010	-012	-013
2V46	-010	-012	-013
2T46	-010	-013	-014
2T50	-010	-014	-015
2VS50	-010	-014	-015
3P26	-010	-012	-012
3V36	-013	-015	-016
3V40	-014	-016	-017
3V46	-014	-017	-018
3T46	-015	-018	-020
3T50	-016	-020	-022
3VS50	-016	-020	-022
4V36	-016	-020	-021
4V40	-017	-021	-023
4V46	-018	-023	-025
4T46	-018	-024	-026
4T50	-018	-026	-028
4VS50	-018	-026	-028

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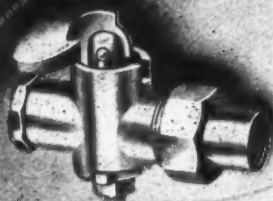
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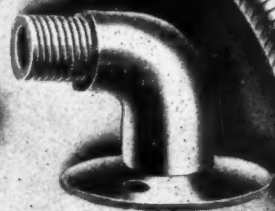
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$\frac{1}{2}$ " B.S.P. Flanged Elbow

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Floor Fixing. Socket screwed  
 $\frac{1}{2}$ " B.S.P.. Nose-piece of Plug  
screwed  $\frac{1}{2}$ " B.S.P.



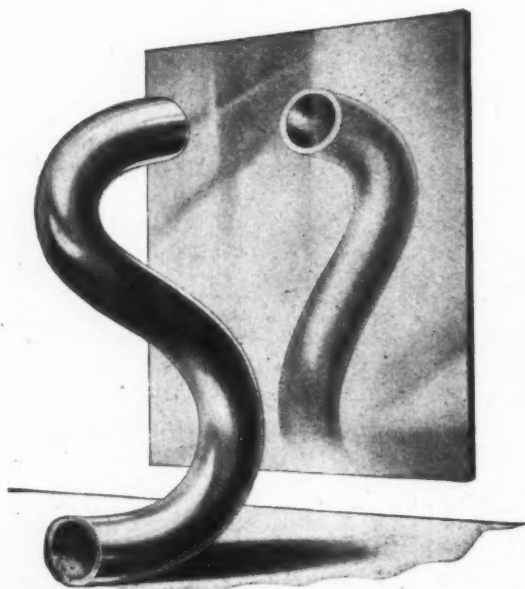
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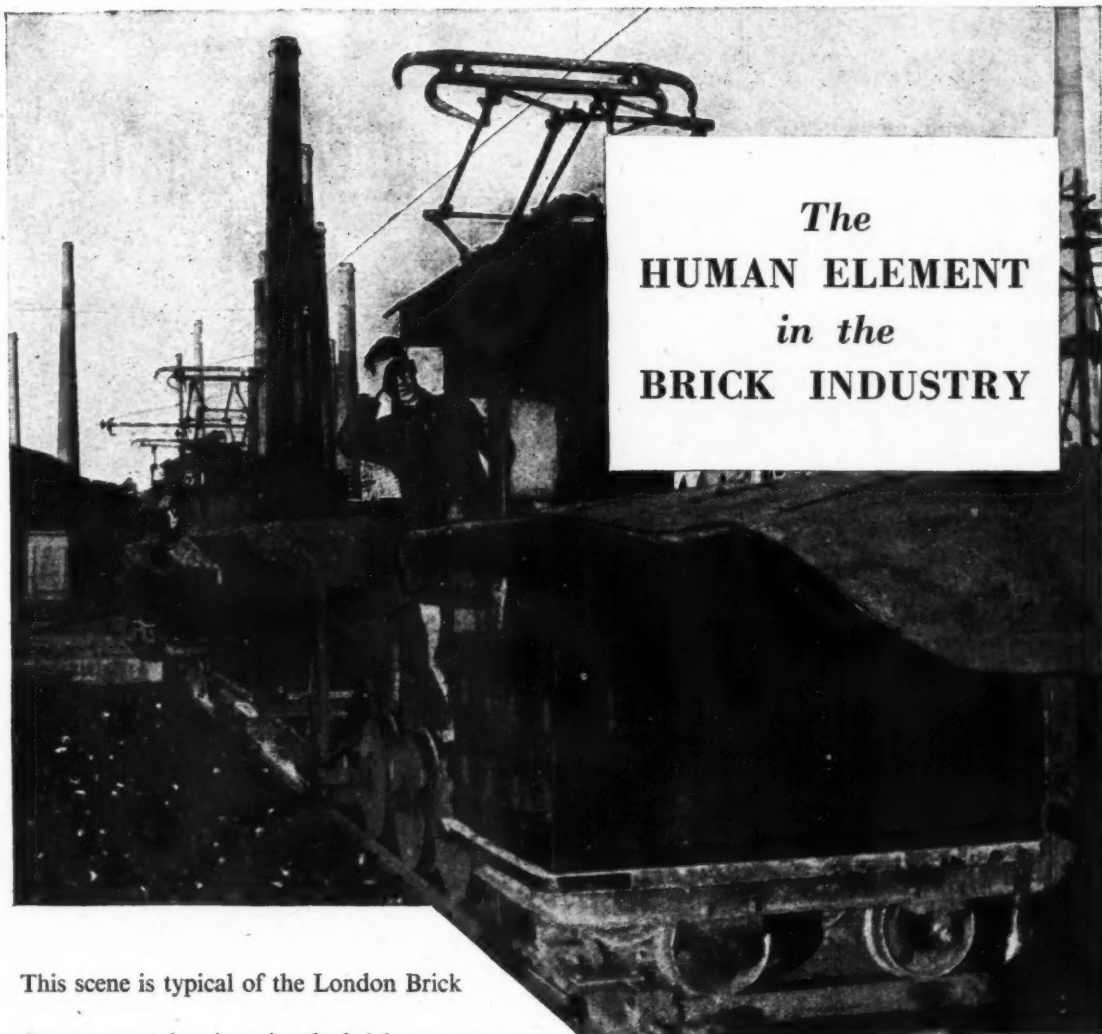
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Gravesend. Telephone: Gravesend 4251.

**MARLITH** . . The Marley Tile Co., Ltd.,  
London Rd., Riverhead, Sevenoaks, Kent.  
Telephone: Sevenoaks 2251.

**THERMACOUST** The Cementation Co., Ltd.,  
Thermacoust Dept., 39, Victoria Street,  
S.W.1. Telephone: Abbey 5726.

**LITHALUN** . . Lithalun Products Ltd.,  
Pontalun, Bridgend, Glam.  
Telephone: Bridgend 213.

W.W.23

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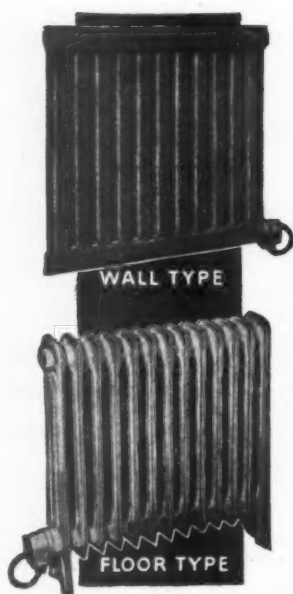


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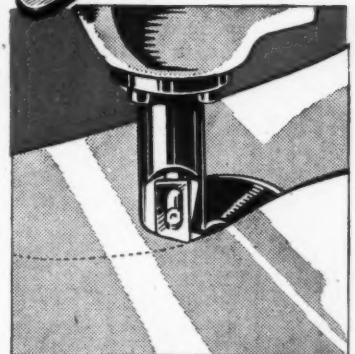


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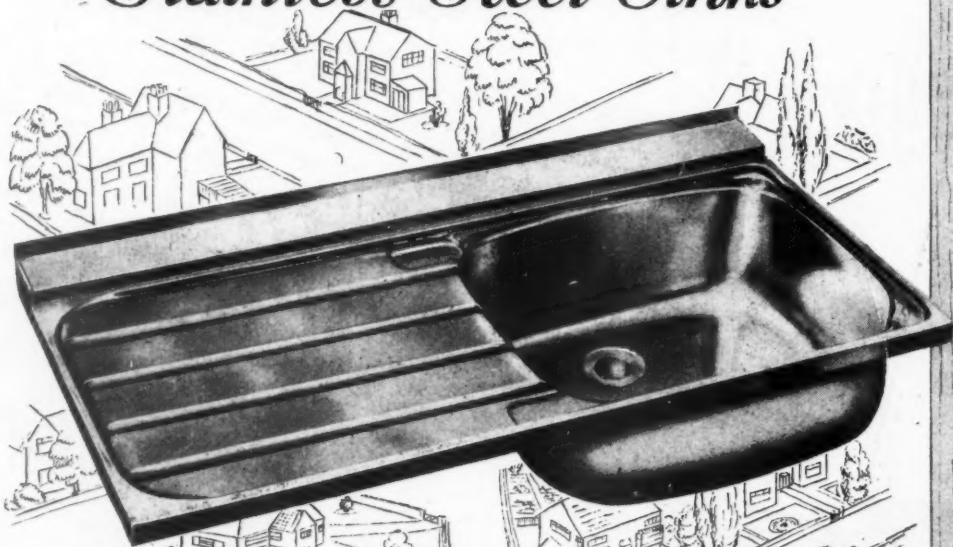
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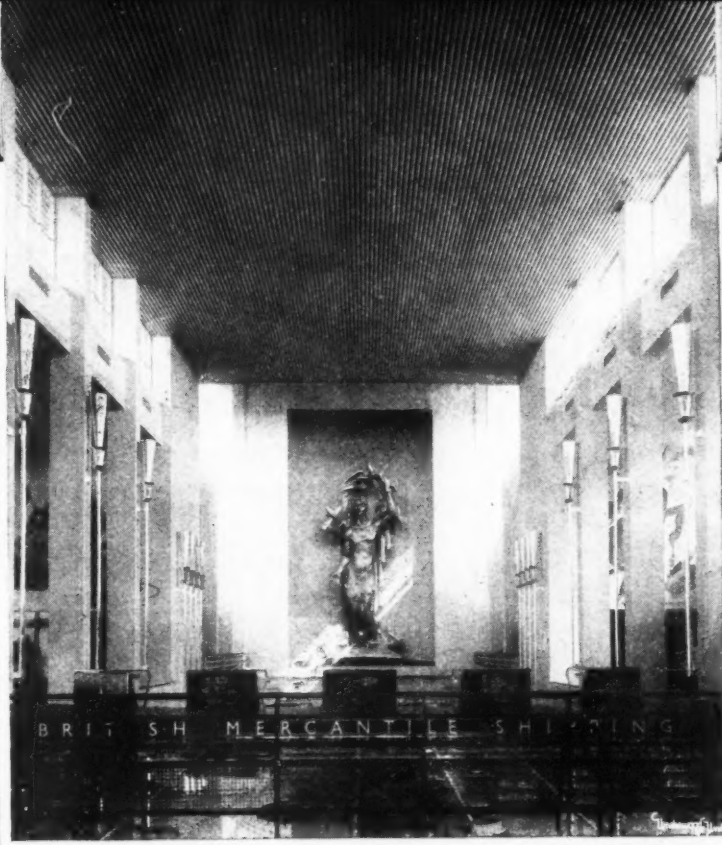
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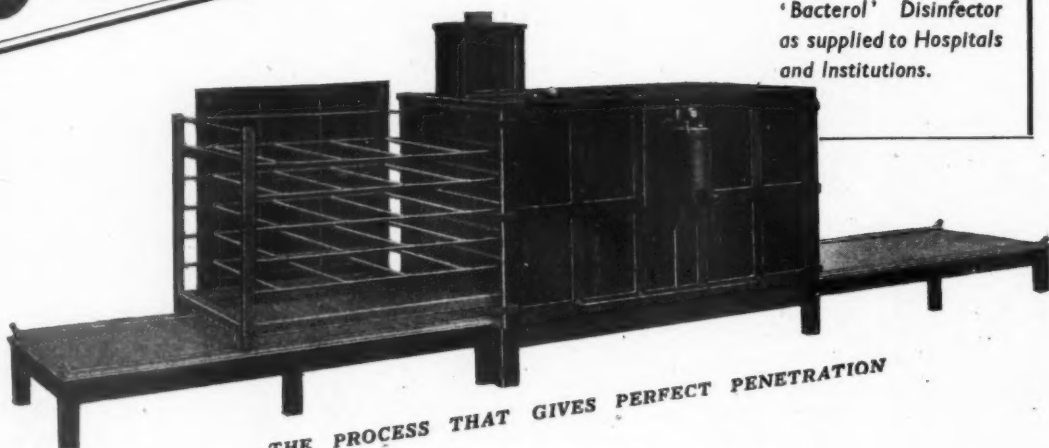
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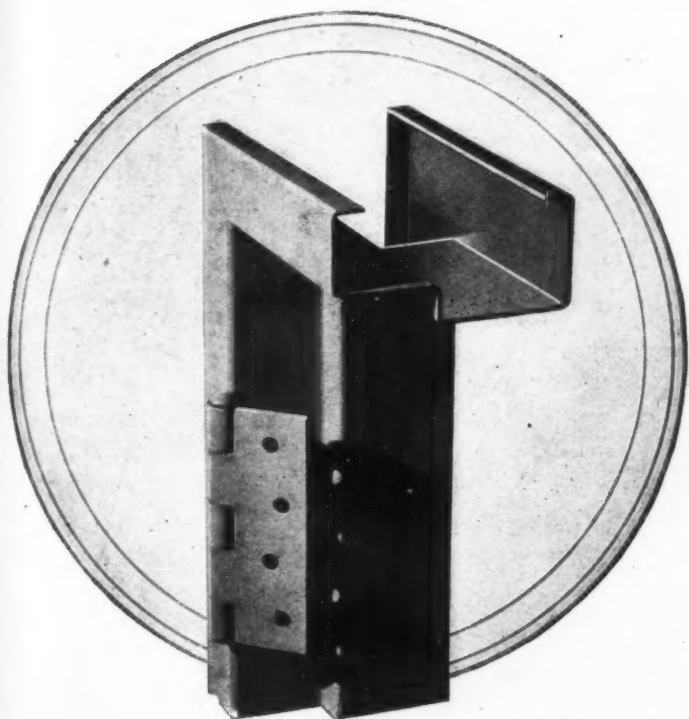
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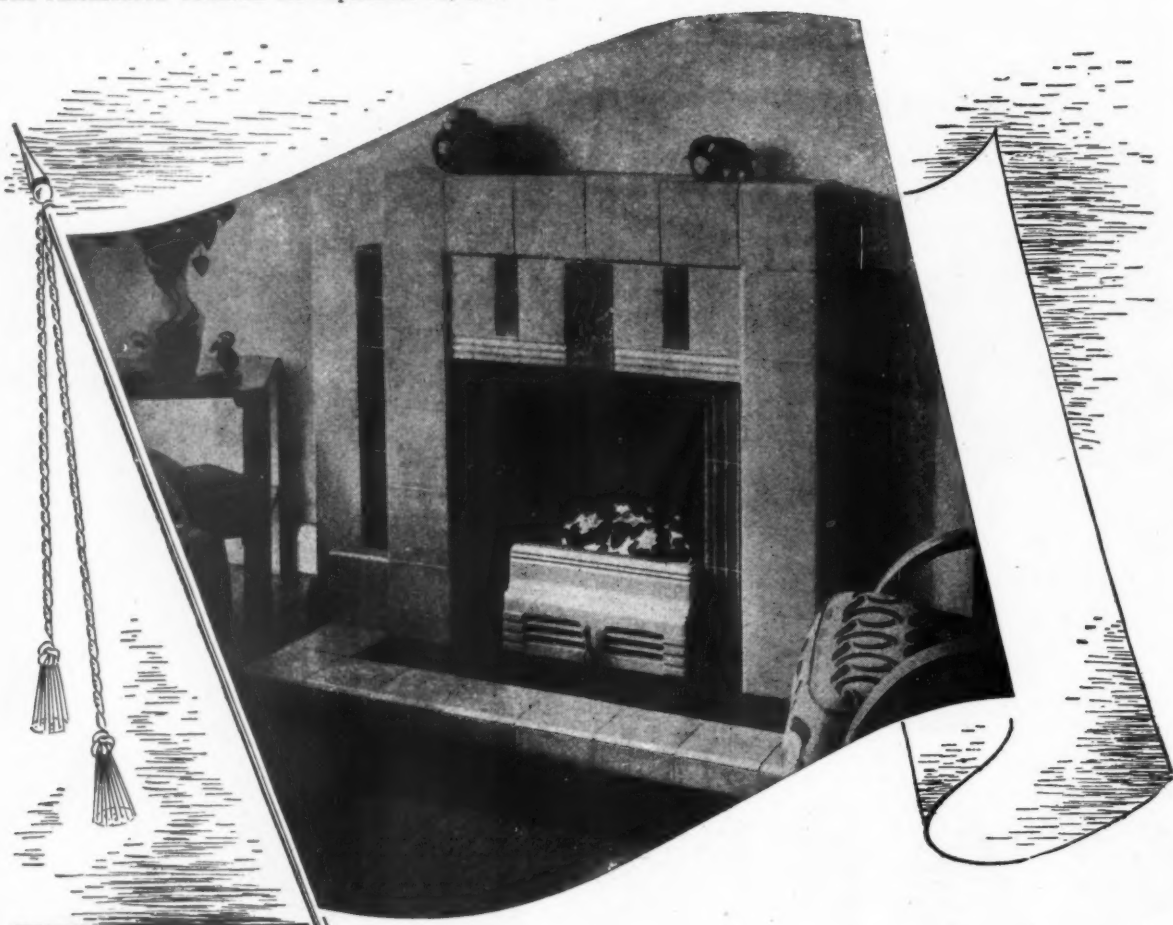
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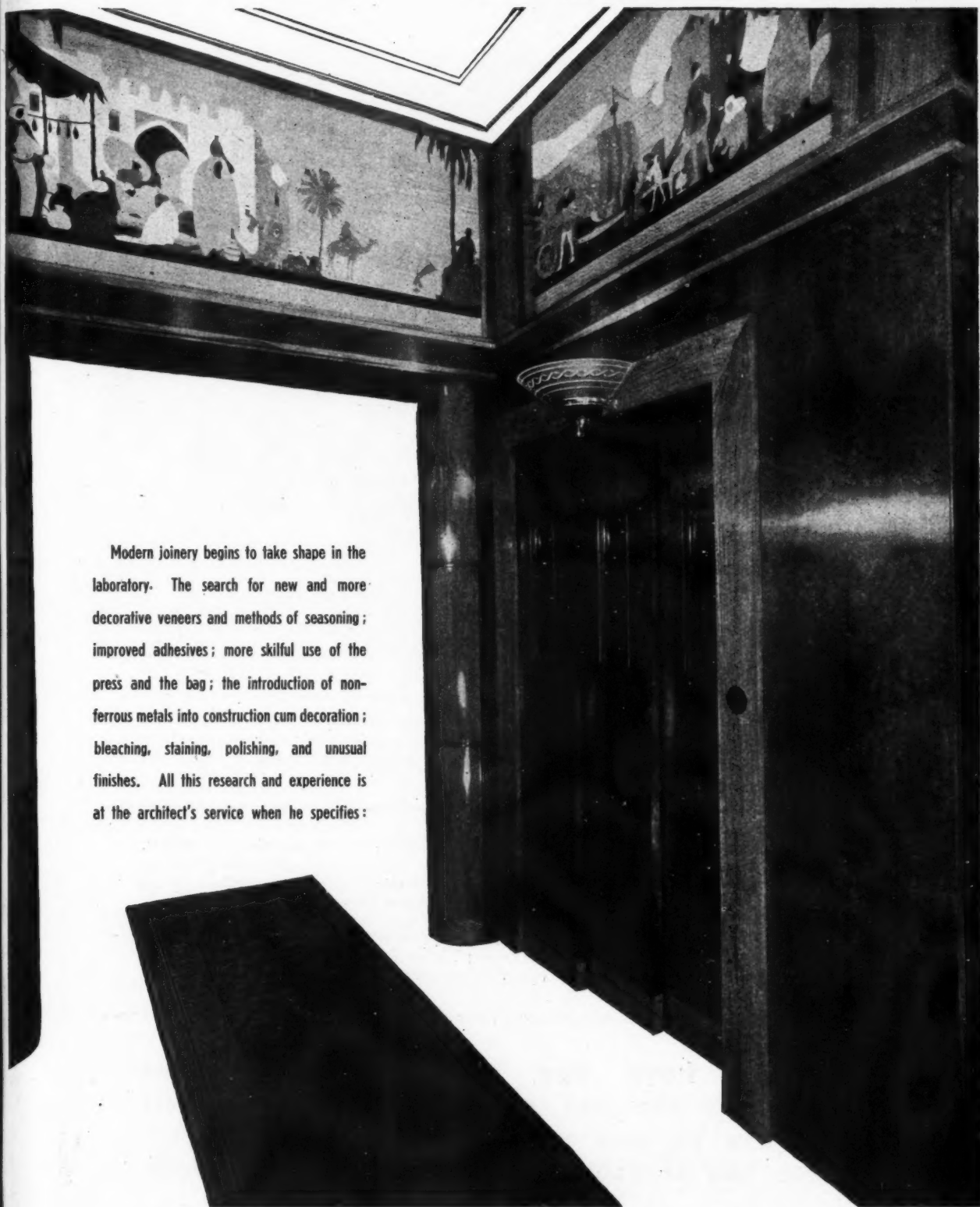


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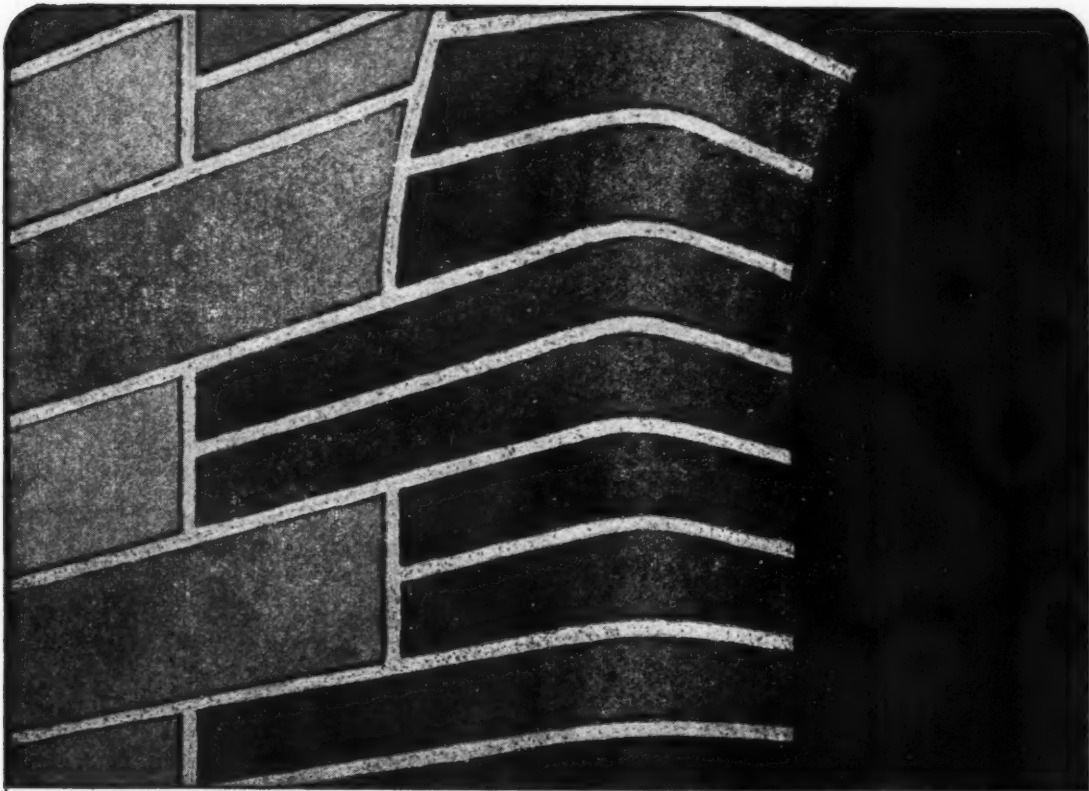
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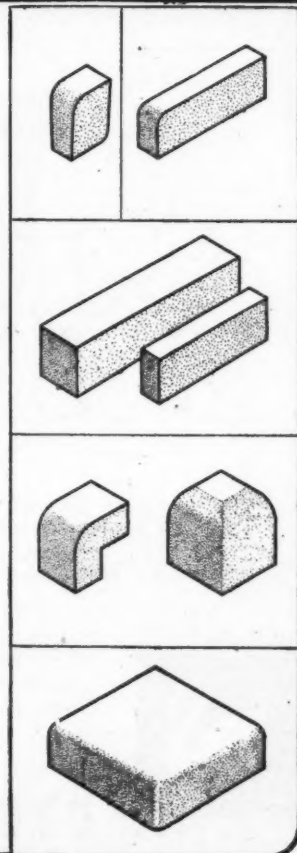
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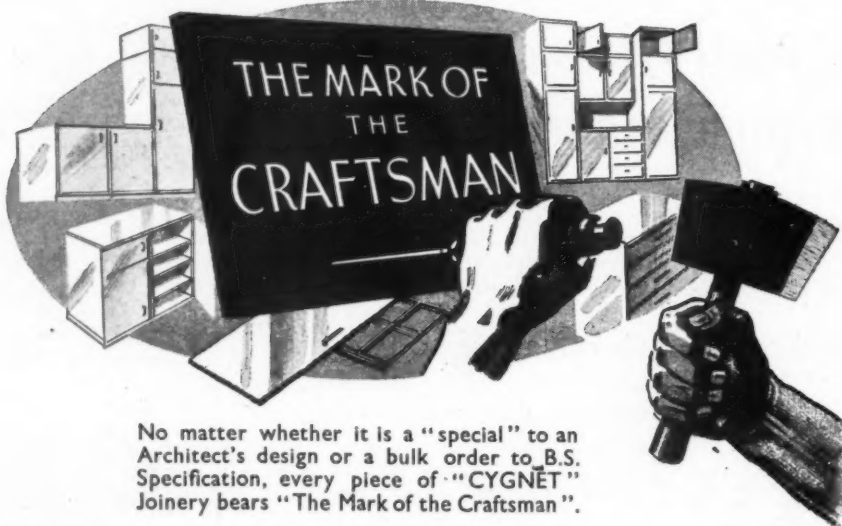
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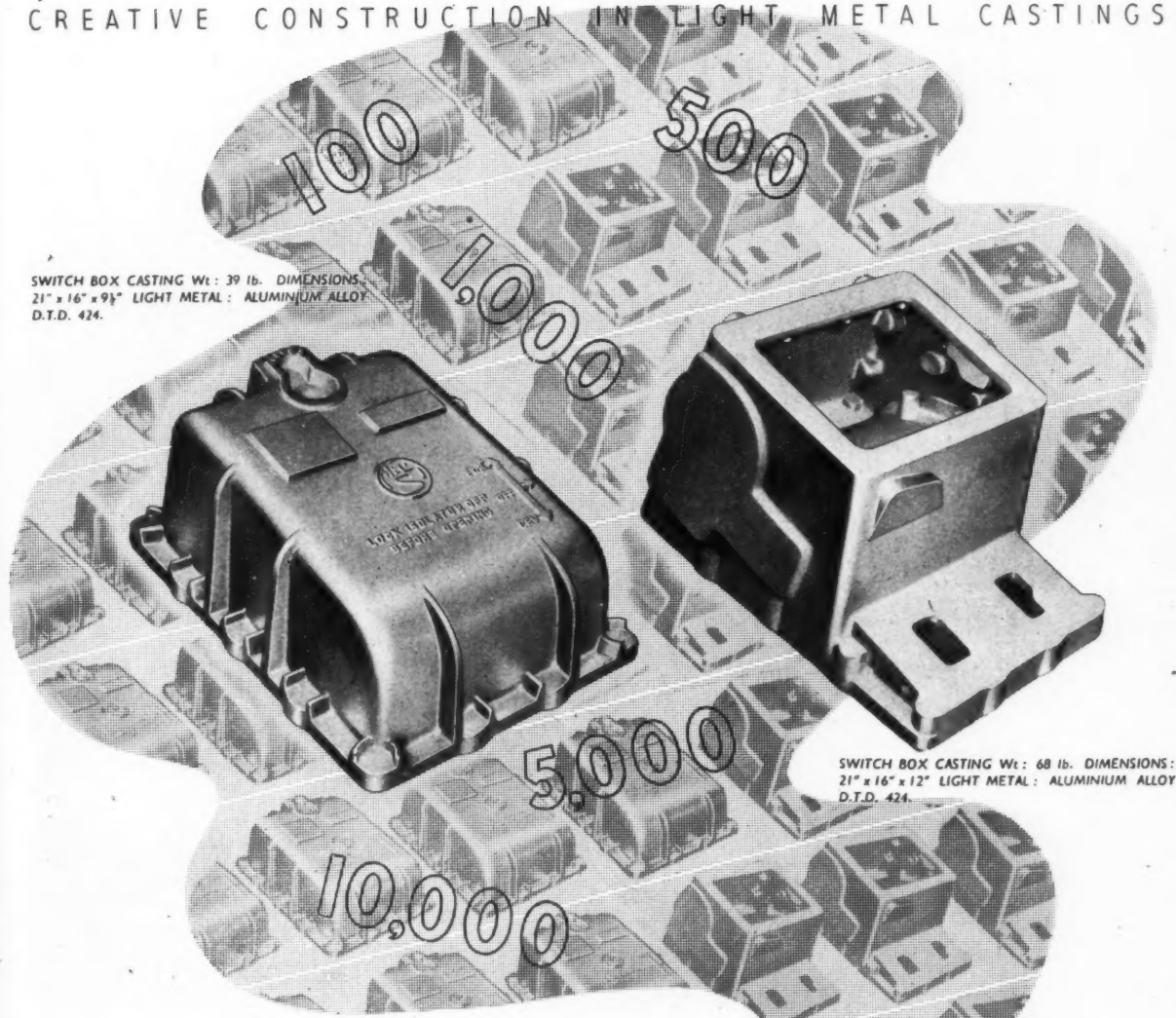
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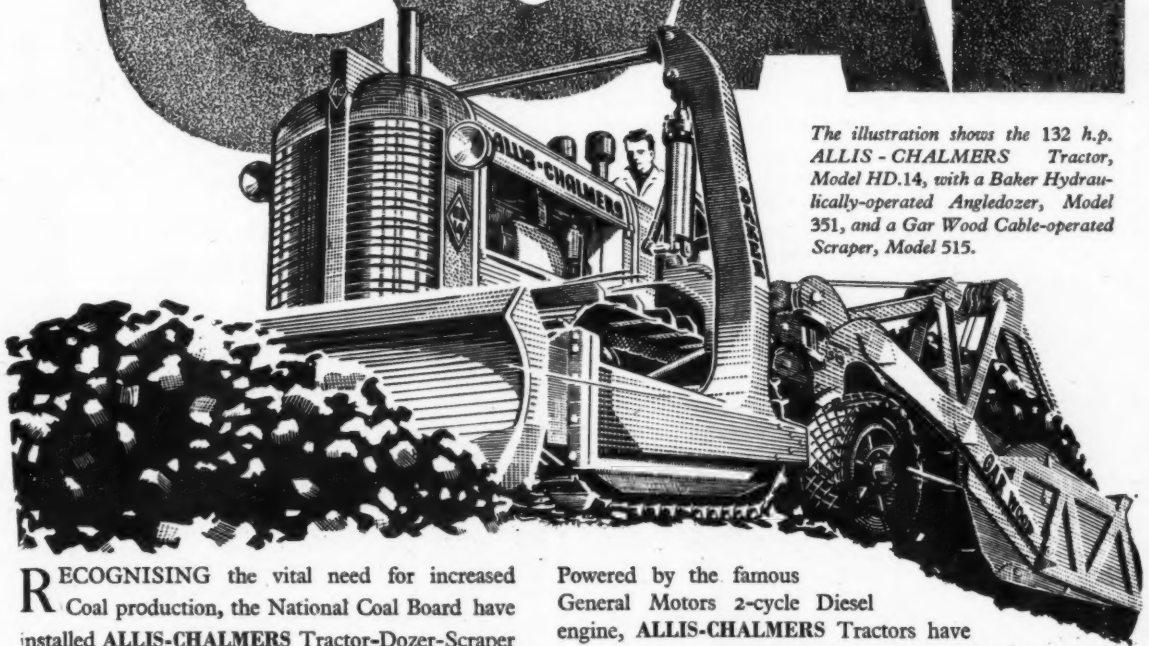
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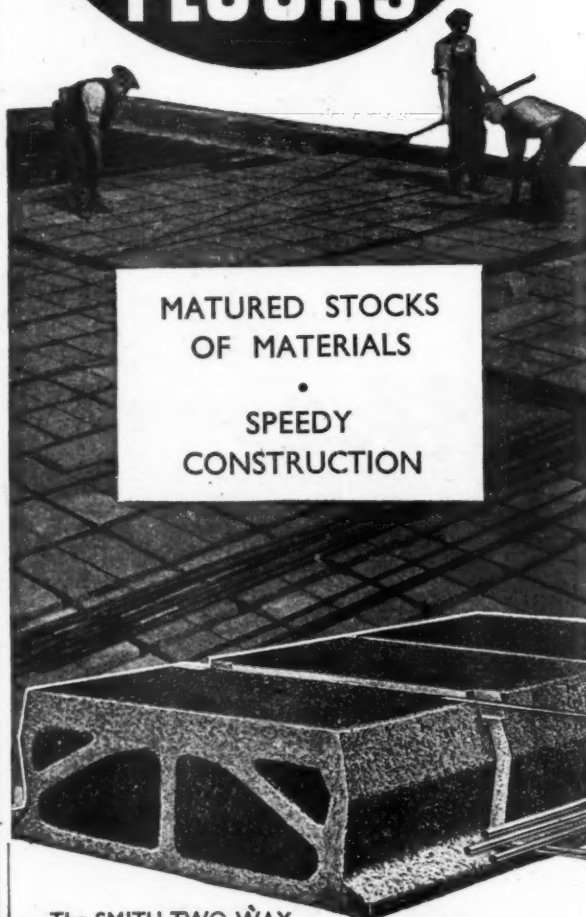


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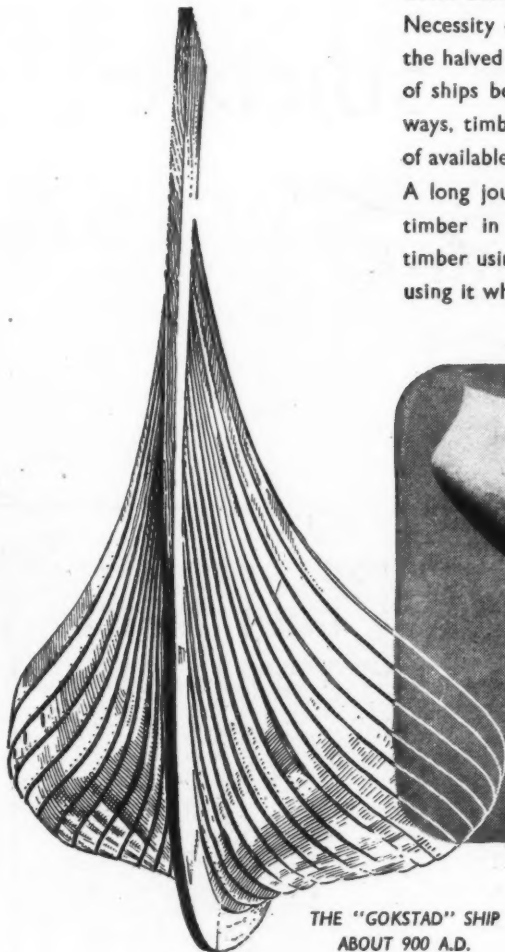


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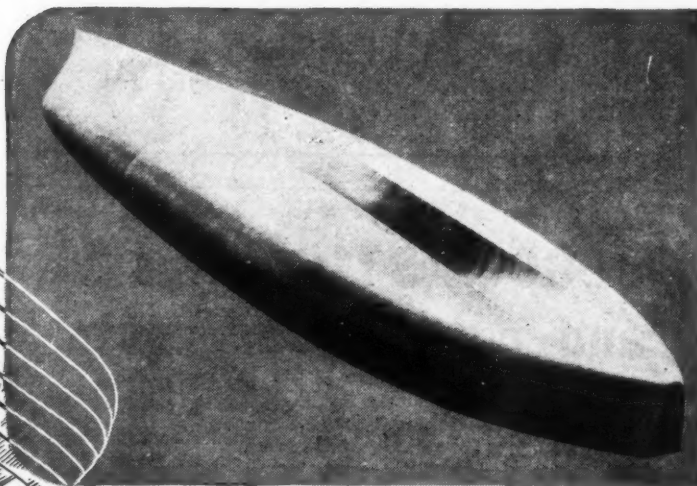
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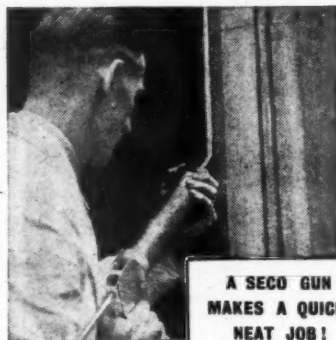
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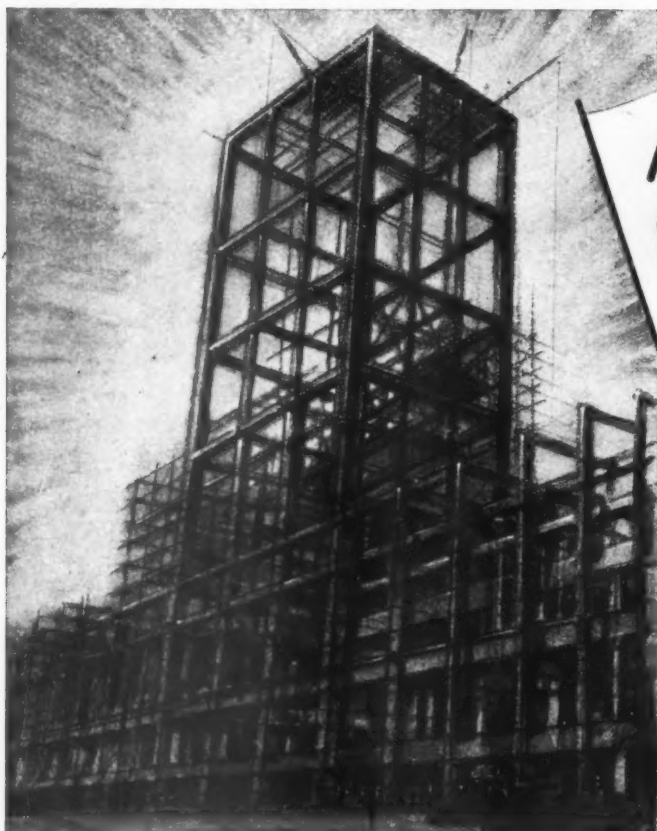
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## NEWS

THURSDAY, September 18, 1947  
No. 2745 Vol. 106

News .. ..	245
Bridgwater Occasion .. ..	246
This Week's Leading Article ..	247
Astragal's Notes and Topics ..	248
Letters from Readers .. ..	249
Scotland's Health Department Plans .. ..	250
Weston-Super-Mare. Outline Redevelopment Plan. By Clough Williams Ellis and Lionel Brett. .. ..	251
Factory at North Shields. By B. W. Turnbull .. ..	255
Societies and Institutions ..	259
Technical Section :	
Information Centre .. ..	260
Housing Materials and Labour. By Ian Bowen ..	261
The Industry. By Philip Scholberg .. ..	263

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

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

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

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

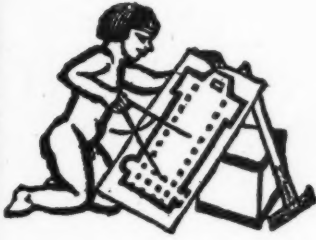
### ★ The Royal National Eisteddfod of Wales, 1948, will include TWO ARCHITECTURAL COMPETITIONS.

Competition 192 is for a county college. Designs are to be submitted to meet the further educational needs of an area, industrial and agricultural in character, and having a population of 50,000 within a radius of six miles. The design is to be in accordance with the implications of the 1944 Education Act and subsequent publications of the Ministry of Education, appertaining to county colleges. Competition 193 is for a lay-out for a neighbourhood unit. The object is to obtain designs for an Outline Plan of a future neighbourhood to house 10,000 persons. As the nucleus for this scheme, any existing hamlet in South Wales with about 250 inhabitants is to be selected by the competitor. It is to be an open competition with an award of £50 in each case. Entries must be sent to the Rev. W. J. Samuel, General Secretary, Victoria House, 38, Dunraven Place, Bridgend, between June 5 and June 14, 1948. The assessors are Messrs. C. F. Bates, Newport, and T. Alwyn Lloyd, Cardiff. The adjudicators' detailed conditions may be obtained from the above address.

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In common with every other periodical this JOURNAL is rationed to a small part of its previous needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the JOURNAL. Newsagents now cannot supply the JOURNAL except to a "firm order."

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## DIARY FOR SEPTEMBER OCTOBER AND NOVEMBER

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.

**BRIGHTON.** *Sussex Industries Exhibition.* At the Corn Exchange, Brighton, UNTIL SEPT. 27. *Design Brains Trust.* At the Dome. Organised by DIA. Lionel Gamelin will be Question-Master. A BBC recording is to be made and will be broadcast. 7.30 p.m. SEPT. 22

**BRIDGWATER.** *Opening of the Bridgwater Plasterboard Factory,* by the Rt. Hon. Charles W. Key, Minister of Works. Lunch, Clarence Hotel, 1 p.m. Opening ceremony, 3 p.m. SEPT. 30

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

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

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

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

**LONDON.** *Photography Aids Export Exhibition.* At the Alpine Gallery, 74, South Audley Street. (Sponsor, Institute of British Photographers.) 9 a.m.-7 p.m. UNTIL SEPT. 30

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

*Institute of Contemporary Arts Committee Meeting.* At the London Gallery, 23, Brook Street, W.1. Mr. Edward Clark in the chair. 5 p.m. SEPT. 23

*African Housing Projects.* Discussion on material sent in by an architect in Africa engaged on large-scale housing schemes. At 34, Gordon Square, W.C.1. (Sponsor, APRR.) 6 p.m. SEPT. 18

*Desmond Donnelly. Town Planning in Eire.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) Buffet lunch, 12.45 p.m. Talk, 1.15 p.m. SEPT. 25

*E. Geoffrey Parsons. Farming Policy for Agricultural Belts of New Towns.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) Buffet lunch, 12.45 p.m. Talk, 1.15 p.m. OCT. 9

*Exhibition of Architectural Lettering.* At Friends House, Euston Road, N.W.1, 3-6 p.m. *English Monumental Sculpture,* a talk by Frederick Burgess, A.R.C.A. Percy Delf Smith, R.D.I., the President, in the chair. (Sponsor, The Guild of Lettering Craftsmen.) 5 p.m. SEPT. 27

*Mrs. de Rothschild. WVS Garden Scheme.* At the Housing Centre, 13, Suffolk Street, S.W.1. Buffet lunch, 12.45, 2s. 6d. Talk, 1.15, 6d. SEPT. 30

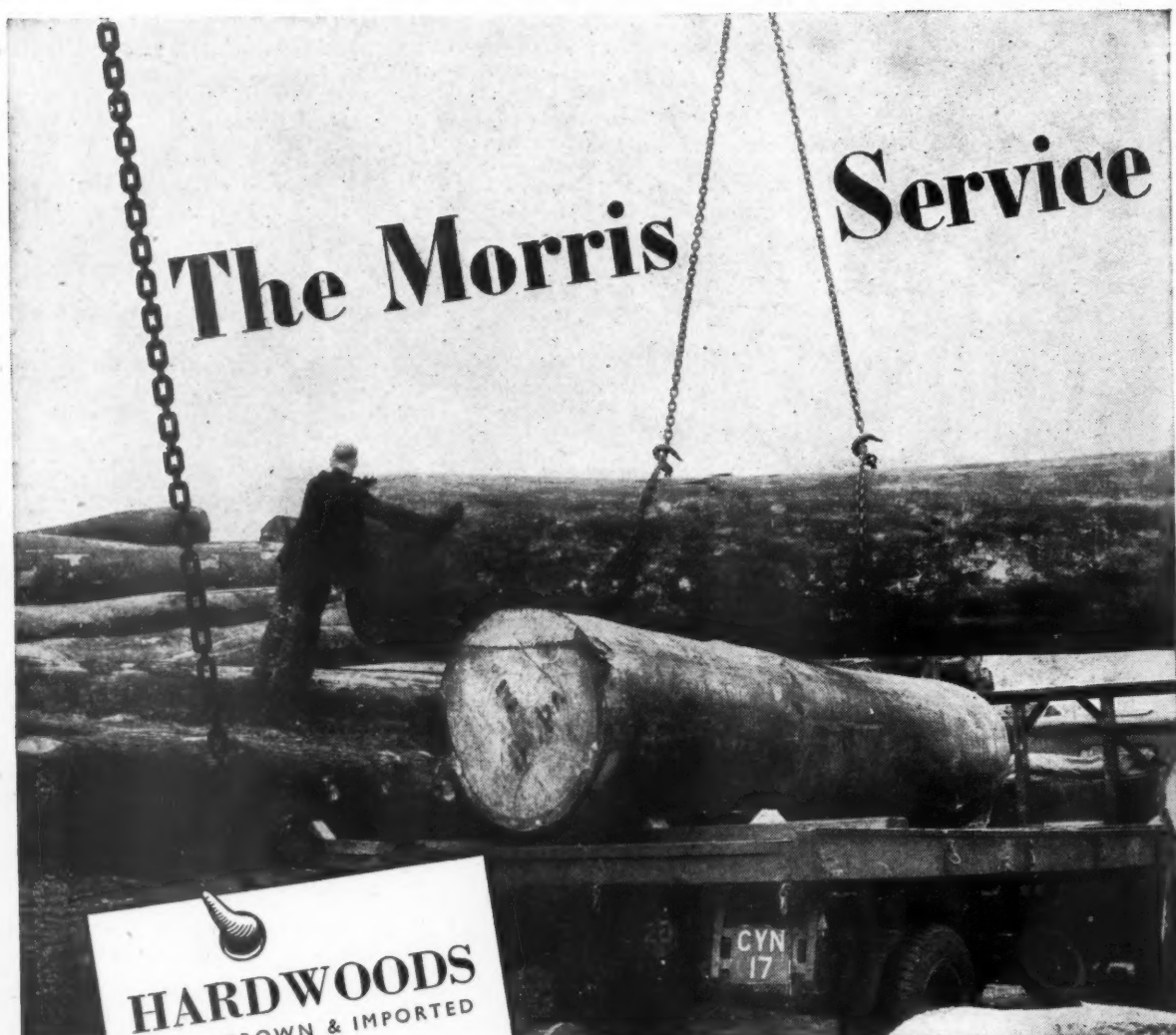
*Woman's Fair Exhibition.* At the Dorland Hall, Regent Street, S.W.1. (Sponsor, "Woman.") SEPT. 23-Nov. 22

*IHVE Jubilee, 1897 to 1947.* The President and Council have arranged the following celebrations: *Meeting of Council.* At the Institution of Mechanical Engineers, Storey's Gate, S.W.1, 2 p.m. *Banquet and Dance.* At the Savoy Hotel. Dancing from 9 p.m. to 12.30 a.m. 6.30 for 7 p.m. OCT. 7. *Special Meeting of Members.* At the Institution of Mechanical Engineers, Storey's Gate. Mr. C. G. Vokes on *Air Filtration.* 2.30 p.m. Tea 5.30 p.m. *District Heating.* At the Institution of Mechanical Engineers, Storey's Gate. A special "Jubilee" paper by C. G. Carruthers. 5.30 for 6 p.m. OCT. 8

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

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

**TEDDINGTON.** *Twenty-first Anniversary of the Research Association of British Paint, Colour and Varnish Manufacturers : "Open Week" and Exhibition.* At the Paint Research Station, Waldegrave Road. Opening of the extensions by Sir Edward Appleton. Address by Prof. H. V. A. Briscoe: *Following the Unexpected:* tea; exhibition. 2.45 p.m.-6 p.m. SEPT. 23. Luncheon at Connaught Rooms, London; Reception, 12.15 p.m. Teddington: Laboratories open for visitors, particularly from member firms. 2 p.m.-6 p.m. SEPT. 24. Address: Sir Thomas Merton. Dr. D. A. Sutton: *"Is Copal Varnish an Alkyd?"* Exhibition. 2 p.m.-6 p.m. SEPT. 25. Address by Sir Lawrence Bragg. Dr. G. Herdan: *"Paint and Mathematics."* Exhibition. 2.30 p.m.-6 p.m. SEPT. 26



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## From AN ARCHITECT'S Commonplace Book

TO-DAY'S FLATS ARE YESTERDAY'S VILLAGE. [From *Home-Made Home*, by Ronald Duncan (Faber and Faber).] Were we to relate our architecture to our social habits and pattern, the resultant design would be a huge block of flats with nine-tenths of its bulk below the surface of the earth for protection and one-tenth above, proportions similar to the icebergs, though, of course, our flats would be entirely and centrally heated. In such a building we would enjoy the physical protection from our contemporary dangers, the spiritual succour from our mental boredom and loneliness and the material convenience for our modern needs. From which I think one is bound to admit that the block of flats is to this age as the village to the thirteenth century. If one does not like the flat or its architecture, it is unreasonable to blame it for being what it is and wiser to blame the pattern of living which has produced it.

★ *The Imperial War Graves Commission is holding a COMPETITION for DESIGNS for a MEMORIAL to the Missing Naval Auxiliary Personnel of the Second World War to be erected on the promenade at Liverpool.*

The competition is open to architects who are ex-serving members of His Majesty's Forces. The assessor is Mr. Edward Maufe and the premiums are £100, £60 and £30. The last day for questions is October 24, 1947, and the closing date is December 19, 1947. Conditions and instructions are obtainable from the Secretary, Imperial War Graves Commission, 32, Grosvenor Gardens, S.W.1, on payment of a deposit of £1.

*Approval of the Minister of Town and Country Planning has now been received to the proposals of the Birmingham City Council for dealing with FIVE CENTRAL AREAS SCHEDULED for REDEVELOPMENT.*

These areas, known as the Duddeston and Nechells, Summer Lane, Bath Row, Ladywood and Gooch Street Redevelopment Areas contain a population of over 110,000 people, the great majority living in houses scheduled as unfit. Of the 32,170 houses in the five areas only 7,500 conform to the standards required by the Housing and Health Acts, leaving over 24,000 within the category of slum property. Under the Birmingham (Central Redevelopment) Compulsory Purchase Order, 1946, the City Council has authority to acquire the 981 acres of land and the houses and other properties existing upon it, valued at 1939 prices, at £17,349,000.

*A contract has been let by the Great Western Railway for extensive RAILWAY ENGINEERING WORKS to serve the new strip mills at Margam, Port Talbot.*

The work includes the diversion and doubling of nearly 1½ miles of railway, the provision of two new marshalling yards with subsidiary lines and sidings totalling 24 miles of track, and the construction of six large bridges with spans varying between 108 ft. skew span and 29 ft. square span, and two viaducts totalling 17 spans and 500 yards of retaining walls. The work is expected to be completed in two years.

To cope with the increased quantity of iron ore passing through the Great Western Railway Port Talbot docks the company is to lengthen its main discharging quay and provide five hydraulic pumps. The total cost of the two schemes is expected to exceed £600,000.

★ *Last week about seventy architects from sixteen countries attended the CIAM INTERNATIONAL CONFERENCE at Bridgwater, Somerset.*

The conference was chiefly engaged in re-establishing its organization, and in planning a programme of research work for the coming year. It has also received and discussed reports from the member countries on the progress of reconstruction. Among those present were Walter Gropius, professor at Harvard University, Le Corbusier (just returned from New York, where he has been working on the project for the United Nations headquarters); van Eesteren, chief town planning officer of Amsterdam; Fischer, city architect of Budapest; Krejcar, the Czech architect who, among other commissions, has the task of rebuilding the devastated village of Lidice; Sive, the French town

planner now engaged on reconstruction plans for the Saar, and Sigfried Giedion, the Swiss art historian from Zürich, who has been secretary-general of the international congress since its foundation in 1928. A new provisional Council was elected to carry through the necessary post-war tightening up of the organization. The members of the Council are: Hon. President, van Eesteren (Holland); President, J. L. Sert (USA); Vice-Presidents, Le Corbusier (France), Professor Gropius (USA), Helena Syrkus (Poland); Hon. Secretary, S. Giedion (Switzerland); Members, Godfrey Samuel (Britain), Steiger (Switzerland), Fischer (Hungary), Rogers (Italy), Emery (Algeria); Treasurer, Honneker (Switzerland). (See also pages 248-249.)

★★ *The Minister of Town and Country Planning is to appoint Sir Thomas Gardiner to be chairman of the STEVENAGE NEW TOWN Development Corporation.*

Sir Thomas Gardiner, who is 64, was Director General of the Post Office from 1936 to 1945, and secretary of the Ministry of Home Security 1939-1940. He will succeed Mr. Clough Williams-Ellis, who has resigned. See A.J., September 4 and page 249.



*The architect's drawing of the Grand Hall at Radiolympia which is to be held from October 1 to 11. Each stand is to have two aerial masts constructed of tubular steel with lattice wiring and surmounted by pennants. They serve a treble purpose: as a decorative feature, to display exhibitors' names, and to carry the electrical networks including wiring for both sound and television. Architect of the exhibition is Mr. J. Lansdell. See A.J. September 11.*



## Bridgwater Occasion

The Mayor of Bridgwater welcomed the members of CIAM attending the Congress at the Arts Centre last week. Throughout the week 80 representatives from nearly 20 countries from Cuba to Ceylon discussed problems of

contemporary planning and architecture. In the photograph, left to right, S. Papadaki, G. Samuel, J. L. Sert, the Mayor (Lt.-Col. R. Chamberlin), Van Eesteren (President of CIAM), Sigfried Giedion and Professor Gropius.



Group photograph taken during the visit of CIAM to the Bristol Aeroplane Company's factory producing aluminium temporary housing.

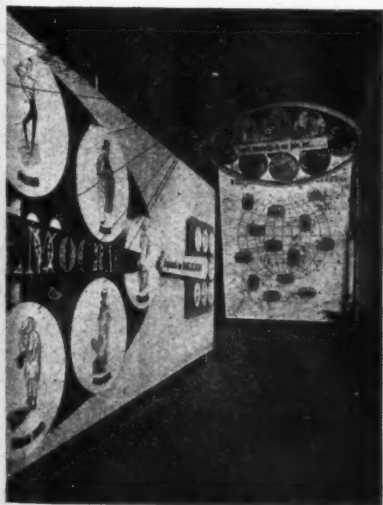
Top—Row 1 (left to right): 1. Milton (England); 2. Brown (England); 3. Rogers (Italy); 4. Cedercrutz (Finland); 5. Grammazoi (Hungary); 6. Hruska (Czech.); 7. Neumann (Czech.); 8. Marshall (England); 9. Kadleigh (England); 10. Bodegraven (Holland); 11. Entwistle (England); 12. Richards (England); 13. Elte (Holland); 14. Samuel (England); 15. Roth (Switzerland); 16. Emery (Algeria); 17. Byhouwer (Holland); 18. De Vries (Holland); 19. Kloos (Holland); 20. Kleykamp (Holland); 21. Michel (Belgium). Row 2: 22. Cadbury Brown (England); 23. Sheppard (England); 24. De Syllas (England); 25. A. Cox (England); 26. Moffett (Ireland); 27. Batista (Cuba); 28. Arroyo (Cuba); 29. Fuchs (Czech.); 30. Honneger (Switzerland); 31. Fischer (Hungary); 32. Steiger (Switzerland); 33. Mrs. Stam Beese (Holland); 34. Katona (England); 35. Pritchard (England); 36. Bakema (Holland); 37. Hogan (England); 38. Singer (Czech.). Row 3: 39. Papadaki (U.S.A.); 40. Morton Shand (England); 41. Rosenberg (England); 42. Martin (England); 43. Goldfinger (England); 44. Jensen (England); 45. Ling (England); 46. Ferrari-Hardoy (Argentina); 47. Mrs. Wiener (U.S.A.); 48. Wiener (U.S.A.); 49. Maxwell Fry (England); 50. Wells Coates (England); 51. Townsend (England); 52. Krejcar (Czech.); 53. Oberlander (Canada); 54. Schütte (Austria); 55. Merkelbach (Holland). Row 4 (front row): 56. Le Corbusier (France); 57. Vivanco (Argentina); 58. Sadie Speight (England); 59. Susan Cox (England); 60. Malnai (Hungary); 61. Mrs. Malnai (Hungary); 62. Mrs. Randell (England); 63. Mrs. Pidgeon (England); 64. Sert (U.S.A.); 65. Giedion (Switzerland); 66. Jane Drew (England); 67. Van Eesteren (Holland); 68. N. de Silva (India); 69. Gropius (U.S.A.); 70. Mrs. Fischer (Hungary); 71. Blanche Lemco (Canada); 72. Kalivoda (Czech.); 73. Mrs. Sert (U.S.A.); 74. Mrs. Schütte (Austria); 75. Van Tyen (Holland).

★ *Mr. Frank Cortright (Vice President of the National Association of Home Builders of the United States): I am shocked at the high price and LOW QUALITY of BRITISH PRE-FABS.*

Mr. Cortright, speaking recently at a Press conference, said that compared with American models British pre-fabs had no hard-wood floors, and fittings in bathrooms and kitchens were inferior. American pre-fabs, always produced for private sale, cost about £2,000 including land, labour and all overhead charges, and they are built at about 4.5 to the acre. At present a 30-day priority is given to ex-servicemen on all house-building in the U.S. but normally there is no attempt to build new houses for any income groups lower than about £700 p.a. Deploring the restriction of private enterprise in this country he said that the American policy of building for the more successful man benefited the poorest classes who were able to move into the accommodation vacated by those financially able to buy a new house. Mr. Cortright has spent almost a week in Britain discussing problems of the building industry with Government officials and other interested parties.

*No more applications for TRAINING in SKILLED BUILDING OCCUPATIONS under the Government's vocational training scheme can be accepted.*

The entry of men on the waiting list for training centres has been suspended and the Ministry of Labour has announced that the future of the scheme is being reviewed in the light of Mr. Attlee's speech on August 6, in which he referred to redeployment and retiming, including some postponement of the general building programme. Boys entering the industry by way of apprenticeship are not affected.



*An interior of the Current Affairs Exhibition at Charing Cross Underground Station. Arranged by the Bureau of Current Affairs the exhibition was designed by Eric Brown and Stephen Buzas. The drawings are by James Boswell. It is to remain open until September 30.*

## AFTER FOURTEEN YEARS

**B**EFORE 1933 Germany was regarded as the home of contemporary architecture. It is only necessary to recall such buildings as the Fagus factory, Siemensstadt, and the Haselhorst suburb of Berlin, the Bauhaus, the Weissenhof settlement at Stuttgart, the work in planning, housing, and public building by the team built up by Ernst May in Frankfurt, to realise how significant was the work carried on by a number of German architects before the night fell on the spirit in Germany in 1933.

Nor was it in building alone that architects and students found nourishment across the Rhine. The work of Professor Gropius in the Reichsforschungsgesellschaft and with his colleagues at the Bauhaus at Weimar provided a tremendous impetus to the development of architectural and technical research and education over the whole world. This impetus is by no means exhausted in many countries to-day.

It was a melancholy and poignant experience, therefore, to hear the report delivered to the CIAM Congress at Bridgwater by Professor Gropius himself on the present situation in Germany after six years' spoliation by Hitler and eight years' physical and spiritual destruction and disintegration through war and its aftermath. Professor Gropius, now a citizen of the United States, was sent to Germany as special adviser to General Clay on the problems of reconstruction and cultural relations and there could be no wiser choice. Germany provides to-day the most extensive building field in the whole of Europe, the destruction is wholesale on a scale that cannot be imagined. Nobody knows what to do with the cities, now mere shells, though many of them have Planning Commissions which are preparing planning schemes. Such plans are at present sterile affairs as there are no means of carrying them out. The personnel is lacking and professional ability is considered less important than political eminence in selecting responsible officials. In spite of the wholesale destruction of houses, offices, shops, factories and public utility plants, the street network and many of the services remain more or less intact. Owing to the lack of money to undertake the reconstruction of the street network, it seems as though the undesirable nineteenth century planning patterns will be maintained and further distort efforts at rational rebuilding. There are and can be no planning directives from a central authority for none such exists, and until international agreement can be reached there is little likelihood of any central aid being given. It is true that the outlines of a central government for Germany have been made on paper, but even on paper no provision has been made for a Ministry of Reconstruction. Such central control is urgently needed to see that all materials which are in short supply are allocated on a rational coherent basis. The most urgent problems include planning and housing legislation, including land purchase powers, and Professor Gropius advised the Germans to consult English planning legislation for guidance.



No real building activity is being undertaken, and what little there is, is undirected from the planning point of view, or is black market building to which Milgov. turns a blind eye, for any signs of activity are welcome in so devastated a land. No fewer than twelve million Germans have been transferred from parts of Germany ceded to Poland, and they must be accommodated in what is left of Germany. There are other population problems, too; for example, in the city of Hanover there are 144 females to every 100 males, thus distorting the whole balance of the population. Professor Gropius has suggested that as a first step a Commission should study the problem of Central Europe, for if the situation in Germany deteriorates further, the whole of Europe will suffer. That international agreement on the future of Germany is reached is paramount; it must not be long delayed.

Germany has wrought terrible destruction on the world, but has also made great cultural contributions, and for the future well-being of the world the spirit that infused the Bauhaus must be revived and encouraged in Germany or the whole world will suffer.



The Architects' Journal

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## N O T E S & T O P I C S

### INFORMATION SHEETS ON THE WAY

A most discouraging sight to be seen in many architects' offices is the information-catalogue-and-sample department. This is usually an ill-defined area of shelving so bulging with assorted booklets and pieces of rubber flooring that there are many architects who would prefer to write for another catalogue or sample than attempt to winkle out the one they know they already possess. Needless to say, the familiar spiral binding of the *Information Book* and the neat black folders of the *Architects' Journal Information Sheets* are never to be found in these blighted areas. You will discover

them in the ritzier neighbourhoods—alongside, perhaps, *Space Time and Architecture* (so aptly misprinted the other day as *Spare Time and Architecture*), or *Die Neue Architektur*, or among those heavy published plans which you've always been meaning to read. It is natural that the *Information Sheets*, which began to appear in 1933 and vanished in the austerities of 1939-45, should find so comfortable a home for they harboured their black and white fruits of knowledge in such a shapely and uniform way that to consult them was no more difficult than picking a blackberry from a basket.

For those of you who have missed them, for those of you, between-war babies, who never knew them, I have, I think, good news. Coal may be up 4s. a ton, foreign travel allowances out altogether, but in a few weeks, I am told, your weekly ninepence for the *AJ* will include two *Information Sheets* at no extra charge. This should take a load off your mind—and off that catalogue shelf as well.

### CIAM CONGRESS

The vitality of the ideas for which CIAM stands is exemplified by the Congress held at Bridgwater last week. In spite of enormous difficulties of travel, foreign exchange and communications, no fewer than 18 countries were present to carry on and revivify the



In Bridgwater for the CIAM Congress. Left to right A. Roth, Mrs. Schütte, Hartland-Thomas, Professor Schütte, J. M. Richards and van Eesteren, the President.

work started by the Founding Fathers at La Sarraz in 1928. Countries as distant as Argentine, Cuba, the United States, India and Ceylon were represented, and all this by an organization which has been largely dispensed in occupied and embattled countries during the last 10 years. The Big Five of the Congress—Van Eesteren, the President; Sigfried Giedion, the Secretary; Professor Walter Gropius, Sert, and last but by no means least, Le Corbusier.

The delegates at the Congress bore witness to the strength of the world community of ideas among contemporary architects and town planners. Moreover, delegates from many different countries were able to report positive achievements in the field of building and town planning in accordance with CIAM ideas and by CIAM members.

One very interesting point was the reaction of architects and planners from other countries to the exhibition of material prepared and loaned to the Congress by the Ministry of Town and Country Planning. The English contribution to this field was greatly appreciated and greatly envied by many countries. The simple, practical work related to the solution of immediate problems without any elaborate or apparent philosophic background, was very distinct from the work of the majority of planners pre-



sent from other countries. The question asked was: "Does this mean a lack of content or does it mean that English intuition is capable of solving problems of contemporary town planning?"

The variations in the content of the reports from the different countries were very revealing. The Dutch, for example, who are feeling a frustration probably greater than that of English architects due to wholesale destruction and lack of materials and adequate technical means for building, were much concerned with the philosophical problems, whereas in the case of countries which are hidden behind a so-called "iron curtain," and there appears to be a general acceptance of the idea of national and regional planning, the delegates spoke little, but the work presented for exhibition showed that they are in a more favourable position for determining the development of the physical planning of their countries.

There appeared to be none of the frustration which is to be found in countries nearer home and this notwithstanding the lack of material and economic conditions necessary to make immediate construction possible. Also the delegates from such countries were able to make more positive contributions to the discussions on the necessary basis for the future development of contemporary views of architecture and town planning.

#### STEVENAGE'S NEW CHAIRMAN

It was announced last week that Sir Thomas Gardiner is to succeed Mr. Clough Williams-Ellis as Chairman of the Stevenage Corporation. The appointment is not an informative one for the architects and planners who have wondered in the last few months what is happening at Stevenage. Sir Thomas, the reference books say, is an ex-civil servant aged 64 whose entire career (save for one war-time year) was spent in the Post Office.

A theory which the appointment naturally suggests is that the Treasury thinks Stevenage a new animal of a potentially disturbing kind and has put it to the Minister that a strong, safe hand on its bridle would be a good thing. In my experience, architects and town planners do not object to

strong and safe chairmen nearly as much as laymen expect them to do. But in this case they would, I think, add that strength and safety are not enough. Stevenage stands for something new. For many ordinary people Stevenage stands for the new towns idea; it has caught their imagination, and the Ministry's prestige could be greatly exalted by a real success there. And architects and planners expect Stevenage to be a testing ground of new ideas.

In the next few years Stevenage's budget may have to be modest. Sir Thomas's difficult job is to secure the economies of competent administration, good team work and shrewd programming and to show the multitude that may or may not be attained by lowering standards.

#### LESS OF EVERYTHING

Astragal, having seen oblique references to a severe textile shortage, did his best to soften his personal crisis by spending his remaining clothes coupons on a shirt. But Sir Stafford's cuts, as we knew they must, mean less of nearly everything in the shops, and, among other things, a million tons of steel a year slated for export. How much of the steel will have to come off the building industry's quota nobody yet knows, but in the scramble for substitutes the practice of architecture isn't going to be any easier. I begin to suspect that the "architects" who used to do a bit of estate agencying, licensed valuing and undertaking as a sideline may perhaps have been wisest after all. But at least the export drive will need better designed goods, so maybe some of us with industrial connections may keep going a bit longer.

#### ASTRAGAL



Another group at Bridgwater. Left to right: Sive, Ferrari-Hardoy, Papadaki, Wiener, Le Corbusier, Emery and Vivanco. See Astragal's note on CIAM above.

## LETTERS

H. J. Reifenberg

I. E. Rhind

### A Formula for Calculating Daylight Factors

SIR.—Mr. Waldram is mistaken in his remarks on my formula for daylight factors. My formula is not approximate but mathematically exact. (Hence, it is the only exact formula for straight horizontal obstructions possible, though it may, of course, be written in different ways.) It is derived by integration as a special case of a general formula applicable to any skyline. I am giving an outline proof below, which I hope will be understandable to any mathematician.

In applying my formula I do not have to measure angles by means of a protractor (as Mr. Douglas Seymour does), a common source of errors. Where the dimensions of a plan are given, even scaling can be avoided. The great exactitude thus arrived at may not be necessary for everyday problems of simple fenestration, although even there I found my formula quite convenient. The essential thing, however, appears to be to me that it opens the way to further research and a number of useful methods which space does not permit me to discuss here.

London

H. J. REIFENBERG

Footnote: Let  $z, r, \phi$  be cylindrical polars and  $C$  the projection of the sky-line on the unit sphere. Then

$$DF = \frac{1}{2\pi} \int C r^2 d\phi \quad \text{from the definition}$$

(General formula for daylight factors)

If the sky-line is a straight line then

(v. diagram, *The Architects' Journal* for July 17, 1947, p. 51)

$$r^2 d\phi = l^2 d\psi \cos \alpha$$

(PB=1, PD=r, consider areas of triangular elements)

$$DF = \frac{1}{2\pi} \int \cos \alpha d\psi = \frac{\cos \alpha}{2\pi} \int d\psi = \frac{\cos \alpha}{2\pi} \psi \quad \text{Q.E.D.}$$

### World Peace City

SIR.—The erection of United Nations Headquarters in New York City\* may serve its immediate purpose, but the site seems to be too remote from the scene of conflict. UNO should take a bold step and design and build a World Peace City right in the heart of Europe. This continent lies in ruins, with many of its great cities pulverised to dust and ashes, the inhabitants of these ghost cities living without food, shelter, clothing, or hope.

To-day, man is living between two worlds, the one dead and the other not yet born. He has leapt centuries ahead in inventing a world, but has not prepared himself to live in it. How to rescue this stricken generation from these awful conditions merits the supreme energy of UNO.

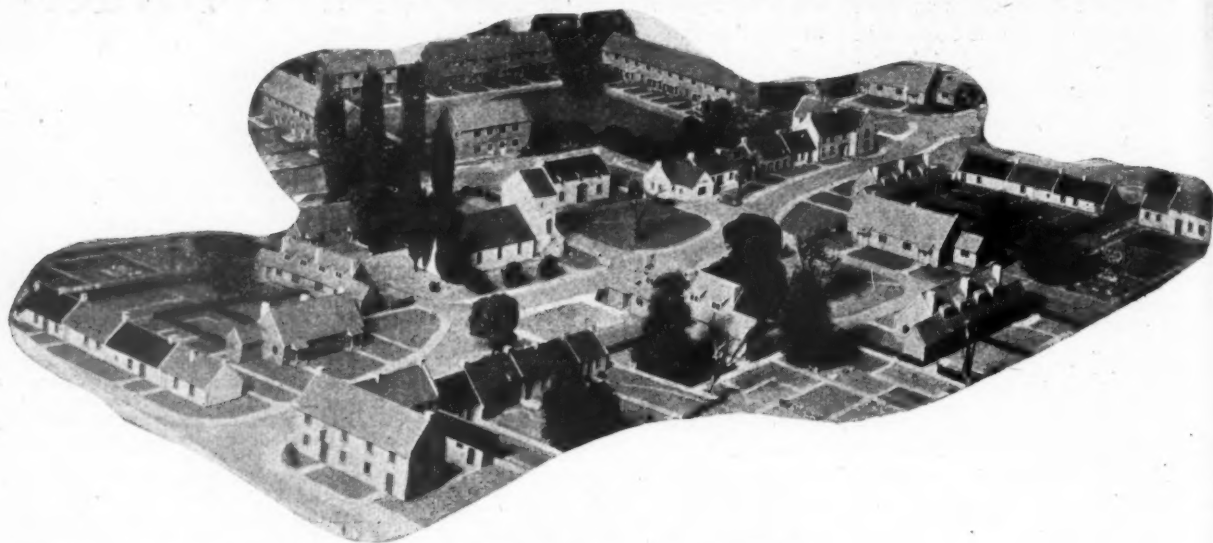
Mr. Churchill recently put forward a scheme to create out of this chaos a United States of Europe which must have a capital. The UNO must also have a symbol of unity, and what better symbol could they have than to see built in their midst a glorious new World Peace City dedicated to the Glory of God and in memory of all those of every nation, race and creed who gave their lives in the defence of freedom everywhere?

Farnham

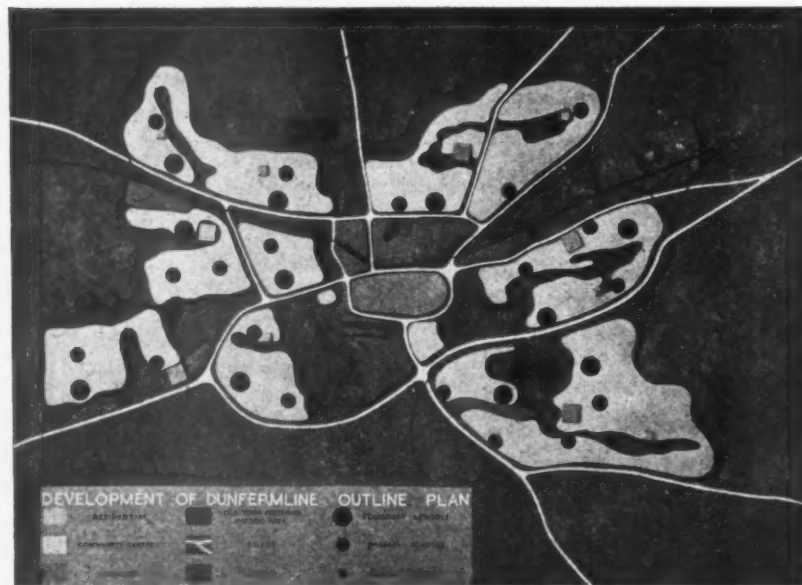
I. E. RHIND

\* See AJ August 21, 1947

## SCOTLAND'S HEALTH DEPARTMENT PLANS



*Agriculture: a planned agricultural village in which timber houses are grouped with traditional stone-built houses.*



*Town development: an experimental layout for Dunfermline showing new residential units grouped round the existing centre.*

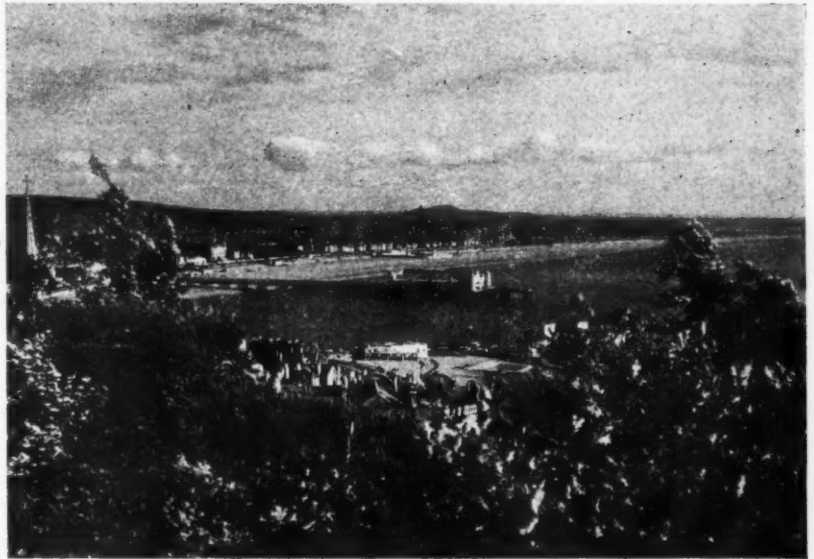


*District planning: model of the Redevelopment Plan for the Vale of Leven, gateway to Loch Lomond and the Highlands. The proposals include the by-passing of existing townships by a new road running north to Loch Lomond, the location of a new industrial estate on the riverside, the opening up of the banks of the river as a park and the redevelopment of existing communities in a series of neighbourhood units each of which will focus on a civic and business centre in the middle of the valley.*

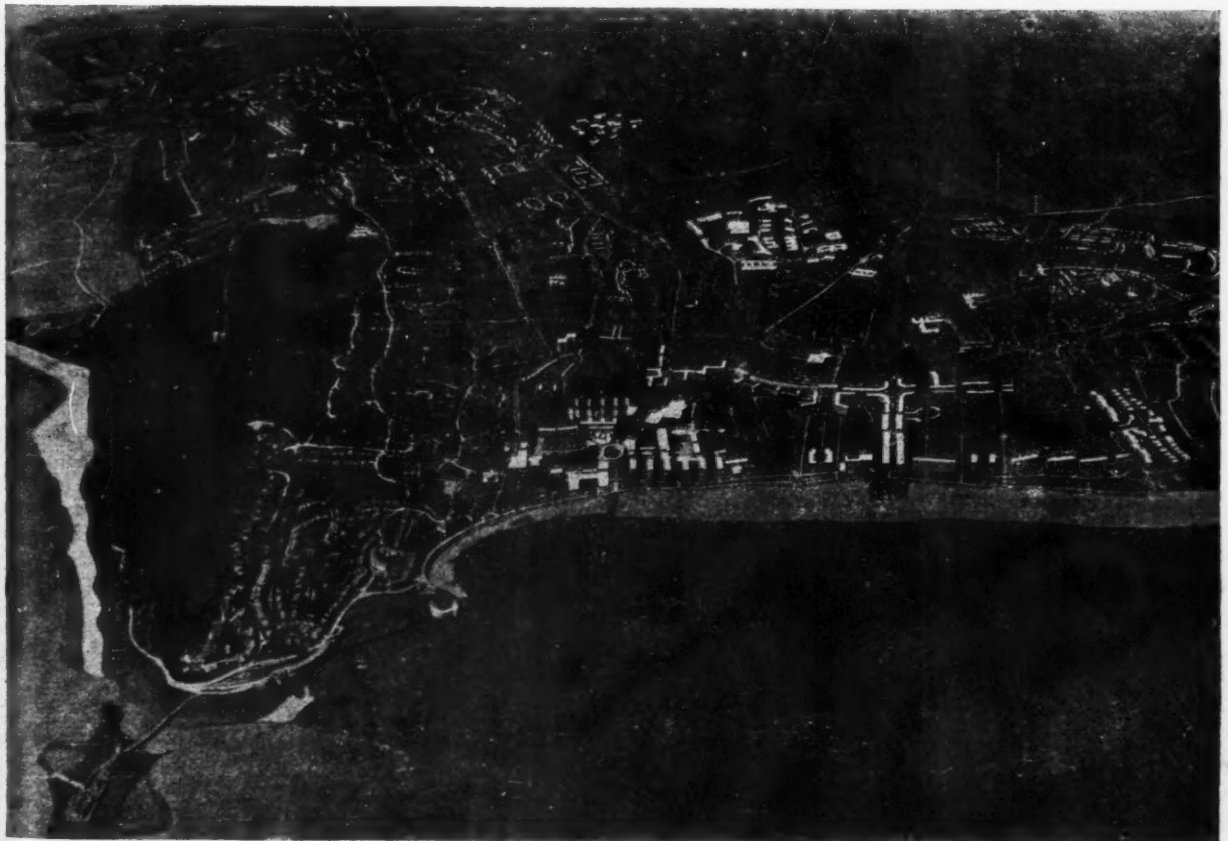
Having shuffled along a route lined with stands choc-a-bloc with shining well-designed every-day goods, you come to a spiral ramp and the way leads up-hill symbolically into "Scotland Tomorrow." Industrial private-enterprise Scotland gives way to Department-for-Health-planned Scotland. A few yards back Edinburgh's Enterprise Scotland meant magnificent textiles, clean-gleaming pots and pans and majestic ships. Now up this ramp it means a Scotland whose sinews are coal and hydro-electricity; whose sins are ill-planned industrial slums; whose problems are vastly social and economic. The theme is the "broad sweep of modern planning" and superbly executed models provide a vision of the Department of Health's ideal. The "Scotland Tomorrow" Hall of Enterprise Scotland is a complete exhibition in itself. First the basic facts about coal and electricity, agriculture and forestry; the need for survey (inspired by Geddes); the fulfilment of survey in development plans for burghs and villages, trading estates, new towns; new standards, new ideas for community planning and housing; and finally the National Planning synthesis symbolised in a cyclorama in which all the main elements in Scottish planning are brought together in an illuminated picture-map. The designers of the exhibition were Edwin Galligan assisted by Miss Iris Hooper and Eric Mansfield. As a follow-up to the exhibition the Department of Health is to hold a planning Congress in Edinburgh early in October. Sir Patrick Abercrombie, Sir Frank Mears, President of the Royal Scottish Academy, Professor William Holford and Professor William Dudok have agreed to take part.

**PHYSICAL PLANNING SUPPLEMENT**

An exhibition of the Outline Development Plan for Weston-super-Mare was held in the town from August 13 until August 30. In the design of the exhibition, which was opened by the Rt. Hon. L. Silkin, M.P., Minister of Town and Country Planning, an attempt was made to overcome the public allergy to maps and plans by expressing the proposals as far as possible in three dimensions. Only two maps, the Surface Utilization Survey and the Master Plan were included. The remainder of the exhibits consisted of models, photographs and perspectives. The main elements of the scheme were indicated by symbols on a series of black-and-white screens, the black side in each case representing Things as They Are, the white Things as They Are To Be. There were only fifteen exhibits and each was kept absolutely simple, in strong colour and brilliantly lit. An outline of the redevelopment proposals, and photographs of some of the exhibits, appear on this and the following pages. Right Weston-super-Mare as it is today, seen from Worlebury Hill. Bottom, the Master Plan in three dimensions.

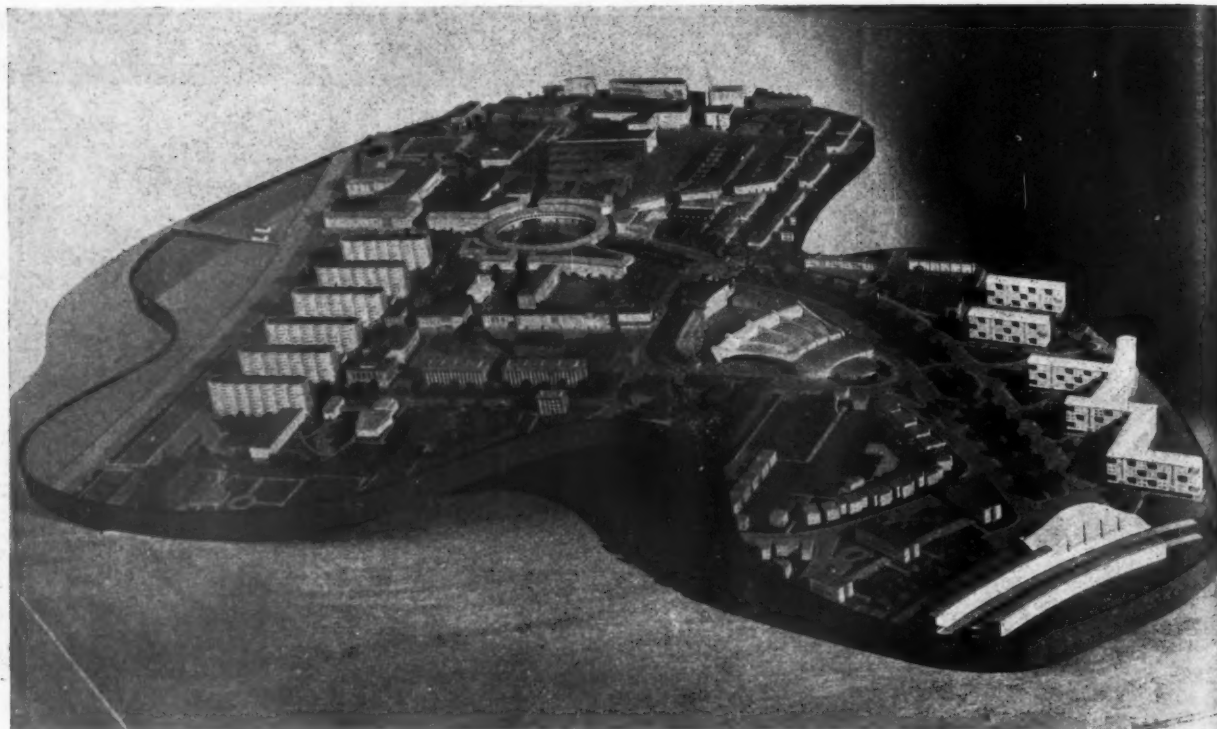
**WESTON - SUPER - MARE****OUTLINE DEVELOPMENT PLAN**

BY CLOUGH WILLIAMS-ELLIS AND LIONEL BRETT

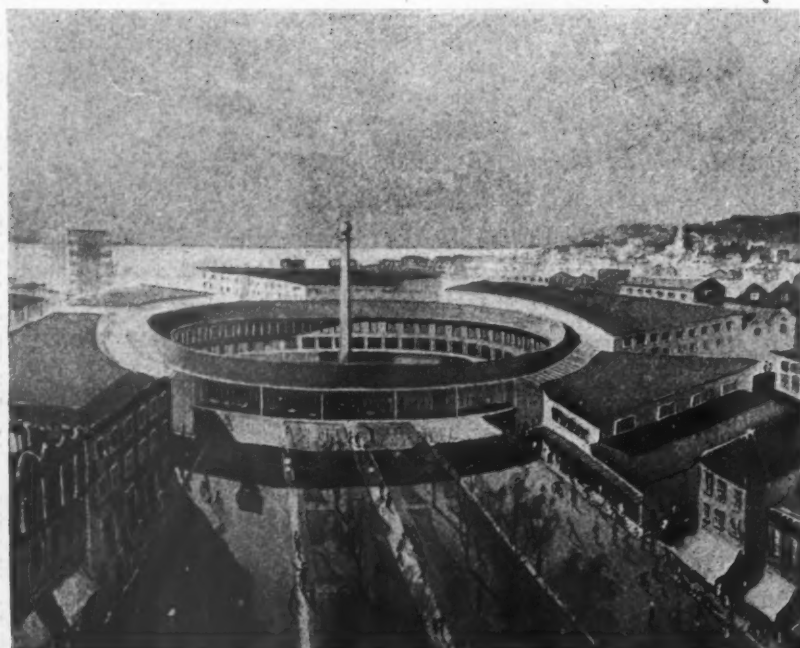


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Model of Town Centre.



The shopping circus. From a sketch by Norah Glover.

## THE PROPOSALS IN OUTLINE

After 100 years of rapid expansion, Weston-super-Mare, like most of the other major British seaside resorts, faces urgent problems of replanning and modernisation if it is to compete with its newer and showier rivals, whether in England or on the Continent. The town was founded in its present position just over 100 years ago to take advantage of the warm southern slopes of Worlebury and the tonic air blowing in off the Bristol Channel. Development followed the order of natural beauty. From the early Victorian terraces tucked in between Worlebury and the sea it spread eastward along the sunny slope and southwards along the sands until it now threatens the villages of Worle in the east and Uphill in the south.

Throughout its first century Weston remained almost entirely non-industrial and, though the war of 1939-45 suddenly altered the picture as far as the aircraft industry was concerned, the plan is based on the assumption that Weston will remain primarily a pleasure resort. The following are the main proposals.

### residential

Statistics show a fairly steady rate of increase since 1920 of approximately 0.8 per cent. per annum. Whether this will continue must depend partly upon national trends and partly upon national income, with its influence on the number of people who can afford to retire. Assuming a gradual deceleration in the former and a gradual acceleration in the latter, it seems reasonable to assume a continuance of the pre-war average increase, i.e., in the 30 years covered by the plan, an increase of 24 per cent. to approximately 50,000. As regards the structure of this population, a continuation is assumed of the high proportion of people over 65 and under 24 which is normal in a town of this sort.



To accommodate this population increase, as well as an estimated overspill of 2,000 from the central reconstruction area, 550 acres are earmarked for housing.

Starting with the trinity Weston-Worle-Uphill, a big town and two small ones, it is proposed to add to each of these units either by filling empty pockets or by carefully controlled extension. In addition there is to be controlled expansion at Milton Hill and Bleadon Hill and the creation of a new self-contained satellite township on Worle Moor.

As regards housing types, there can hardly be too much variety. In general, in view of the structure of Weston's population it is suggested that rather less attention be given to the construction of 3-bedroom houses and rather more to the provision of smaller houses and flats suitable for the young and old.

### communications

**Rail.**—A new station of sufficient dimensions to handle excursion as well as normal trains is so placed that from its northern exit a generous tree-planted boulevard swings in a wide curve *via* Alexandra Parade to the Grand Pier, while its southern exit looks straight at the sea through the gardens of Ellenborough Park. The visitor's first impression of Weston would then be of a stately garden city by the sea.

The area at present occupied by the Goods Station, sidings and excursion platforms is to be entirely replanned to include the above mentioned extension of Alexandra Parade and a new residential area.

In exchange for the above, the Goods Station and sidings will be accommodated on the inside of the Weston loop in the area of the present sports ground and allotments. So placed, the Goods Station will be accessible to the town centre by local traffic arteries and to the industrial zone without the necessity of heavy vehicles entering the town centre.

Excursion trains will discharge in the main station.

**Road.**—It is proposed that all roads in Weston be classified as follows:—

1. Traffic Arteries.
2. Local Traffic Routes.
3. Access Roads.

1. Four main *Traffic Arteries* are proposed. The *A artery* is designed to deflect traffic from the narrow inner portion of the Locking Road. It cuts through the Earlharn Grove area and links up with the Boulevard and West Street to debouch on the Knightstone road north of the Royal Hotel.

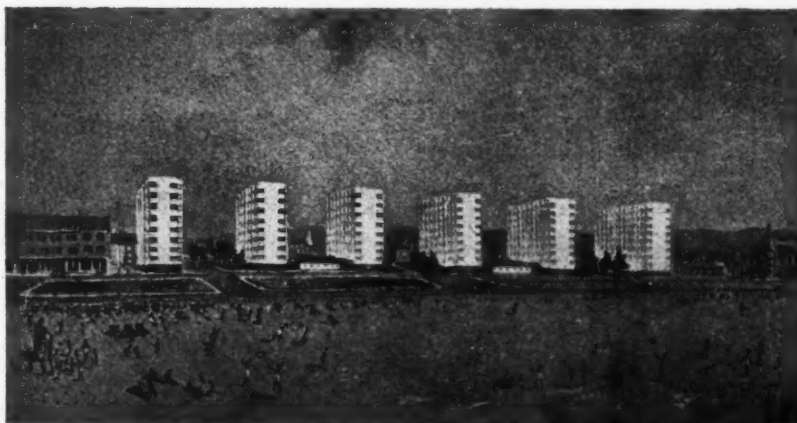
The *B artery* links Worle with Uphill and opens up the hinterland between the two.

The *C artery* leaves the *B artery* at a point midway between Worle and Uphill and runs straight to the sea along the line of Clevedon road.

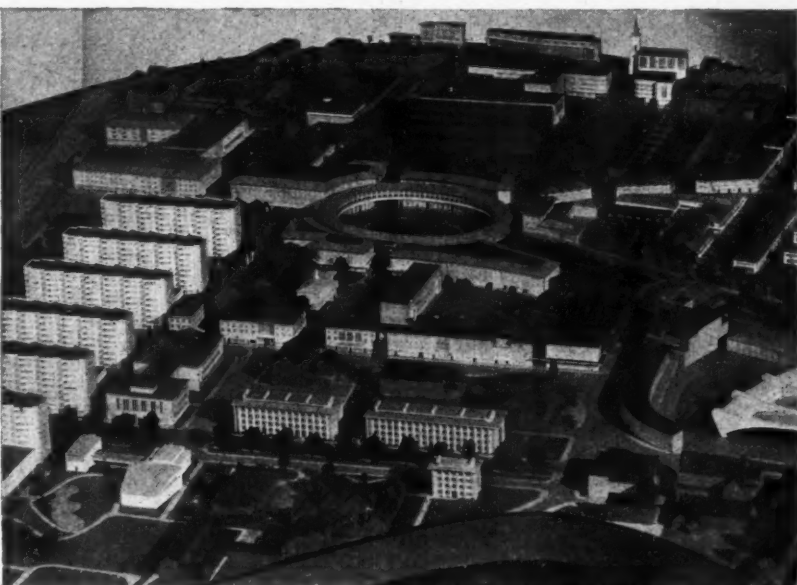
The *D artery* is the sea front route from Knightstone southwards to the Bridgwater road.

2. The object of the *local traffic routes* is to canalize local traffic and prevent its invading and choking narrow access roads. Seven principal local traffic routes tie the various natural neighbourhoods of the town together and enable local traffic to move rapidly between them. Buses should be restricted to these routes and the main arteries and in due course the present Bus Station should be removed from its present valuable sea frontage to a site near the railway station.

3. *Access Roads* may be primarily commercial, residential, or industrial. But in any



Seafront development, hotels and flats. From a sketch by Norah Glover.



Model showing Civic Centre from the South with new seafront hotels on the left and shopping circus in the centre. In the foreground is the new Carlton Street with municipal offices.



Model of shopping circus and the seafront hotels from north-east.



New passenger station and Duplex Flats. From a sketch by Norah Glover.

case they should be deliberately built to discourage through traffic by frequent bends, a narrow carriage way and wide footways bordered by turf, trees and shrubs.

Weston's parking problem is so violently seasonal that any provision for the thousands of cars of an August holiday is bound to be uneconomic for the rest of the year. Hence the present overflow on to the sands. The plan proposes to quadruple existing car parks.

The report suggests that great improvement could be made in the general appearance of Weston streets by good design of lamp standards, railings, benches, shelters, flower beds, etc. A competition for a standard beach shelter is advocated.

### industry

The plan assumes a limited increase in the town's industry, and two industrial zones are proposed, the first an extension of the public utility area to the east, the second at Worle Moor. It is emphasized that these areas should not be dotted indiscriminately with isolated factories, but planned and developed as a whole, the new industry being confined to the first until it is full, the second zone being meanwhile retained as rural. Access roads should be generously planted and a wide park strip reserved between each zone and its boundary railway or traffic artery. "The visitor's first glimpse of Weston must not remind him of the Slough Trading Estate."

### business and trade

The central shopping area is to be a hollow square bounded by traffic routes, the hollow being a large car park and the boundaries West Street, Orchard Street and the sea.

No parking would then be allowed in any of the boundary streets. Features of the shopping centre are the new Circus with small shops bridging the main streets at first-floor level, and a paved Shoppers' Mart to the east of it, which is to be closed to wheeled traffic.

Suburban shopping centres are placed at the centre of gravity of nine neighbourhoods. None of them is on through traffic routes.

### the civic centre

The main feature of the civic centre will be the new Carlton Street, closed at one end by the dignified elevation of the police headquarters and at the other by distant Steep Holme Island. This new street, with its wide central pathway and double avenue of limes, will provide a worthy setting for new public buildings such as the Town Hall extension, the offices of various post-war organisations, the Health Centre, Clinic, Youth Centre and a large hotel.

The new Carlton Street forms the southern boundary of the future civic heart of Weston. Apart from St. James Street, with its intimate and picturesque atmosphere, the plan envisages the almost complete rebuilding of the area during the next half-century, with new streets designed to frame existing

and proposed features. To discourage through traffic, streets are staggered and crossroads eliminated. The Beach Road frontage is redeveloped with nine-storey hotels and blocks of flats placed at right angles to the sea so that the maximum number of bedrooms can look at it. Between these tall buildings, garages, covered and concealed by roof gardens, open to Beach Road. The plan envisages a series of tall buildings of similar character lining the whole bay from the Pier to the Sanatorium.

### open spaces

Proposals are made for the reconditioning and replanting of Weston woods with a new terraced walk leading up to them from the centre of the town and a belvedere and restaurant at the present water tower; the public ownership of Ashcombe Park and Ellenborough Park; the reuniting of the two halves of Ellenborough Park and Clarence Park, and the protection of Uphill Down. Several small new parks and sports grounds are to be created. In addition, it is suggested that the Milton Quarry should in future be worked in such a way as to form gradually a great natural stadium large enough to accommodate 50,000 spectators and 2,000 cars and to serve as a regional athletic centre for the whole of the south-west.

### phasing

The plan is phased for three 10-year periods, roughly as follows:—

#### 1. 1950-1960

This decade will be mainly occupied with the urgent claims of housing and schools. Major central improvements will have to wait, and it is not anticipated that much more than the redevelopment of blitzed sites and areas immediately adjoining them will be possible.

#### 2. 1960-1970

During this decade it may be possible for the Great Western Railway to complete the re-alignment of the loop, the removal of the Goods Station to its new site, and the construction of the new Passenger Station. It would then be possible for the major central improvements, which hinge on the railway proposals, to begin.

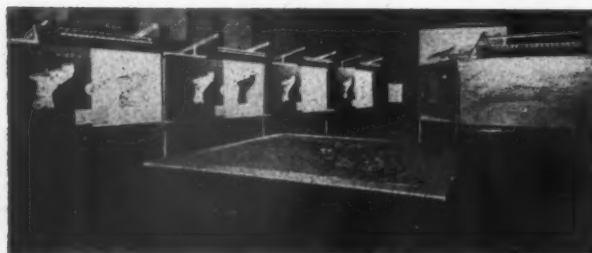
#### 3. 1970-1980

Assuming that by 1970 the whole length of the B artery has been completed, certain complementary improvements will be possible during this period, as well as the rounding off of the central redevelopment.

### public opinion

In the preparation of this scheme, which occupied a period of 15 months, the planners were assisted by an exceptional degree of public interest and participation. Many of the details of the plan were suggested by local societies or individuals, and further improvements resulted from a Town's Meeting which was held in the largest hall in Weston to criticize slides of the scheme while it was still in embryo. At all stages the public were kept fully informed of the progress of the plan.

Two views in the Weston-super-Mare Outline Development Plan Exhibition.



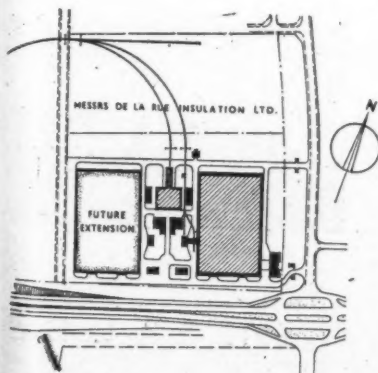
*Right, Works entrance. It is given the same architectural importance as the main entrance to the offices, see page 258.*



# FACTORY

AT NORTH SHIELDS

BY B. W. TURNBULL



SITE PLAN

**GENERAL.**—Factory at West Churton, North Shields, Northumberland, for Messrs. De La Rue Insulation Ltd. for manufacturing insulation and decorative plaster board. The general manufacturing processes controlled the lay-out. The present scheme is 50 per cent. only of the complete scheme—see block plan.

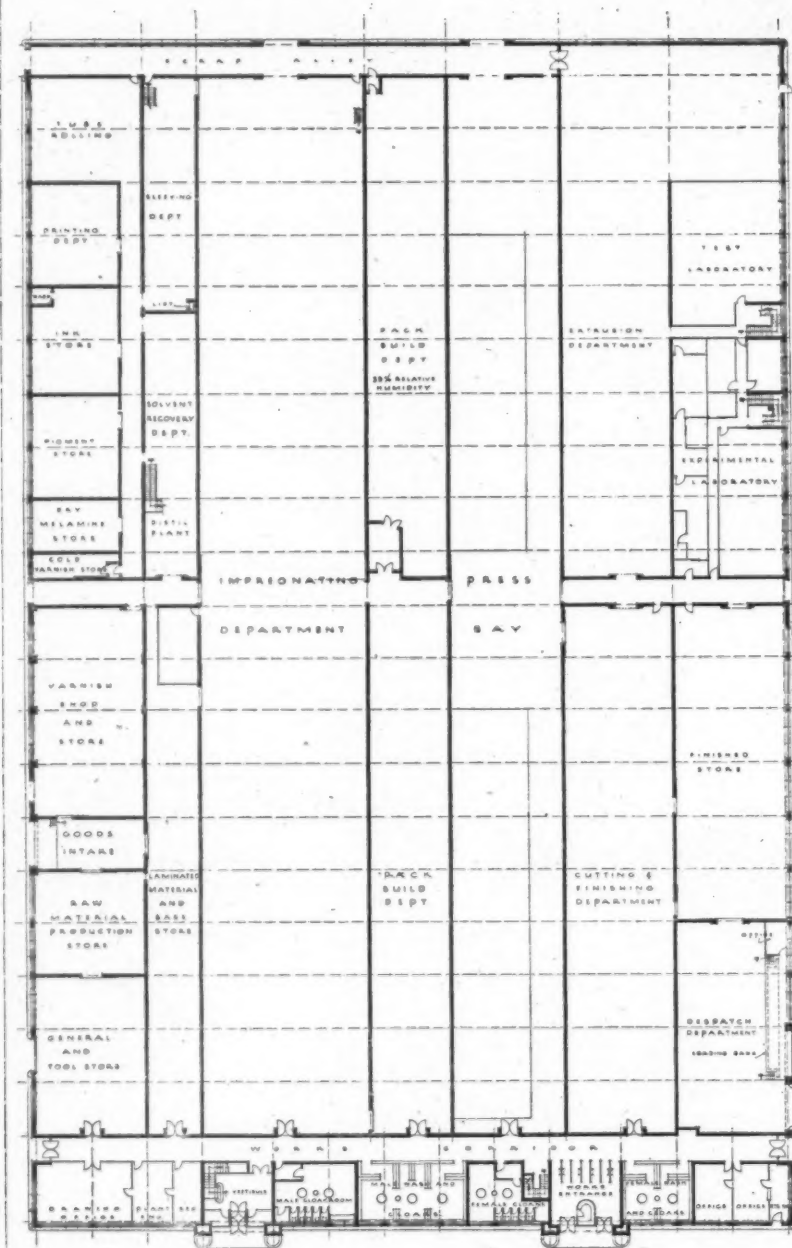
**SITE.**—On top of rising ground

in a district reserved for new industrial development in the Tyneside depressed area. There were no building restrictions, except those imposed by the present conditions of supply and demand, and the general Ministry restrictions.

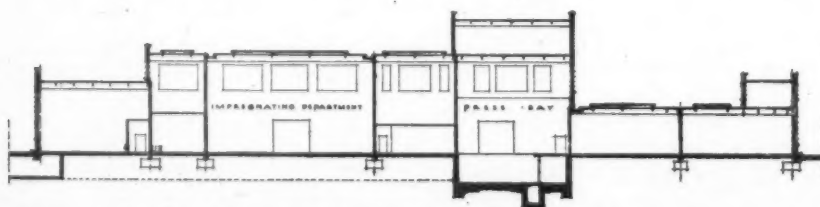
**PLAN.**—The front of the factory faces south. Completed scheme shows two large blocks between



Below, general view from Tyne-mouth Road. Bottom, the main front.



GROUND FLOOR PLAN



CROSS SECTION THROUGH FACTORY

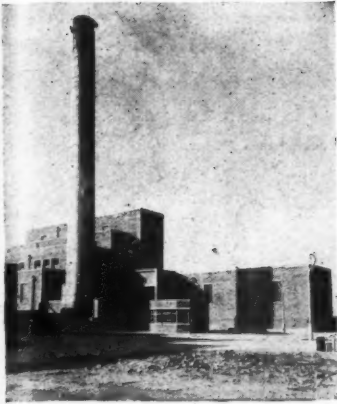
[Scale:  $\frac{1}{8}$ " = 1' 0"]

which are located the power house, tank farms, transformer houses, railway sidings, etc., thus giving only short runs east and west to the main blocks. The railway siding comes centrally between the blocks. All raw materials for the present block will enter the present factory on the west side into the stores, etc., pass westwards through the process of manufacture, the finished articles arriving in the despatch loading bays, etc., on the west side and from there are distributed by road. This west to east direction of manufacture decided the division walls between the various processes to run north to south. This arrangement also controlled the access of employees to the various departments from the north or south. On the ground floor of the south front are the entrance for the employees, the main lavatories, clocking-in hall and main access corridor, and on the access of the main corridor the first-aid, canteen and main entrance. On this front also is the main staff entrance to the general offices. The road system is designed for one-way traffic.



FACTORY AT NORTH SHIELDS  
DESIGNED BY B. W. TURNBULL



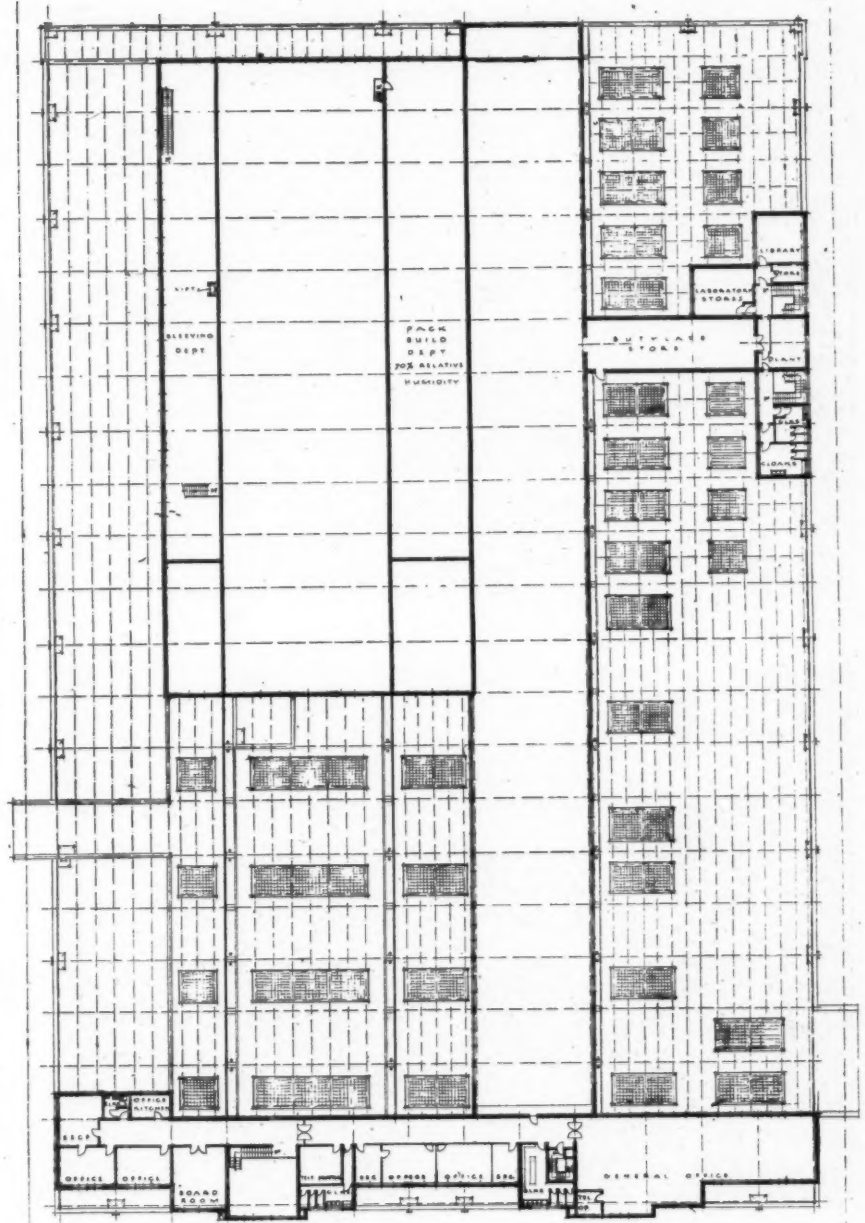


**CONSTRUCTION.**—Steel-framed, with walls of brick with  $\frac{1}{2}$ -in. joints and roof of patent floor construction, covered with asphalt. Owing to the factory requiring to be kept in an even temperature, the internal process bays are lighted by ferroconcrete patent lights. Floor is concrete with granolithic finish. All internal office partitions are glazed steel. Cills, heads and copings are in concrete; windows in steel with clear glass.

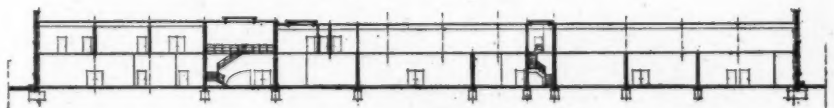
**SERVICES.**—Heating, ventilation and hot water are supplied from the main industrial services. Lighting throughout is fluorescent. The main electric cables are arranged in each department for ease of future connections. The main pipes from the power house to the various sections are contained in large reinforced-concrete tunnels.

**CONTRACT.**—By tender on quantities. Original estimate £158,000. Estimated final contract figure, approx. £500,000.

The general constructors were Sir Robert McAlpine and Sons. For names of sub-contractors see page 264.

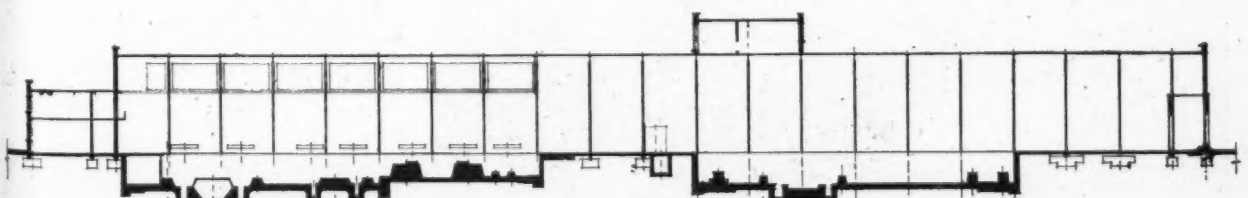


FIRST FLOOR PLAN



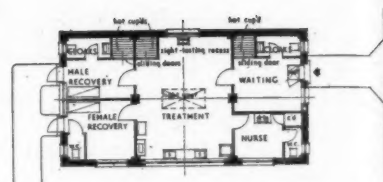
SECTION THROUGH OFFICES LOOKING NORTH

*Top, factory power house. All the machinery is electrically operated. The factory is heated by steam.*



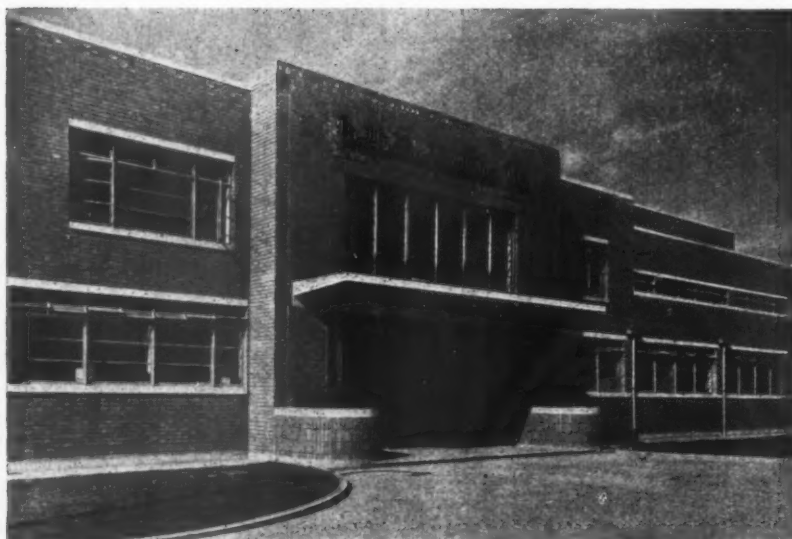
LONGITUDINAL SECTION THROUGH PRESS BAY

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

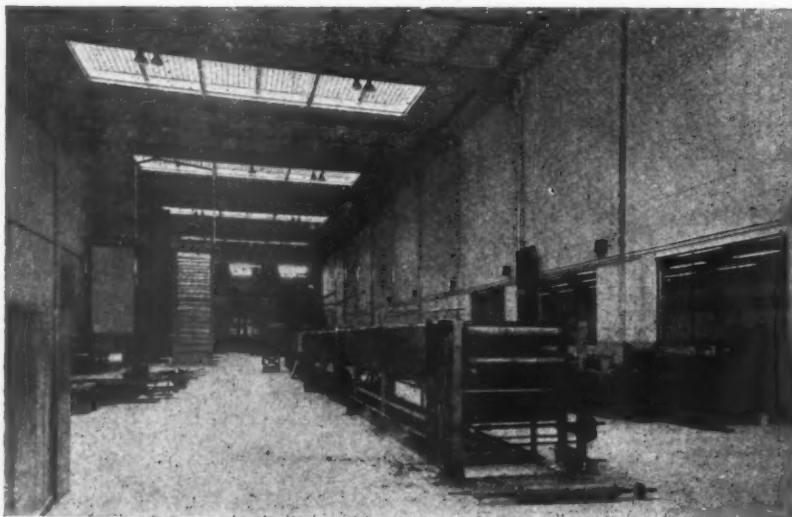


PLAN OF CLINIC

[Scale  $\frac{1}{2}$ " = 1' 0"]

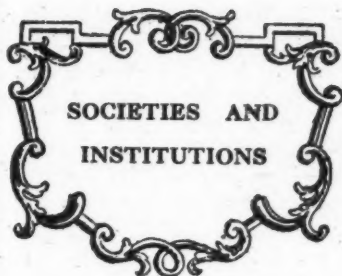


Top, left, interior of factory clinic. Left, main entrance to offices; left, bottom, impregnating room, where the fabrics are impregnated with synthetic resin prior to lamination and bonding; above, canteen seating approximately 300. Cooking is by gas. When the factory is in full production it is estimated that from 1,500 to 2,000 meals a day will be served.



FACTORY AT  
NORTH SHIELDS

DESIGNED BY  
B. W. TURNBULL



*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.*

## TCPA

### F. J. Osborn

September 11, at the Planning Centre, 28, King Street, W.C.2. A talk on IMPRESSIONS OF SWEDEN, by F. J. Osborn, Chairman of the Executive, Town and Country Planning Association.

**F. J. Osborn:** During visits to Stockholm and some smaller towns I spent much time going into houses and flats of all sizes occupied by people of different income classes. The impression was that Sweden is a country of good housekeeping, intense home pride, notably tasteful furnishing, and extraordinary cleanliness. Inside the houses light bright colours prevail, loose ornaments and colourful pictures (not abstract or modernist) are numerous, green indoor plants are the chief wall decoration, and open fireplaces romantically designed or decorated are universal—shrines of domestic sentiment rather than of utility, since in that climate dwellings must be centrally heated. More than in England, people make things for their own homes.



Blocks of flats in Gothenburg ...

The high standard of taste in Swedish furnishings, which extends to all classes, doubtless has its roots in this habit of home craftsmanship. The same shining cleanliness, tidiness and taste extends to public buildings, railway trains and many restaurants. Second and third class sleepers are as fresh and speckless as luxury hotel bedrooms, and this is not explained by the fact that railways are electrified and 40 per cent. nationalised.

Housing standards in Stockholm are appallingly low. Of the 670,000 people within the city boundaries, 90 per cent. live in flats, and only 7 per cent. in one-family dwellings. More than half the dwellings (51.6 per cent.) have only one room and kitchen or two rooms without kitchen. Another 26.7 per cent. have two rooms and kitchen.

The percentage of people who positively dislike flats in Sweden is lower than the percentage who dislike them here. National housing policy now favours the one-family house, and there are around Stockholm interesting schemes both of detached houses (partially built by the owners) and terrace houses. But flat-building still prevails, the main reasons being high land values and the past absence of any control of housing density. Even suburban housing sites cost £3,000 an acre, flat sites nearer £30,000 an acre, and central commercial sites up to £850,000 an acre.

National planning has hardly begun in Sweden, but there is a Government commission on the location of industry and the problem of compensation and betterment, and British legislation is followed with close interest. Of the total population of 6½ millions, Greater Stockholm has 830,000 and Greater Gothenburg 325,000. With the increase of population, there is the universal movement of people from rural areas to the towns, especially to the big cities and to secondary industries.

Sweden is fortunate in having many small industrial towns, widely dispersed in Svealand and Götaland, which have real vigour and modern and successful industries. There are some within 50 miles of Stockholm to which, it may be, an embarrassing city-ward flow of population could be fairly easily diverted, while permitting Stockholm to flourish with increased vitality as a commercial and cultural centre for the region as well as for the state. These things are being discussed; but at another level there is still the old preoccupation with the boundaries of city administration and of city land-ownership.

The modernist architectural revolution is complete in Sweden; no recognisable motives from the old styles must appear anywhere in any new building. The result is arid; there is little to offend, but even less to give positive pleasure. Certainly there is real creative beauty in Asplund's Cemetery at Stockholm; there is strength and logic amounting to emotional impressiveness in Eriksson's Concert Hall at Gothenburg. But the flat-blocks appear gaunt; their silhouettes are graceless; their fenestration as almost consciously avoiding beauty of rhythm. Coming back to that masterpiece of architecture in the old sense, the Stockholm City Hall, with its endless richness of inventive variation on traditional themes, something has died in modern Sweden that need not have died—that was perhaps murdered by a wrong theory. Someone has said that the City Hall was "nearer the Early Curly than the Late Straight." I listen to all the arguments; I see the horror of nineteenth-century eclecticism; I am bored by the mechanical repetition of worn-out motifs. Yet I am chilled by the Late Straight. It may be that that is its historic mission—to be a cold bath for the lax and lazy architect. But have we not been lying in the cold bath too long? Do we not need to get out into the sun?

Swedish architects would hardly agree with me about this, but some of the most distinguished feel that architecture has lost its way for the time being, and that we had



... and Stockholm.

better all think about town planning until it finds itself again.

The internal design of new dwellings is good both functionally and aesthetically, and substantial subsidies and cheap loans are granted to improve the space standards. Building quality is high, as it must be in a cold climate; and for that reason the costs per unit of floor space are not less than our own post-war costs. The standard of living of the artisan is comparable with our pre-war standard, but for a new dwelling he has to pay a larger proportion in rent, besides which heating is necessarily a heavier cost. Sweden has now been at peace for a century and a third, which gives it a great economic advantage, but it is not without its own economic and political anxieties. It is a grievance with Swedes that they are burning millions of tons of wood that they would like to send us as building timber and paper in exchange for our coal.

Swedish planners have considerable powers of layout control, and the current preoccupation is with neighbourhood planning, both for local community life and for traffic safety. Much discussion goes on as to the correct size of a neighbourhood unit, as to the length of a dead-end road, and as to the range of community buildings in a unit. Even more than in England, Swedish planning is a technocracy under the rather remote control of representative government. Imaginative genius and continuous popular survey might conceivably produce a housing neighbourhood with variety and individuality throughout; but the fact is they have rarely done so yet. In Sweden, as here, we may get tidy, uniform, mass-produced towns and suburbs with every virtue but that of lovable human diversity. I sometimes doubt if the problem of the satisfactory architectural grouping of buildings is really soluble at all. I begin to think a building, whether a one-family house or a Town Hall, only combines functional completeness and beauty of shape when it is conceived as a single unit in a frame of vegetation. The terrace of houses is an economic and aesthetic compromise, tolerable only in measure.

The endless, treeless, gardenless street is a historic misfortune thrust on us by the absence of density control and planning through centuries of indifference to the housing conditions of the masses, while the few with the power to exercise control did not think of it, because they could always build for themselves palaces in the country and isolated villas in the suburbs. The rise of political democracy will necessarily change all this. But in Sweden popular desires have not yet made as great an impact on planning policy as on other national affairs. The first Swedish Town Planning Association, containing laymen, politicians and other socially-minded people, as well as technicians, is just starting. It will be interesting to see whether it catches on. The planners there are very enlightened and alive to the public issues, and they themselves feel the need of closer and more continuous relations with popular demand. They want its support, and will not in the least resent its influence when it comes, as it must come.



## TECHNICAL SECTION

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

## INFORMATION CENTRE

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

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

### 4.24 planning: urban rural

#### RECONSTRUCTION: HOLLAND

*Reconstruction in the Netherlands: An Account of a Visit to Post-War Holland by Members of the Town Planning Institute.* M. Lock. (Jason Press, 1947, 2s. 6d.)

Interesting account of thousand-mile tour of Holland. Illustrated.

Short survey of total effect of four year occupation by Germans. Outline of main provisions of Emergency Reconstruction Act, 1945. Difficulties of reconstruction programme and their solution. Rehabilitation and town reconstruction much further advanced than our own. Ministry of Reconstruction and Public Works' activities as national planning agency. Importance of Dutch distribution of population problem. Reference to preparation of Netherlands atlas using standardized map symbols representing physical and socio-economic data. Description of salient points of Dr. C. van Eesteren's famous Amsterdam project, begun in 1928, and being first plan to base its proposals on detailed survey and scientific analysis of population trends, road traffic, housing needs and use of open spaces. Other places and their reconstruction plans described include Arnhem, Nijmegen, Rotterdam, Walcheren, and The Hague, the master plan for the latter being designed by Dudok.

### 7.8 practice

#### GEOMETRY

*Geometry of Construction.* T. B. Nichols and Norman Keep, F.R.I.B.A. (Cleaver-Hume Press Ltd., 1947, 7s. 6d.)

Primarily for craftsmen; useful for architectural draughtsmen, clearly illustrated and simply explained; fairly full, but perspective has been omitted deliberately.

### 18.8 construction: theory

#### SIZES OF FLOOR JOISTS

*Sizes of Timbers in Floors of Domestic Buildings.* F. G. Hoje. (Bulletin No. 2, Department of Works and Housing, Commonwealth Experimental Building Station, July, 1946, North Ryde, Sydney, N.S.W.)

Loadings, deflections, working stresses, recommended sizes of joists.

This Bulletin puts into a form directly applicable the general technical treatment of domestic floors set out in Bulletin No. 1.

### 20.36 construction: complete structures

#### ROAD BRIDGES

*Developments in Road Bridge Design.* J. E. Jones. (Paper read at The Public Works, Roads and Transport Congress, July 22, 1947.)

Developments in road bridge design since 1933. Pre-stressed concrete. Examples of concrete and steel bridges.

In the last six years before the war about 3,600 bridges were newly built, reconstructed or widened. Of these, only 5 per cent. are over 100 ft. Reinforced concrete bridges account for 58 per cent. of the total and steel bridges for 34 per cent. The remaining 8 per cent. includes bridges of brick, stone or timber construction.

The war caused an almost complete stoppage of public works, so that since 1939 there is little to record of bridge building apart from the completion of Waterloo Bridge (No. 1210:26.8.43) and the reconstruction of the superstructure of Menai Bridge (No. 2506:18.4.46.)

Allowable working stresses have been increased for structural steel from 8 to 9 t/sq. in., for reinforcing steel from 16,000 to 18,000 lb./sq. in., for concrete 1:2:4 from 750 to 950 lb./sq. in.

The outstanding development in structural steel design is the use of welding. This has now come to be accepted as a normal type of construction. Welded designs show a saving in weight and a simplification of detail compared with riveted work. The appearance of steel girder bridges has improved in recent years, and the wider adoption of welded construction is likely to result in still greater improvement. Much research has been done on the protection of steel against corrosion.

An interesting war-time development was the construction of standard pre-stressed concrete beams, intended for the replacement of damaged bridges. Units of various lengths, ranging from 20 to 54 ft. were made. This type of beam was adopted largely because of the acute shortage of steel, also it is lighter than the orthodox precast reinforced concrete beam. No use was made of these beams for their original purpose, but some of them were used for deck replacements of two bridges over rail-

ways. So far they have proved satisfactory in service.

The article also deals with the influence of modern road layout on bridge design and the various types of construction suitable for bridges over major roads and for bridges carrying major roads. There has been a great simplification of form in bridge design in recent years. This is illustrated by several examples both in steel and reinforced concrete. For reinforced concrete bridges the question of surface finish is of great importance. Various methods of surface treatment are discussed. A bibliography is included in the article.

### 24.42

#### MAINTENANCE COSTS: LIGHTING

*Economics and Maintenance of Industrial Lighting Systems.* By W. Sturrock and J. C. Forbes. (Lighting and Lamps, June, 1947, p. 42.)

Analysis of Maintenance Costs. Useful, brief note.

The purpose of the note is to describe how to make a simple and accurate analysis of the cost of owning and operating an industrial lighting system. A list is given of the items to be taken into account, and some examples are described.

### 25.34 water supply and sanitation

#### SCHOOL PLUMBING

*Plumbing for Schools.* (Bulletin No. 116, Lead Industries Development Council, August, 1947.)

Detail drawings of basic dimensions for waste connections to B.S. sanitary appliances for schools. Explanatory matter stressing advantages of lead. 5 sheets of details, 2 photographs.

The details in this memorandum are based on the new British Standard MOE 1-7:1947 for school sanitary equipment. Lead plumbing is assumed, with appliances set in ranges and layouts based on published plans for new schools. The drawings give all dimensions required for off-site fabrication of pipework for all the standard appliances, and are very well done. The accompanying memorandum discusses possible alternative layouts. All wastes are shown fully vented and with plumbing to highest text-book standards. It seems doubtful whether, under present conditions, such usage of lead would be possible. For example, lavatory basins discharging through short untrapped wastes into an open floor channel would be preferred on grounds of economy.

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

## QUESTIONS AND ANSWERS

### 2911 NATIONAL LAND FUND

**Q** Who administers the National Land Fund . . . and how can its interest be secured in any particular area? Have any purchases been made, and if so, where?

**A** The Treasury administers the National Land Fund. The Inland Revenue, on notification of the death of the holder of an estate, sends an invitation to the executors to consider surrender of land or property in payment of death duty.

Four properties have been acquired, the Bala Estate in Wales, Hartsop Hall Estate in the Lake District, the Cotehele Estate and Tregonnann House in Cornwall.



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

## HOUSING, MATERIALS AND LABOUR

[by Ian Bowen]

### HOUSING

TABLE I PERMANENT HOUSES IN GREAT BRITAIN: Cumulative Totals

	Begun			Finished		
	Local Authorities	Private Builders	Total	Local Authorities	Private Builders	Total
To Dec., 1945	20,409	—	—	1,657	1,031	2,688
1946: Aug.	112,491	48,841	161,332	8,335	13,670	22,005
Sept.	130,705	52,218	182,923	10,902	17,394	28,296
Oct.	150,882	55,800	206,682	14,570	21,177	35,747
Nov.	165,447	58,581	224,028	18,459	24,639	43,098
Dec.	178,379	61,293	239,672	23,923	28,175	52,098
1947: Jan.	190,340	63,319	253,659	28,440	31,609	60,049
Feb.	197,938	64,459	262,397	30,607	33,278	63,885
March	205,159	65,864	271,023	34,436	35,430	69,866
April	218,815	67,826	286,641	40,425	38,184	78,609
May	234,395	70,684	305,079	47,726	41,465	89,191
June	250,292	73,181	323,473	55,642	44,356	99,998
July	265,689	75,741	341,430	63,975	47,316	111,291
Increase of July over June	15,397	2,560	17,957	8,333	2,960	11,293
Total at July 31, 1947						
Local Authorities	..	..	..	Under Construction	Finished	
Private Builders	..	..	..	201,714	63,975	
War-destroyed rebuilt	..	..	..	28,425	47,316	
Government Departments	..	..	..	16,688	12,449	
	..	..	..	2,087	273	
Total	..	..	..	248,914	124,013	

TABLE II TEMPORARY HOUSES IN GREAT BRITAIN: Cumulative Totals

	Slabbing Begun	Slabbing Completed	Erection Begun	Erection Completed
To Dec., 1945	61,008	39,998	22,932	9,376
1946: Aug.	114,016	98,744	76,519	47,176
Sept.	117,422	103,700	83,725	57,040
Oct.	122,742	109,368	93,201	70,121
Nov.	128,258	112,837	98,650	80,135
Dec.	131,646	115,711	103,796	92,306
1947: Jan.	134,023	118,451	107,214	97,070
Feb.	136,238	118,734	109,033	99,461
March	137,992	119,759	111,002	101,717
April	140,333	123,757	115,106	106,664
May	141,786	127,270	118,653	111,029
June	143,769	130,735	122,353	115,086
July	147,661	134,956	126,375	119,960
Increase of July over June	3,892	4,221	4,022	4,874

Temporary Houses Under Construction at July 31: 6,415.

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

	Begun	Completed
To end Feb., 1947	36,083	4,627
March	38,159	5,495
April	42,170	6,687
May	46,793	8,281
June	52,075	10,009
July	57,935	12,160

Non-traditional Houses Under Construction at July 31: 45,775

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

	Unoccupied War-Damaged Houses Repaired	Conversions and Adaptations
To end Feb. 1947	111,955	40,653
March	114,117	42,826
April	116,772	44,909
May	119,062	47,294
June	121,836	49,616
July	123,537	51,691
Increase of July over June	1,701	2,075

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

### BUILDING MATERIALS

TABLE V PRODUCTION AND STOCKS:

Material	Unit	July-Sept., 1946		July, 1947	
		Pro-duction	Stocks†	Pro-duction	Stocks‡
Cement	th. tons	(monthly average) 595	252	787*	214
Bricks	millions	336	267	411	290
Roofing materials					
Clay tiles	th. squares	49.9	25.8	80.1	42.3
Concrete tiles	"	37.1	26.8	59.6	59.6
Slates	"	23.8	35.7	—	—
Asbestos cement sheeting	th. tons	26.7	—	27.4*	—
Roofing felt	th. rolls of 24 sq. yds.	198	93	242	128
Ceilings, Wall Linings and Floorings					
Plaster gypseous	th. tons	15.8	—	18.4	—
Plasterboard	th. sq. yds.	2,910	298	3,776*	225
Tiles					
Glazed	th. sq. yds.	458	—	574	—
Floor (Clay)	"	105	—	199	—
Pipes (Water, Gas, etc.)					
Lead	th. tons	3.76	—	4.19	—
Copper	"	2.52	—	3.37	—
Soil Pipes (cast iron)	"	1.44	—	2.58	—
(Asbestos Cement)	"	—	—	.40*	—
Drain Pipes, Salt Glazed	"	30.6	—	44.5	—
Rainwater Goods, Rainwater Pipes, Gutters and Fittings					
Cast Iron and Pressed Steel	th. of equiv. tons of cast iron	3.47	—	6.14	—
Asbestos Cement Goods	th. tons	—	—	20.1*	—
Manhole Covers and Frames	th. of equiv. tons of cast iron	3.25	—	3.23	—
Metal Windows	Mn. ft. sup.	3.14	2.10	3.84	3.30
Sanitary Fittings					
Baths	thousands	23.6	—	34.1	—
Lavatory Basins	"	72.4	—	84.3	—
Sinks	"	52.5	—	62.1	—
W.C. Pans	"	84.0	—	98.8	—
Cookers	"	11.9	—	17.5	—
Solid Fuel	"	13.3	—	22.1	—
Electric	"	28.7	—	32.6	—
Gas	"	52.2	—	78.1	—
Fires, Solid Fuel	"	17.6	—	13.8	—
Wash Boilers	"	37.7	—	31.0	—
Electric	"	3.0	—	4.8	—
Gas	"	.32	—	1.83	—
Furnace Pans (Solid Fuel)	"	—	—	—	—
Solid Fuel	thousands	—	—	—	—
Softwood Timber (Imports and Home Produced)	th. stds.	76.4	150.9	195.9‡	146.2‡

† At end of period.

‡ Imports only.

\* 5-week period.

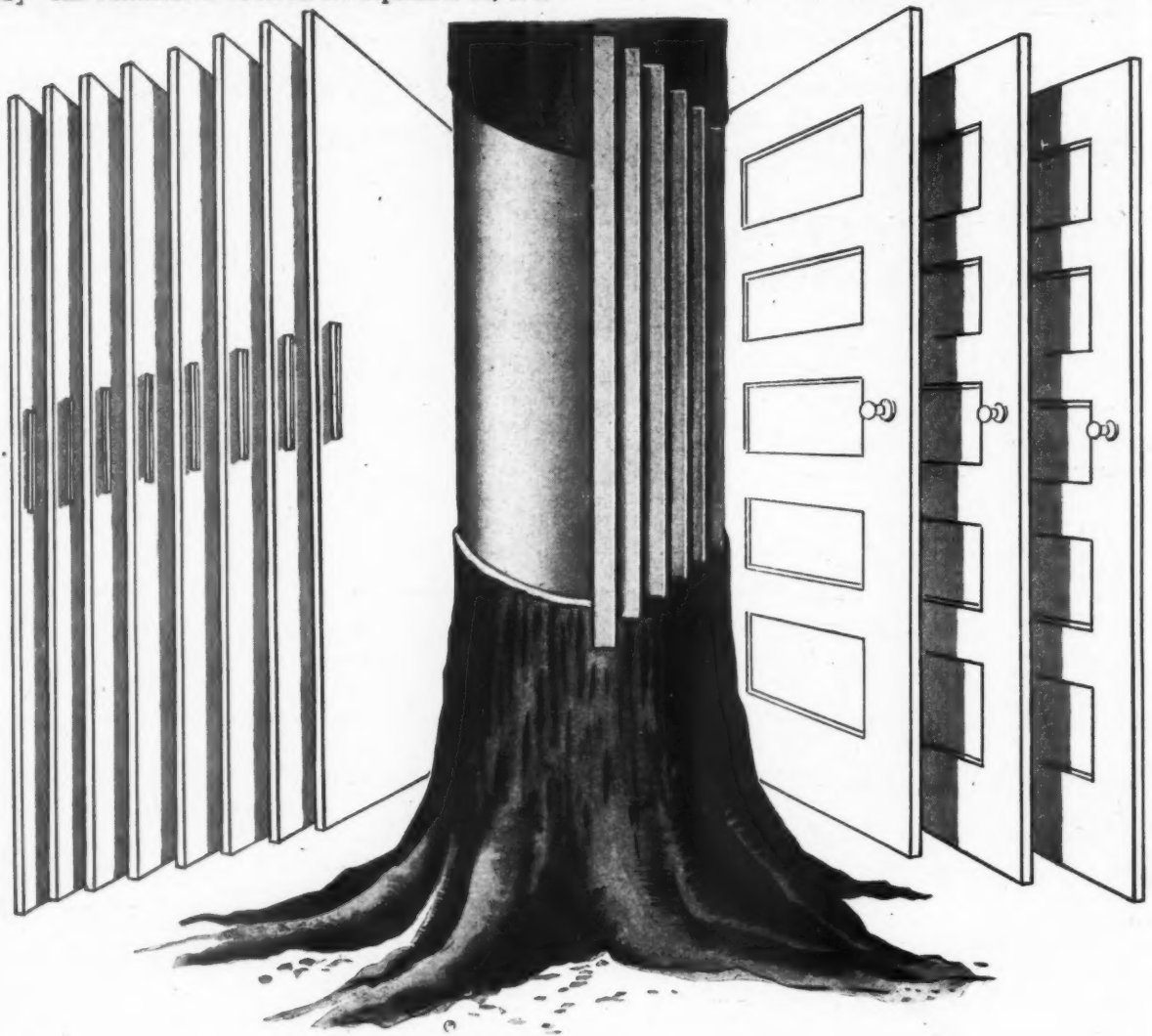
† June figures.

### LABOUR

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

Type of Work	July, 1945	July, 1946	July, 1947*
Total	535.0	913.0	985.0
Housing	343.9	570.5	550.3
Permanent (Construction, and preparation of sites)	17.4	165.4	245.9
Temporary	14.5	37.6	11.1
Other (repairs, etc.)	312.0	367.5	293.3
Other Work	191.1	342.5	434.7

\* Provisional. † In thousands.



## TIMBER SAVING

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With timber in short supply and peak demand, the timber economy of the FLUSH DOOR is a factor which may be turned to good account. Owing to the modern construction of the Flush Door requiring only the minimum of bulk timber it is usual to produce 8 flush doors from the same amount of wood required to produce 3 panel doors. Architects and builders restricted to a timber quota per house are able, by specifying Flush Doors, to save as much as 8 cubes per house which can be put to good use for extra cupboards.

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Magnet Timber Co., Ltd., Grays, Essex  
Manor Joinery Works, Ltd., Barkling, Essex  
Rothervale Man'g Co., Ltd., Sheffield, 11

*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]

### A NEW WIRING SYSTEM

Most architects have been brought up to look upon screwed conduit as the proper method for wiring a house, or for that matter any other job, with lead covered or tough rubber sheathed as a second choice if there is not too much money to spare. Present-day shortages of skilled labour make all wiring difficult, and conduit is almost impossible to obtain. Lead covered or t.r.s. under the plaster has been satisfactorily used for housing work over a number of years, but inevitably leads to difficulties when it comes to extensions or renewals. Various attempts have been made since the war to provide a prefabricated wiring harness, but all too often this does not work out as well on the site as it did on paper. There also tends to be trouble from the electrical contractors and the operatives, who complain that most of the work has been done by girls who probably are not members of any union at all. This type of complaint seems quite frivolous, as girls have been doing electrical assembly work for years, and I have yet to hear of an electrician saying he will not install a radio or a motor on these grounds, but it is symptomatic of the sort of trouble one comes up against, not only in the building industry, as soon as any departure is made from accepted practice.

Mr. T. C. Gilbert, whom many architects will know as a persistent advocate of earth leakage trips for circuit protection, has re-

cently evolved a system of plastic flexible conduit, which seems to have several advantages, apart from showing a considerable saving in labour cost. Briefly, he has produced three sizes of P.V.C. conduit which, with the necessary boxes for junctions and switches, will do almost everything. Each size is a tight push fit in the size above, and provides a moisture-proof joint. Note moisture proof, which is by no means the same thing as watertight, but is enough to prevent damp creeping in when plaster is applied over the conduit. Normally this conduit is used with Bakelite boxes having the usual knock outs, and if half-inch conduit is to be used with a  $\frac{1}{4}$  hole odd lengths of the larger conduit are used as a bushing. If cast-iron boxes are used, the conduit, which is soft enough to be cut with a knife, is self-threading in the hole.

The main point of the whole system is, of course, that the conduit is flexible, for it can be bent to a radius as small as four inches without flattening and in the ordinary way tees and elbows are not used, though they are supplied if it is necessary for the conduit to be run on the surface. For housing work the conduit is run down the angle of the wall, where it will easily be covered with plaster. It should be remembered that the conduit is non-metallic and that there will therefore be no rust stains to show through even if it is only just covered. Chasing of the wall is reduced to a minimum and may not be necessary at all, as the conduit used for lighting circuits is seldom more than half inch. Fixing is either by plastic clips and lead headed nails, or by dabs of cement at suitable points. One of the greatest advantages is that the conduit can also be run in the angle between ceiling joists and the wall, and it is not necessary for the joists to be notched. Wiring therefore starts as soon as the floors are laid, and can then generally be carried through to completion instead of several visits being necessary at different times.

Since the bends in the conduit will generally be of fairly large radius the cables can be easily drawn in, and the absence of sharp metal burrs at cut ends allows unbraided v.i.r. cable to be used, or p.v.c. covered. Both these are naturally smaller in diameter than the ordinary braided v.i.r., and the actual carrying capacity of the half-inch plastic conduit, in terms of conductor area, is equivalent to standard light gauge  $\frac{1}{2}$ -in. steel conduit. Lighting runs are wired up in the ordinary way, but since the conduit is a non-conductor, a separate earth wire is needed in the conduit when wiring three-pin sockets. Five-eighths-inch conduit is large enough to take conductors and an earth wire when used with the now accepted ring main system.

A further advantage of the flexibility of the conduit is that there is no need to work to very accurate lengths, and it is possible to make up runs of conduit from plan measurements, insert the cables, and take the whole assembly to the site coiled up on the handlebars of a bicycle if necessary.

Firm figures for saving in cost are naturally difficult to give. The flexible conduit is about the same, or slightly less than the equivalent light-gauge steel, but the Bakelite boxes are naturally more expensive. Labour cost should be cut by anything up to 50 per cent. which ought to show a saving of about 20 per cent. on the overall wiring cost in the average small house.

At the moment the system, which is known as Gilflex, is made in sizes suitable for small houses and farm buildings, but heavier systems will be available as soon as raw material supplies becomes easier. At the moment thick wall conduits are made for garages or workshops where extra mechanical protection is desirable. So far no WBA forms or other permits are necessary. (Flexible Metallic Conduits, Ltd., 208, Tottenham Court Road, London, W.1.)

### DEALING WITH CONCRETE

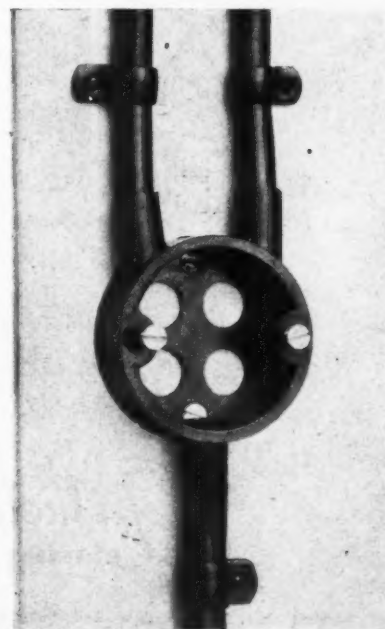
Concrete floors which dust, basements which leak, renderings which crack and craze; many of these ills can be traced to poor workmanship or definite mistakes in technique. There are of course a number of materials which can be used to alleviate these troubles, and a full range of them are made by Joseph Freeman Sons and Co., who market them under the trade name of Cementone. They have just issued an informative booklet containing a series of useful hints on laying floors, colouring them, stopping them from dusting, making renderings waterproof, and all the other types of work for which the various grades of Cementone are intended. A useful and modest little book with a pleasing absence of unnecessary trimmings or high pressure salesmanship. (Joseph Freeman Sons & Co., Ltd., Cementone Works, Wandsworth, London, S.W.18.)

### TOWN PLANNING SUMMARIES

Four new town planning summaries have just been issued by Ascots, to add to the first instalment which they published in the autumn of last year. They cover Gloucestershire, Newcastle-on-Tyne, Middlesbrough and the Merseyside. These summaries have the blessing of Sir Patrick Abercrombie, amongst others, and the latest instalment is fully up to the standard of the earlier efforts. (Ascot Gas Water Heaters, Ltd., 43, Park Street, London, W.1.)

### LIGHTING FITTINGS

Many architects will remember Merchant Adventurers, Ltd., as one of the few firms which used to turn out pleasant-looking lighting fittings in pre-war days. They are now back on the job again, and their latest list shows a number of familiar designs, plus several new ones, some using the now almost inevitable fluorescent tubes. This makes a welcome addition to the far too small number of firms whose designs can be relied upon. Prices are not at all unreasonable at present-day levels. (Merchant Adventurers of London, Ltd., 43, Portland Road, London, W.11.)



Bakelite junction box with  $\frac{5}{8}$ " conduit at the bottom and two  $\frac{1}{2}$ " conduits entering at the top through short  $\frac{5}{8}$ " bushes cut from scrap lengths. (See note on a new wiring system).



The flexible conduit can be run in the corner between partitions and on the underside of ceiling joists.



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

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# Announcements Buildings Illustrated

The London Master Builders' Association Golfing Society is holding its Autumn Meeting at the Stoke Poges Golf Club on Tuesday, September 23. The first Annual General Meeting of the Society will be held in the Club House at Stoke Poges, at the end of the day's play, at approximately 6 p.m., when it is proposed to consider draft rules and to appoint the Captain and other Officers. Additional particulars from the Hon. Secretary, Mr. D. F. Cox, c/o Haymills (Contractors) Ltd., Empire House, Hanger Green, W.5.

The Arts Council of Great Britain has moved from 9, Belgrave Square to its permanent home at 4, St. James's Square, S.W.1.

Mr. S. P. Jordan, A.R.I.B.A., has moved from Little Hall, Oakley Green, Windsor, to 1, Thurloe Street, London, S.W.7, and would be pleased to receive trade catalogues at this address.

## Publications Received

*Housing the Country Work*, by M. F. Tilley. Faber & Faber, 12s. 6d.

*Approach to Better Housing*, by A. S. Waring. Leonard Hill, 18s.

*Derbyshire*, by Nellie Kirkham. Paul Elek, 2s. 6d.

*St. Paul's Cathedral*, introduction by Margaret Whinney. Lund Humphries, 3s. 6d.

*Shrewsbury—A Rich Heritage*, by A. W. Ward. Wilding & Son Ltd., 25s.

*Miners' Welfare in War-Time*. Report by the Miners' Welfare Commission, 1s. 6d.

*Working Party Reports—Lace*. HMSO, 3s. 6d.

Factory in Coast Road, West Chirton, North Shields, Northumberland, for Messrs. De La Rue Insulation Ltd. (pages 255/258). Architect, B. W. Turnbull, F.R.I.B.A. General Contractor, Sir Robert McAlpine and Sons, who were also responsible for excavation, foundations, dampcourses, reinforced concrete, and plumbing. Clerk of Works, Captain A. F. Valentine. General Foreman, J. Ives. Consultants: steel engineer, Wells, Cocking and Meston; quantity surveyor, Crosher and James; lighting engineer, R. W. Gregory and Partners; heating and industrial plant engineer, The Carrier Engineering Company Ltd. Sub-contractors: Rock Asphalte Co. Ltd., asphalte; Redpath Brown and Co. Ltd. and Universal Steel Door and Engineering Co. Ltd., structural steel; Ruberoid Company Ltd., roofing felt; Roneo Ltd., partitions; John Healey (London) Ltd., glass roof lights; Hill's Patent Glazing Co. Ltd., patent glazing and casements; Horsley Smith and Co. (Hayes) Ltd., wood block flooring; Carrier Engineering Co. Ltd., central heating and ventilation; Babcock and Wilcox, boilers; Watson Norie Ltd., electric wiring and electric light fixtures; Shanks and Co. Ltd., sanitary fittings; Harris and Sheldon Ltd., stairtreads, revolving doors, metalwork, and joinery; J. D. Beardmore and Co. Ltd., door furniture; Esavian Doors, folding gates; A. L. Gibson and Co. Ltd., rolling shutters and fireproof doors; Allan Liddle, iron staircases; Accordo Blinds Ltd., sunblinds; South Western Stone Co. Ltd., Stonework; Diespeker and Co. Ltd., terrazzo; James Siebert Equipment Co. Ltd., cloakroom fittings; Keighley Lifts Ltd., lifts; Vaughan Lift Engineering Co. Ltd., cranes; Neon Luminous Tubes (Lundsigns) Ltd., signs.



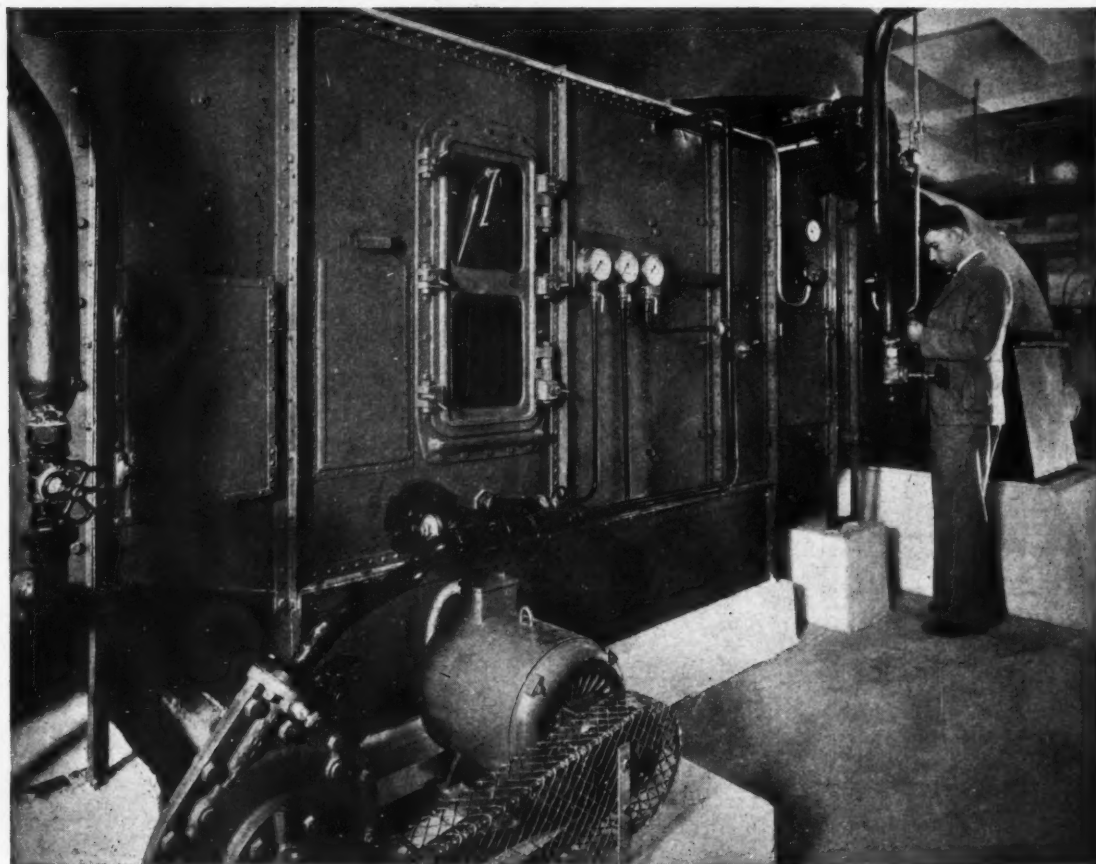
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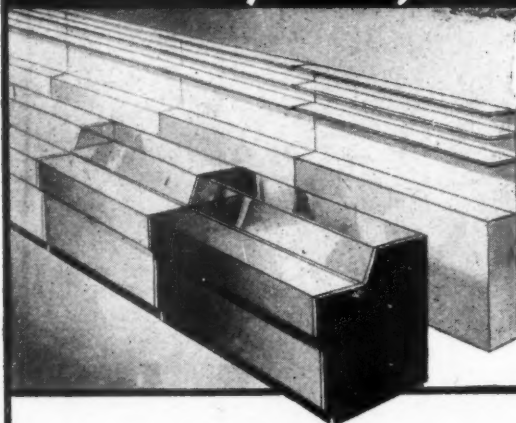
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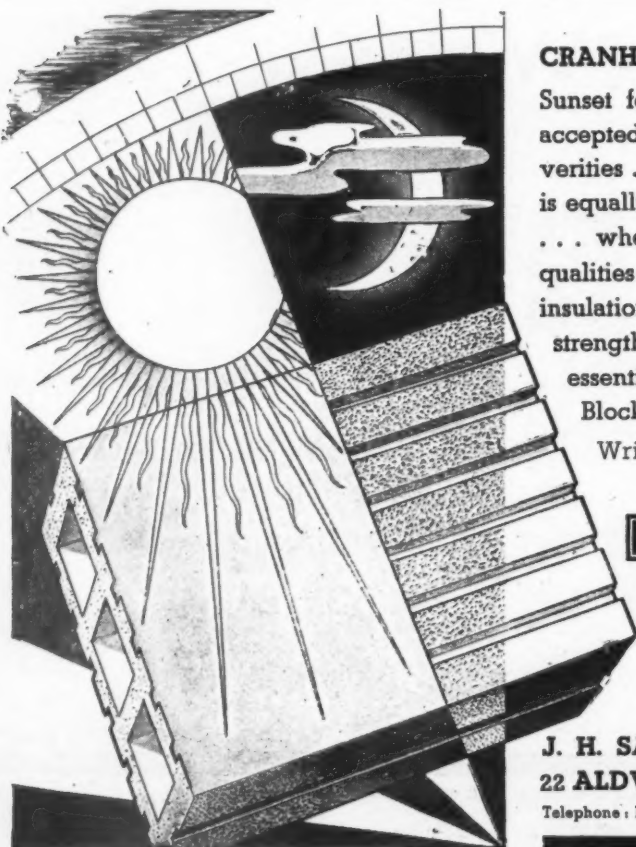
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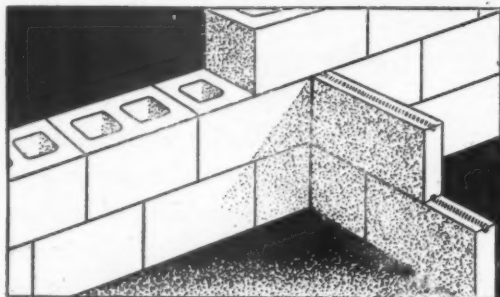
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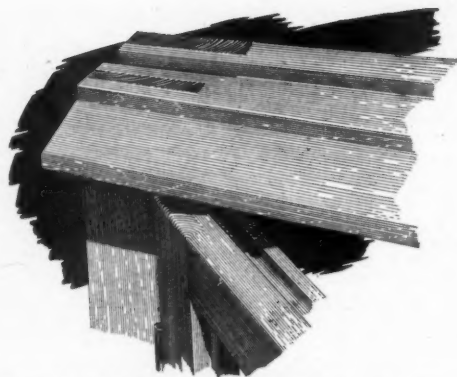
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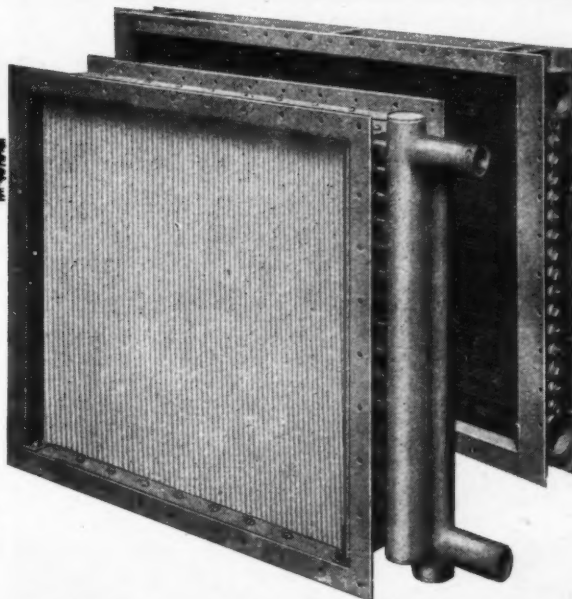
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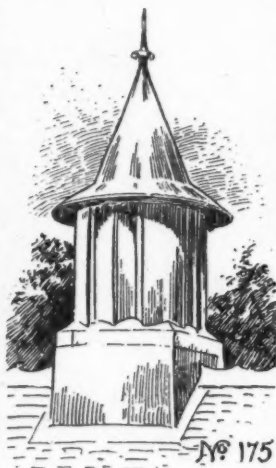


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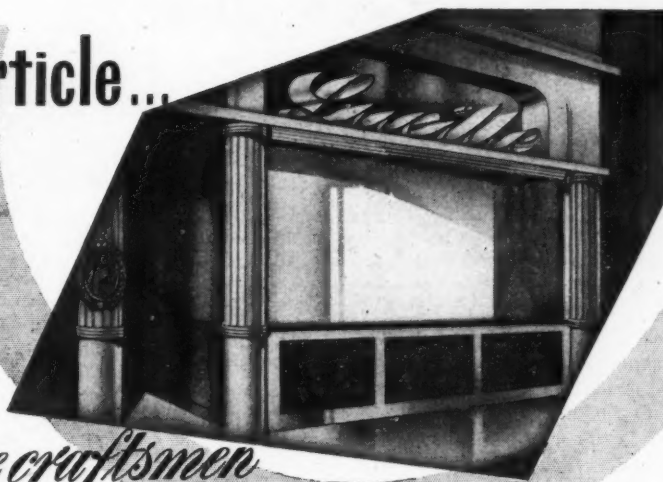
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President, 1946/47

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## Objects

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

## Designatory Letters of Surveyors

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and for Quantity Surveyors

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A.F.S. (Eng.) (Quant.) for Associates	
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## Membership

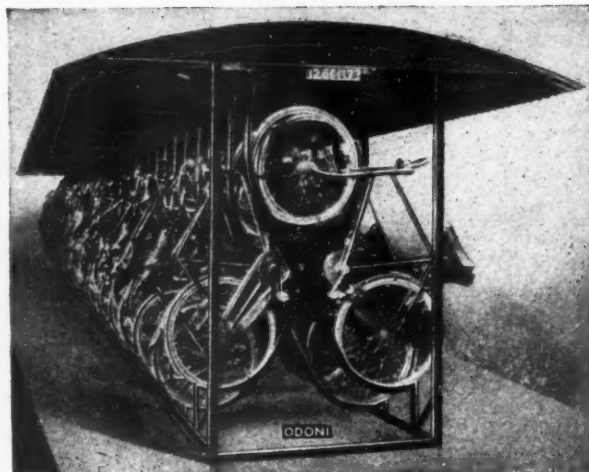
The Executive Council are open to receive applications for membership on practice qualifications from Surveyors engaged in the professional section. Examinations are held Bi-Annually for entrance to the Quantity Surveyors section.

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

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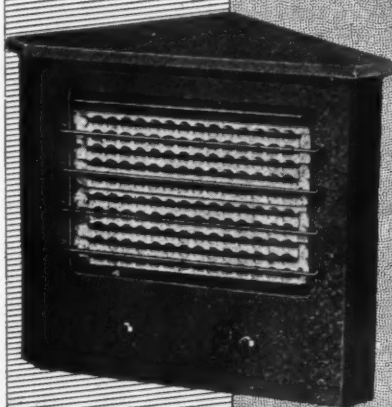


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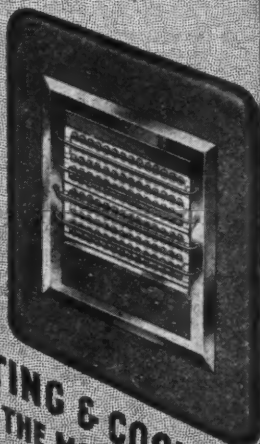
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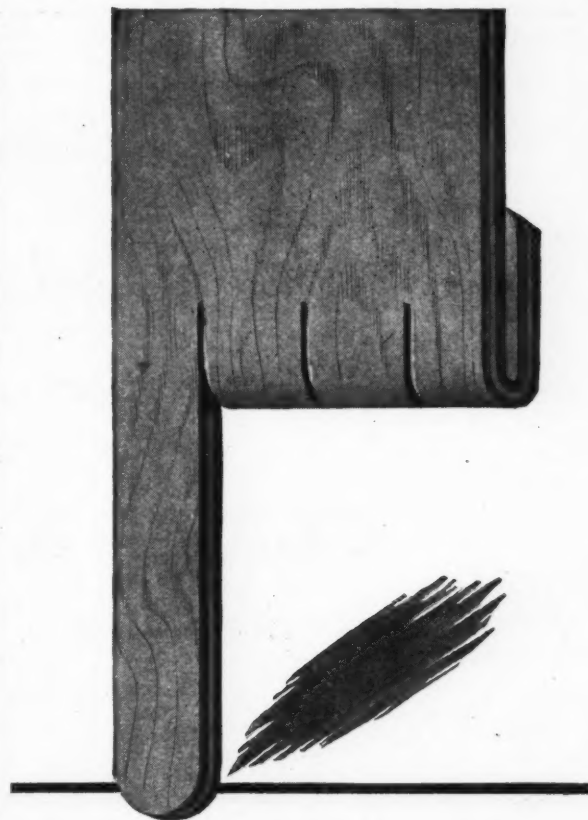
Right: *Wall Panel Fire*



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## KENT COUNTY COUNCIL.

Applications are invited for the undermentioned pensionable posts in the Buildings Department:—  
(a) Building Maintenance Officer (permanent) at a yearly basic salary of £420×£15=£465, plus war addition, at present £59 16s. 0d.

Candidates must have practical experience of the building trade, be thoroughly competent in the preparation of specifications, detailed estimates and builders' quantities in connection with the maintenance of buildings, and be able to prepare drawings for minor projects. Preference will be given to licentiates of the Institute of Builders (by examination).

(b) Architectural Assistant (unestablished) at a yearly basic salary of not exceeding £360 plus war addition, at present £59 16s. 0d.

The person appointed will be required to assist with the preparation of plans for new buildings and the adaptation and extension of existing buildings.

Forms of application, obtainable from the County Architect, Springfield, Maidstone, should be returned as soon as possible.

W. L. PLATTS,

Clerk of the County Council.

County Hall, Maidstone.

1st September, 1947.

731

## CITY SURVEYOR'S OFFICE.

## APPOINTMENT OF TECHNICAL STAFF.

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

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

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

Previous experience with a Municipal body is not essential.

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

## SURREY COUNTY COUNCIL.

## COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, Grade VI, at a commencing salary of £535, rising by annual increments of £20-£25 to a maximum of £600 per annum, plus London weighting of £20 and bonus at the rate of £59 16s. 0d. per annum.

Preference will be given to applicants who are members of the Chartered Surveyors' Institution (Quantities Sub-Division), and who have an adequate experience in the preparation of Bills of Quantities, and in measuring up and in settlement of final accounts.

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

Applications, stating age, qualifications, and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-on-Thames, not later than the 27th September, 1947.

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

DUDLEY AUKLAND,

Clerk of the Council.

County Hall, Kingston-on-Thames.

739

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

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

TECHNICAL ASSISTANT, up to £500 a year.  
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The planning work involved includes assistance in the detailed development of Reconstruction Area schemes and the preparation of revised zoning plans.

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

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

Canvassing disqualifies. (1680)

835

COUNTY BOROUGH OF EAST HAM.  
APPOINTMENT OF ARCHITECTURAL  
ASSISTANTS.

Applications are invited for the following appointments on the Architectural Staff of the Borough Engineer's Department:—

1. ARCHITECTURAL ASSISTANT—GRADE V.

Candidates must be Associate Members of the Royal Institute of British Architects or hold an equivalent qualification, and have a general knowledge and experience of architectural work. Salary £480 to £495 per annum.

2. ARCHITECTURAL ASSISTANT—GRADE IV.

The qualifications required are as above. Salary £440 to £485 per annum.

The above appointments are on the permanent staff of the Council.

The salaries quoted above include the London Allowance. War bonus (at present £59 16s. 0d. per annum in the case of men over 21) will be paid in addition.

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

Applications on forms obtainable from the undersigned must be delivered to me, together with copies of three recent testimonials, by not later than Monday, the 29th September, 1947. Applicants should state the position for which they desire to apply.

Canvassing will disqualify.

H. A. EDWARDS,

Town Clerk.

Town Hall, East Ham, E.5.

10th September, 1947.

719

OXFORDSHIRE COUNTY COUNCIL.  
COUNTY PLANNING DEPARTMENT.

## Appointment of:—

(a) ONE SENIOR PLANNING ASSISTANT;

(b) TWO PLANNING ASSISTANTS;

(c) ONE JUNIOR ASSISTANT;

(d) TWO DRAUGHTSMEN.

Applications are invited for the above-mentioned appointments in the County Planning Department of the County Council.

For Appointment (a) the salary will be A.P.T. Grade VI, £535-£600 per annum. Applicants must have a thorough knowledge of all aspects of statutory planning and in particular must have had practical experience of the preparation of basic surveys for planning purposes. The successful candidate will be required to take charge of the Survey Sub-Department of the County Planning Department. Applicants should have passed the Final examination of the Town Planning Institute.

For Appointments (b) the salary will be A.P.T. Grade III, £390-£435 per annum. Applicants must have had good general experience in a planning office and should at least be candidates for the Final examination of the Town Planning Institute.

For Appointment (c) the salary will be A.P.T. Grade I, £330-£375 per annum. Applicants should be neat and expeditious draughtsmen and should have had previous experience in a planning office. They must also be capable of accurate surveying and levelling.

For appointments (d) the salary will be General Division, maximum £300 per annum at 30 years of age (£240 per annum for females). Candidates must be experienced draughtsmen capable of producing all types of finished maps and drawings, including work for presentation purposes. Experience in a planning office will be an advantage.

A cost-of-living bonus is payable in addition to the above-mentioned salaries.

All these appointments are superannuable and the successful candidates will be required to pass a medical examination. Applicants for Appointments (a) and (b) will be required to provide a car for use in connection with their official duties for which travelling expenses on the Council's scale will be allowed.

Application forms for these Appointments may be obtained from the County Planning Officer, County Hall, Oxford, to whom they should be returned not later than first post on Monday, 6th October, 1947.

F. G. SCOTT,

Clerk of the Council.

County Hall, Oxford.

2nd September, 1947.

734

BOROUGH OF COLCHESTER.  
BOROUGH ENGINEER'S DEPARTMENT.  
ARCHITECTURAL SECTION.

Applications are invited for the following appointments:—

(a) Architectural Assistant, Grade 3. Salary £390 p.a.

(b) Architectural Assistant, Grade 1 or 2. Salary £350 to £360 p.a., according to experience.

In each case plus Cost of Living Bonus, at present £59 16s. 0d. p.a.

Subject to satisfactory service, appointments will be of 2 years' minimum duration.

Applicants should have had good general experience in an Architectural Office, and for

(a) Should, as a minimum, have passed R.I.B.A. Intermediate Examination or be of equivalent standard.

Reference will be given to those with previous experience of Housing Schemes for Local Authorities.

Applications, giving full particulars, should be sent to the undersigned as soon as possible.

HAROLD COLLINS, A.M.Inst.C.E.,

Borough Engineer.

Town Hall, Colchester.

711

## KENT COUNTY COUNCIL.

Clerks of Works are required in connection with the schools and other building programmes.

The inclusive salary will be at the rate of nine guineas a week. A higher salary may be offered to men with exceptional experience.

Candidates must have had previous experience in the erection of public buildings, particularly large schools, and preference will be given to applicants who have had experience in the supervision of large contracts carried out on the basis of prime cost.

Applications, on forms obtainable from the County Architect, Springfield, Maidstone, should be delivered to him as soon as possible.

W. L. PLATTS,

Clerk of the County Council.

County Hall, Maidstone.

1st September, 1947.

730

## BOROUGH OF COLERAINE.

## ARCHITECT WANTED.

The Coleraine Borough Council invite applications from registered Architects for the position of Architect to the Council. It is desirable but not essential that applicants should have qualifications or experience in Town Planning.

The duties will include the architectural work connected with the Council's post-war Housing Programme, and such other duties appropriate to the office allocated by the Council.

The person appointed will be a full-time Official and the appointment, which will be subject to the approval of the Ministry of Health and Local Government, will be terminable at any time by three months' notice on either side.

Salary will be paid in accordance with the qualifications and experience of the person appointed, and applicants should state salary expected in their application, which will be received with recent testimonials by the undersigned not later than 27th September, 1947.

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

W. B. HENRY,

Town Clerk.

Town Hall, Coleraine, N. Ireland.

758

FIFE COUNTY COUNCIL.  
APPOINTMENT OF SURVEYOR'S OR  
BUILDER'S CLERK.

Applications are invited for appointment of Surveyor's or Builder's Clerk, for the Housing Architect's Department. Salary £270 by £280 to £370, plus war bonus, at present £60 per annum. Applicants should preferably have had some previous clerical and technical experience in the office of an Architect, Surveyor or Builder, and be familiar with the procedure and terms as used in the Building Industry. Age under 45; medical examination under superannuation scheme. Applications, stating age, qualifications and experience, accompanied by copies of three recent testimonials, should be sent to the undersigned not later than 3rd October, 1947. No canvassing.

J. M. MITCHELL,

County Clerk.

County Buildings, Cupar-Fife.

5th September, 1947.

755

## CROWN AGENTS FOR THE COLONIES.

Applications from qualified candidates are invited for the following post:—

QUANTITY SURVEYOR required by Hong Kong Government Public Works Department for three years, with prospect of permanency. Salary according to qualifications, in scale £500 to £910, plus cost-of-living allowance up to £285. Residential allowance £45 upwards. Outfit allowance £60. Free passage. Candidates, not over 40 years of age, must be Chartered Quantity Surveyors, with at least five years' experience dealing with large building works. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/N/17517 on both letter and envelope.

760



**COUNTY BOROUGH OF DERBY.**  
BOROUGH ARCHITECT'S DEPARTMENT.  
APPOINTMENT OF TECHNICAL STAFF.  
Applications are invited for the following appointments on the permanent staff in accordance with the National Scale of Salaries:—

- (a) One ASSISTANT ARCHITECT, Grade VI A.P. & T. Division, salary £535-£600.
- (b) Two JUNIOR ARCHITECTS, Grade I A.P. & T. Division, salary £330-£375.
- (c) One SENIOR QUANTITY SURVEYOR, Grade VI, A.P. & T. Division, salary £535-£600.
- (d) One CLERK OF WORKS, Grade III A.P. & T. Division, salary £390-£435.

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

Applicants for:—

- (a) Should be Associates R.I.B.A. with good experience of work undertaken by a Local Authority.
- (b) Should have passed the Preliminary Examination of the R.I.B.A. and have had experience in general Architectural work.
- (c) Should be P.A.S.I. (Quantities Section) or prospective and have had experience in the preparation of quantities, specifications, site measuring, estimates and final accounts.
- (d) Should be fully experienced in Municipal works, and have a sound knowledge of all building trades.

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

Forms of application may be obtained from Thos. W. East, F.R.I.B.A., Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed, together with copies of three recent testimonials, to arrive not later than Monday, 6th October, 1947.

Canvassing, directly or indirectly, will be a disqualification.

C. ASHTON,  
Town Clerk.  
751

Market Place, Derby.

**MIDDLESEX COUNTY COUNCIL EDUCATION COMMITTEE.**  
WILLESDEN TECHNICAL COLLEGE, DENZIL ROAD, N.W.10.

**BUILDING DEPARTMENT.**  
Applications are invited for the following new appointments:—

- (a) Full-time LECTURER IN BUILDERS' QUANTITIES AND BUILDING CONSTRUCTION.
- (b) Full-time LECTURER IN THEORY AND DESIGN OF STRUCTURES.

Applicants should hold appropriate academic qualifications, and preferably have had teaching experience. Industrial experience is essential. The appointments are made necessary by the growth of the Senior National Diploma Course, but they may involve some teaching in the Secondary Technical School of Building and in part-time courses. Duties to commence as soon as possible and not later than 1st January, 1948. Salary in accordance with the Burnham Technical Report (London Area). Forms of application may be obtained by sending a stamped addressed foolscap envelope to the Principal, to whom completed forms should be returned not later than two weeks after the appearance of this advertisement.

T. B. WHEELER,  
Chief Education Officer.  
761

**CITY AND COUNTY OF THE CITY OF EXETER.**

Applications are invited for the appointment of SENIOR ASSISTANT ARCHITECT, on the permanent staff of the City Architect's Department.

The salary will be within A.P.T., Grade V, £460 per annum, rising to £510 per annum. Cost-of-living bonus, at present £59 19s. 3d. per annum, will also be paid.

Housing accommodation will be found for the successful applicant.

Candidates should be Associate Members of the Royal Institute of British Architects, or hold equivalent qualifications, and preference will be given to candidates who have had considerable experience in Municipal Educational and other work.

The appointment will be subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Act, 1937. The successful applicant will be required to pass a medical examination. Canvassing will disqualify, and candidates must disclose whether, to their knowledge, they are related to any member of the Council or to the holder of any senior office under the Council.

Applications, stating age, qualifications, previous and present appointments and salaries, full details of experience, and the earliest possible date when available, together with copies of recent testimonials. Applications should reach H. B. Rowe, F.R.I.B.A., A.M.I.Struct.E., City Architect, 2, Southernhay West, Exeter, not later than the 29th September, 1947.

C. J. NEWMAN,  
Town Clerk.

Exeter.  
4th September, 1947.

**COUNTY BOROUGH OF DERBY.**  
BOROUGH ARCHITECT'S DEPT.  
APPOINTMENT OF TWO TEMPORARY CLERK OF WORKS.

Applications are invited for the appointment of two temporary Clerk of Works, at an inclusive salary of £9 per week.

Applicants should be fully experienced in Municipal works and have a sound knowledge of all building trades.

The appointment will be subject to one month's notice in writing on either side, and the successful candidate will be required to pass a medical examination.

Forms of application may be obtained from Thos. W. East, F.R.I.B.A., Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed with copies of two recent testimonials, to arrive not later than the 30th September, 1947.

Canvassing, directly or indirectly, will be a disqualification.

C. ASHTON,  
Town Clerk.  
753

Market Place, Derby.

**MINISTRY OF WORKS.**

**ARCHITECTURAL ASSISTANTS** (Male or Female) required for Drawing Office duties at Risley and Springfield (Lancs.) and Sellafield (Cumberland). The posts are in an unestablished capacity in the first instance, but there are possibilities of permanent appointment. Salary offered is up to £500 per annum, according to qualifications and experience. Applicants should have had a recognized full period of Architectural training and experience with a practising Architect or Local Authority, etc.

Hostel accommodation is available. Apply in writing, giving age, full details of training and experience to Chief Architect, W.G.10, Ministry of Works, Abell House, John Islip Street, London, S.W.1.

754

**DENBIGH COUNTY COUNCIL.**  
COUNTY ARCHITECT'S DEPARTMENT.

The above County Council invite applications for the under-mentioned appointments in the County Architect's Department, viz:—

- (a) DEPUTY COUNTY ARCHITECT. Salary £750, rising to £850.

Must be a Member of the R.I.B.A. and a registered Architect. Fully experienced in Architectural design for all types of Local Authority buildings, and have had considerable experience in a County Architect's Department.

- (b) TWO ASSISTANT ARCHITECTS. Grade IV, A.P.T. Division. Salary £420-£465.

Preference will be given to Members of R.I.B.A. and registered Architects. Must have had sound experience in Architectural design and in the preparation of working drawings, with full understanding of construction of modern buildings.

- (c) ONE JUNIOR ASSISTANT ARCHITECT. Grade III, A.P.T. Division. Salary £390-£435.
- (d) TWO JUNIOR ASSISTANT ARCHITECTS. Grade II, A.P.T. Division. Salary £360-£405.

Preference will be given to applicants who have passed the Intermediate R.I.B.A. examination. Applicants must be capable of the preparation of working drawings for modern buildings.

- (e) BUILDING INSPECTOR (Wrexham Area). Grade V, A.P.T. Division. Salary £460-£510.

Must hold the Building Inspector's Certificate of the Surveyor's Institute or the R.I.B.A. Must have had experience in the preparation of detailed Reports and Specifications in respect of maintenance and repairs to all classes of County property, and the supervision of such works, also be capable of preparing plans for small alterations or improvements, surveying and levelling.

The salaries specified for the respective appointments are subject to the addition of temporary cost-of-living bonus at present £59 16s. per annum and the appointments will be subject to the provisions of the Local Government Superannuation Act, 1937.

The successful applicants will be required to pass a medical examination, and to reside in such place in the County as the County Council may direct.

The appointment of Deputy County Architect will be subject to termination by three months' notice on either side, and the other appointments by one month's notice on either side.

Applications, giving age, qualifications, and particulars of present and previous appointments, and accompanied by copies of three recent testimonials, to be sent to me, the undersigned, in a sealed envelope, endorsed with a description of the post applied for, by not later than the 30th day of September, 1947.

WILLIAM JONES,  
Clerk of the County Council.

County Offices, Ruthin.  
4th September, 1947.

756

**ARCHITECTURAL ASSISTANTS** are required for Drawing Office duties at Westcott, Bucks, and Harwell, Berks. The posts are in an unestablished capacity, with possibility of permanent appointment, and the commencing salary offered is up to £460 per annum inclusive, according to age and experience. Applicants should have had a recognized period of training and experience with a practising Architect or Local Authority, etc.

Hostel accommodation is available. Apply in writing, giving age and details of training and experience to Chief Architect, W.G.10, Ministry of Works, Abell House, John Islip Street, London, S.W.1.

762

**BOROUGH OF WILLESDEN.**  
APPOINTMENT OF TOWN PLANNING ASSISTANTS.

The Council invite applications for the following appointments on the temporary staff of the Borough Engineer and Surveyor's Department in connection with the preparation of Town Planning and Redevelopment Schemes.

- (a) One First Class TOWN PLANNING ASSISTANT.
- (b) One Second Class TOWN PLANNING ASSISTANT.

Candidates for both appointments must be either an Associate of the Royal Institute of British Architects, an Associate Member of the Town Planning Institute, Professional Associate of the Royal Institution of Chartered Surveyors, hold the Testamur of the Institution of Municipal Engineers or an equivalent qualification, and preferably have had experience in the preparation of Town Planning Schemes.

The salaries attaching to these appointments will be in the Administrative, Professional and Technical Division of the National Council's Scale for the London Area, namely, for appointment (A) Grade V, i.e., £480 per annum rising by two annual increments of £15 and one annual increment of £20 to a maximum of £530 per annum plus cost of living bonus, which at present is £59 16s. 0d., and for appointment (B) Grade IV, i.e., £440 per annum, rising by annual increments of £15 to a maximum of £485 per annum plus cost of living bonus which is at present £59 16s. 0d. per annum.

The appointments will be terminable by one month's notice on either side.

Applications, together with not more than three recent testimonials should be forwarded to the undersigned, endorsed "Town Planning Assistant," not later than 10 a.m. on 3rd October, 1947.

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

R. S. FORSTER,  
Town Clerk.

Town Hall, Dyne Road,  
Kilburn, N.W.6.  
3rd September, 1947.

763

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

Applications are invited for the following permanent appointments, within the scale stated, plus cost-of-living bonus, at present £59 16s.

- (a) QUANTITY SURVEYOR. Grade V, salary £460-£510.
- (b) ARCHITECTURAL ASSISTANT. Grade IV (special maximum £480), salary £420-£460.

Applicants must have the recognized qualifications and experience for the various appointments, which are subject to the provisions and conditions of service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, and will be terminable by one month's notice on either side.

Applications, stating age, qualifications, present and previous appointments, and general experience, together with copies of three recent testimonials, should be forwarded to reach the undersigned by not later than Wednesday, 24th September, 1947. Canvassing in any form will disqualify.

VINCENT J. WILLIS, M.I.Mjn.E.,  
Borough Engineer, Surveyor and Architect.  
Municipal Offices, Duke Street, Chelmsford.  
6th September, 1947.

765

**LONDON COUNTY COUNCIL.**

**ARCHITECTURAL ASSISTANTS.**

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

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

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

Canvassing disqualifies. (1050).

761

**CROWN AGENTS FOR THE COLONIES.**

Applications from qualified candidates are invited for the following posts:—

**ARCHITECTURAL DRAUGHTSMEN** required by Kenya Government, Public Works Department, for three years in first instance. Commencing salary according to experience in scale £500 to £660, plus cost-of-living allowance up to £145 (on salary £500). Outfit allowance £30. Free passages. Candidates should be accurate and rapid draughtsmen, with a sound knowledge of building construction and architect's office experience. Knowledge of water supply, drainage, sanitation, steam installation and air conditioning layouts an advantage. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/N/18411 on both letter and envelope.

777



# HARLOW DEVELOPMENT CORPORATION. APPOINTMENT OF ARCHITECTURAL STAFF.

The Corporation invites applications for the following posts:

(a) ONE ARCHITECT. Commencing salary £1,150.  
Applicants must have first-class experience of architectural design and ability to organize a small office. Town planning experience is useful but not essential.

(b) TWO ARCHITECTS. Salary £750-£1,000.  
Applicants must be experienced architects, with a detailed knowledge of preparation for and management of building contracts in all aspects. Town Planning qualifications will be essential for one of these two posts.

(c) ONE CHIEF ARCHITECTURAL ASSISTANT. A.P.T., Grade VII, rising to Grade VIII, £575 to £700.

Applicants must be capable of directing a drawing office of eight Assistants carrying out a wide variety of architectural work without supervision.

(d) ARCHITECTURAL ASSISTANTS. A.P.T., Grade V, rising to Grade VI, £460-£600.

(e) ARCHITECTURAL ASSISTANTS. A.P.T., Grade III, rising to Grade IV, £390-£465.

A.P.T. Grades shown are those of the National Joint Council for Local Authorities Administrative, Professional, etc., Services. Commencing salary for appointments (b) to (e) will be determined in the light of qualifications and experience. To the salaries quoted for these grades a temporary cost-of-living bonus, at present £59 16s. per annum, will be added, and also (at least for the time being) London weighting of £20 per annum.

The New Town Act, 1946, enables the provisions of the Local Government Superannuation Act, 1937, to be applied to staffs of Development Corporations.

The architectural work will be carried out by a number of self-contained "design units" of about 12 persons, each unit working under the personal direction of Mr. N. Tweddell, A.R.I.B.A., Chief Architect, in association with Mr. Frederick Gibberd, F.R.I.B.A., A.M.T.P.I., Consultant Architect and Town Planner. It is to fill vacancies on the first of these units that applications are invited.

Officers will be required to work in London for approximately three months and thereafter at the Corporation Headquarters at Harlow. Applicants should state whether they would be prepared to live in Harlow if and when accommodation could be provided for them. Applications should be made in writing by 3rd October, 1947, to the General Manager, Harlow Development Corporation, 13, Grosvenor Square, W.1, stating age, professional qualifications where appropriate, full details of experience and work carried out, appointments held, and give the names of three references.

W. ERIC ADAMS,  
General Manager.

11th September, 1947.

## Competition

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

### PROPOSED MEMORIAL AT LIVERPOOL TO THE MISSING AUXILIARY PERSONNEL OF THE SECOND WORLD WAR.

The Imperial War Graves Commission invite ARCHITECTS, who are ex-serving Members of His Majesty's Forces, to submit designs in competition for the Memorial to the Missing Naval Auxiliary Personnel of the Second World War, which they propose to erect on a Site on the Promenade at Liverpool.

Assessor: Mr. Edward Maufe, A.R.A., F.R.I.B.A.

Premiums: £100, £50, £30.  
Conditions and Instructions to Competitors are obtainable from the Secretary, Imperial War Graves Commission, 32, Grosvenor Gardens, S.W.1, on payment of a deposit of £1.

Last day for questions: 24th October, 1947.

Closing date: 19th December, 1947.

## Architectural Appointments Vacant

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

ARCHITECTURAL ASSISTANT required. "final" standard. General practice and good prospects. Also Junior Quantity Surveyor with staff Quantity Surveyor. Excellent opportunity to complete training and gain all-round experience. All particulars to Naylor, Sale & Widdows, St. Mary's Chambers, Derby. 743

LONDON PASSENGER TRANSPORT BOARD. Applications are invited for appointments on the temporary staff of the Architectural Assistants, Structural Engineering Designers and Quantity Surveyors. Commencing salary from £300 to £600 per annum, according to ability, qualifications and experience. Applications, which should give a brief outline of training and experience, to be sent to the Staff Officer (ER/E436), London Passenger Transport Board, 55, Broadway, S.W.1. 722

DRAUGHTSMAN as Assistant to Architectural Department; experienced in building construction, surveying, and levelling. Apply Austin Motor Co., Ltd., Birmingham. 773

## IMPERIAL CHEMICAL INDUSTRIES, LTD.

Wilton Works, require DRAUGHTSMAN to assist with the design and detailing of a large new works. Successful candidates will be appointed to the established staff. Preference will be given to applicants who hold the Higher National Certificate or higher qualification and have the appropriate experience, as follows:—  
DRAUGHTSMEN—ARCHITECTURAL: Design of offices, laboratories, houses, welfare and general industrial buildings. CIVIL: Design of roads, railways, drains and water services. STRUCTURAL: Design of buildings and structures, and design and detailing of reinforced concrete work for industrial buildings. MECHANICAL: Design of pipework for steam, gas and water, compressed air stations, lay-out of chemical plant, etc. POWER STATION: Design and lay-out of modern H.P. Boiler Plant and Power Plant. ELECTRICAL: Lay-out of plant electrical installations, including motors, starters, distribution boards, cables and lighting, and necessary calculations. INSTRUMENT: Lay-out of mechanical and electrical instrument installations for Chemical plant. Preference for men experienced in modern automatic control instruments for temperature pressure and flow. Applications, giving full details, should be submitted to the Personnel Manager, Imperial Chemical Industries, Ltd., Wilton Works, P.O. Box 54, Middlesbrough, Yorks., quoting advert. ref. ICI/X/29. 714

ARCHITECTURAL DRAUGHTSMAN required immediately with good general knowledge of building construction, surveying and levelling. Write, stating experience, age, and salary required, to Box 405, 8, Serle Street, London, W.C.2. 724

QUANTITY SURVEYOR required by Imperial Chemical Industries, Ltd., Wilton Works, Middlesbrough. Experience necessary in Taking Off, Abstracting, Billing and Pricing Works of a Building and Civil Engineering character. The successful candidate will be appointed to the established staff. Applications, giving full particulars, should be submitted to the Personnel Manager, Imperial Chemical Industries, Ltd., Wilton Works, P.O. Box 54, Middlesbrough, Yorks., quoting advert. ref. No. ICI/X/30. 726

ARCHITECT'S SENIOR ASSISTANT required at once in busy office; must be capable of preparing full working and detail drawings. S. G. Scales, A.R.I.B.A., National Provincial Bank Chambers, Eastbourne. 747

ARCHITECTURAL ASSISTANT required immediately in London office; must be good draughtsman of intermediate standard; some experience of industrial buildings an advantage. Box 749.

QUALIFIED ARCHITECT required by London Company producing prefabricated Schools and Commercial Buildings; excellent opportunity for young man recently qualified; good prospects. Apply, giving full particulars of age, experience, and salary required, to Box 757.

DRAUGHTSMAN required, with experience in Masonry, for company manufacturing Cast Stone; preference given to one with experience in R.C. design. State age, salary required, to Gillingstone, Gt. South West Road, Feltham, Middx. 764

ARCHITECTURAL ASSISTANT required immediately; Intermediate standard or better; surveys and levelling, working drawings and details; quick accurate draughtsman; busy office. Write, stating age, experience, and salary required, to Ruddle & Wilkinson, F./L.R.I.B.A., Long Causeway Chambers, Peterborough. 766

QUALIFIED QUANTITY SURVEYORS for office and on site required by large Oil Company operating in the North-West and in South-Eastern England, for large architectural and civil works of industrial nature; age 30/40. Write, stating full particulars of experience, qualifications, and salary required, to Box 768.

CIVIL ENGINEER required by large Oil Company operating in the North-West and in South-Eastern England; to supervise outside construction work; must be corporate member of Institute of Civil Engineers; applicants should have wide experience, including reinforced concrete, heavy foundations, piling, earthworks, drainage and sewerage disposals, roads, railways, etc.; age about 35. Send full particulars to Box 769.

REINFORCED CONCRETE DRAUGHTSMAN, capable of designing and detailing heavy industrial foundation work and framed structures, required by large Oil Company in North-West; applicants must be capable of simple design and have good experience in detailing reinforcements for continuous structures; salary according to age and experience. Write, stating age and qualifications, and giving details of experience, also when available, to Box 770.

ARCHITECTURAL ASSISTANT, passed A.R.I.B.A. examination, required for old-established British private firm in Far East; age 25/28; capable and trained in general practice; salary £50 per month, and high cost of living allowance. Applications, with copies of testimonials, to Box FJ.574, Deacon's Advertising, 36, Leadenhall Street, E.C.3. 776

SENIOR and JUNIOR ARCHITECT'S ASSISTANTS required, with experience general practice. Write, stating age, experience, and references, to F. A. Smith, Chartered Architect, 65, London Road, Leicester. 775

J. DOUGLASS MATHEWS & PARTNERS, Chartered Architects, 3, Ebury Street, Victoria, S.W.1, require qualified ARCHITECTURAL ASSISTANT; ex-Serviceman preferred. 687

ARCHITECTS require JUNIOR ASSISTANT; A.R.I.B.A. Intermediate standard; mainly commercial buildings; attractive situation for suitable applicant. Watson & Johnson, 5, Victoria Square. 746

## Architectural Appointments Wanted

SENIOR ASSISTANT. Fully qualified, Dipl. Arch. (L'pool), requires immediately progressive position with Liverpool firm of Architects; good general experience; capable of carrying through work from sketch plan stage to in, working drawings, details, etc., without supervision. Box 403.

CAPABLE DRAUGHTSWOMAN requires position in progressive London office; 2 years' general drawing office experience. Box 404.

Q.S. JUNIOR, 3½ years' experience abstracting, working up, billing, etc., seeks position to gain further experience, with prospects of advancement; salary of secondary consideration; can work on own initiative. Box 405.

SWISS ARCHITECT (28), married, fully qualified (Dipl. State Techn. High School, Zürich), seeks interesting post overseas; speaks English, French and German; special knowledge acquired if necessary; testimonials and samples of work supplied on request. Please state salary and living conditions. Vollers-Milner, The Longcroft, Barnston, Wirral, Cheshire. 407

ARCHITECTURAL ASSISTANT. Inter. A.R.I.B.A. with several years' office experience, requires position in Preston area. Box 408.

A.R.I.B.A. (34) seeks responsible appointment; wide experience, including control of staff and administration; salary £650 p.a. Box 410.

QUALIFIED ARCHITECT, age 41, requires responsible position, with view to partnership; experienced hospitals, licensed premises, factories, housing estates, working drawings, and quantity surveying; salary £600 p.a. Box 411.

**ARCHITECTURAL ASSISTANT** (32), J.I.C. scale, Technical Grade II, 6 years' experience with Scots County Council, wishes post where house is available. Box 409.

**MATRICULATED** ex-Serviceman, very keen to resume work, desires post with Building Surveying Firm for Training as Building Surveyor; a little previous experience, night school. Box 412.

**ARCHITECT'S ASSISTANT** (age 25), passed Intermediate, 6 years' office experience, seeks position in progressive architect's office; working drawings,  $\frac{1}{4}$  in. and full size details, surveys, etc. Box 415.

**ARCHITECTURAL ASSISTANT** requires post in South with large firm or architectural department of big concern; Inter. R.I.B.A. standard; working drawings, design, site surveys. Box 413.

**JUNIOR TRACER** (Female) requires position with large firm or architectural department of big concern; moderate experience; can produce drawings; position required in South. Box 414.

**JUNIOR ARCHITECTURAL ASSISTANT** (aged 19) requires progressive position in London Architect's office; 3½ years' experience;  $\frac{1}{4}$  in. scale working drawings;  $\frac{1}{4}$  in., 1 in., and full size details; tracing and colouring; available now. Box 417.

### Other Appointments Vacant

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

**WANTED**.—**DRAUGHTSMAN**, experienced in the preparation of masonry details for pattern-shop, by Cast-Stone manufacturers in Yorkshire. State experience and salary required to Box 715.

**WANTED**.—**REINFORCED CONCRETE ENGINEER**, experienced in pre-cast floor construction, by firm in Yorkshire. State experience and salary required, to Box 716.

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

### Other Appointments Wanted

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

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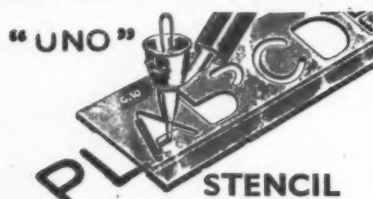
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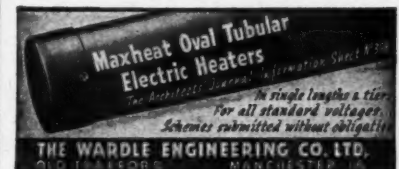
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Aidas Electric Ltd.	x	English Electric Co., Ltd.	xi, ix	Merchant Adventurers, Ltd.	xlviii
Anderson Construction Co., Ltd.	xliii	English Joinery Manufacturers' Assoc.	liv	Morris, Herbert, Ltd.	ix
Anderson, D., & Son, Ltd.	—	Faculty of Surveyors of England, The...	xxxix	Morris, M. A., Ltd.	xlii
Ascot Gas Water Heaters, Ltd.	—	Ferodo, Ltd.	—	Mumford, Bailey & Preston, Ltd.	ix
Associated Metal Works (Glasgow), Ltd.	iv	Fibreglass, Ltd.	xxx	Northern Polytechnic	ix
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Bacterol, Ltd.	xxii	Fisher & Ludlow, Ltd.	xxv	Odoni, Alfred A., & Co., Ltd.	ix
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Boulton & Paul, Ltd.	xliii	Hall, J. & E., Ltd.	—	Sankey, J. H., & Sons, Ltd.	xxii
Boyle, Robert, & Son	ii	Hall, Matthew & Co., Ltd.	xlvii	Scaffolding (Great Britain), Ltd.	—
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Bratt, Colbran, Ltd.	—	Harvey, G. A., & Co. (London), Ltd.	—	Scomastic, Ltd.	xxxvi
Briggs, William, & Sons, Ltd.	lxvii	Henderson, P. C., Ltd.	lix	Serck Tubes, Ltd.	xiv
British Dolomite Co. (1938), Ltd.	lvi	Henderson Safety Tank Co., Ltd.	xlviii	Service Electric Co., Ltd.	lx
British Gas Council	xxiv	Hollway, W. F., & Brother, Ltd.	xlix	Sharma, R. W., Ltd.	lx
British Trane Co., Ltd.	ii	Horsley Bridge & Thomas Piggott, Ltd.	—	Shires & Co. (London), Ltd.	—
Britmac Electrical Co., Ltd.	—	Hurseal, Ltd.	xviii	Simplex Electric Co., Ltd.	xxxiv
Broadcast Relay Service, Ltd.	—	Imperial Chemical Industries	ix	Smith's English Clocks, Ltd.	vii
Bromsgrove Guild, Ltd.	xxxvi	International Correspondence Schools, Ltd.	lx	Smith's Fireproof Floors, Ltd.	xxxv
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Business Efficiency Exhibition	—	Laing, John, & Son, Ltd.	—	Spiral Tube & Components Co., Ltd.	ii
Cable Makers' Association	xxxvii	Lamont, James H., & Co., Ltd.	ii	Sundeala Board Co., Ltd.	—
Camelon Iron Co., Ltd.	—	Lead Industries Development Council...	—	Taylor Woodrow Construction, Ltd.	—
Carlisle Electric Manufacturing Co., Ltd.	—	Leatherfloor, Ltd.	xxxviii	Thompson Beacon Windows, Ltd., John	—
Carlton Metal Moulding Co., Ltd.	liii	Lever, James, & Sons, Ltd.	lxiii	Thornborough & Son (Manchester), Ltd.	—
Cement Marketing Co., Ltd.	xxxix	Lightfoot Refrigeration Co., Ltd.	—	Thorp, John B.	lx
Clifford Aero & Auto, Ltd.	—	Limmer & Trinidad Lake Asphalt Co., Ltd.	—	Timber Development Association	xxxvi
Clark & Fenn, Ltd.	lvi	Lloyd Boards, Ltd.	xxxix	Tretol, Ltd.	—
Colthurst Symons & Co., Ltd.	—	Lockerbie & Wilkinson (Tipton), Ltd.	lxiii	True Flue, Ltd.	xxxviii
Coit, W. H. (London), Ltd.	iii	Loft Ladders, Ltd.	liv	Tucker, Duncan (Tottenham), Ltd.	—
Copper Development Association	—	London Brick Co., Ltd.	xv	Turner's Asbestos Cement Co., Ltd.	xxi
Croft Granite, Brick & Concrete Co., Ltd.	i	Mackay Industrial Equipment, Ltd.	xxxlii	United Steel Companies, Ltd., The	—
Crompton Parkinson, Ltd.	—	McCall & Co. (Sheffield), Ltd.	liii	Venesta, Ltd.	lv
Cygnat Joinery, Ltd.	xxviii	McCarthy, M., & Sons, Ltd.	lx	Vulcanite, Ltd.	lii
Davidson, C., & Sons, Ltd.	—	Midland Electric Manufacturing Co., Ltd.	xvii	Wardle Engineering Co., Ltd., The	lx
Denny, Mott & Dickson, Ltd.	xxxv	Miles Martin Pen Co., Ltd.	—	West, A., & Partners, Ltd.	ix
Design Group, Ltd.	ii	Mills Scaffold Co., Ltd.	lxiv	Wheatly & Co., Ltd.	xxvii
Dreadnought Fireproof Doors (1930), Ltd.	—	Mint, Birmingham, Ltd.	lxix	Wood Wool Building Slab Manufacturers' Assoc.	xvi
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Ellison, George, Ltd.	lx		—		—

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PAGE  
xlvi  
lxi  
xlii  
lxi  
lx  
lii  
xxxii  
xi  
xxv  
xxix  
i, xlviii  
xxlii  
xxxvi  
xiv  
lxi  
lxi  
xxxiv  
vii  
xxxiv  
ii  
lxi  
xxvi  
xxxviii  
xxi  
lv  
lii  
lxi  
lx  
xxvii  
xvi

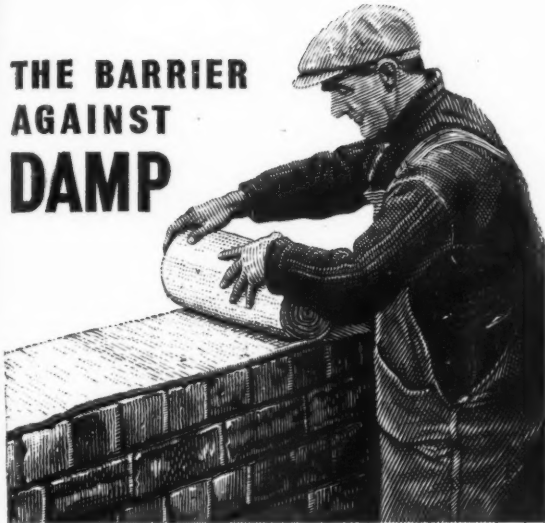
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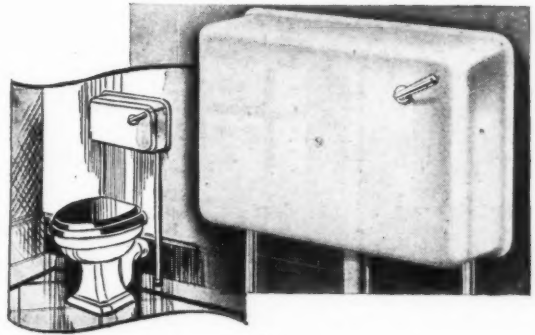
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