

# THE ARCHITECTS' JOURNAL

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## DIARY NEWS

from AN ARCHITECT'S  
Commonplace Book

## ASTRAGAL

## LETTERS

## PHYSICAL PLANNING

## CURRENT BUILDINGS

## INFORMATION

## CENTRE

Physical Planning      Lighting  
Structure      Heating & Ventilation  
Materials      Questions & Answers  
Acoustics & Sound Insulation

## INFORMATION SHEET

## SOCIETIES & INSTITUTIONS

## PRICES

Architectural Appointments  
Wanted and Vacant

No. 2693]

[Vol. 104

THE ARCHITECTURAL PRESS

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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers, is given below. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1.	Museum 0974
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 9, Belgrave Square, S.W.1.	Sloane 0421
ADA	The Aluminium Development Association, 67, Brook Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
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
BC	Building Centre. 9, Conduit Street, W.1.	Mayfair 2128
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 25, Victoria Street, S.W.1.	Abbey 5422-3
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
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. Egginton House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Radlett 5616
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322
DIA	Design and Industries Association. 9, Conduit Street, W.1.	Mayfair 0477
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 4, Hobart Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767
MARS	MARS Group (English Branch of CIAM). 46, Sheffield Terrace, W.8.	Park 7678
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Belgrave Square, S.W.1.	Sloane 4522
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service. St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Abbey 1010
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 7070
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Holborn 2770
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 2881/2/3
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211/2
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Temple Bar 8274
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C.	Chancery 5313
SAC	Scientific Advisory Committee, Ministry of Works, Lambeth Bridge House, Albert Embankment, S.E.1.	Reliance 7611, Extension 1450
SIA	Society of Industrial Artists. 20, Wellfield Avenue, N.10.	Tudor 7027
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 6147
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815

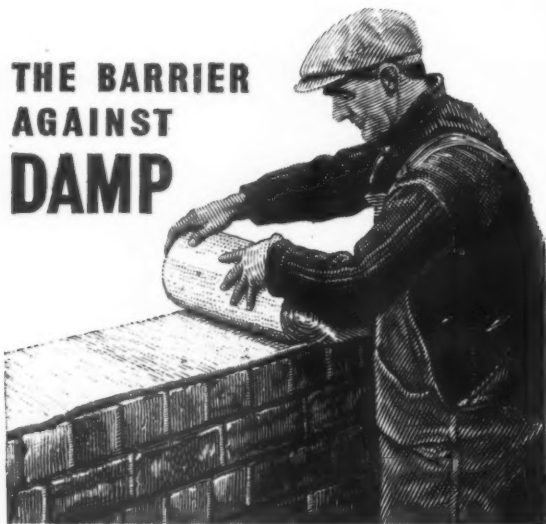
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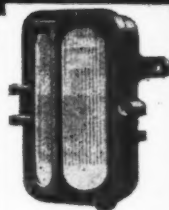
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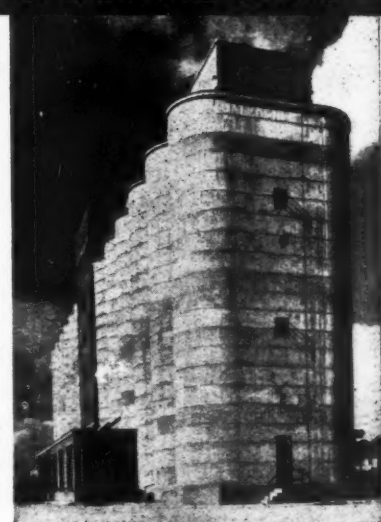
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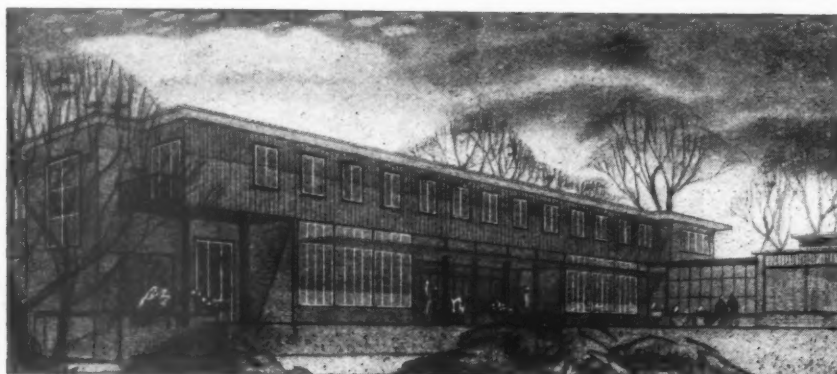
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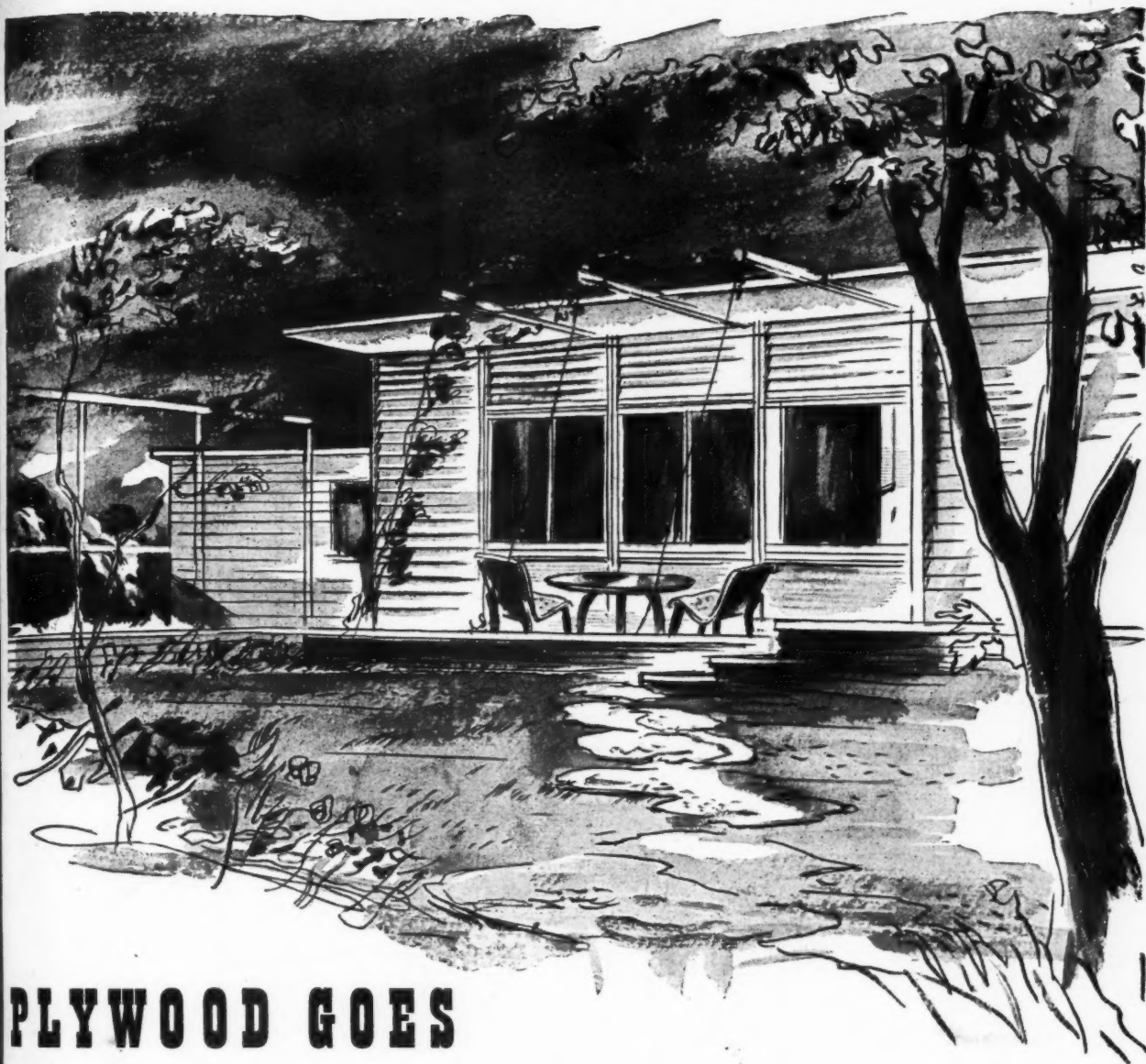


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is such that millions of square feet were used for the "Mosquito" aircraft, for M.T.B.s and for numerous other wartime purposes.

Plywood bonded with these plastic resins is suitable for many outdoor constructional jobs — flush doors, cladding to walls, porches, awnings, concrete shuttering, etc. It can be recognised by one of these marks which is stamped on every piece:



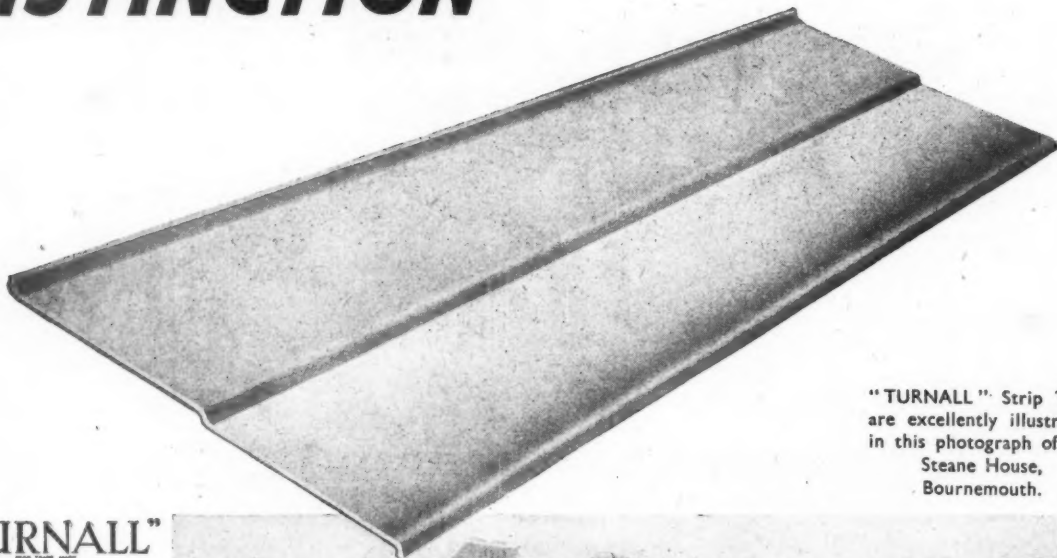
Enterprising manufacturers who would like to experiment with this new and better plywood should ask their suppliers about it.



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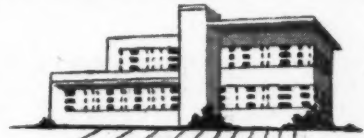
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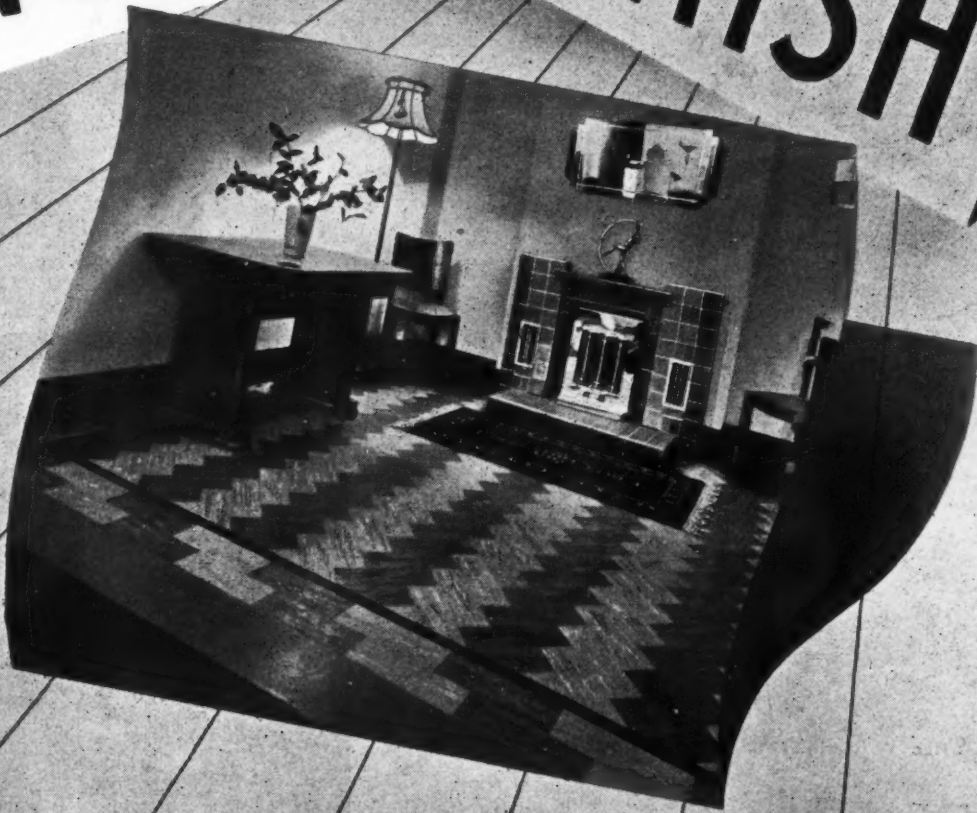
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# NORTH

# BRITISH



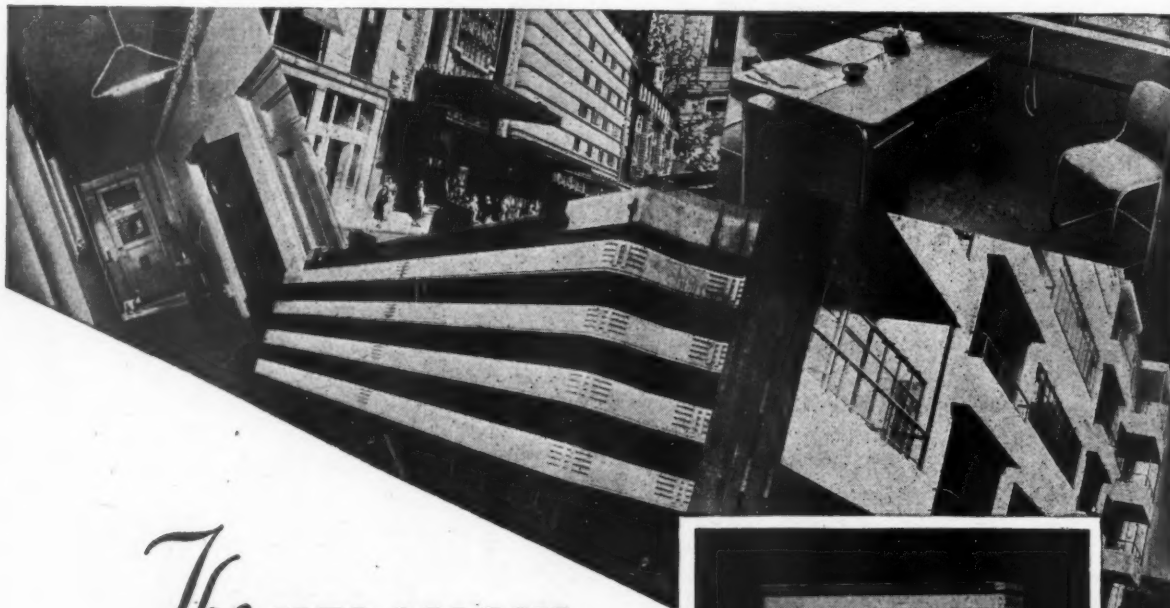
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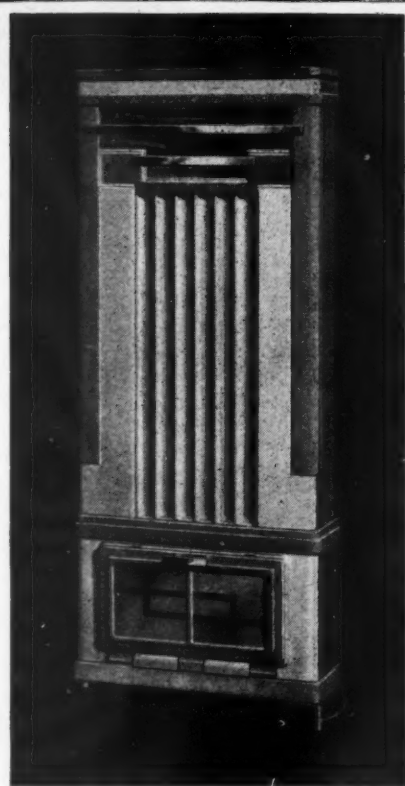


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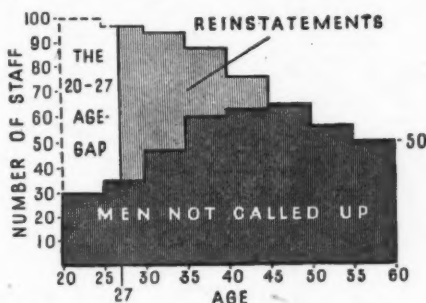
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# THE SEVEN-YEAR GAP

## Shortage of promising young men

**F**OR seven years, business and industry have been unable to recruit young men to train for responsible positions. Nearly all have been going into the Services.

This absence of "new blood" may not yet be keenly felt. Many firms find their immediate needs met by reinstated staff. When they say, "No Vacancies," they believe what they say.



In this chart, the whole area represents the male administrative, executive and managerial staff of a typical engineering firm before the war, analysed by age-groups. The white portion is the present 20-27 gap that must be filled to restore the balance.

Yet, as the diagram shows, a gap remains in the 20-27 age-group—a gap that older men cannot fill. This hiatus in the ranks of salaried staff will prove dangerous to the future management of any business.

In ten years, it will mean a shortage of responsible men between 30 and 37; in twenty years, between 40 and 47. The time to fill this gap is now, before the young men of ability and promise drift into blind-alley jobs.

The 20-27's are beginning to come out of the Forces in rapidly increasing numbers. They are more fortunate than their fathers were after World War I. This time, the Government has set up a nation-wide appointments service to prevent the waste of talents and capabilities needed by business and industry.

### A ROSTER OF ABLE MEN

Thirteen Regional Appointments Offices are building up, for employers to call upon, a great national roster of men (and, of course, women) of promise in different fields. As the 20-27's come out of the Services, all of the requisite standard who apply are interviewed, classified and registered. Those who are undecided about their careers are "screened" to discover special aptitudes, by a method successfully tested on a large group of B.A.O.R. "volunteers."

Thus, men are matched to jobs. Employers can draw upon the whole country, if need be, for the right men

to fill the 20-27 age-gap. And they are saved endless fruitless interviews, since *only* likely candidates are put forward.

### LETTERS OF APPRECIATION

Since VE-day, more than 30,000 responsible posts have been successfully filled; and hundreds of appreciative letters have been received from employers and applicants alike. A typical example, from an engineering firm in the Midlands:

"May I take this opportunity of thanking you and your staff for the help you have so generously given to me in my rather difficult task. The high standard of all the applicants showed how careful had been their selection, thus saving considerable time over useless interviews."

To make sure of securing the most promising men, and to learn about the Government Training Schemes which increase their value, employers are invited to get in touch with their nearest Appointments Office. Offices are established in the following towns:—

LONDON: 1-6 Tavistock Square, W.C.1

CAMBRIDGE: 5 Salisbury Villas, Station Road

READING: 23 Valpy Street

BRISTOL: Lyndale Hotel, Berkeley Square

BIRMINGHAM: 239 Broad Street

NOTTINGHAM: Commerce Chambers, Upper Parliament Street

LEEDS: Greek Street Chambers, Greek Street

MANCHESTER: Commercial Chambers, 47 Corporation Street

LIVERPOOL: Cotton Exchange, Bixteth Street

NEWCASTLE-ON-TYNE: 153 Barras Bridge

EDINBURGH: 5 Rothesay Terrace

GLASGOW: 450 Sauchiehall Street

CARDIFF: 8 Cathedral Road

### TWO TRAINING SCHEMES

To help selected men and women from the Forces or other war service to make up for lost time in acquiring professional or business skills, two training schemes of direct interest to employers are in operation:

**Business Training Scheme:** A 3-months' course in the general structure, practice and administration of business, followed by practical training in a particular firm. Financial assistance where necessary.

**Further Education and Training Scheme:** Financial assistance in completing higher professional or technical studies interrupted by war service.

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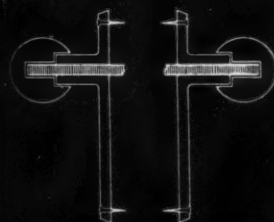


## A KNOB'S JOB

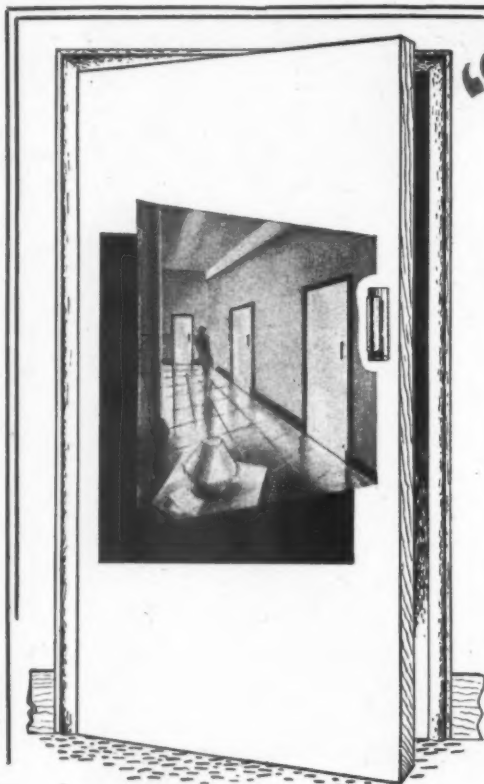
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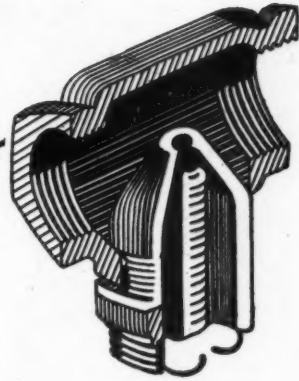
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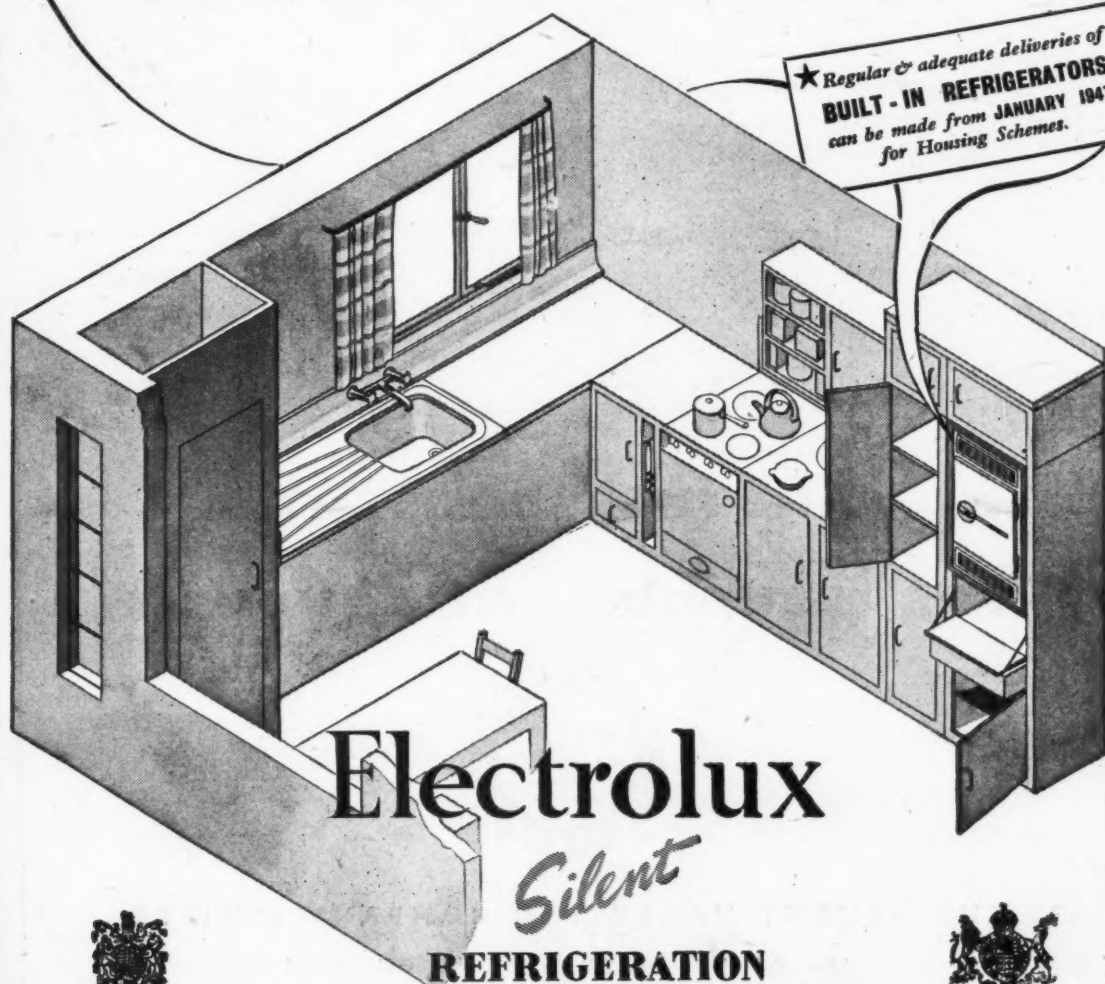




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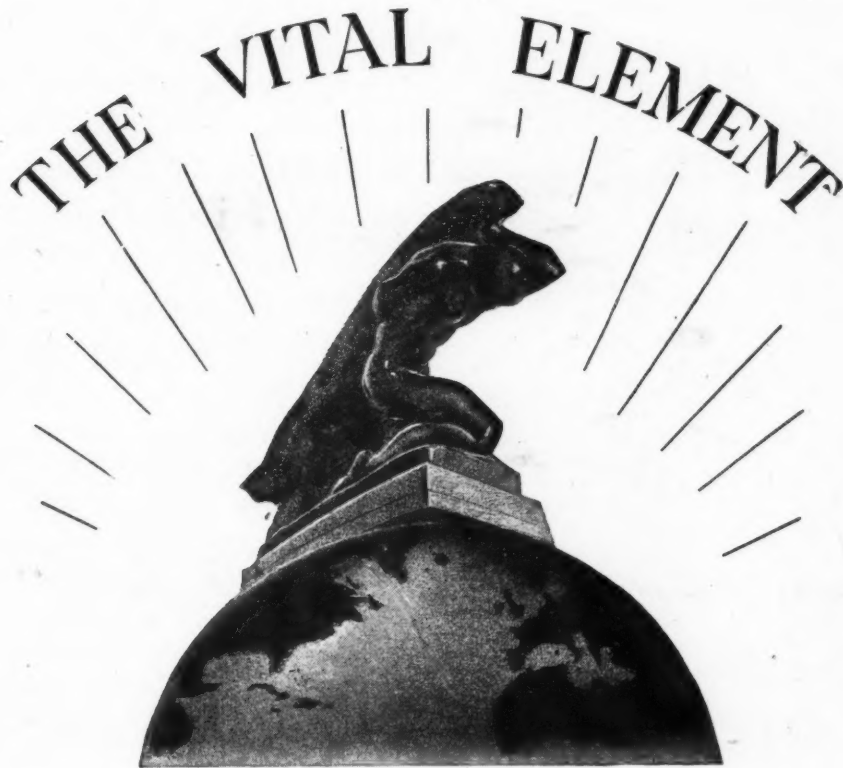
17 miles by  
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## *Magic war-time words*

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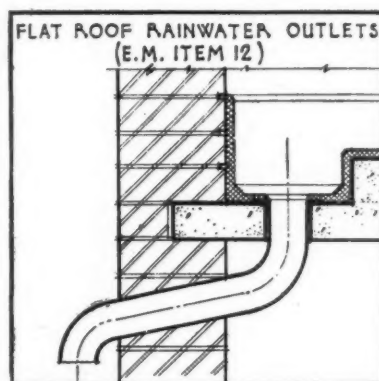
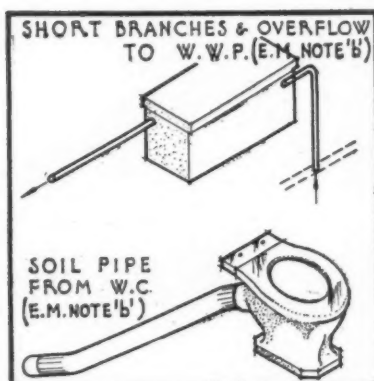
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## The use of **LEAD** in house building . . .

must, for the time being, be restricted to certain "vital minimum uses" for which it is pre-eminently suited. The amount of lead made available for building purposes is regulated by a Ministry of Works Economy Memorandum designed to ensure the best use of the present limited supplies. A leaflet "Vital Minimum Uses of Lead in House Building" summarises the essential facts. Illustrated below are two examples taken from the leaflet, copies of which may be obtained from L.I.D.C.



### SUPPLY AND DISTRIBUTION PIPING

For plumbing fixtures to which several pipe connections must be made it is essential that full provision be made for any variation in the fixed points to be connected up. Flexibility in the pipe forming the short connections will reduce site hours and allow for the inevitable variations in dimensions of both building work and sanitary appliances. A maximum length of 3' 0" of lead or lead alloy pipe may be used to provide fixing tolerances at connections to fittings. (See Note (b) to E.M.).

### SOIL AND SOIL VENT PIPES

Lead may not be used for these purposes except a maximum length of 3' of pipe to provide a fixing tolerance at connections to appliances. (See Item 7 and Note (b) of E.M.).

### RAINWATER PIPES

For outlets for flat roofs, particularly where a swan neck is required, lead pipe is frequently the only satisfactory material. While the use of lead pipe for long straight stacks is not permitted a maximum of 3' of pipe can be used to provide a connection between a flat roof outlet and a down pipe. (See Item 12 of E.M.).

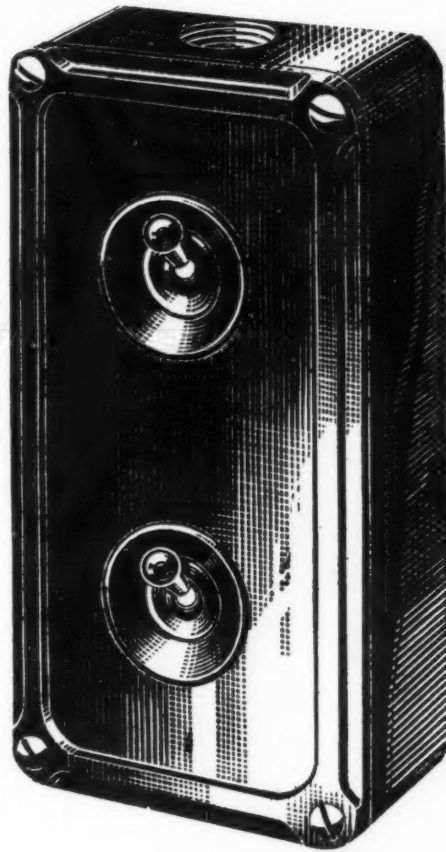


The Technical Information Bureau of the Lead Industries Development Council, which exists to give assistance on problems relating to the use of lead sheet and pipe in building work, will be pleased to give advice on any questions relating to the present restricted uses of the materials.

LEAD INDUSTRIES DEVELOPMENT COUNCIL, EAGLE HOUSE, JERMYN STREET, LONDON, S.W.1  
LEAD TECHNICAL INFORMATION BUREAU, 25 LOWER BELGRAVE STREET, S.W.1

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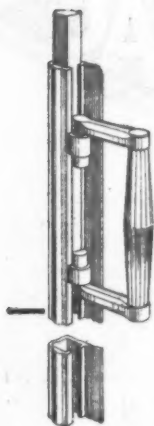
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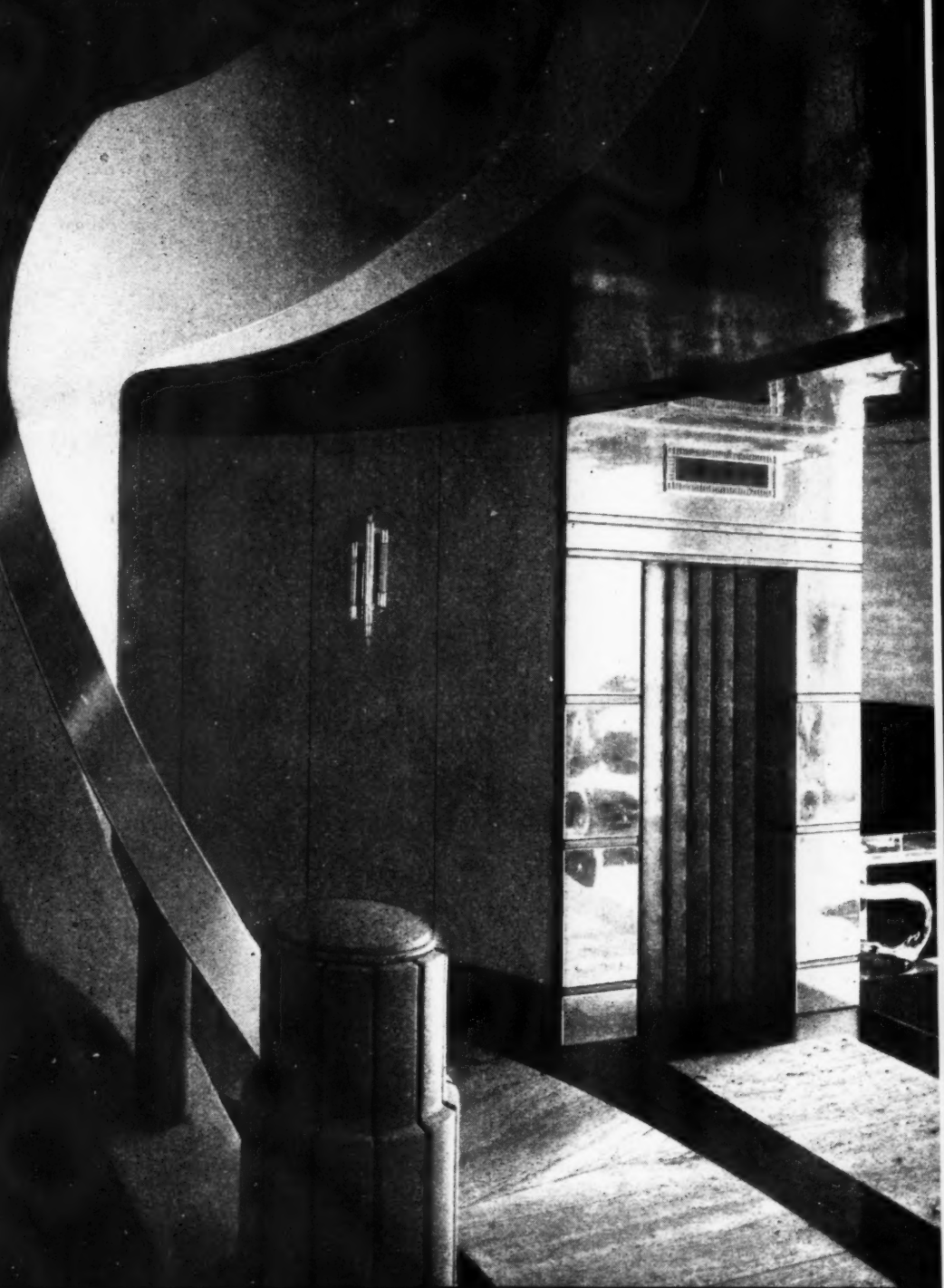
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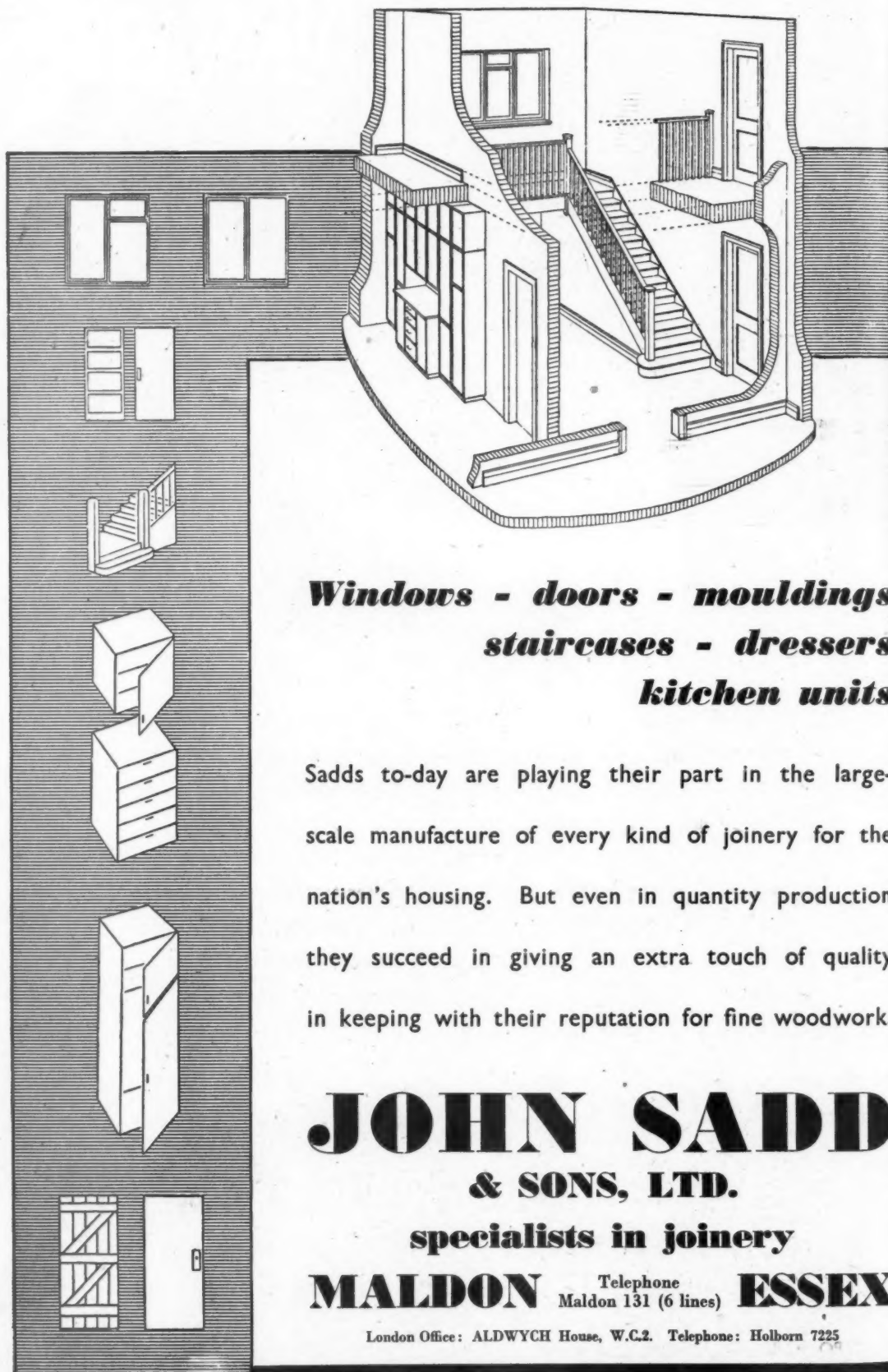
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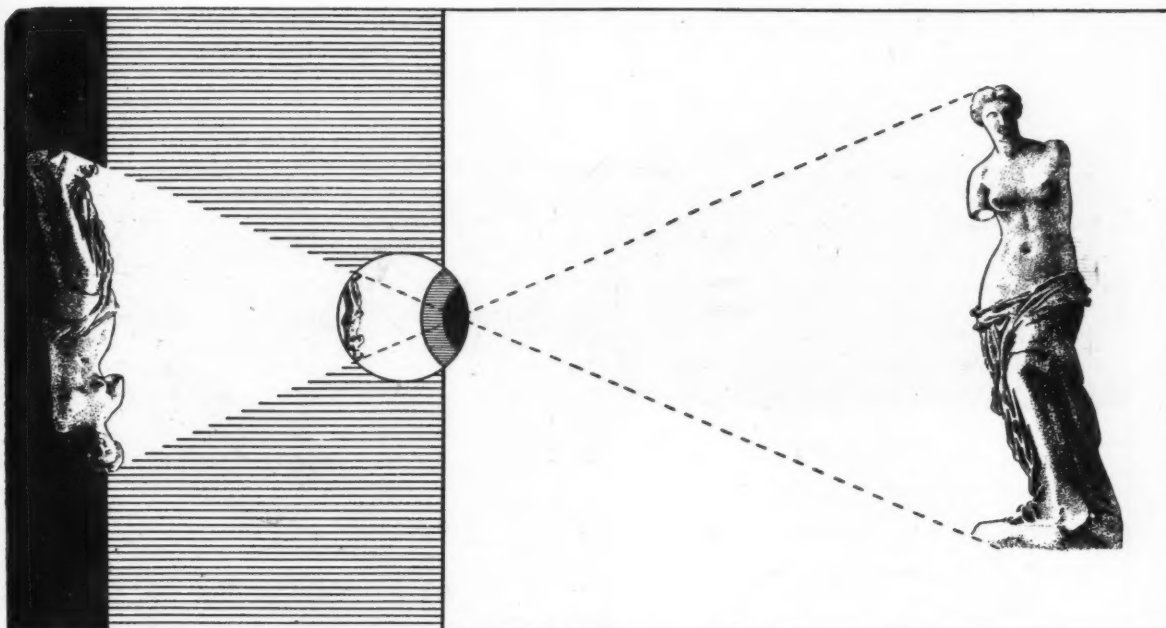
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## THE EYE OF THE BEHOLDER

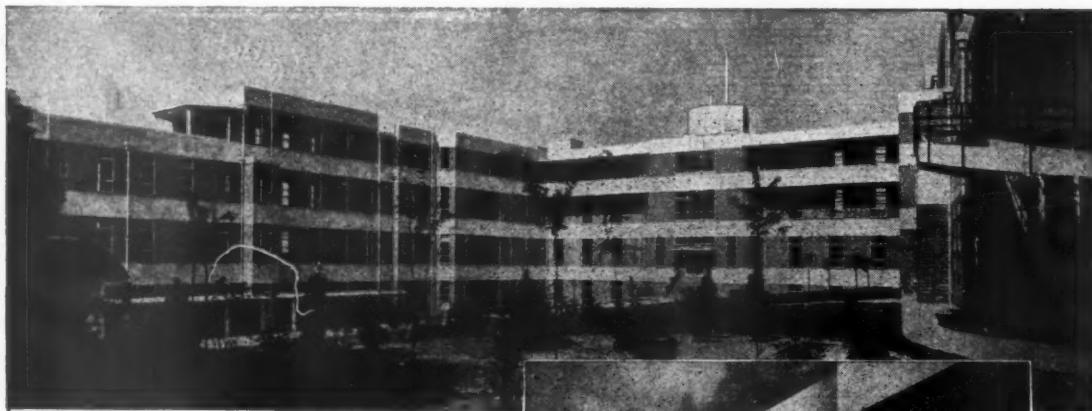
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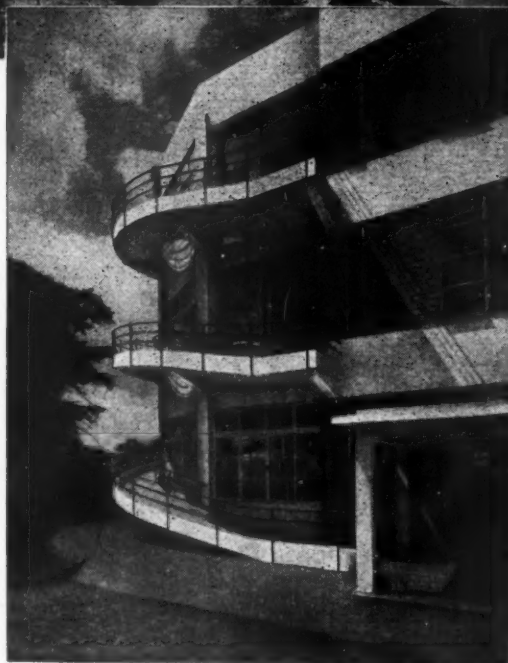
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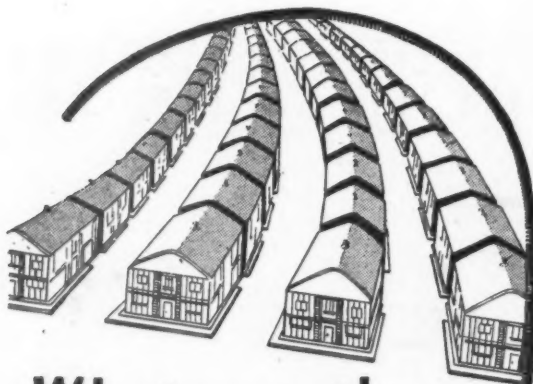
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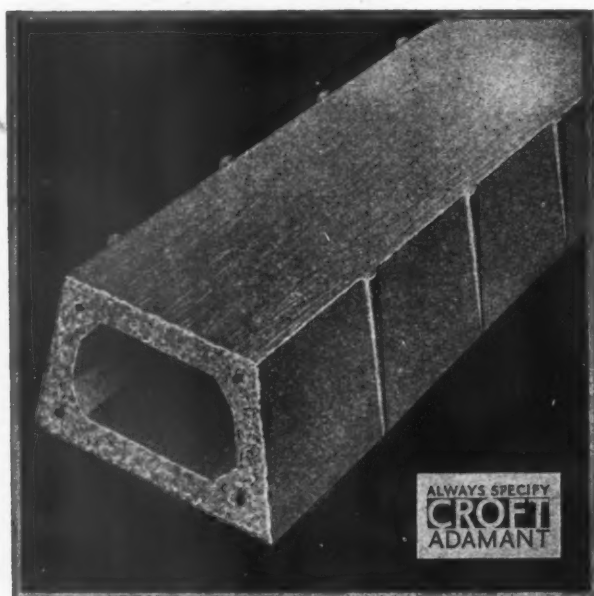
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The advertisement features three distinct kitchen appliances. At the top is a 'BELGRAVIA' HOT CLOSET AND CARVING TABLE, a long, narrow unit with a sink and a hot water tap. Below it to the left is THE 'GROSVENOR' CENTRAL RANGE WITH BAIN-MARIE, a large unit with two ovens and a central hot water tap. To the right of the central range is a VEGETABLE & PUDDING STEAMER, a tall, narrow unit with a large circular door. The background is a tiled floor with a grid pattern.

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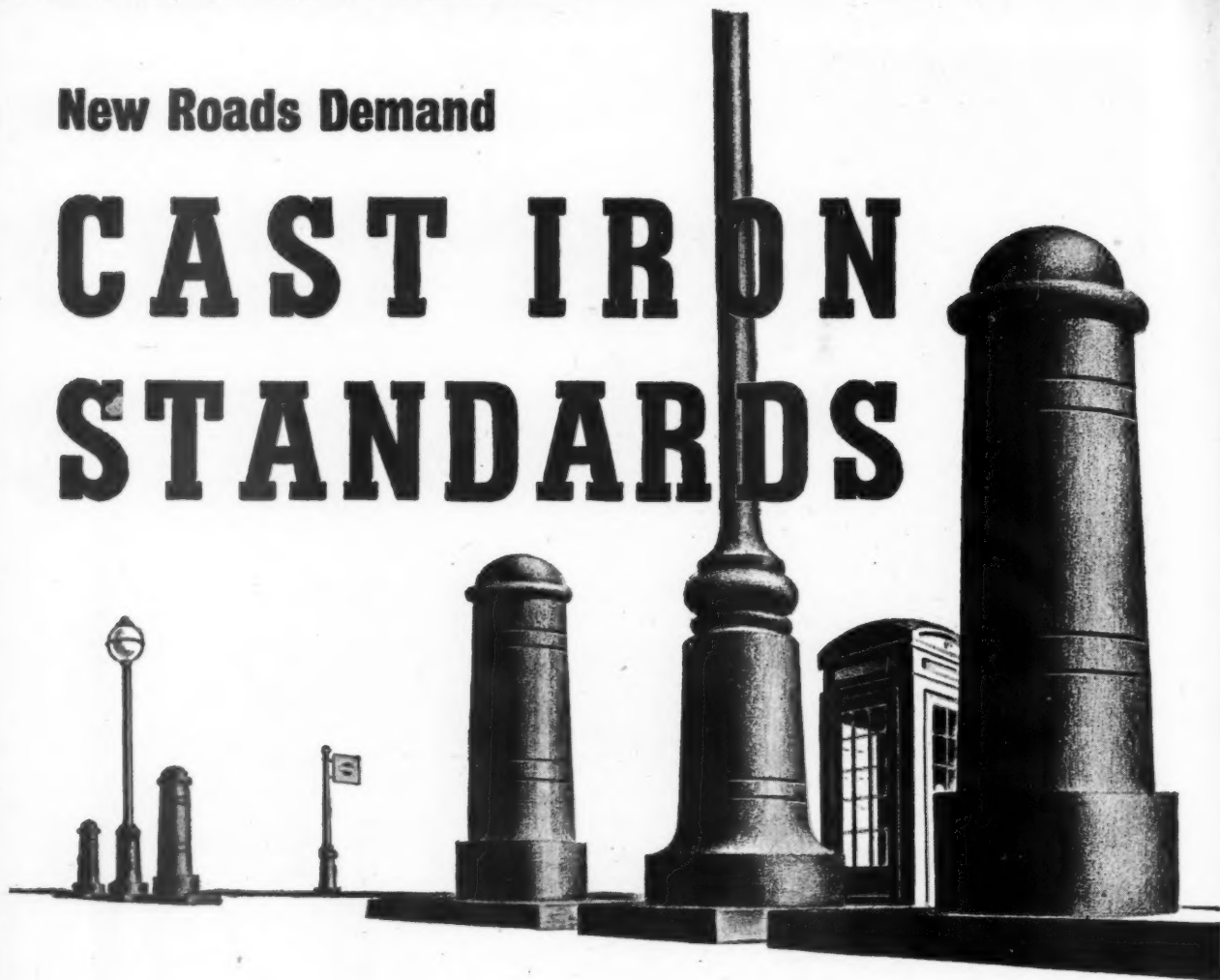
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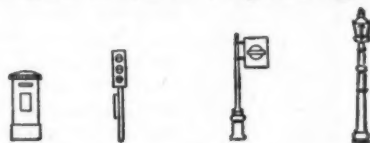
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The British Cast Iron Research Association has a Building Uses Department which is available for dealing with enquiries from architects and builders about cast iron.

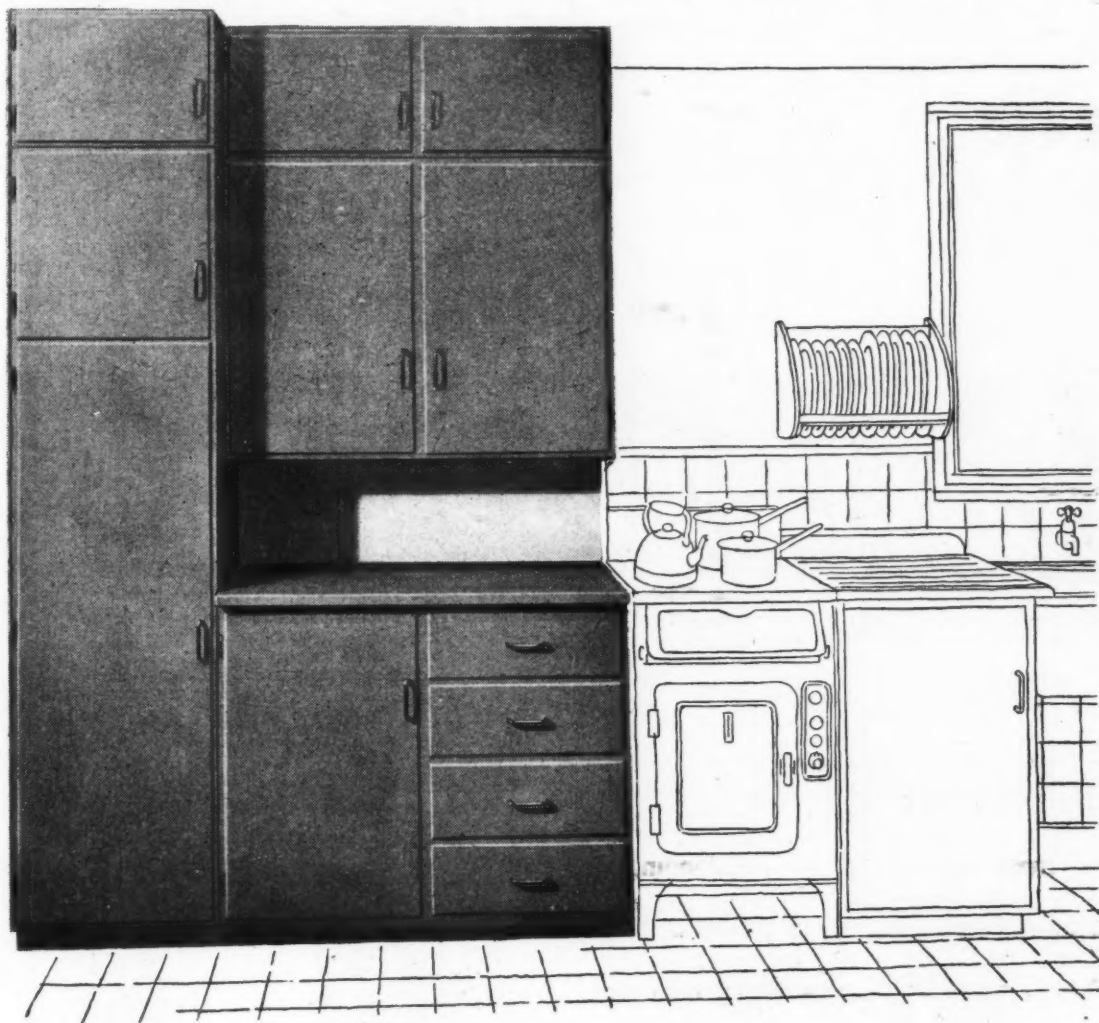
Mr. Derek L. Bridgwater, F.R.I.B.A., is Consultant to the Department.

*Enquiries should be addressed to THE BUILDING USES DEPARTMENT,  
BRITISH CAST IRON RESEARCH ASSOCIATION, ALVECHURCH, BIRMINGHAM*





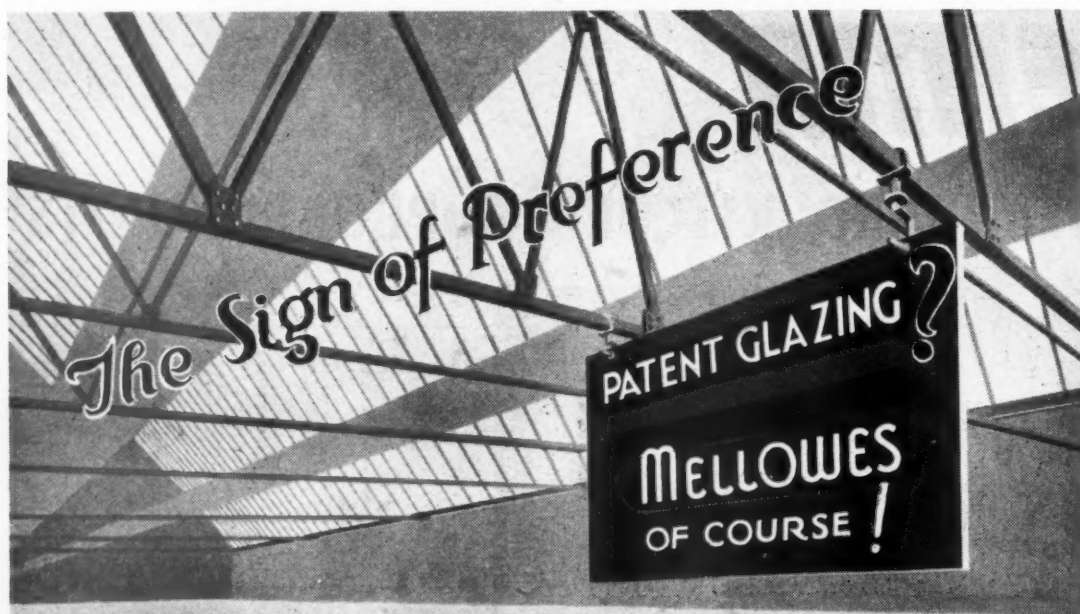
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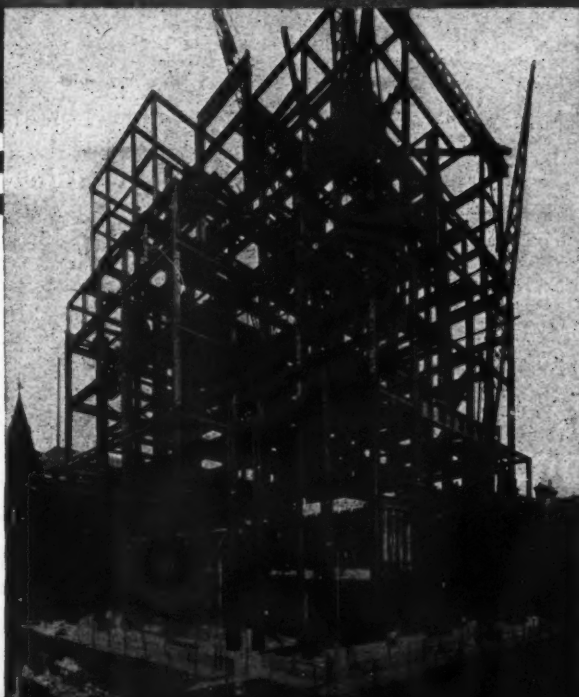
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## DIARY FOR SEPTEMBER OCTOBER AND NOVEMBER

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.

**DURHAM.** *Town Planning Institute Summer School.* At Durham University. In addition to the English consultants, planning officers and local authority representatives, visitors are coming from the United States, France, Belgium, Sweden, Poland, Czechoslovakia and Holland. The school will be opened by the Rt. Hon. Lewis Silkin, M.P., Minister of Town and Country Planning. The main subjects discussed will be: (1) *The Planning of Historical Cities and Derelict Areas as exemplified in Durham.* (Thomas Sharp, author of the plans for Durham and Exeter, and of several well-known publications on Town and Country Planning. Mr. Sharp was recently selected to draw up the preliminary plan for the Crawley-Three Bridges New Town). (2) *New Towns.* (Gordon Stephenson, Senior Research Officer, Ministry of Town and Country Planning). (3) *Reconstruction.* (Thomas E. North, Borough Architect and Planning Officer of West Ham). (4) *Planning for Rural Communities.* (Professor A. W. Ashby, Professor of Agricultural Economics, University of Oxford). (5) *Outline Plans.* (E. H. Doubleday, County Planning Officer, Warwickshire). (6) *The Place of the Trading Estate in Planning.* (Lt.-Col. Methven, North Eastern Trading Estates Ltd.). The chairman at all sessions will be Mr. G. L. Pepler. All the delegates to the school are being housed in the Halls of Residence of Durham University, and the City Council is generously providing lecture-rooms and exhibition space. Tours will be made to the Team Valley Trading Estate and the Roman Wall. (Sponsor, TPI.) SEPT. 5-8

**LIVERPOOL.** *Exhibition of Liverpool Drawings.* by Gordon Hemm. At the Hugo Lang Gallery, Whitechapel, Liverpool. SEPT. 5-14

**LONDON.** *Summer Exhibition of French and English Paintings, Drawings, Prints.* At Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. SEPT. 5-28  
*Association of Public Lighting Engineers' Conference and Exhibition.* At the Central Hall, Westminster, S.W.1. Papers to be read include: *Public Lighting—Administration.* E. C. Lennox; *the Public Lighting Engineer, His Organisation, Staff and Training, with Postscript to Councillors,* Ronald Parker; and *Street Lighting From the Motorists Point of View,* Edward Fryer. The exhibition of street lighting equipment will be held on the ground floor of the Central Hall. Visits will be paid to Windsor, for ladies only, to Watson House, Fulham; and the Illumination Laboratory of the GEC at Wembley, and a tour will be

made to inspect lighting installations. Mr. Alfred Barnes, M.P., Minister of Transport, will open the conference and the exhibition, and Mr. W. S. Morrison, M.C., K.C., M.P., will be the principal guest at the annual luncheon at the Connaught Rooms, Great Queen St., W.C.2. (Sponsor, APLE.) SEPT. 10-12  
*New Homes for Old Exhibition.* At 22, Lower Regent Street, S.W.1. (Sponsor, HC.) SEPT. 11-Nov. 9  
*London Master Builders' Association. Display of Documentary Films of interest to the Building Industry.* At Derry & Toms Restaurant, Kensington High Street, W.8. (Sponsor, LMBA.) 2 p.m. SEPT. 11

*1946 ASLIB Conference.* At the Fyvie Hall, The Polytechnic, 309, Regent Street, W.1. Friday afternoon, September 13, at 4 p.m., conversation and tea for members, followed by the Annual General Meeting at 6 p.m. Saturday morning, 10.30 a.m., opening address by Sir Reginald Stradling, President-elect of ASLIB. Paper by A. D. Roberts of the British Library of Political and Economic Science on the preparation and coverage of critical and select bibliographies. Afternoon, two papers on information services in relation to industry, one by Sir Arthur Fleming and Miss B. M. Dent, of Metropolitan Vickers Electrical Co., Ltd., and the other by Professor R. S. Hutton. Evening paper on machine and tables by Dr. L. J. Comrie of the Scientific Computing Service. Sunday morning, September 15, a symposium on *Some aspects of documentation in Europe today.* Technical dictionaries and glossaries will be discussed in the afternoon and proceedings will end with a paper on the setting up of a film library by Mr. Colin Deane, of the Crown Film Unit, illustrated by one or more films. Inclusive fee will be £1 10s. for members and £2 for non-members. Full details from the ASLIB Office, 52, Bloomsbury Street, W.C.1. SEPT. 13-15

*English Joinery Manufacturers' Association Dinner.* At the Savoy Hotel, Strand, W.C.2. Guest of honour, George Tomlinson, M.P., Minister of Works. (Sponsor, EJMA.) 7.15 p.m. for 8 p.m. SEPT. 24  
**PARIS.** *International Technical Congress.* Among the delegates from Great Britain will be Sir Patrick Abercrombie, President, International Reunion of Architects, and Sir Percy Thomas. SEPT. 16-21

**SOUTHAMPTON.** *History of the British Playhouse.* At the Art Gallery, Civic Centre. (Sponsor, the Arts Council.) SEPT. 5-7

## NEWS

THURSDAY, September 5, 1946  
No. 2693 VOL. 104

News .. .. .	163
Operatives Can Watch Progress	164
This Week's Leading Article ..	165
Astragal's Notes and Topics ..	166
Letters from Readers .. .. .	167
A House for Brabazon I .. ..	168
A New Index Number of Building Materials' Prices—No. 2.	
By Ian Bowen .. .. .	169
Physical Planning Supplement:	
Wohlen, Switzerland. A Five Day Planning Course and the Solutions to the Redevelopment Problem .. .. .	171
Wythenshawe Shell Concrete Bus Garage. Designed by G. Noel Hill .. .. .	176
Information Centre .. .. .	179
The Industry. By Philip Scholberg	180

*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.*

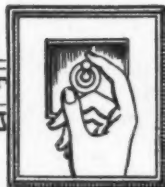
★ means spare a second for this, it will probably be worth it.

★★ 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 Minister of Works has appointed fresh ANCIENT MONUMENTS BOARDS for England and Wales under the Ancient Monuments Act, 1913.

The names of the members of the Ancient Monuments Board for Scotland will be announced later. The members of the Boards for England and Wales are as follow:—*England:* Chairman: Rt. Hon. Lord Harloch, G.C.M.G., F.S.A.; Leigh Ashton, (Director, Victoria & Albert Museum); J. P. Bushe-Fox, C.B.E., M.A., F.S.A.; Professor V. Gordon Childe, F.B.A., F.S.A.; Sir A. W. Clapham, C.B.E., F.B.A., F.S.A.; Sir Banister Fletcher, F.R.I.B.A.; T. D. Kendrick, F.B.A., F.S.A.; E. Thurlow, Leeds, M.A., F.S.A.; B. H. St. J. O'Neil, M.A., F.S.A. (Chief Inspector of Ancient Monuments); Sir Charles R. Peers, C.B.E., F.B.A., F.S.A. Professor A. E. Richardson, R.A., F.R.I.B.A.; J. A. Richmond, M.A., F.S.A.; Professor A. Hamilton Thompson, C.B.E., F.B.A., F.S.A.; Sir Charles Trevelyan, Bart. *Wales:* Chairman: Professor Sir John Lloyd, D.Litt., F.B.A.; J. P. Bushe-Fox, C.B.E., M.A., F.S.A.; Sir Cyril Fox, F.B.A., P.S.A.; Willoughby Gardner, D.S.C., F.S.A., F.L.S.; Wilfred J. Hemp, M.A., F.S.A.; B. H. St. J. O'Neil, M.A., F.S.A. (Chief Inspector of Ancient Monuments); Sir Charles R. Peers, C.B.E., F.B.A.; C. A. Releigh Radford, M.A., F.S.A.; H. J. Randall, L.L.B., F.S.A.; Robert Richards, M.A., F.S.A., M.P.; B. B. Thomas, M.A.; Herbert M. Vaughan, F.S.A.; Professor Ifor Williams, F.B.A., F.S.A.



# *Electricity*

## *is basic in building*

Electricity, which was the *mainpower* behind the production of munitions of war, is now a prime necessity in the building and equipment of the new and better homes for peacetime Britain. Electricity is no longer a luxury to be enjoyed by a few; it is the *main source* of that comfort and cleanliness to which every householder is entitled. And, in addition to being indispensable, Electricity is able to meet—and is meeting the hundred and one demands which indispensability entails.

For information and advice about the many new uses and greatly increased adaptability of Electricity consult your Electricity Supply Undertaking or the British Electrical Development Association, 2 Savoy Hill, London, W.C.2

*The Electrical Section at the Building Centre, Maddox Street, London, W.1, provides interesting illustrations of electrical application in domestic and industrial premises.*





## From AN ARCHITECT'S Commonplace Book

IN PRAISE OF A LONDON NEIGHBOURHOOD. [*From The Sketch Book of Geoffrey Crayon, Gent by Washington Irving.*] In the centre of the great city of London lies a small neighbourhood, consisting of a cluster of narrow streets and courts, of very venerable and debilitated houses, which goes by the name of LITTLE BRITAIN. . . . But though thus fallen into decline, Little Britain still bears traces of its former splendour. There are several houses ready to tumble down, the fronts of which are magnificently enriched with old oaken carvings of hideous faces, unknown birds, beasts, and fishes; and fruits and flowers which it would perplex a naturalist to classify. . . . Little Britain may truly be called the heart's core of the city; the stronghold of true John Bullism. It is a fragment of London as it was in its better days, with its antiquated folks and fashions. Here flourish in great preservation many of the holiday games and customs of yore. . . . Little Britain has its long catalogue of city wonders, which its inhabitants consider the wonders of the world. . . . Little Britain has likewise its sages and great men. . . . Little Britain has occasionally its factions and divisions, and party spirit ran very high at one time in consequence of two rival "Burial Societies" being set up in one place. . . . Besides these two funeral societies, there is a third of quite a different cast, which tends to throw the sunshine of good-humour over the whole neighbourhood. It meets once a week at a little old-fashioned house, kept by a jolly publican of the name of Wagstaff. . . . The club which now holds its weekly sessions here goes by the name of "the Roaring Lads of Little Britain." They abound in old catches, glees, and choice stories, that are traditional in the place, and not to be met with in any other part of the metropolis. . . . Thus wrapped up in its own concerns, its own habits, and its own opinions, Little Britain has long flourished as a sound heart to this great fungus metropolis.

★ *The Ministry of Health calls the attention of local authorities to the Control of Building Operations (No. 7) Order extending for a further six months FREE ALLOWANCES within which certain building can be carried out without a licence.*

The effect of the Order is that between August 1, 1946, and January 31, 1947, work may be done without a licence on any single property, if its cost, together with the cost of any other work done without licence on the property during the six months' period, does not exceed £10; and in addition work costing a total of not more than £2 in any one month in the period may be carried out without a licence. This £2 monthly allowance is not cumulative. In computing the cost of work in the case of premises occupied wholly or partly as a private dwelling or of premises being constructed, reconstructed, or altered for occupation wholly as a private dwelling, the services of any person who does not receive any payment or other valuable consideration for these services, and the cost of any materials exclusively used by that person are disregarded. The licensing functions delegated to local authorities will remain until further notice.

*The Government has decided to appoint a Board to be responsible to the Minister of Supply for the general control and SUPERVISION OF THE IRON AND STEEL INDUSTRY.*

The Board will concentrate under the Minister, on the supervision of the development and reconstruction of the industry and on the exercise of such continued direct control functions as may be necessary in such matters as production, distribution and prices. It will not, however, be part of the functions of the Board or of the members from the steel industry to advise the Government in connection with plans for public ownership. The preparation of such plans, with a view to the submission of pro-

posals to Parliament, will be treated by the Government as a separate matter. The Iron and Steel Federation has already intimated that the industry will associate itself with membership of the Board on this basis, and will press on with the modernisation programme with all possible speed. Accordingly the Minister of Supply is proceeding with the selection and appointment of members of the Board, including men with direct managerial experience of the industry. The names of the members of the Board will be announced shortly.

*Mr. David B. Jenkinson has been ELECTED PRESIDENT OF*

### THE SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

Other officers elected for the session 1946-47 were: *Vice President*, J. C. P. Toothill. *Hon. Treasurer*, J. Mansell Jenkinson. *Hon. Secretary*, Harry B. S. Gibbs. *Council*: C. M. Hadfield, S. Welsh, W. C. Fenton, J. Amory Teather, W. G. Davies, H. de B. Archer, S. E. Shepherd, R. Cawkwell, C. S. Sandford, H. I. Potter, Arthur M. Lusby, C. B. Ridgeway, J. McD. Fairweather, W. L. Clunie, C. F. Moxon (Barnsley), H. A. Hickson (Doncaster), E. G. Kingston (Chesterfield), Arnold E. Hollely (Rotherham).



*Cowshed with standings for twenty-four, built by Sidney L. Hill, Ltd., for C. D. Notley's pedigree herd of TT. and Attested Jerseys at Firethorn Farm, Ewhurst. The lighting is by six 80 watt Atlas fluorescent tubes and the photograph was taken by fast exposure without any additional lighting.*



## Operatives Can Watch Progress

This is no bookie's board at Epsom but a planned progress schedule on the site at Minerva Estate, Mare Street, Bethnal Green, where the LCC is building eight blocks of flats of four storeys each to be completed, if progress is maintained, by April next year. Usually a Time and Progress Schedule is to be found only in the Clerk of Works office. Here a popularised version is hung up for all to see, so that the operatives, largely unskilled owing to the type of concrete

construction used, are kept fully informed of the weekly progress resulting from their efforts. Thus a useful stimulus is provided. At Minerva Street, as the progress board indicates, any man engaged on the job can make suggestions for speeding up work and so help to give 253 Bethnal Green families comfortable quarters at the earliest moment. The question of labour output in building is discussed in this week's leading article.

Some doubt has been expressed as to the effect of the statement in the Ministry of Health supplement, **SOLID FUEL GRATES No. 1**, that not more than one solid fuel appliance should be installed in each new house.

The position says the Ministry, is as follows:—1. The restriction applies only to cast-iron cookers and boilers and other appliances having cast-iron components. There is, therefore, no objection to the installation of additional fireplaces of some other construction. 2. The restriction refers only to space heating appliances, so that an independent boiler, for example, and an open fire with a cast-iron grate may be used in the same house. As indicated in the previous supplement, however, the use of independent boilers should be avoided, wherever possible, on grounds of fuel economy and hot water obtained from back boilers combined with other appliances.

★

*A Ministry of Works Committee invites information on the production, distribution or use of BUILDING MATERIALS and components.*

The Committee appointed by the Minister of Works to enquire into the distribution of building materials and components has held its first meeting. The Committee has already invited the submission of written evidence from representative bodies of the builders' merchants, building materials producers and users of building materials and components, and from a number of separate authorities, firms and individuals. The Committee would also be glad to receive written statements from any other organization or individual concerned with the production, distribution or use of building materials and components, or from any other interested person who feels that he has something of value to offer which would assist the Committee in its enquiry. The terms of reference of the Committee are as follows: To examine the organization and methods of distribution of building materials and components with particular reference to cost and efficiency, and to make recommendations. Communications should be addressed to the Secretary of the Committee, Mr. W. P. D. Skillington, Ministry of Works, Lambeth Bridge House, London, S.E.1.

*Mr. Harold Goldstraw, of Tunstall, Architect, suggests a framework of steel girders and hanging bolts to ensure the safety of the TUDOR ROOF OF ST. MARY'S CHURCH, Stafford.*

Mr. Harold Goldstraw suggests that the framework of steel girders should be erected above the roof itself, from which concealed hanging bolts would be introduced to take the entire roof load. It is considered that the design of the roof is eminently suitable for this treatment. The scheme will obviate the necessity of finding satisfactory timber of such large dimensions as would otherwise be required for replacement purposes and also ensures the preservation of the original character of the roof. The scheme has been submitted by the Archdeacon and Rector of Stafford (the Ven. W. A. Parker) to the Central Council for the Care of Churches. In his reply to the Rector, the secretary, Dr. F. C. Eccles, O.B.E., describes the proposal as altogether admirable.

## PRODUCTIVITY AND COSTS

THE productivity of labour in the building industry is now, as often before, uncertain, disquieting and far too low. No one views the situation with equanimity.

A recent Ministry of Works publication entitled *Production in Building and Civil Engineering*, Supplement No. 1 (HMSO, 9d.) is the fourth of an interesting series of publications, the three previous being *Programme and Progress*, *Progress Charts for Housing Contracts*, and the earlier issue of *Production in Building and Civil Engineering*, which appeared in June, 1945. This first issue dealt with works carried out during the war, such as runways, factories and stores, miners' hostels and hutted camps. The 1946 supplement uses as its material data from advanced preparation of housing sites schemes, and from some groups of temporary housing jobs. These four publications have a direct bearing on the productivity problem in two entirely different ways.

First, the figures given, and the analysis made, are praiseworthy as an attempt to give quantitative facts on the state of productivity to-day. For instance, although the figures are illustrative only, the examples given show that, on work that could be measured, output per head was on the average  $33\frac{1}{3}$  per cent. above the basic outputs laid down in the Ministry of Works Schedule for Payment by Results. To establish the level of measurable output per head is in itself to throw light on dark places, where very inaccurate guesses have to be made by contractors, quantity surveyors or architects, in projecting the costs of jobs—not to mention planners and bureaucrats weighed down with the responsibility of estimating the future cost in manpower of colossal building programmes. The  $33\frac{1}{3}$  figure which the authors of the report have taken as typical of 1945-6 conditions may not be the general average of productivity in those years, but it is presumably near to it. How much more valuable these statistics would be if a running series of output per head figures could be calculated, based on samples from the numerous returns which no doubt are collected by contractors in their head offices.

The second valuable feature of the report is that it emphasizes the importance of organization of the site; it provides indeed another example of how a job may be "scientifically" progressed, and planned ahead. The word scientifically must still perhaps remain in inverted commas; but it must be emphasized that science is the combination usually of carefully applied statistical method with practical horse sense, and after some use by builders on many sites of progressing methods such as these, the whole basis of the charts and the technique of measurement might be improved.

In a quiet way the Ministry of Works' experts are offering the industry the unique results of years of hard work and patient analysis. These efforts should result in an improvement of the productivity of labour and of the speed of building. Could not the industry respond in some organized way? Either these methods are sound, and ought to be adopted,



or they are not quite sound, and should be somewhat modified. It is painful to see new ideas disappear without a ripple into pools of complacency which are liable to stagnate; whether entirely acceptable or not, these methods ought to be examined. A particular point of interest in the Ministry's latest report is the re-emphasized conclusion that "there is more scope for reducing man-hours spent on non-measurable work, by means of careful supervision, than for obtaining increased output of measurable work by improvement in methods, etc." Non-measurable work is of two kinds, productive (such as plant maintenance, etc.) and non-productive. Non-productive, again, may be subdivided, and includes hold-ups of all kinds, including waiting for materials, tea-breaks and walking time. Some of the most interesting figures in the report are the percentages of loss incurred for these items. The figures given provide a yardstick, in the sense of a rough average test, against which any builder can see where his own organization is relatively most successful, or relatively weak. More detailed studies of non-measured work, and above all, suggestions on how to reduce it to a minimum (especially the unproductive items) would round off these studies, and perhaps mark a new departure in building organization in this country.



*The Architects' Journal*

23, Queen Anne's Gate Westminster, S.W.1

Phone: Whitehall 0611

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

## WITH NO APOLOGIES

SIR,—According to Astragal, private practice, or failing that, an extortionate salary, is the essential stimulus for architectural creation.

Fortunately the buildings of this land, constituting as they do a miscellany of architecture, near-architecture, and non-architecture, and produced by a variety of sorts and conditions of men, stand in silent condemnation of such a miserable idea.

Architecture, like all art, is produced only by men who love to create, men who, so long as they can keep body and soul

together and go on creating, do not care a damn what the wage-pocket holds.

LOUIS E. BOND

SIR,—Astragal infers that the maximum salary that can be expected by Housing Architects and Directors in the service of Local Authorities is £600. Astragal must know that in quite a number of Local Authorities the remuneration of the Housing Architect and Director is £2,000 and over, with Deputies and Chief Assistants receiving well over the higher figure he mentions. He should know, too, of the scale of official salaries approved by the Institute. He adopts the suggestion that Local Authorities are quite unable to deal with the Housing Problem and that their efforts "will indeed be shoddy stuff."

Anyone who is in the least acquainted with the housing work of Local Authorities in the between-the-wars period, knows that the architectural and housing departments of all our cities and larger boroughs are quite competent to deal with the new housing programme and that the architectural and constructional standards of their work in the past have been well above that of comparable housing work by Private Enterprise.

The art of Architecture—and any art—surely depends upon the men practising it and not upon the method by which they are paid. May I direct Astragal's attention to some of the comparatively recent contributions to your own Journal: the work of the Miners' Welfare Commission—surely the finest collection of industrial buildings in this country; the architectural work of the TVA in the USA; the branch Post Offices and Telephone Exchanges throughout England. These are

examples of architectural work by official architects, and will compare favourably with similar work by non-official architects.

The RIBA has just elected as President an official architect, one who has made a name for himself not in England alone but throughout Europe and the New World on account of the quality of housing work for which his Department has been responsible.

I suggest that an ample and unreserved withdrawal and apology is due from Astragal to the whole body of official architects whether engaged on housing or other work.

Wallasey.

JAMES GRIEVE, A.R.I.B.A.

These two letters came to the A.J. Editor in tart reply to remarks I made in the July 18 issue on the position of Local Authorities in the housing drive. The first can be the more quickly disposed of. It would be hard to find an artist who did not willingly accept all he could get for his work. There is a world of difference between continuing to practise your art *despite* poverty and not caring a damn for the material results it brings. Even Shakespeare himself, we are told, was never lax or sentimental about business matters.

Our correspondent has another advantage over most artists for he can speak of a wage packet, a thing they so rarely possessed in the old days, for this was one of the solaces they had to abjure if they were to cultivate their own gardens. Can it be that in these latter days this has been reversed and all our best men are now making their contributions to glory from the security of municipal and government offices?

Our second contributor seems to think that this could be so, for he is able to quote among his examples the Branch Post Office and the Telephone Exchange. Astragal preens himself on this unexpected praise of his own modest efforts, for he himself contributed to the design of some of these buildings in an earlier stage of his career. At the time he was not aware that the creative force was burning brightly within him, nor were his dejected and unhappy confrères. It was not the men who were at fault—but the remorseless machine, which was too unwieldy to allow the odd morsel of genius ever to get through.



At the worst it results in standardized type of architecture at a very low level, such as the Local Authority housing estates of the 1930's, so esteemed by the LA's themselves, yet so horrifying in their mass impact. It is surely undignified to obtain a favourable verdict on these by comparing them with the speculative builder's estate.

It should be remembered, moreover, that the inter-war standards of Local Authority housing were set by men like Sir Raymond Unwin and the outside architects who were called in during the Twenties to establish the early municipal housing estates. Since then the housing departments have been content to sit on the standards created for them by others, and no substantial further progress has been made.

The time has come when municipal housing would benefit, once more, by a new influx of ideas from outside. These new ideas will not be gained by simply swelling existing departments to abnormal size. Surely, when many young men are making the hazardous venture of setting up practice, it is bad policy to starve them of work in favour of departments which cannot recruit sufficient staff to cope with all they try to do.

#### BRIDGE OF SIZE

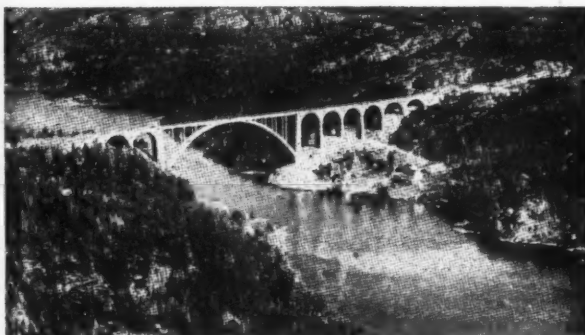
These days are cataclysmic indeed—ubiquitous unrest, world shortages, atom bombs, and now calamity of calamities, *The Times* has made a mistake. It has pointed out that the new Svinesund Bridge over the Idefjord River on the main highway which connects Sweden and Norway near Oslo is the highest yet built in Europe.

In fact, this bridge is nowhere near the highest, being only 270 ft. above the water. Here is a list of some of the European bridges which are more than 200 ft. above the rivers they cross:—

Bridge	Country	Year of Completion	Height in ft.	Span in ft.
Gmündertobel	Switzerland	1909	217	263
Langwies ..	"	1914	230	305
Gueuroz ..	"	1933	620	323
Sitter ..	"	1936	280	—
Esla ..	Spain	During war	290	690
Svinesund ..	Sweden-Norway	1946	270	570

Gueuroz Bridge is, I believe, the highest bridge in Europe. With the exception of Sitter Bridge, all the above are in reinforced concrete. Langwies and Esla are railway bridges, while the others carry roads.

#### ASTRAGAL



Top, the new Svinesund Bridge linking Norway and Sweden. Below, Gueuroz Bridge, Switzerland. The heights of these bridges, among others, are discussed by Astragal this week, apropos a note in *The Times*.



## LETTERS

W. H. Gill, A.R.I.B.A.

Margaret Lloyd (Mrs.)

(Hon. Sec. British-Yugoslav Association)

Ex. RAF.

N. C. Stoneham,

(Chairman, Technical Committee M8, Manufacturers' Catalogues)

### Architects' Salaries

SIR.—Further to my letter, which called attention to the disparity between salaries of qualified doctors and qualified architects, the following scales will show that this disparity is officially recognised even in the Public Service:—

MOH: Chief Medical Officer, £2,200; Deputy Chief Medical Officer, £1,750; Senior Medical Officer, £1,400-£1,600; Medical Officer, £850-£1,200.

MOW: Chief Architect, £1,750; Deputy Chief Architect, £1,450; Senior ditto, £1,050-£1,200; Architect, £900-£1,025.

The RIBA has asked that in such appointments, salaries paid to its members should be at least equal to those paid in other professions in the same grade. Quite apart from medical officers, I have noticed that this is frequently not the case. Municipal engineers are generally appointed at higher salaries than architects.

In my opinion, I think that the reason for these differences is a lack of culture in the British people. Art is looked upon with suspicion or derision, and the architect as an unnecessary appendage. The general idea seems to be that as long as a person is not concerned with our bellies or our pockets, then let him be miserably paid.

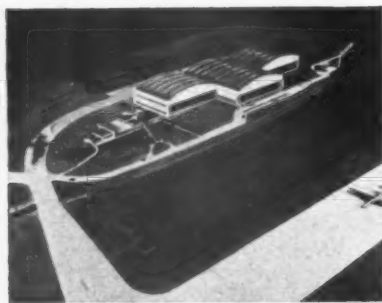
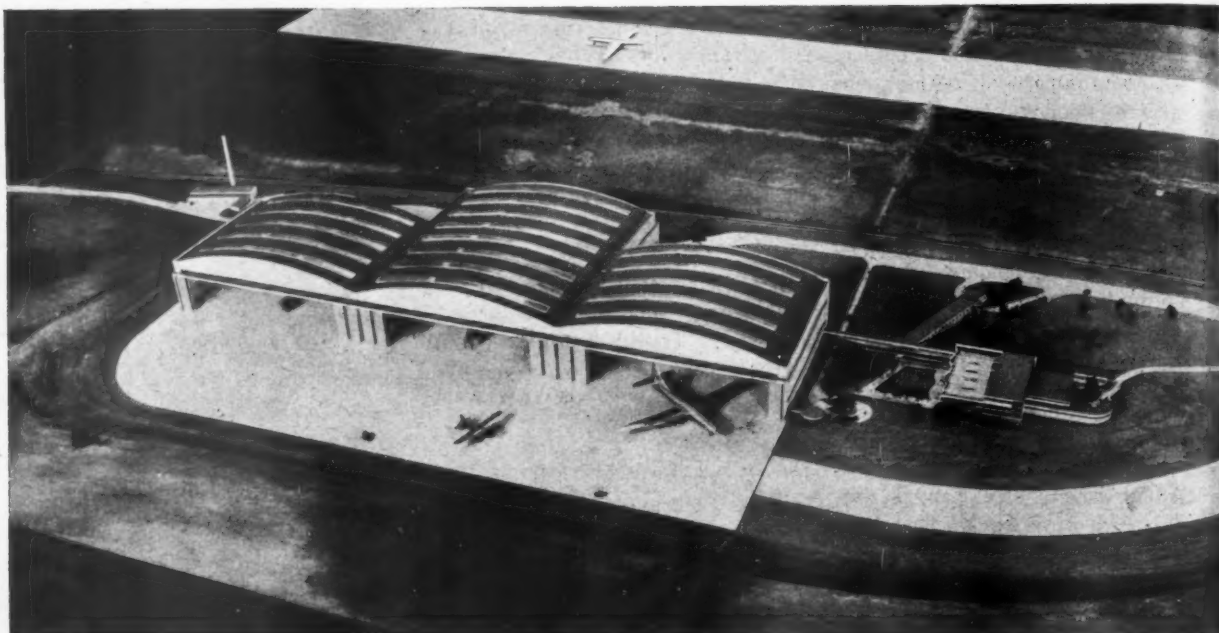
Bath

W. H. GILL

### An Appeal from Yugo-Slav Students

SIR.—The British-Yugoslav Association has been approached by Yugoslav technical students for assistance in obtaining all kinds

## A HOUSE FOR THE BRABAZON I



*Model of the Assembly Hall to be built at the Bristol Aeroplane Company's Filton works for the construction, testing and servicing of the 125-ton Brabazon I. Work is already in progress on the site. The floor area is nearly 8 acres, comprising three bays opening on to an apron through continuous sliding-folding aluminium doors. At the north end of each bay, opposite the doors, is an immense double glazed wall 50 ft. high. Steel trusses, 50 ft. apart, in the form of two pin arches tied at the haunches, span the three bays at 345 ft. centres. All wall cladding is of asbestos cement panels, while the roof is of prefabricated steel decking panels. Heating is by warm air distributed through specially designed nozzles which are placed at varying heights to form strata of warmed air which are blanketed to avoid rapid dissipation at high level in the roof. On the east of the main building is a block containing administrative offices and works canteen. The designer is Eric Ross, A.R.I.B.A., chief architect to the Company.*

of technical instruments for architectural draughtsmanship, etc. As you are no doubt aware, the devastation and need for reconstruction are immense. As in other countries in Europe, the Fascists carried out a deliberate and wanton policy of destruction. To cope with the task of reconstruction with virtually a complete lack of technical instruments, equipment and text-books, etc., has placed a great burden on the small staff of technicians available. They have therefore asked whether we in Britain can help them to procure

(a) Technical instruments for draughtsmanship, etc., including paper.

(b) Text-books, technical journals, back and current numbers.

The British-Yugoslav Association, whose address is Bloomsbury House, Bloomsbury Street, London, W.C.1, feels that perhaps your readers might like to give us some assistance in the matter. Yugoslavia is making an enormous effort, but above all her need for trained personnel is acute.

MARGARET LLOYD (MRS.),

Hon. Sec.,

London British-Yugoslav Association

### The Government and Architects in Private Practice

SIR.—Many facilities have been made available whereby the ex-Service architect can obtain a job, and for those who want local

authority positions the field is a wide one. But for the man who wants to return to private practice or set up an office, nothing seems to have been done. Surely if the Government considers it a duty to find employment, it should help in this field as well as placing men in appointments.

The long list of architects who have been commissioned for work in the Government-financed *Britain Can Make It* Exhibition, which you publish in your number for August 1, raises the question of their selection. Was this done by a Government Department, and if so, with any regard for ex-Service men seeking work, or was it all commissioned by the various firms exhibiting? If the profession is to retain that independent spirit which engenders all good work, some method of apportioning-out work evenly is essential before all our bright spirits become hopelessly involved in the official machine.

This, if I may say so, seems a strange attitude to take because current periodicals appear to be anything from 14 in. by 11 in. down to 9 in. by 6 in., and there is as little conformity between them as there has previously been amongst manufacturers' catalogues.

The Committee was, therefore, forced to find some fixed starting point from which to work, and existing filing systems provided this.

You also state that the sizes chosen "seem to be based purely on economy of cutting from medium or demy paper." This is rather putting the cart before the horse. Cutting from medium and demy paper was recommended because it fitted in with existing filing systems.

N. C. STONEHAM,

Chairman, Technical Committee M8, London Manufacturers' Catalogues

EX-RAF

### Standardized Information

SIR.—In your leading article you criticized the sizes recommended in BSS 1311 (Sizes and Contents Arrangements for Manufacturers' Trade and Technical Literature (Building Industry)), chiefly, it appears, because none of the three sizes recommended conforms to the sizes of current periodicals.

Our Leader Writer writes: Mr. Stoneham is mistaken; we criticized only the largest of the three recommended sizes. While we agree that there is no filing system designed especially for architects we are also aware that numerous architects file articles and advertisement pages from technical journals. We believe, as we said in our leader, that it would be logical to keep the relevant trade information in the same file, and we continue to maintain that any standard which prevents this from being done is in need of modification.

The author of our monthly feature on Housing Statistics here subscribes the second of a quarterly series on the price index of building materials. This is a new index, which is based on more comprehensive data than other indices so far published. In the first article the author gave the proportionate "weights" assumed for the different materials, and from these he has worked out a War-Time Index for each quarter from 1939 to 1945 as well as a Peace-Time Index from 1945 to the present time. Both are based on the figure of 100 for August, 1939. They are also shown graphically. Here he compares building materials' prices with other prices, analyses their rise and discusses their future trend. This new index should be valuable not only in showing the general trend of prices, both as a record of the past and a warning for the future, but as a guide to approximate estimating in the present.

## A NEW INDEX NUMBER of BUILDING MATERIALS' PRICES

### No. 2

[by Ian Bowen]

The new index number of Building Materials' Prices, the basis of which was described in the ARCHITECTS' JOURNAL for May 23, 1946, can now be calculated for the 3rd quarter of the year. We have taken prices at the beginning of February, May, August and November as indicative of the trend for each quarter of the year.

The index number was calculated on two bases, a war-time and a peace-time index. The latter, based on "peace-time" weights (i.e., the approximate relative values of output of different building materials at the end of 1945), is shown below. The figures for the previous quarters have been slightly revised. A picture of the rise of the index since 1939 is given by the accompanying graph. It shows clearly the steeper rise from May-August, 1946.

The Index of Building Materials' Prices runs as follows:—

				August, 1939 = 100	
				1945	1946
Quarters	1	..	..	—	167.6
	2	..	..	—	170.2
	3	..	..	160.5	175.8
	4	..	..	164.2	—

Thus over the year ending August, 1946, the index has risen by over 15 points. This compares with a rise of only 4.5 points for the previous year, ending August, 1945, in the war-time index. Post-war building materials' prices have risen almost three times as steeply as war-time building materials' prices.

Between the second and third quarter of 1946 the index rose by 5.6 points. This was a steeper rise than in any previous quarter. As the graph shows, the rate of advance has started on a new upward trend.

### A COMPARISON OF BUILDING MATERIALS' PRICES WITH OTHER PRICES

Such a rapid rise in Building Materials' Prices provokes comparison with the rise in prices of other commodities. August figures are not yet available, but for the year ending July, 1946, the Board of Trade's index of prices of industrial materials and manufactures moved as follows:—

(1930 = 100)			
July, 1945..	..	..	175.8
„ 1946..	..	..	184.7
12 months' rise ..	..	..	+8.9

Thus on this showing the rise of building materials' prices was considerably steeper than the rise in the general wholesale prices of industrial commodities.

But the Board of Trade's list of industrial materials and manufactures includes some building materials; an index of building materials based on a selection of these commodities is constructed by the Board of Trade. It moved as follows:—

Board of Trade Index of Building Materials' Prices (1930 = 100)

July, 1945..	..	..	158.6
„ 1946..	..	..	177.7
Rise ..	..	..	+19.1

Thus the Board of Trade index advanced by 19.1 points in twelve months. This rate of advance may be too high, owing to the very heavy weights given in their index to paint and to timber. At any rate, it can safely be said that the 15 point rise indicated by our own index, based as it is on a wider selection of commodities, does not overstate the very considerable increase that has taken place. Our index is near to being a correct average of wholesale building materials' prices for the London area, though, for the reasons given in the last article, building materials' prices over the country as a whole may be showing an even steeper rise.

### ANALYSIS OF THE RISE IN BUILDING MATERIALS' PRICES

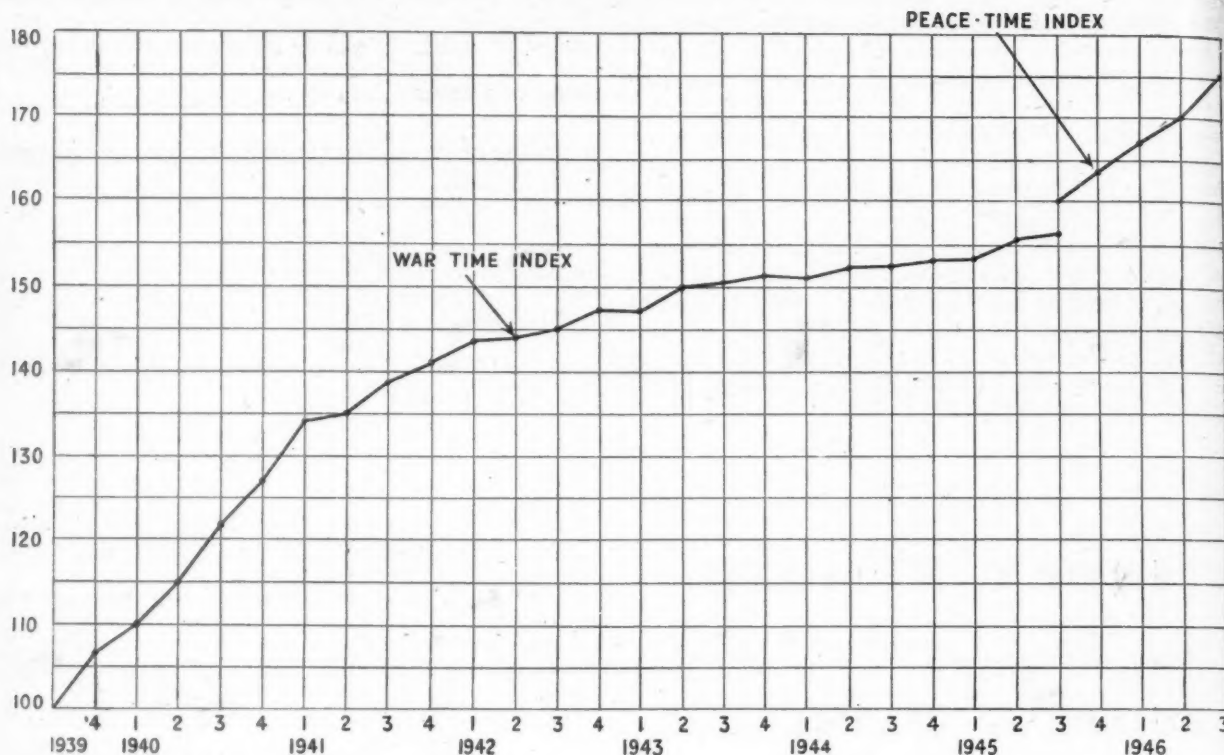
Apart from the increase in delivery charges due to increased cost in rail transport, many important building materials, such as bricks, cement, timber, asbestos roofing sheets, glass, plasterboard, patent plasters, and most items of sanitary ware, were no dearer in August, 1946, than in May. The main cause of the rise from May to August must be sought in the sharp increase in the prices of locks, paint, and gravel and ballast; and in rises in the prices of lead piping, man-hole covers, slates, iron and steel, drainpipes, and water tanks—the items in this list being arranged in the order of their importance as affecting the index as a whole.

There has been a rise in 20 out of 44 price quotations used in the index, so that it may fairly be described as a general increase.

### WEIGHTS CHOSEN FOR THE INDEX

The weights chosen for the index were described in the article of May 23. They were based on output and consumption of building materials as it was known then. Production of many materials has since notably increased. Brick production, for instance, has advanced from 50 millions a week





Graph showing the index of building materials' prices per quarter from 1939 to the present.

in April to 70 millions a week in June. If the current rate of output were the criterion, several of the weights chosen would have to be revised. Bricks would now represent well over 5 per cent. of the total, the weight for roofing tiles might have to be increased, and so on. But it is advisable not to revise the weights too frequently; and a new set of weights will not be worked out until the production of materials is steadier, and less lop-sided. This is not likely to occur until the end of 1946.

#### FUTURE TREND OF BUILDING MATERIALS' PRICES

It has been pointed out above that only 20 of the 44 price quotations moved upwards from May to August, 1946. There cannot be much likelihood that the remaining 24 items will remain unchanged. The recent rise in rail charges affects not only delivery costs of the building materials, but delivery costs for the fuel and raw materials needed in their manufacture, and a rise in ex-works prices sufficient to cover this is sure to be demanded.

This would suggest that the present rate of increase in the price of building materials generally will be continued, at least for another quarter, and possibly for six months. If so, by the spring of 1947, building materials' prices will stand at 85 per cent. or more above the 1939 level, or some 16 per cent. higher than the August, 1945, level. It was in August, 1945, that ceiling prices for houses were fixed. These ceiling prices cannot be held under such changed conditions of materials' prices.

When will the continued climb in building materials' prices be arrested? After the last war the check came with the general deflationary policy of 1920. It is not likely that any Government of this generation will face the consequences

of violent deflationary action, since all political parties now accept full employment as their main economic objective. Thus a check to building materials' prices can scarcely come as part of a sudden general reduction in wholesale prices. The problem will have to be solved piecemeal.

Production of any given line of goods, a particular building material for instance, if sufficiently increased, may result in a reduction in costs. If this reduction in costs is passed on to the consumer, builders will begin to substitute the cheaper material for dearer materials whenever possible. But this cannot happen beyond a certain point, because supplies will very likely, though increasing, be insufficient to meet an extended market due to a sudden change of preference. Production is therefore the key. A sufficient increase in production, and a sufficient reduction in price, in two or three important lines, would soon reduce the rise in the prices of vital commodities. The policy of designing permanent prefabricated houses was intended, as Mr. Bevan hinted in his BINC speech last year, partly to stimulate price competition between the new and older building materials' industries. So far, however, there is no sign of any such competition developing.

If the Government wants to see some industries producing a much greater output, and taking a smaller profit on a much larger return, it may have to take direct action to provide technical help, labour and plant as a priority measure to the favoured industries. It must either use its bulk purchase schemes as a lever, or, in some other way, make sure that the relatively low-cost and low-price industries receive large and continuous orders. Such a policy would certainly now seem to be more practical politics than mere admonition; the present rise in prices may otherwise have serious consequences.



**PHYSICAL PLANNING SUPPLEMENT****WOHLEN, SWITZERLAND**

A Training Course for Local and Regional Planning was held recently in the small town of Wohlen in Switzerland. Such a novel experiment is of great value in these days, when rapid changes in planning technique and legislation are taking place, and it is likely to be repeated in this country under arrangements which the APRR has already in preparation. A Report has been produced on the results of the Course and is outlined in these pages. First is an account of the Course; next the recommendations of the study groups on specialised subjects; and finally the proposals for the replanning of Wohlen, for which four solutions were put forward. The Report also included details of the preliminary survey work undertaken. Above, an air view of the town, and below a typical residential quarter.

**A FIVE DAY PLANNING COURSE AND THE SOLUTIONS TO THE REDEVELOPMENT PROBLEM**

wards. To work out some subject in detail, classes were subdivided into groups: for example, some worked out a new by-pass road, others searched local statistical and historical records in view of future agricultural development. Evening discussions were arranged with local authorities, and emphasised the necessity for seeing the point of view of the inhabitants. The various aspects of the problem which were selected for study were agriculture, habitation, working centres, recreational opportunities, road traffic, and canalisation. The findings were included in the Report on the

**1. THE PLANNING COURSE**

The purpose of the five-day Course in Local and Zonal Planning held at Wohlen, in Switzerland, was to bring together specialists from the various branches of planning, and to co-ordinate their special experience in a study of Wohlen and its surroundings. From among the many applicants, sixty-four were selected—it was considered that a larger number would prove unwieldy and hamper intercourse between the members. Architects, engineers, surveyors, farmers, forestry and public utility experts were amongst those attending, and were supplied with data in advance. To facilitate work, a new standard set of symbols was adopted.

The Course was divided into classes, to whom specialists of long experience lectured, and questions were invited after-



Course and were illustrated by means of survey maps.

On the last day of the Course, a number of sketch plans were produced, illustrating possible ways in which Wohlen could develop. These showed that a compromise had been made between often divergent interests, and that more than one successful solution was possible. It is suggested that a further Course might be held to produce one solution based on the results of those put forward. The size of the problem which could be tackled in the short time available was, of course, purely local planning, but the successful combination of the varied professions opens the way for zonal, and even cantonal planning.

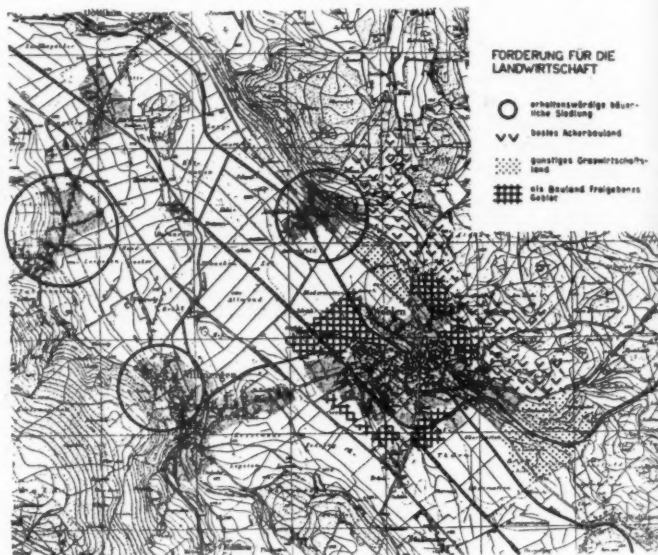
A view of the centre of Wohlen, showing the existing picturesque urban scene, although in actual fact industry and housing have grown up together indiscriminately. The proposals for the replanning of this part of the town are described later.



## 2. RECOMMENDATIONS OF THE GROUPS FOR SPECIAL SUBJECTS

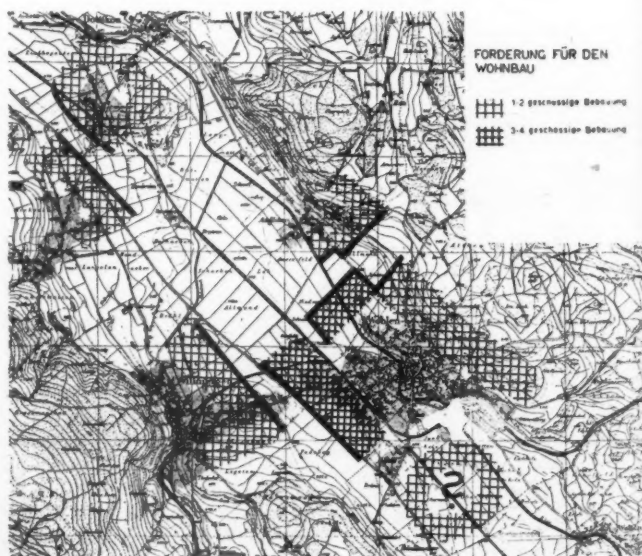
### agriculture

Conditions for farming are favourable and ploughing can be done everywhere owing to the even ground and easy slopes. The soil, however, varies in fertility graded into five categories. The region around Wohlen was a purely agricultural one until the beginning of the last century, when industry entered the Bunz Valley. Now, Wohlen, Villmergen and Dottikon have become industrial centres, and it is not proposed to halt a natural process by replanning directed towards a revival of agriculture in a major form. The agricultural economists on the Course proposed the smallest possible extension of land for building purposes, and that such land should be of inferior farming quality. The circles on the map show rural settlements to be retained; the arrow-heads best quality arable land; the dots desirable grass land; and the square-hatching land released for building development. The farmers suggested the release of only 100 hectares for building, 25 already sporadically built on, 15 on the hillside north-east, and 60 in the plain north-west. The existing farming colonies should remain, and not be mixed with industry.



### housing

The present population of Wohlen is 4,500, and it is proposed to allow for an increase to 8,000. A further 200 hectares at 40 persons per hectare will have to be allocated for housing the increase. The most favourable area for residential development is on the hillside north-east of the town, already partly developed. An area to the east of Anglikon, facing south and protected from the wind, offers good possibilities, although the distance of 2 kilometres from the village centre and railway station is a drawback. It is not suggested that this area should be linked to Wohlen. Further areas recommended are the enlargement of nearby villages, and land to the south-east of Wohlen. The various proposals are shown on the accompanying map; the larger square-hatching indicates one- to two-storey houses, and the smaller three- to four-storey houses. The black lines are suggestive of a definite green belt barrier between the development in the surrounding villages. The existing housing sprang up at random and it is only in the old parts of the town that the visual results are satisfactory, assisted by some fine trees.





## industry

The main industry is straw-hat plaiting, employing 1,600 of the 2,700 gainfully occupied persons, mostly female labour, whilst the majority of the male population seeks work outside. To accommodate for rapid changes in fashion, a large reserve of labour must be available, and this is found in the local villages and farms. The recommendations put forward by those representing industry suggest a separation of industrial from residential zones by means of a green belt 500 to 1,000 metres wide. The industrial quarter should be placed so that the prevailing wind will carry smoke and fumes away from residential areas. The existing workshops in the centre of Wohlen cannot well be moved elsewhere, vested interests are too important, and in any case the factories are mostly up to date. New enterprises should go to the new areas, and particularly large factories should be sited in wooded parks. Small workshops can suitably be allowed within existing residential limits. The key on the map reading down indicates new industrial quarters, existing industry, and the segregating green belt.

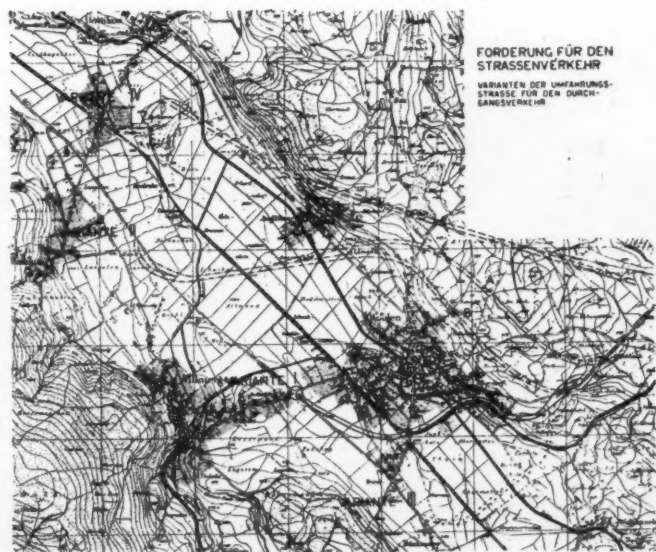
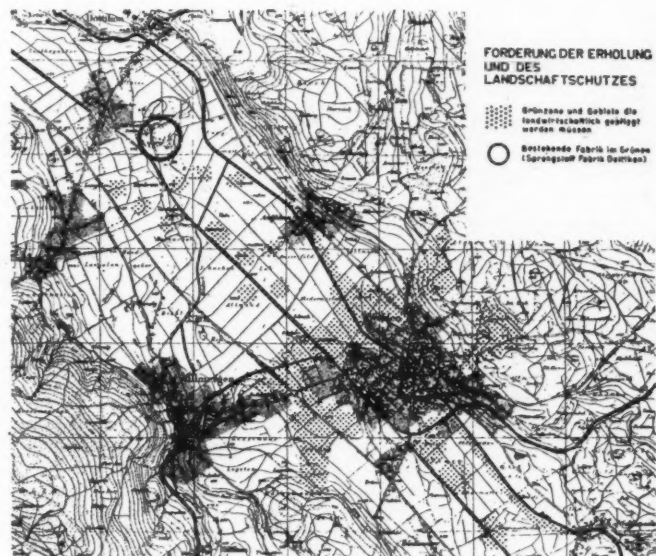
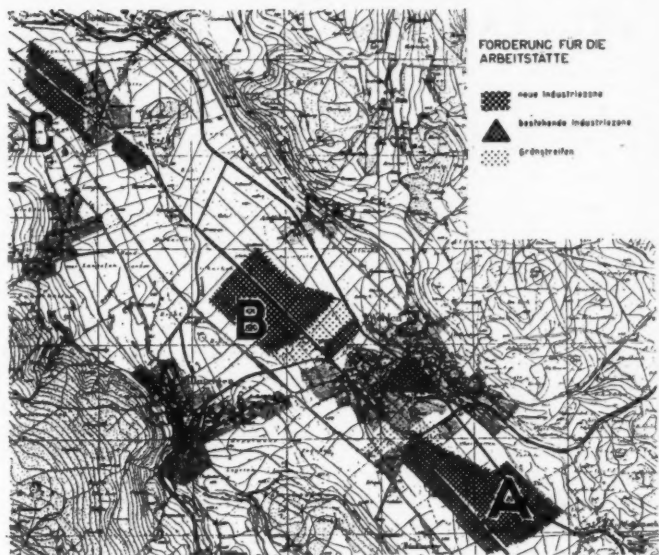
## landscape and recreation

The natural vegetation of the landscape consists for the most part of beech and pine trees. Areas liable to flooding include willow and poplars. In the course of time, these trees have been cut down, woods now being found on the higher parts. A small area was planted under national control some years ago, and demonstrates how the wounds on the landscape can be healed. Generally, however, recognition of the importance of open spaces has been neglected. Recommendations under this heading include the laying out of green belts between adjacent villages, and to separate industrial from residential areas; public promenades along the Bunz; public parks and children's playgrounds which Wohlen lacks. In the plain along the railway, the planting of trees is suggested. Areas allotted as open spaces or green belts are shown dotted on the map, and the Dottikon Explosive Works by a circle—these works are sited amongst woods and do not harm the landscape. The Bunz Valley, in which Wohlen lies, is a relatively flat depression, having at one time many swamps now removed by improved drainage.

## road traffic

The chief traffic problem in Wohlen is caused by the presence of National Highway No. 1—from Geneva to Lake Constance—passing right through the centre. The construction of a by-pass is considered essential, and four possible routes are shown on the map. Scheme I skirts the railway line, but with difficult crossings at various points. Scheme II uses a plateau, the road either following the line of dwellings or cutting through the woods. Schemes III and IV locate the by-pass well clear of the town. It was considered that the detailed replanning of the town should have a relationship to the school pattern and its attendant transportation and traffic danger problems. The journey to school for primary pupils should not exceed 10 minutes' walk, and busy street crossings should be avoided.

In addition to these studies of the various problems in re-planning, the question of drainage was considered, and a map was prepared showing land suitable for drainage; relatively suitable; relatively unsuitable; and where drainage could only be effected by means of pumping stations.



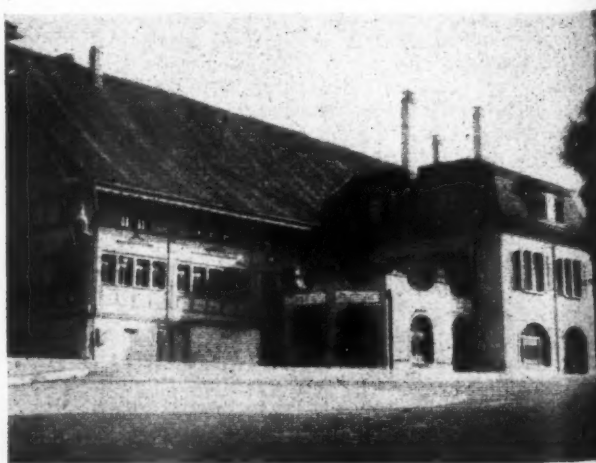
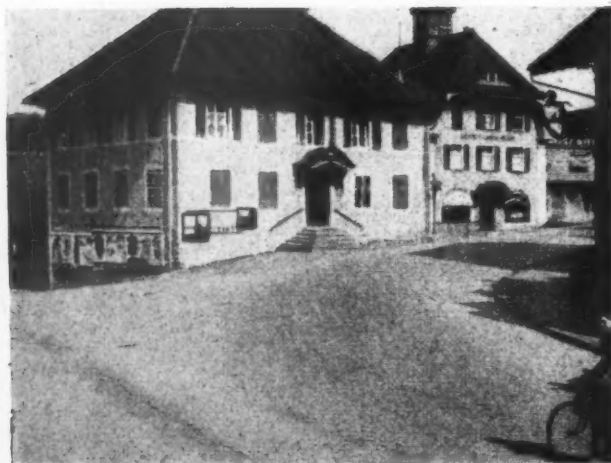
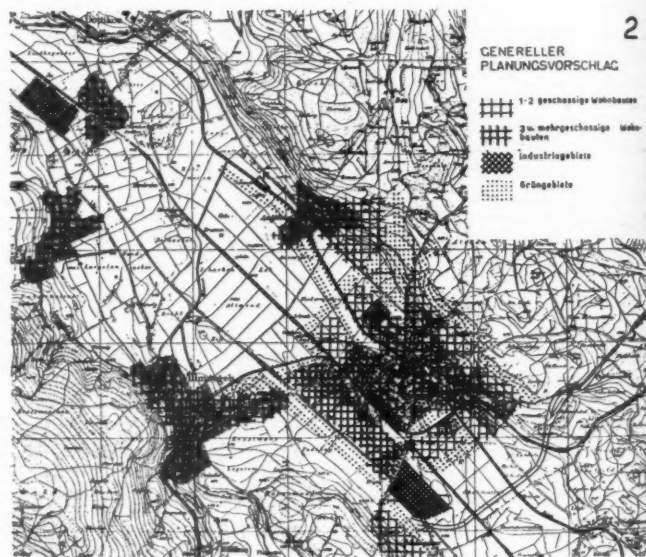
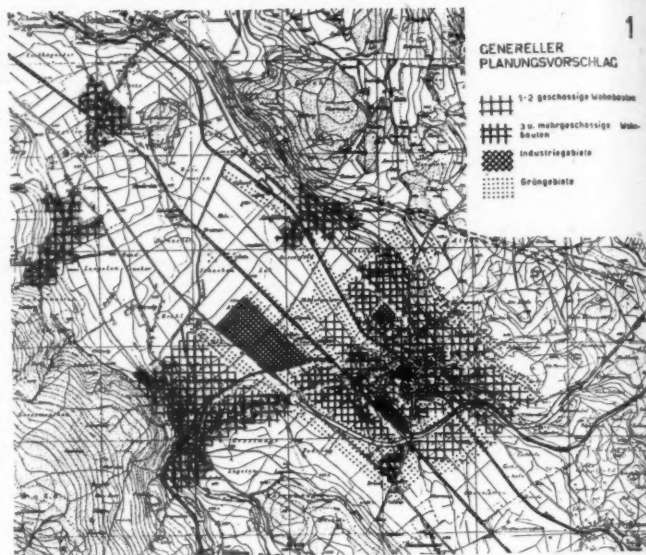
### 3. THE PROPOSALS FOR THE REPLANNING OF WOHLLEN

#### solutions 1 and 2

It was found that 5 days was too short a time for a large body of experts, representing many aspects of life, to produce one plan. Therefore, the Course was divided up to produce four Solutions and some further special studies.

The members of the Course who presented Solutions 1 and 2, considered that the demands of the farmer element could not be fully realised. Building development should not be limited to areas unsuitable for farming, and an increase of 200 hectares is proposed for this purpose. Residential zoning is shown divided into one- to two-storey houses (large square-hatching) for single families; and three- to four-storey houses (small square-hatching) for more than one family or in connection with shops. Both solutions make provision for green belts (dotted), and avoid fusion between neighbouring villages. Workmen's dwellings are sited near factories, but separated from them by green spaces. The two solutions vary in the location of industry (cross-hatching); one defining an area to the north-west, and the other to the south-east when the direction of the prevailing wind would reduce smoke pollution of the air to a minimum in the town. This latter solution, because of the restricted amount of suitable land, shows in addition an industrial zone in Dottikon to the north. The by-pass road in Solution 1 skirts the railway, and encounters difficulties with existing built-up areas and difficult crossings. Solution 2 shows the by-pass further to the south-east, eliminating these difficulties, but subjected to the necessity of constructing an embankment across the valley.

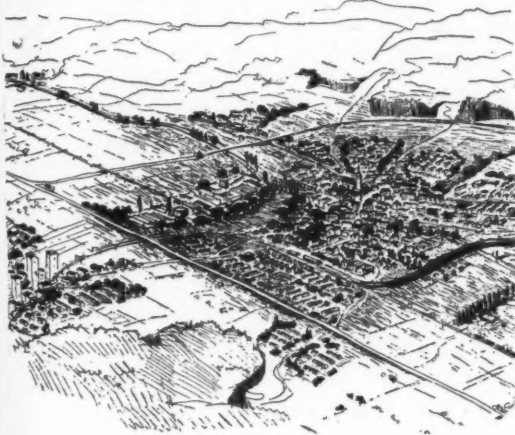
Below, two views of some of the old buildings in Wohlen, showing, particularly on the right, how the development of traffic now places some of these buildings in the position of obstructions. In such cases the considerations of historical prestige and modern conditions must be carefully assessed, no less than the visual aspect.





## solutions 3 and 4

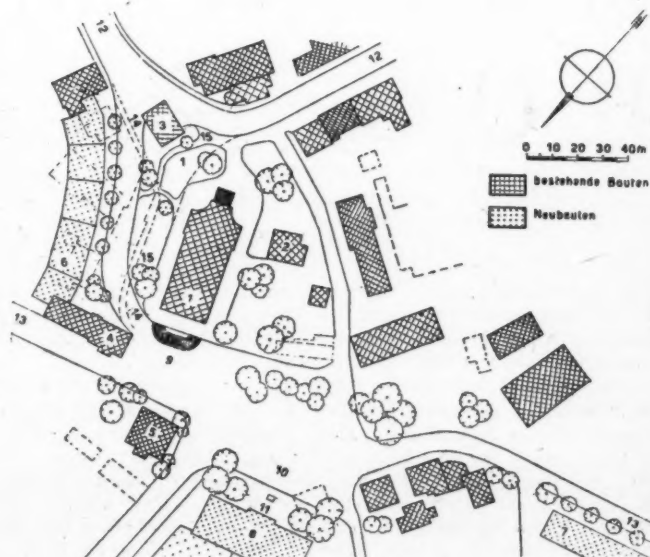
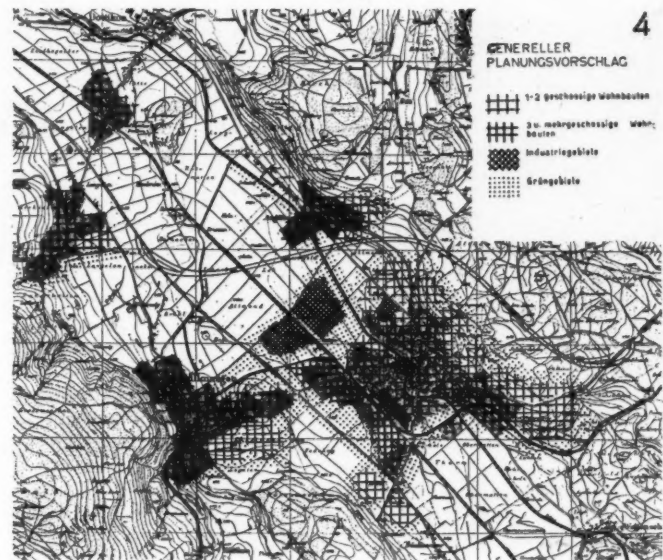
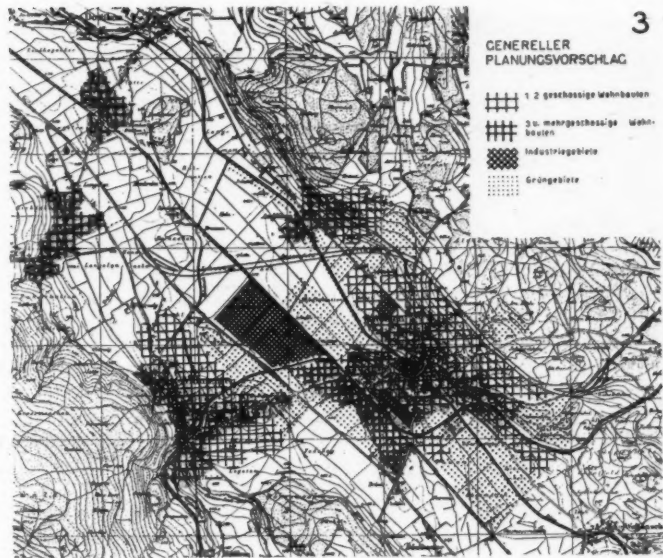
Both these solutions only partly meet the farmers' demands for the avoidance of building on good agricultural land. Building development is shown on the sunny slopes north-east of Wohlen. Both propose an extension of Villmergen to the north-west. The same division of housing into two categories is proposed as in Solutions 1 and 2. Solution 4 has a carefully worked out scheme for the provision of green spaces, which would improve the effect of the town in the landscape, but entail heavy expenditure. In each case, the industrial zone is located to the north-west. The by-pass road follows practically the same line in each case to the north of the town, although Solution 4 avoids contact with built-up areas. Building actually on this road is avoided in each case. A perspective sketch of Wohlen replanned in accordance with Solution 4 is given below. In the Report this sketch is reproduced in two colours—black and green—a technique also used for the maps.

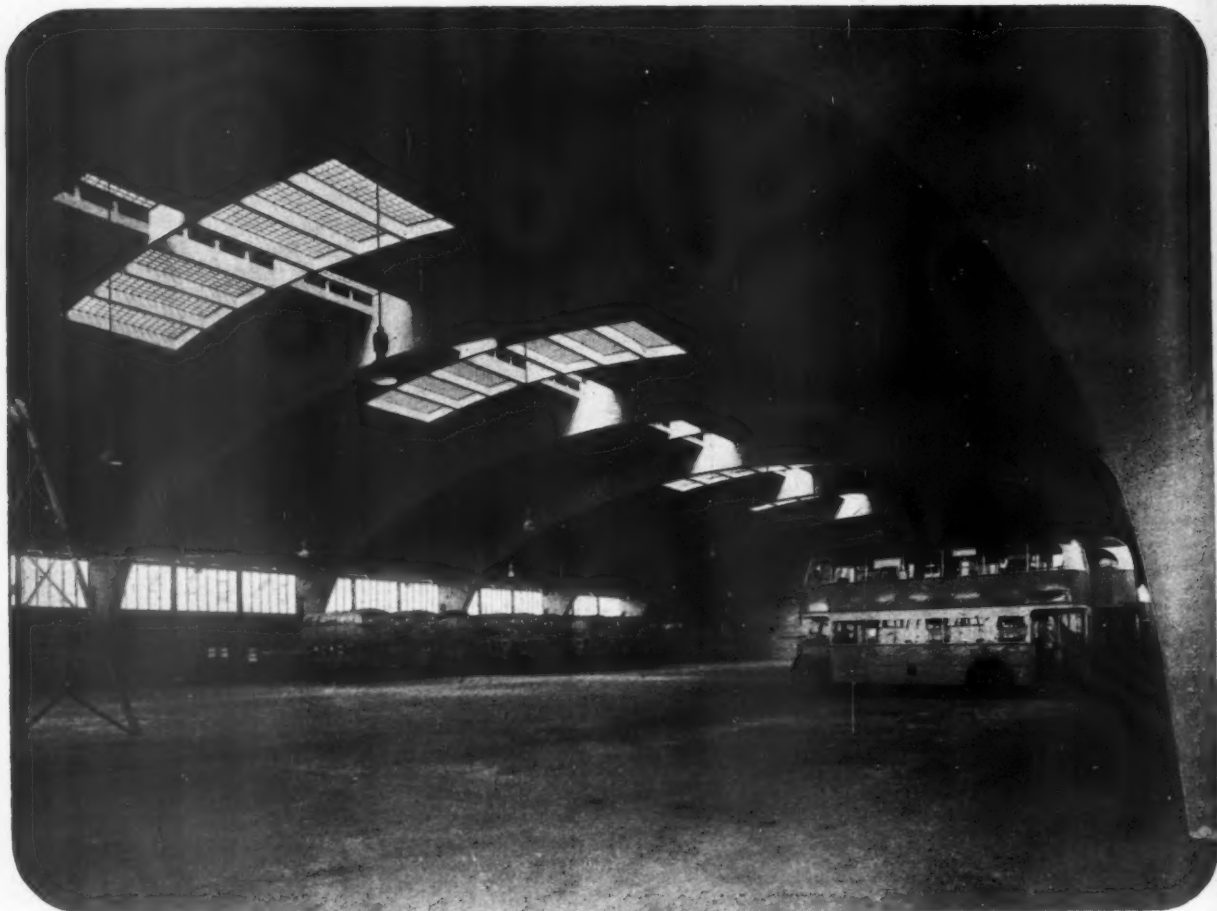


Additionally to these four solutions of an outline plan for Wohlen, participants possessing special local and technical knowledge produced a more detailed scheme for the town, including a study for school location, and such detailed planning as the siting of business quarters, public buildings, and existing industries.

## town centre

The replanning of the town centre of Wohlen was another special study produced during the Course. Owing to rapid industrial growth, Wohlen presents a picture of accidental development. The straw plaiting works are situated for the most part in the centre, surrounded by dwellings and shops. The through road presents many traffic problems and dangers, and pavements are narrow. The Barenplatz Square is a street intersection rather than a square. To remove industry wholly from the centre would be a utopian idea and expensive. In any case, the industry is not objectionable apart from the bleaching grounds. The proposals show not a new centre, but a development of the old unhampered by consideration of buildings of architectural merit, because Wohlen possesses few of these. The figures on the plan represent—1, Church; 2, Vicarage; 3, Municipal Hall; 4, Hotel; 5, Emmanuel Isler House; 6 and 7, Shops; 8, Assembly Rooms, etc.; 9, Old Church Square; 10, New Square; 11, Monument to the Straw Plaiting Industry; 12, Present road Aarau-Zurich; 13, Street to relieve traffic of 12; 14 and 15, Kirchrain Street. The cross hatched buildings are those existing and the dotted ones those proposed.





*The interior of the main garage showing the shell roof supported by continuous arch beams set at close centres.*

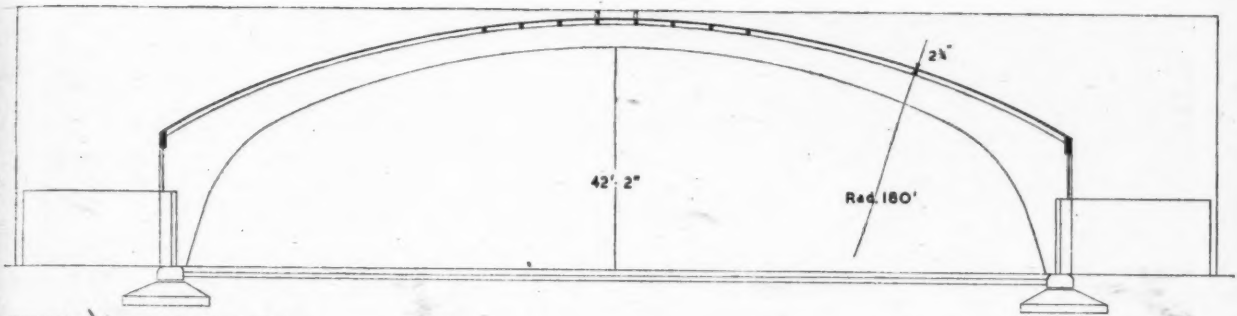
# WYTHENSHAWE SHELL CONCRETE BUS GARAGE

DESIGNED BY G. NOEL HILL

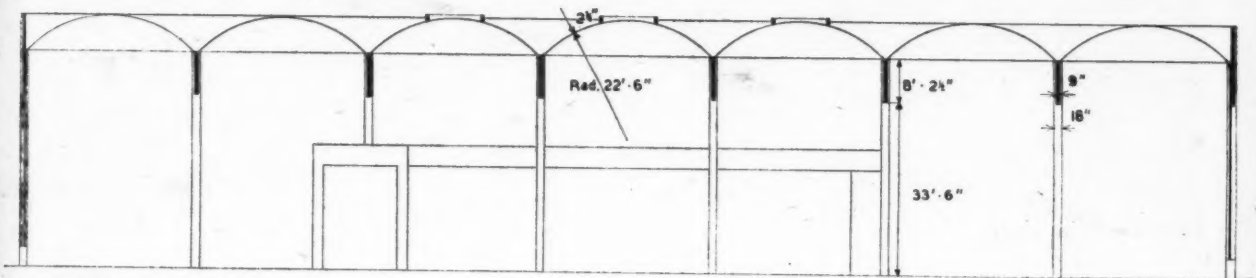
The Wythenshawe Bus Garage was built during the early years of the war, and is now in service for the purpose for which it was intended. It was originally built for the City of Manchester Transport Department by Messrs. J. A. King and Co. to the design of the City Architect, Mr. G. Noel Hill, F.R.I.B.A., M.T.P.I., Messrs. Chisarc and Shell D Ltd. being responsible for the reinforced concrete design. The

consulting engineer was Mr. H. G. Cousins, D.Sc., M.Inst.C.E. It is the largest building in the country with a shell-roof. The garage with accommodation for 100 double-decker buses was planned to serve as a depot for the Corporation bus services to the Wythenshawe Housing Estate and work on it was started early in 1939, but it was taken over by the Ministry of Aircraft Production

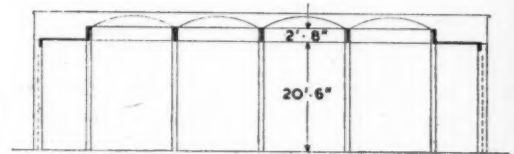
immediately on completion in 1942. The roof has a clear span of 168 ft., having arched roofing slabs only  $2\frac{3}{4}$  in. thick without ties, braces or internal column supports. The curved surface is used to transmit the loads, and internal bending moments are practically eliminated. Thus the replacement of bending moments by direct forces results in a considerable reduction in the amount of material required.



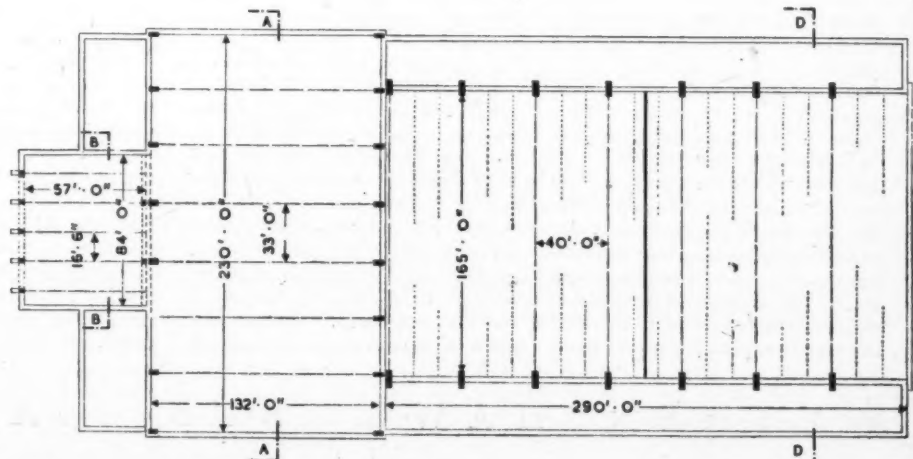
SECTION DD [ $\frac{1}{8}"=1'0"$  Scale]



SECTION AA [ $\frac{1}{8}"$  Scale]

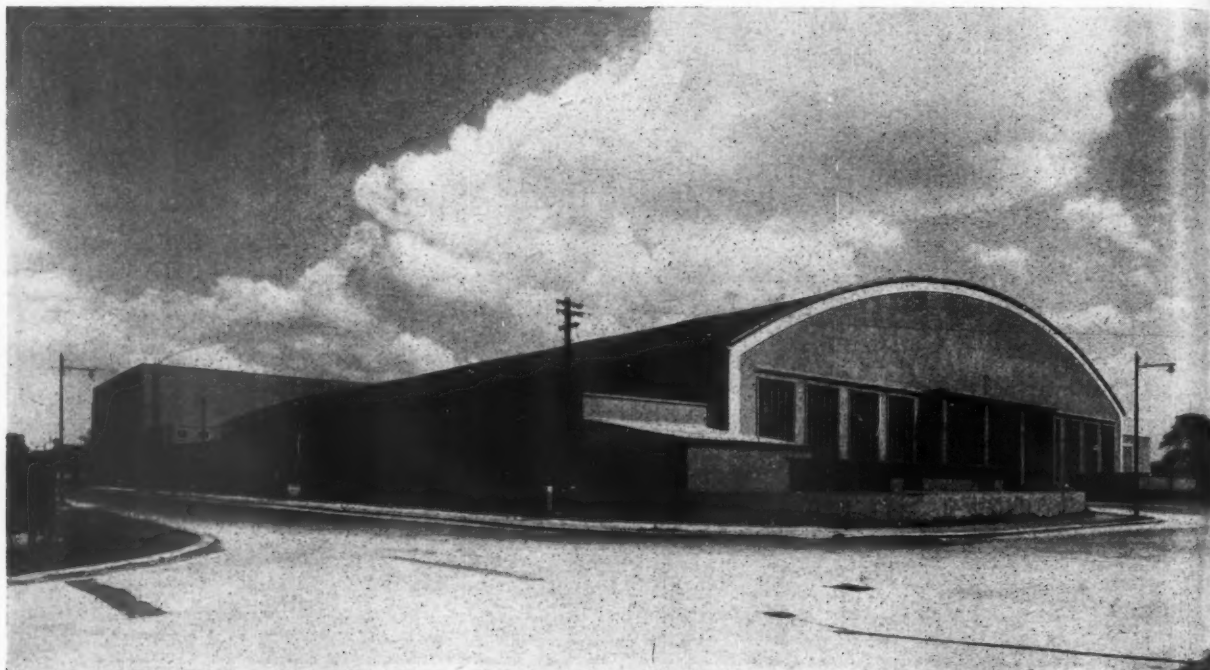


SECTION BB [ $\frac{1}{8}"=1'0"$  Scale]



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





*General exterior view.*

In the main garage section of the building a single barrel vault, of large radius, spans as a continuous beam over a series of arches set at relatively close centres. The washing room and repair hall are planned as a wing set at right angles to the main building. The washing room is roofed by means of four barrel vaults each having a radius of 16 ft. and a width of 16 ft. 6 in., the four spanning a distance of 58 ft. between the continuous beam end frames.

For the repair hall the roof is provided by seven vaults with a radius of 22 ft. 6 in. and a width of 33 ft. giving a clear span of 132 ft. The end frames for the repair hall are 232 ft. in length and allowance has been made for movement due to temperature changes by separating the centre bay from its neighbours by means of expansion joints which extend for 10 ft. along the edge beams and continue down

the columns to 10 ft. below the soffit of the edge beams which are themselves divided over their full length for a distance of 20 ft. from the columns.

It was not necessary to extend the expansion joints over the centre 90 ft. of the span as the vaults are sufficiently flexible to take up any temperature movement. The repair hall is also separated from the main garage by expansion joints.

The garage roofing vaults have a radius of 180 ft. and a width of 174 ft. and the roof spans as a continuous beam on arches at 42 ft. centres. The latter are designed as two pinned arches to carry the roof loads as well as wind and temperature stresses. The hinges are just below ground level and the loads are carried on lead plates having a working pressure of 1,450 lb. per sq. in. Special roof lights have been fitted throughout.

Free floor space totalling nearly 10,000 sq. yd. is in the three sections of the building.

On entering, vehicles first pass through washing bays, equipped with high level platforms so that the buses can be cleansed from the top down without using ladders. The buses then pass through the testing shops before entering the main garage. A system of flexible pipes with connections to fit to special adaptors on the radiators of the buses provides a constant flow of steam through the cooling system of each vehicle so that water temperatures are kept at the required peak for ease of starting. The general heating of the garage is by the Plenum system and special low level extractor plant has been installed to remove the heavier than air fumes of engine exhausts. Provision is made in the plans for staff dining, social and rest rooms, a milk bar and executive offices.

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# INFORMATION CENTRE

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

## STRUCTURE

2706 Waterloo Temporary Bridge

THE DEMOLITION OF WATERLOO TEMPORARY BRIDGE. By H. P. T. Lind and P. R. Alderman. Paper read before a joint meeting of the ISE and RIBA on April 25, 1946. (*The Structural Engineer*, April, 1946, pp. 201-222.) Description of structure. Details of demolition. Removal of four concrete-filled steel cylinders 61 ft. high. Extraction of piles.

The Waterloo temporary bridge was constructed in 1924-5 for an anticipated life of ten years. A survey in 1942, after seventeen years of service, revealed serious deterioration. Retaining the structure would have necessitated considerable expenditure on repairs and it was decided in April, 1943, to demolish the bridge forthwith. This involved the removal of approximately 8,300 tons of material.

The Temporary Bridge was a steel lattice girder, about 1,500 ft. in length, divided into eight spans, the maximum (over the navigation channel) being 277 ft. The most important consideration affecting the demolition of this span was the preservation of a 140 ft. wide channel for river traffic. The provision of timber trestles on either side of the navigation channel, to act as temporary supports, permitted the division of the span into two separate cantilever systems, the demolition of each of which proceeded independently.

The only working sites available were situated at the south bank of the river. Permission was obtained to restrict traffic to the western half of the new bridge and to close the eastern half, adjacent to the temporary bridge. On this half two electric derrick cranes were erected to deal with the dismantled material.

After demolition of the first span over the Victoria Embankment (where the steelwork was gas cut to convenient scrap sizes, at the request of the Ministry of Supply) demolition by gas cutting had to be discontinued and the steelwork had to be dismantled piecemeal by unbolting the joints. As many as possible of the turned and fitted bolts were to be retrieved.

The division of the 277 ft. span into two cantilever systems involved a general reversal of the stresses in the main girder. A number of diagonal members originally in tension, had therefore to be strengthened. The dismantling of this span was entrusted to the Royal Engineers.

The major problem was the removal of the four concrete filled steel cylinders which had supported this span. The height of each cylinder to be removed was 61 ft., of which about 20 ft. was below low water level and 20 ft. between high and low water levels. Up to low water level demolition was carried out by blasting with gelignite. The concrete below low water level, amounting to about 80 cubic yards in each cylinder, was removed in large sections by

using rock drills and hydraulic cartridges. Raising of the empty steel shells from the river bed required a lifting force of about 160 tons to overcome the initial skin friction. After the concrete filling had been removed to the required level, a portable four-legged timber trestle was lowered into the cylinder and placed on the surface of the remaining concrete. On top of each of the trestle posts, a hydraulic jack was placed. A steel grillage was lowered on to the jacks and brought to bear at four points of the steel shell. The extraction of the cylinder was governed by tidal conditions and was carried out in two days.

The final stage of the work involved the extraction of 380 timber piles. For this purpose a pontoon was used fitted with pile extracting gear, which had previously extracted 1,000 timber piles driven for the temporary work of the new bridge. When all the piles had been extracted 53 stumps of piles had still to be removed.

Work was commenced in April, 1943. The removal of the steelwork, totalling approximately 2,000 tons, was completed by December 7, 1943. The last cylinder was raised on June 8, 1944, and clearing of the river bed was completed in August, 1945.

## MATERIALS

2707 Building Materials

THE ARCHITECTURAL USE OF BUILDING MATERIALS. *Post-War Building Studies No. 18.* By a Committee convened by the RIBA. (HMSO, 1946, 2s. 6d.) Stone, brickwork, roofing materials, *in situ* and precast concrete, metals, glass, external and internal finishes. Temporary buildings. 48 illustrations.

The terms of reference of the Committee were:—

- a. To collect and sift existing information from the aesthetic point of view on the use of materials.
- b. To make recommendations in post-war building practice:
  - i. On the resumption of normal conditions.
  - ii. In the conditions existing immediately after the war, taking them in that order.

Although the primary purpose of the Committee was to deal with the aesthetic aspect of the use of materials, it was necessary to introduce technical and scientific matters since structure cannot be divorced from aesthetics.

The Report contains an excellent survey of traditional building materials and their application. Most of its recommendations are guided by the principle that age, rather than making buildings less attractive, should add to their beauty.

It is emphasised throughout the Report that the various materials should be used by trained designers and skilled craftsmen and suggestions are made to encourage the training of craftsmen. "The newer materials

demand more skill to produce successful and enduring results than the old; therefore it is the more essential that the work be undertaken by competent architects and that the technical training and proper apprenticeship of young men to the best craftsmen be regarded as an urgent problem of the first importance."

The chapters dealing with modern materials are not at the same level as those on stone, brickwork and roofing materials. E.g., it is stated about light-weight concretes that their chief limitation lies in their relatively high drying shrinkage, relatively low strength and their penetrability by moisture. All these statements are misleading, the last one is directly contrary to facts. The resistance to moisture penetration of single leaf foamed slag concrete walls of only 6 in. thickness is stressed in Post-War Building Studies No. 23, as being confirmed by experience. Neither stone, nor brickwork nor ordinary concrete would give satisfactory results under similar conditions.

No reference to steel as a building material in permanent structures has been included, except for a few lines on stainless steel. This is the more regrettable since welded structural steel offers quite new possibilities to architects, of which, so far, much more use has been made abroad than in this country.

## LIGHTING

2708 Schools

EYES AND EARS IN SCHOOL—(1) *Audio-Visual Classroom Planning.* P. Will. (*Arch. Record*, February, 1946, p. 67.) Classroom design for ciné-projection.

The title over-states matters. The note is simply a statement about provision for ciné-projection in classrooms.

The controlling data is from the Society of Motion Picture Engineers, who say that seating area should not commence nearer to the screen than twice its width (W), and should not be further than about 6 W. It is not stated, but appears to be the case, that seats should lie within an angle of 30° on either side of the centre of the screen. The projector should be back about 5½ W. The standard screen width is 5 ft.

The remainder of the article deals with a variety of classroom plans examined in terms of the acceptable seating area. The fact that Americans accept a classroom of 30 ft. length makes it a little easier to get the whole class into the seating area than would probably be the case in 25-ft. British classrooms.

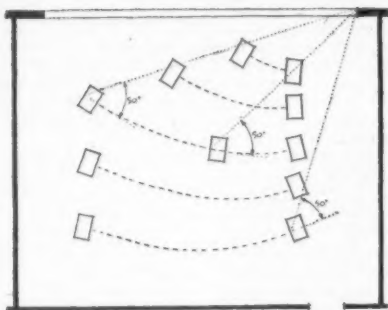
The note is clear and useful, but British readers may be surprised at the *Record's* introduction to the effect that it stands at "the head of an epoch"; and to the fact that the study apparently took two years.

2709 Schools

EYES AND EARS IN SCHOOL—(2) *Light on Growing Children.* D. B. Harmon. (*Arch. Record*, February, 1946, p. 79.) Body posture and lighting. Improved daylighting in a school.

The note begins with a discussion of the relationship between the act of vision and body reactions, followed by a geometrical analysis of posture as affected by vision. Claims are made that considerable improvements took place in organic visual functions, in symptoms which would normally be diagnosed as nutritional deficiencies, and in intellectual advancement after the children were put into rooms redecorated and equipped with daylighting controls. Considering that the period was only six months, and that the children must have spent not much more than about one-third of the daylight hours in school, one can only say that the results seem incredible.





*Ideal position for school desks in which a line projected from the midfront of the child's eyes to the front limit of windows will form a 50 degree angle with his line of sight while he is working. This also gives him adequate protection from sky glare. Rows are curved. See No. 2709.*

A description is given of the improvements in lighting which were made by decoration and by the introduction of various screens and reflecting surfaces on and near the windows. These obviously show ingenuity, though one must be careful in considering their use in this country, for the prototype is in Texas.

An ingenious principle is suggested in the layout of desks to reduce sky-glare, by which all desks are arranged for the same limiting angle of light. This is shown on the diagram plan reproduced above.

## QUESTIONS and Answers

**T**HE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential, and in no case is the identity of an enquirer disclosed to a third party. Questions should be sent to: THE ARCHITECTS' JOURNAL, 13, Queen Anne's Gate, Westminster, S.W.1.

2710

NRD

**Q** From time to time I have seen the abbreviation NRD following the name of an architect or designer. What is the significance of the degree?

**A** The letters NRD stand for National Registered Designer, signifying registration under the National Register of Industrial Art Designers. This Register was compiled towards the end of the 1930's at the instigation of the Board of Trade and contained the names of established Commercial Designers in various trades, e.g., fabrics, pottery, furniture, etc. Drawings and photographs of representative works were submitted by the applicants to the various committees responsible for the selection of suitable members to be included in this register. If the applicant was accepted, a fee of one guinea was required to cover a period of three years. This register has now been discontinued and some of its functions are carried out by the Council of Industrial Design. Registered Designers, however, may still retain the letters NRD after their names.

This special section is virtually a resumption of our pre-war Trade Notes. It now covers a wider scope, however, under a new title recording not only the marketing of new designs and the reappearance of familiar products, but also the general trend of developments within the industry. Manufacturers who have new designs in hand or any other news of interest to architects are invited to send full information to the Editor.

## THE INDUSTRY

[by Philip Scholberg]

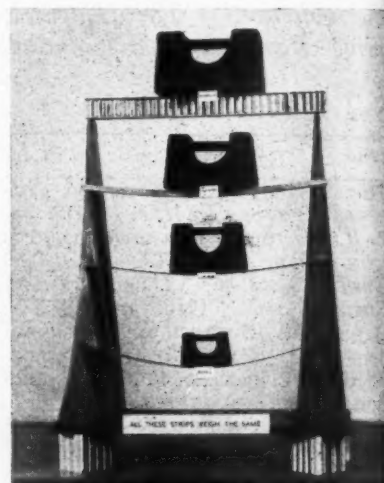
### LIGHTWEIGHT INTERLAYERS

In the few years which have elapsed since de Havillands evolved their ply-balsa-ply sandwich for the Mosquito the term Stressed Skin has become very nearly as popular and almost as meaningless as Streamlined. Yet stressed skin is no new thing to aircraft manufacturers, or even to the building industry. Take such a simple thing as a flush door. Originally they were made with a fairly light frame and the plywood covering was merely a means of keeping out the draughts and was only fixed firmly enough not to fall off. But by improving the fixing with nails at closer centres, or by making the fix continuous with glue, the door became stronger, for the frame could not distort without buckling the covering as well, and the door could be made lighter without losing any strength. A further step was to fill the interior of the door with a light grid like the partitions in an egg box so that the area of unsupported panel was greatly reduced, and the door could be made lighter still.

All this is very elementary, but it serves to explain the need for some lightweight filling substance which need only have a moderate compression strength while keeping the two stress carrying skins at their calculated distance apart. Balsa wood, with a weight of only 5 lb. a cubic foot is an obvious choice among the natural materials since it gives continuous support all over the panel area, but there are various expanded rubbers and plastics which are somewhat lighter.

After spending some time on the manufacture of jettison petrol tanks made of paper for the Mosquito, Messrs. Dufay-Chromex (a firm perhaps better known for their work in the production of colour films) evolved Dufaylite, which is by far the lightest of the fillers so far produced. It is a honeycomb material made from Kraft paper which has been impregnated with phenolic plastic. Strips of the treated sheet are glued together by a special process, and on stretching the strips take up a hexagonal cellular form. To these cells can be glued almost any sheet material such as plywood, aluminium or plastic, and the resultant sandwich is feather light and of great strength. The photo here (top) shows a display arranged to show its strength. All the strips are the same weight, and have the same width and span. At the top the Dufaylite, skinned on each side with one-sixteenth inch ply, is carrying a load of 14 lb. Below that is plywood with a load of 7 lb., aluminium with 4 lb. and steel with 1 lb.

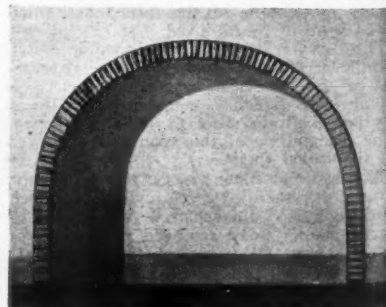
At the moment three grades have been standardised with weights of 30, 21 and 15 ounces per cubic foot and compression strengths of 112, 60 and 42 lb. per square inch. These grades use the same weight of paper and vary the size of the honeycomb, but it is obvious that if other characteristics are required it will be possible to use different grades of paper or vary the resin content from the present figure of about 25 per cent. Dufaylite is supplied in panels 36 in. by 12 in. and in thicknesses from ¼ in. to 6 in. The size of the sandwich made is limited only by the size of the available skins, since a simple butt joint of the core makes no difference to the



*Demonstration of the resistance of Dufaylite to bending. All the strips have the same width, span and weight.*

strength. The core is made in a uniform thickness and there is no difficulty with gluing. Only a moderate pressure is needed, enough to obtain perfect contact between the skin and the core. The core is very flexible and single and multi curvatures are easily made; it is probably true to say that the core can be made to conform to any shape which can be held against it for gluing.

At the moment this material is restricted to the aircraft industry, but Messrs. Dufay are quite alive to its other possibilities. In their showroom they have a small tub chair which weighs 3 lb. 8 oz. against nearly 26 lb. for the same volume of mahogany. There is also a table top about 4 ft. by 3 ft. which one can wave about with one hand like a small tea tray, and a panel about 4 in. thick which has been made up with two skins of thin plaster board and which is tentatively suggested as a partitioning material. It must be realised, however, that so far as building industry structures are concerned there still remains a number of tests to be carried out from the point of view of heat and sound insulation



*Dufaylite as a single curvature lamination. Multiple curves are also possible.*



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A.J. 5,9,46

and fire resistance. The material seems admirable, however, for any furniture having large load carrying surfaces, tables, shelves, display cases, etc. Any industrial designer interested in transport of any kind should find it an almost unbeatable means of saving weight.

It has already been said that Dufaylite is restricted to the aircraft industry, but, as with so many other restricted materials, the mystic word prototype is a very considerable help, and the necessary supplies are frequently forthcoming. But whether one wishes to use this material now or in the future it is well worth going to see the various sample panels and other things at Dufay-Chromex's offices, which are in Cockspur Street, S.W.1.

## TRADE NAMES FOR PLASTICS

While I was looking at the Dufaylite samples the conversation turned to the present indescribable confusion which exists over names of plastics. "No, it isn't Perspex, it's Plexiglas" is the sort of remark people make without realising that they are merely differentiating between manufacturers. If British it will be Diakon, Kallodent, Perspex or Transpex 1, depending on who makes it: if American it will be Acryloid, Crystalite, Lucite or Plexiglas, with the same qualification, and all these materials are polymethyl methacrylates. Lest anyone should imagine that this information is a mere outcrop from my vast continent of plastic knowledge, I hasten to admit that it is a piece of spirited brain picking from Mrs. Lovat Fraser's section of John Gloag's book *Plastics and Industrial Design*.\* Here you will find all the Trade Names in an index and thereafter you are given the main group, the equivalent British and American names, properties, available forms, fabrication methods and

\* George Allen & Unwin—10s. 6d.

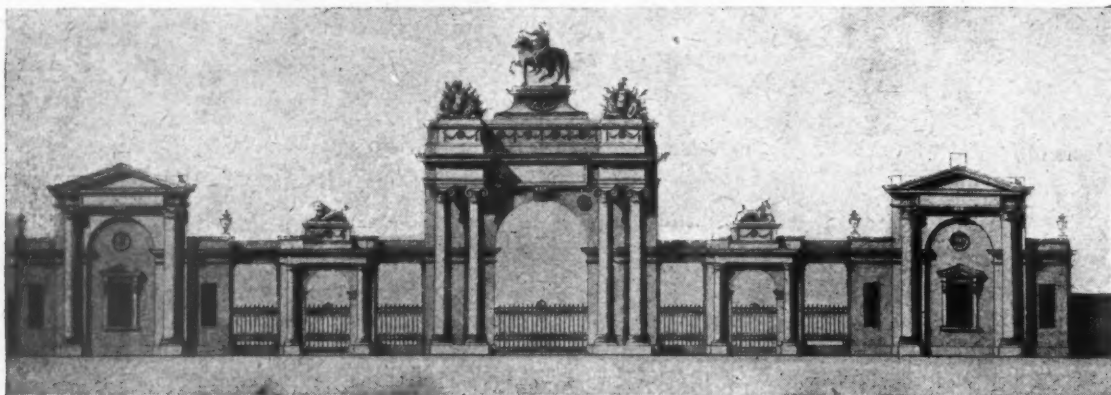
the purposes for which they can be used. So far I haven't come across any names which aren't in the index. A really useful piece of work which must have demanded great industry and almost superhuman patience.

## TRADE NOTES

At the APLE Exhibition, to be held at the Central Hall, Westminster (Sept. 10-12) Messrs. Poles, Ltd., are showing (Stand No. 26) their Adrasta galvanised sectional steel street lighting columns. It is not possible to exhibit full scale models of lighting columns because of the limitations in height at the Central Hall, small scale models of lighting are therefore to be shown. There will also be a display of photographs of sixteen standard types of column suitable for Group A and Group B lighting and for supporting ornamental lanterns. On the front of the stand, at either side, a short hexagonal and circular column will be fixed. These two columns are made from actual components used in practice, so that visitors will be able to obtain an excellent idea of the construction and appearance of the real product. Components such as standard bracket arms in galvanised steel, spigot adapters of various types in cast aluminium alloy will also be on view. A full size base section with inspection door and detachable slotted steel instrument panel fixed inside the column, will be included. The firm's latest catalogue, No. 240, on street lighting columns, will be available for issue to all interested visitors.

## ANNOUNCEMENT

Sir William Griffiths, Chairman and Managing Director of Mond Nickel Co., Ltd., has been nominated as a representative of that organisation to the Council of the Copper Development Association.



Unexecuted design for a gateway at Hyde Park Corner. By Robert Adam, about 1778  
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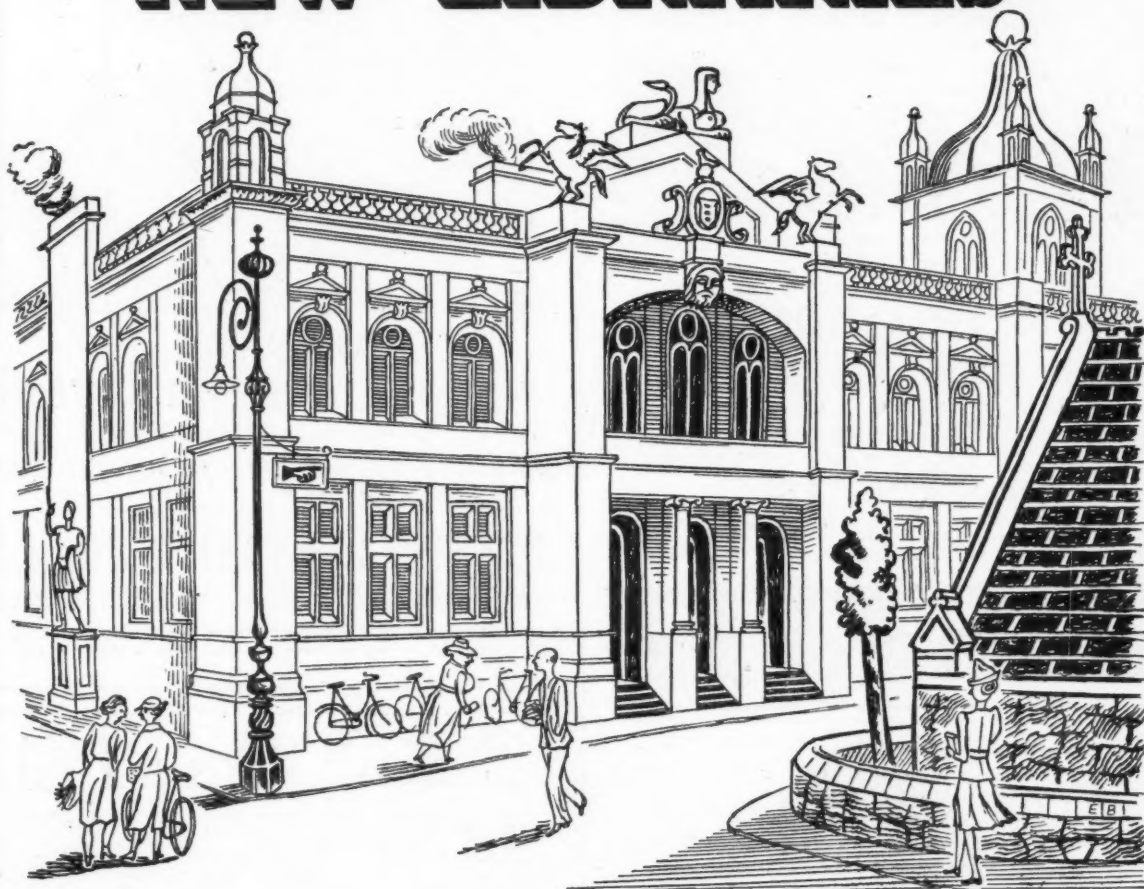
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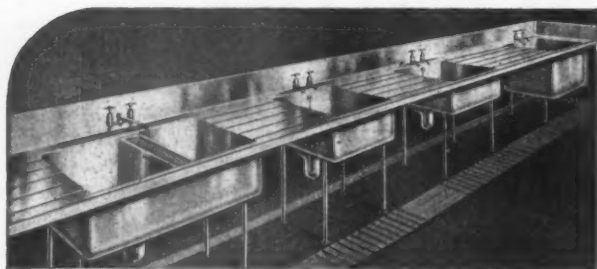


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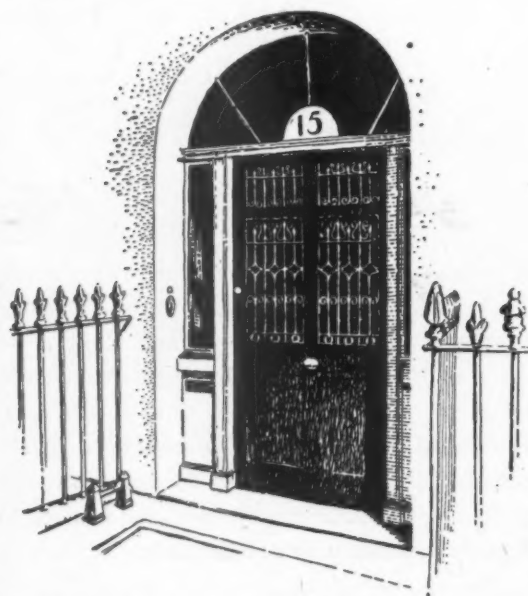
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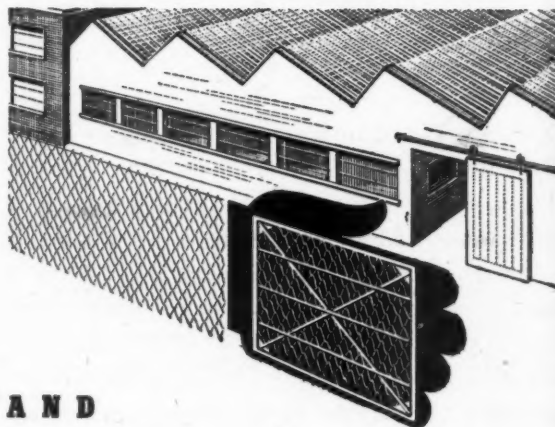
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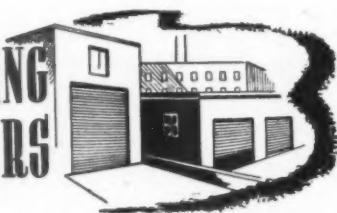


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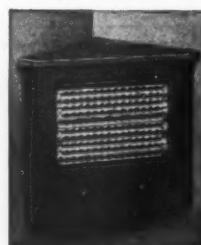
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Replies to Box Numbers should be addressed care of "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey.

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

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

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

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

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

Except as otherwise shown, salaries for the above positions will be determined by qualifications and experience up to a maximum of £420 a year, together with cost-of-living additions up to £90 a year, according to basic salary. Salary up to £500 for certain positions of heating engineer and building surveyor. Successful candidates will be engaged on a temporary basis, but will be eligible for appointment, according to merits, for permanent appointment on the occurrence of vacancies. Temporary staff are required to contribute to the Council's Superannuation and Provident Fund.

Ex-Service candidates with experience prior to their war service will be specially considered.

Application forms may be obtained from the Clerk of the Council, County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope.

Canvassing disqualifieds. 947

## COUNTY BOROUGH OF BLACKBURN.

Applications are invited from Registered Architects having good general experience in the design and construction of public and municipal buildings for the post of ARCHITECTURAL ASSISTANT (Grade III, salary £390 x £15 to £435 per annum, plus bonus, at present £59 16s. per annum). The appointment is on the permanent staff, and subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, endorsed "Architectural Assistant," stating age, qualifications, experience, past and present appointments, together with copies of three recent testimonials, to be received by the Borough Engineer, Town Hall, Blackburn, by 19th September, 1946.

CHAS. S. ROBINSON,  
Town Clerk. 866

## THE COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE.

## APPOINTMENT OF COUNTY PLANNING OFFICER.

Applications are invited for the appointment of County Planning Officer, at an annual salary of £1,500, rising by annual increments of £50 to £1,750, plus war bonus on the County Council's scale. Applicants must be Corporate Members of the Town Planning Institute, and have had considerable experience in the preparation and administration of planning schemes. Preference will be given to persons who also possess a recognized qualification in architecture, civil engineering or surveying.

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

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

BERNARD KENTON,

Clerk of the County Council.

County Hall, Wakefield.  
13th August, 1946. 822

## DEPARTMENT OF HEALTH FOR SCOTLAND.

## CHIEF ARCHITECT AND PLANNING OFFICER.

Applications are invited by the Department of Health for Scotland for the post of Chief Architect and Planning Officer in Edinburgh, at a salary of £1,800 inclusive.

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

Candidates must be between the ages of 35 and 50 on 1st September, 1946, must be members of the R.I.B.A. and the T.P.I., and must have extensive experience of housing (with particular reference to layout, design, and the new forms of construction) and of town and country planning.

Forms of application, with further particulars of the appointment, may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Edinburgh, 1, and must be returned to him not later than the 31st October, 1946.

Those candidates who appear best qualified will be required to attend a Selection Board in Edinburgh or London. 827

## CITY OF LIVERPOOL.

## ARCHITECTURAL AND HOUSING DEPARTMENT.

The Council of the City of Liverpool invite applications from qualified persons for the following temporary positions, in the Architectural and Housing Department, at the salaries shown, viz.:—

(a) TWO QUANTITY SURVEYORS. Salary £500, plus war bonus.

(b) ONE ASSISTANT ARCHITECT. Salary £450, plus war bonus.

Applicants must have had professional experience, preferably in Local or Central Government service, and one of the Quantity Surveyors must be competent in measurement of works and checking contractors' accounts for estate development (roads and sewers) contracts.

Although the positions are classed as temporary, it is probable that on continued satisfactory service the officers appointed will be absorbed into the permanent establishment of the Department at a later date, subject to the Standing Orders of the City Council.

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

Applications, on forms to be obtained from the City Architect and Director of Housing, Blackburn Chambers, Kingsway, Dale Street, Liverpool, 2, accompanied by copies of three recent testimonials, must be addressed to the City Architect and Director of Housing (endorsed with the description of the post applied for, e.g., "Quantity Surveyor"), and should be received on or before the 30th September, 1946.

Candidates serving in H.M. Forces abroad need not complete the official form of application, but may submit direct applications on or before the date specified, giving particulars of age, education, qualifications and experience, and three names as references. The number of the applicant's release group and probable date of release should also be stated.

Canvassing of members of the City Council, either directly or indirectly, will be a disqualification.

W. H. BAINES,  
Town Clerk. 872

Liverpool, 2.  
August, 1946.

## BOROUGH OF LEYTON.

## BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

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

## ARCHITECTURAL ASSISTANTS.

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

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

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

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

Candidates for (2) should have had experience in School Architecture.

Candidates for (3) must have had experience in Housing Maintenance.

## TOWN PLANNING ASSISTANTS.

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

(2) TEMPORARY JUNIOR TOWN PLANNING ASSISTANT, at a salary of £330 per annum, rising by annual increments of £15 per annum to a maximum of £375 per annum, plus £20 per annum weighting, plus cost-of-living bonus, at present £60 per annum.

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

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

Applications, stating age, details of qualifications and experience, together with copies of three recent testimonials, are to be delivered to the Borough Engineer and Surveyor not later than 20th September, 1946, in a sealed envelope, and endorsed respectively, Architectural Assistant (1), (2) or (3), or Town Planning Assistant (1) or (2).

Canvassing, directly or indirectly, will disqualify.

D. J. OSBORNE,

Town Clerk.

Town Hall, Leyton, E.10.  
12th August, 1946. 816

## THE ARCHITECTS' JOURNAL LIBRARY OF INFORMATION SHEETS.

Applications are invited for appointment of TECHNICAL ASSISTANT.

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

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

## THE TECHNICAL EDITOR.

The Architectural Press, Ltd., 45, The Avenue, Cheam, Surrey. 87

## CITY OF BRADFORD.

## CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the permanent post of HEATING AND VENTILATING ENGINEER, at a salary of £535 per annum, rising to £600 in three increments, plus cost-of-living bonus, at present £59 16s.

The post is a new one, and the Engineer will be responsible to the City Architect for the design of new heating and hot water and ventilation installations, including improvements to existing schemes, together with the provision or maintenance and design of mechanical equipment generally.

Candidates should be Associate Members of the Institution of Mechanical Engineers and/or Associate Members of Institution of Heating and Ventilating Engineers, and possess a high standard of ability and good experience, preferably partly gained with a Local Authority.

Full details and an application form may be obtained from the City Architect, Town Hall, Bradford, and the completed form must be returned to him not later than the 14th September, 1946.

W. H. LEATHEM,

Town Clerk.

Town Hall, Bradford.  
26th August, 1946. 876

**BOROUGH OF SURBITON.**

**BOROUGH SURVEYOR'S DEPARTMENT.  
APPOINTMENT OF A DRAINAGE ASSISTANT AND A TOWN PLANNING ASSISTANT.**

Applications are invited for the permanent appointments of a Drainage Assistant and a Town Planning Assistant, at a salary in each case in accordance with Grade A.P.T./III of the National Scheme of Conditions of Service, namely £410 per annum, rising by annual increments of £15 to a maximum of £455 per annum, plus bonus, which is at present at the rate of £59 16s. per annum.

The salary includes the weighting for the London area.

Applicants for the post of Drainage Assistant should hold the qualification of Associate Membership Examination of the Institution of Civil Engineers and/or the Testamur of the Institution of Municipal and County Engineers, and should have had experience of drainage work and sewage disposal.

Applicants for the post of Town Planning Assistant should hold the qualification of Corporate Membership of the Town Planning Institution or similar qualification.

Housing accommodation will be provided for the successful applicants, if necessary, at a rent to be agreed, as and when such accommodation becomes available.

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

Applications, on forms to be obtained from the undersigned, must be delivered not later than 21st September, 1946.

Canvassing, either directly or indirectly, will disqualify.

R. H. WRIGHT, Town Clerk.

Council Offices, Surbiton. 874

**NEATH RURAL DISTRICT COUNCIL.  
APPOINTMENT OF TWO ENGINEERING ASSISTANTS.**

Applications are invited for the appointment of two Engineering Assistants, in the Engineer and Surveyor's Department, as follows:—

(a) Engineering Assistant, at a salary in accordance with A.P.T., Grade V, of the National Scale, commencing at £460 per annum and rising to £510 per annum.

(b) Engineering Assistant, at a salary in accordance with A.P.T., Grade IV, of the National Scale, commencing at £420 per annum and rising to £465 per annum.

Candidates for appointment (a) must have had considerable experience in the design and construction of Sewerage and water schemes, and those for appointment (b) must have had experience in general Engineering Work, and in particular in the layout and preparation of housing sites and all services connected therewith.

Candidates for both appointments should possess one of the appropriate qualifications stipulated in the scheme of Conditions of Service issued by the National Joint Council for Local Authorities, Administrative, Professional, Technical and Clerical Services.

The current cost-of-living bonus will be paid in addition to the above salaries, and the appointments will be subject to the Council's Superannuation Scheme, and successful candidates will be required to pass a medical examination.

Applications, endorsed "Engineering Assistant" (a) (b), stating full particulars of experience, age, and qualifications, accompanied by three recent testimonials, should be sent to the undersigned not later than the 18th of September, 1946.

T. D. WINDSOR WILLIAMS, Clerk of the Council. 875

**WEST SUFFOLK COUNTY COUNCIL.**

Applications are invited for the undermentioned appointments, in the County Architect's Department. Salaries as indicated, in accordance with the National Joint Council Salary Scales, plus cost-of-living bonus (at present £60 per annum); position on scales according to qualifications, viz.:

(a) QUANTITY SURVEYOR. A.P.T., Grade V (£460-£510).

(b) ENGINEERING ASSISTANT. A.P.T., Grade V (£460-£510).

(c) ARCHITECTURAL ASSISTANT. A.P.T., Grade III (£390-£435).

(d) BUILDINGS' INSPECTOR. A.P.T., Grade I (£330-£375).

Travelling allowance in accordance with County Scale.

The appointments will be terminable by one month's notice in writing on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination.

Forms of application may be obtained from the undersigned, by whom applications, accompanied by three recent testimonials, should be received not later than Friday, 20th September, 1946.

L. G. H. MUNSEY, Clerk of the County Council.

Shire Hall, Bury St. Edmunds. 896  
27th August, 1946.

**BANSTEAD URBAN DISTRICT COUNCIL.**

Applications are invited for the undermentioned appointments, in the Surveyor's Department:—

(a) ASSISTANT ARCHITECT, on permanent staff, Grade IV (A.P. and T. Division) National Scale of Salaries, including London weighting, £440 p.a., rising to £485 p.a. Candidates should be Registered Architects, preferably holding A.R.I.B.A. or equivalent qualification. Experience of Local Authority housing schemes essential; good general experience desirable.

(b) GENERAL ARCHITECTURAL ASSISTANT, on permanent staff, Grade I (A.P. and T. Division) National Scale of Salaries, including London weighting, £350 p.a., rising to £395 p.a. Experience of Local Authority housing schemes essential.

(c) TRACER, on temporary staff, with experience in an Architect's office. Applicants to state salary required.

(d) PLANNING ASSISTANT, on permanent staff, Grade IV (A.P. and T. Division) National Scale of Salaries, including London weighting, £440 p.a., rising to £485 p.a. Applicants should be suitably qualified and experienced.

In addition to salaries stated, war bonus, at present £59 16s. p.a. for a man, £48 12s. p.a. for a woman, will be paid.

Forms of application to be obtained from the undersigned. Last day for receipt of applications, 23rd September, 1946. Canvassing, directly or indirectly, will disqualify.

F. H. WILTSHIRE, Clerk of the Council.

The Council House, Brighton Road, Banstead, Surrey. 860  
20th August, 1946.

**CORPORATION OF LONDON.**

**CITY SURVEYOR'S OFFICE.**

**APPOINTMENT OF TECHNICAL STAFF**

Applications are invited for the following appointments in the City Surveyor's Office.

(a) ARCHITECTURAL ASSISTANTS. Salary £450, inclusive of consolidated bonus.

(b) ARCHITECTURAL ASSISTANTS. Salary £350, inclusive of consolidated bonus.

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

Applicants for appointment (b) should be students of the Royal Institute of British Architects or probationers of the Royal Institution of Chartered Surveyors (Building Sub-division).

Both grades of appointment are for the present on a temporary basis, and will be concerned principally with reinstatement of war damage to a variety of types of properties. There will be a possibility of establishment for suitable men, and temporary service will count for the purpose of superannuation. Such appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and applicants will be required to pass a medical examination. Previous experience with a Municipal Body is not essential.

Applications, endorsed "Technical Staff," to be made to George Holliday, F.S.I., The City Surveyor, 55-61, Moorgate, E.C.2, giving the following particulars: War service, age, qualifications or intentions in connection therewith, previous training, positions and experience, date when available to commence duties if selected, together with copies of two testimonials. 862

**THE GLASGOW SCHOOL OF ART.**

The Governors invite applications for the post of SENIOR ARCHITECTURAL ASSISTANT. Previous teaching experience, though desirable, is not essential. Salary according to qualifications and experience.

Applications (six copies), stating age, qualifications, and experience, and the names of at least two referees, to be lodged with the undersigned immediately.

G. MUIR MURRAY, Secretary and Treasurer. 870

**OFFICIAL APPOINTMENTS.**

**ARCHITECTURAL ASSISTANTS WANTED.**

Ministry of Works invite applications to fill vacancies for Architectural Assistants, either male or female, in an unestablished capacity, for Drawing Office duties in London and all main Provincial cities. Applicants should have had an approved period of recognized training. Experience with a practising Architect, Local Authority or Government Department would be regarded as a considerable advantage, but candidates without the latter qualifications would receive consideration.

Salary: Up to £510 per annum inclusive, according to qualifications and experience.

An application from anyone at present employed by another Government Department cannot be considered, unless his services have been declared redundant with his present Department.

Apply in writing, stating town or district in which employment is desired, to Chief Architect, W.G.10/WG Room 10, Ministry of Works, Abell House, John Islip Street, London, S.W.1. 907

**CITY OF LEEDS.**

**CITY ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments:—

(a) CHIEF ASSISTANT ARCHITECT (Public Buildings).  
(b) CHIEF ASSISTANT ARCHITECT (Public Buildings).

Candidates must be Registered Architects, competent in architectural design and administration, have had actual experience in the carrying out of architectural works, and be familiar with statutory modern building requirements and regulations in connection with Schools and School Buildings, or Public Buildings.

The commencing salary in each case will be £650 per annum, rising by annual increments of £25 to a maximum of £800 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

(c) ASSISTANT ARCHITECTS (Class 2).  
The commencing salary will be £535 per annum, rising by annual increments of £20 to a maximum of £600 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

(d) ASSISTANT ARCHITECTS (Class 3).  
The commencing salary will be £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

(e) ASSISTANT ARCHITECTS (Class 4a).  
The commencing salary will be £330 per annum, rising by annual increments of £15 to a maximum of £375 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

Candidates for appointments (c) to (e) must be Registered Architects, and must have had a thorough training and experience in architectural design and construction.

(f) JUNIOR ASSISTANT ARCHITECT (Class 5).

The commencing salary will be according to age, rising to a maximum of £300 per annum at 30 years of age.

(g) HEATING AND VENTILATING ENGINEER.

Candidates should hold an appropriate University degree, or be Associate Members of the Institute of Heating and Ventilating Engineers, and must have had experience in the design and supervision of heating, hot water and ventilating systems in all classes of buildings.

(h) ELECTRICAL ENGINEER.

Candidates should be Associates of the Institute of Electrical Engineers, and must have had experience in the design and supervision of installations in connection with lighting, heating, power plants, and mechanical equipment generally.

The commencing salary in each case (g) and (h) will be £460 per annum, rising by annual increments of £15 to a maximum of £510 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

(j) ASSISTANT SURVEYORS (Class 1a).  
The commencing salary will be £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum. The first increment will take effect on the 1st April following the completion of six months' satisfactory service.

Candidates should have had extensive experience in surveying and levelling of large sites and buildings, and Town Planning.

Cost-of-living bonus additional to the above scales is at present payable as follows:—

Adult male officers, £59 16s. per annum.

Adult female officers, £48 2s. per annum.

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

Applications, on forms to be obtained from the undersigned, accompanied by copies of not more than three testimonials (not returnable), must be received by me in the envelope supplied therefor, not later than 10 a.m. on Saturday, the 14th September, 1946.

Canvassing in any form, either directly or indirectly, will be a disqualification.

R. A. H. LIVETT, O.B.E., A.R.I.B.A., City Architect.

Priestley House, Quarry Hill, Leeds, 9. 871  
August, 1946.

**COUNTY BOROUGH OF DARLINGTON.**

**BOROUGH SURVEYOR'S DEPARTMENT.**

**ARCHITECTURAL ASSISTANT.**

Applications are invited for the appointment of an Architectural Assistant, on Grade IV of the National Scale of Salaries £420 x £15 = £465, plus cost-of-living bonus of £59 19s. 3d. per annum.

Preference will be given to candidates who have passed the Associateship Examination of the Royal Institute of British Architects.

Applications, endorsed "Architectural Assistant," giving names and addresses of three referees, should be delivered to the Town Clerk, Darlington, on or before the 26th September, 1946.

Canvassing, directly or indirectly, will disqualify. 878



## THURROCK URBAN DISTRICT COUNCIL.

## ENGINEER AND SURVEYOR'S DEPARTMENT.

## APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment of two Temporary Architectural Assistants, at a salary in accordance with Grade I of the A.P. and T. Division of the National Scale of Salaries, namely £330×£15 to £375 p.a., plus such war bonus as may from time to time be payable (at present £59 16s. per annum).

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937; successful candidates will be required to pass a medical examination.

Applicants should have experience in general building design and construction, and must be neat and expeditious draughtsmen. It will be considered an advantage if candidates have passed or are studying for the examination of Associateship of the Royal Institute of British Architects.

Applications, stating age, qualifications and experience, with copies of not more than three recent testimonials, endorsed "Architectural Assistant," should reach the undersigned not later than first post on Tuesday, 17th September, 1946.

Canvassing will disqualify, and applicants must declare in writing relationship to any member or chief officer of the Council.

A. E. POOLE,

Clerk of the Council.

21st August, 1946.

868

## COUNTY COUNCIL OF DURHAM.

## EDUCATION COMMITTEE.

Applications are invited for the following vacancies, in the Architectural Department:—

ARCHITECTURAL ASSISTANTS. A. P. and T. Division (Grade III). £390—£15—£435.

ARCHITECTURAL ASSISTANTS. A. P. and T. Division (Grade I). £350—£15—£375.

ARCHITECTURAL ASSISTANTS. Miscellaneous Division (Grade I). £255—£15—£300.

TECHNICAL ASSISTANTS. Miscellaneous Division (Grade I). £255—£15—£300.

ASSISTANT QUANTITY SURVEYORS. A. P. and T. Division (Grade I). £330—£15—£375.

ASSISTANT CLERKS-OF-WORKS. Miscellaneous Division (Grade I). £255—£15—£300.

Plus cost-of-living bonus in each case.

The scales of salaries and conditions of service accord in principle with those of the Joint Council of Local Authorities' Administrative, Professional, Technical and Clerical Services. In addition a cost-of-living bonus is at present payable at a rate of £59 16s. per annum. Forms of application and other particulars relating to the appointments may be obtained upon application, enclosing stamped addressed foolscap envelope, to the Architect to the Education Committee, Mr. F. Willey, F.R.I.B.A., F.S.I., 34, Old Elvet, Durham. Canvassing, either directly or indirectly, will disqualify. Latest date for receiving applications, Monday, 23rd September, 1946.

THOS. B. TILLEY,

Director of Education.

Shire Hall, Durham.

August, 1946.

867

## SURREY COUNTY COUNCIL.

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

ASSISTANT ARCHITECT, in Grade V, at a commencing salary of £460, rising by annual increments of £15/20 to £510 per annum, plus London allowance of £20, together with war bonus, at present £59 16s. per annum.

Applicants should either hold a degree in Architecture or be an Associate Member of the Royal Institute of British Architects, and should have had a good training and an adequate experience in the design and construction of modern buildings.

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

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

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-on-Thames, not later than Saturday, 14th September, 1946.

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

DUDLEY AUKLAND,

Clerk of the Council.

County Hall, Kingston-on-Thames.

863

## DERBYSHIRE COUNTY COUNCIL.

## COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following permanent appointments:—

## ASSISTANT ARCHITECTS.

(a) Salary £460 to £510 per annum, by two annual increments of £15 and one £20.

(b) Salary £420 to £465 per annum, by annual increments of £15.

Applicants should be fully qualified, and for appointment (a) must have had experience in the design and construction of modern buildings.

## (c) Architectural Assistant.

Salary £330 to £375 per annum, by annual increments of £15.

Applicants to have had good general architectural experience and to be first-class draughtsmen.

## (d) SENIOR QUANTITY SURVEYOR.

Salary £460, rising by two annual increments of £15 and one £20 to a maximum of £510 per annum.

Applicants should be fully qualified, and have had experience in taking off quantities for all trades, measuring up and preparing final accounts.

## (e) ASSISTANT QUANTITY SURVEYORS.

Salary £330 to £375 per annum, by annual increments of £15.

Applicants should have had experience in taking off, measuring up, and preparing final accounts.

In addition to the salaries stated above, a cost-of-living bonus, at present £59 16s. per annum, is payable in each case.

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

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

Applications, stating age, present position and salary, qualifications and previous experience, accompanied by copies of three recent testimonials, should reach the undersigned not later than 12th September, 1946.

Envelopes and applications must be endorsed stating clearly the vacancy for which the application is made.

F. HAMER CROSSLEY, Dipl. Arch.

A.R.I.B.A.,

County Architect.

County Offices, Derby.

29th August, 1946.

882

## LINDSEY (Lincs) COUNTY COUNCIL.

Applications are invited for the following permanent positions in the County Architect's office:—

(a) SENIOR QUANTITY SURVEYOR. Salary offered is A.P.T. Grade V, £460 per annum, rising to £510, with cost-of-living bonus in addition, at present £59 16s. per annum. Preference will be given to applicants who are Professional Associate Members of the Chartered Surveyors' Institution, and experienced in the preparation of Bills of Quantities for Public Buildings, etc.

It is desirable that the successful candidate should provide his own car, for which he would receive an allowance on the Council's scale.

(b) CHIEF CLERK. Salary according to the Higher Clerical Division of the National Scale of Salaries, i.e., commencing at £380 per annum, rising by three annual increments of £15 to £425 per annum. Preference will be given to applicants who have had experience in the Architect's Department of a Local Authority.

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

Applications, accompanied by copies of not more than three recent testimonials, should be sent to the undersigned not later than 23rd September, 1946.

A. DONALD CLARK, A.R.I.B.A.,

A.M.T.P.I.,

Acting County Architect.

County Offices, Lincoln.

890

## RADNORSHIRE EDUCATION COMMITTEE.

## APPOINTMENT OF ASSISTANT ARCHITECT.

Applications are invited for the appointment of Assistant Architect. Salary, A.P.T. Division, Grade IV, of the National Joint Council (£420 per annum—£15—£465), plus cost-of-living bonus.

The appointment is subject to the National Conditions of Service, the Local Government Superannuation Act, 1937, the passing of a medical examination, and three months' notice on either side.

Applications, stating age, particulars of education, qualifications and experience, and accompanied by copies of three recent testimonials, should reach the undersigned not later than 30th September, 1946, in envelopes endorsed "Assistant Architect."

J. MOSTYN,

Director of Education.

County Education Offices, Llandrindod.

Wells.

20th August, 1946.

869

## CITY OF COVENTRY.

## CITY ARCHITECTURAL DEPARTMENT.

The Corporation of Coventry invites applications from qualified persons for the following whole-time permanent appointments in the City Architectural Department:—

QUANTITY SURVEYORS. Salary on Grade A.P.T. III (commencing at £390 per annum, and rising by three annual increments of £15 to a maximum of £435 per annum).

ASSISTANT QUANTITY SURVEYORS. Salary on Grade A.P.T. I (commencing at £330, and rising by three annual increments of £15 to a maximum of £375 per annum).

Salary increments are subject to satisfactory service. The above salaries are exclusive of the Council's cost-of-living bonus, which may vary, but which at present amounts to £29 19s. 3d. per annum.

The posts are subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Act, as amended in regard to annuities to widows by the Coventry Corporation Act, 1936, and a satisfactory certificate will be requisite from the Council's medical referee. The persons appointed will be required to contribute to the Coventry Municipal Officers' Widows' and Orphans' Pension Fund.

Applications must be made on the form obtainable from the undersigned, and should be returned completed, together with copies of not more than two recent testimonials or names of two persons to whom reference may be made, not later than Friday, the 27th September, 1946.

Canvassing, directly or indirectly, will be a disqualification.

D. E. E. GIBSON,

City Architect.

1a, Warwick Row, Coventry.

September 5, 1946.

889

## VACANCY FOR QUANTITY SURVEYOR.

## PUBLIC WORKS DEPARTMENT, SALISBURY, SOUTHERN RHODESIA.

Applications are invited for the post of Quantity Surveyor, in the Public Works Department, Salisbury, Southern Rhodesia.

Candidates must hold the Diploma of the Royal Institution of Chartered Surveyors (P.A.S.I.) Qualities.

Successful candidate's scale of salary, conditions of service, etc., are set out hereunder:—

(1) Commencing salary £850 per annum, rising by annual increments of £30 to £1,000 per annum.

(2) Appointment will be for a probationary period of two years.

(3) Subject to satisfactory service, successful applicant will be eligible for appointment to the Fixed Establishment, i.e., Permanent Staff, on expiration of the probationary period.

(4) Staff on the Fixed Establishment are required to become members of the Pension Fund on a contributory basis.

(5) Applicants are advised to be medically examined prior to application. Confirmation of appointment after reporting for duty will be subject to production of a satisfactory medical certificate on the prescribed form from a Government Medical Officer.

(6) Vacation leave on full pay is granted on a basis of 1/8th of service, subject to the exigencies of the service (example, 480 days' service completed, 60 days' vacation leave on full pay accumulated).

(7) Steamship and rail fares will be paid to Salisbury, Southern Rhodesia, for successful applicant and half the cost of passage and fares of his wife and dependent children under 18 years of age. Travelling expenses in respect of railway journeys are paid in terms of regulations.

Applicants should forward the following information to the High Commissioner for Southern Rhodesia, Rhodesia House, 429, Strand, London, W.C.2.

(a) Full details of Quantity Surveying experience and professional training, together with copies of testimonials.

(b) Age, nationality, conjugal condition and period, if any, spent on active service.

Closing date for the receipt of applications, 30th September, 1946.

Canvassing will disqualify applicants.

## COUNTY BOROUGH OF BURY.

Applications are invited for positions at salaries (pending the regrading of the Administrative, Professional and Technical Services under the adopted National Joint Council Salary Scales) according to the scales of the Lancashire and Cheshire Provincial Council.

ENGINEERING ASSISTANT. Grade "C." £330×£15—£350.

ENGINEERING ASSISTANT. Grade "B." £285×£15—£315.

QUANTITY SURVEYOR. Grade "B." £285×£15—£315.

CLERK OF WORKS. Grade "B." £315.

Plus cost-of-living bonus, at present £59 16s.

Applications, stating details of training, qualifications and experience, together with two references, must be forwarded to the Borough Engineer, Bank Street, Bury, not later than Wednesday, the 11th September, 1946.

EDWARD S. SMITH,

Town Clerk.

Municipal Offices, Bank Street, Bury.

August, 1946.

891

# 1] THE ARCHITECTS' JOURNAL for September 5, 1946

HAYES AND HARTINGTON URBAN DISTRICT COUNCIL.

## APPOINTMENT OF ARCHITECT.

Applications are invited from recognized and qualified Architects for the above appointment, on the permanent staff. The person appointed is to be the head of an Architectural Section being established by the Council under the control of the Engineer and Surveyor.

Salary in accordance with Grade A.P.T. VI of the National Scheme of Conditions of Service, i.e., £535 per annum, rising by two annual increments of £20 and one of £25 to a maximum of £660, plus £20 per annum London weighting, plus cost-of-living bonus, at present 23s. per week. The Council can give no undertaking to provide or assist in providing housing accommodation.

Forms of application can be obtained from the Engineer and Surveyor, Town Hall, Hayes, Middlesex, on receipt of a stamped, addressed foolscap envelope.

Applications on the prescribed form, accompanied by copies of three recent testimonials in sealed envelopes, endorsed "Architect," must be received by me not later than 9 a.m. on 23rd September, 1946.

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

Dated this 29th day of August, 1946.

A. E. HIGGINS,

Clerk of the Council.

Town Hall, Hayes, Middlesex. 905

NOTTINGHAMSHIRE COUNTY COUNCIL.

## ARCHITECT'S DEPARTMENT.

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

Applicants should be members of the Surveyors' Institution (Quantity Surveying Branch), and the salary advertised may be increased in accordance with qualifications and experience.

The post will be subject to the Local Government Superannuation Acts, 1937-1939, and will be terminable upon one month's notice on either side at any time. The successful candidate will be required to pass a medical examination.

Forms of application may be obtained from the County Architect, Shire Hall, Nottingham.

K. TWEEDALE MEABY,

Clerk of the County Council.

Shire Hall, Nottingham.

August, 1946.

854

## CIVIL SERVICE COMMISSION.

Applications are invited for about seven appointments as JUNIOR INVESTIGATOR in the Royal Commission on Historical Monuments (England).

The scales of salary will be £250×£18-£400×£25 to £275 for men, and £250×£18-£475 for women, with consolidation addition varying between £78 and £90 (men) and £63-£72 (women). The salary scales are somewhat lower in the provinces. There are prospects of appointment to higher posts. Starting salary will be increased by one increment above the minimum for each year of age over 24, subject to a maximum of six such increments. The appointment will carry the usual Civil Service conditions as to pension, holidays, etc.

Candidates must be British subjects between the ages of 21-35 years on 1st April, 1946. They must satisfy the Civil Service Commissioners that they have received such systematic education and possess such knowledge as to fit them for the post. Those holding a University degree or corresponding qualification will be given preference. A knowledge of the history and practice of English Architecture is necessary.

Forms of application, with further particulars of the appointments, may be obtained from the Secretary, Civil Service Commission, Burlington Gardens, London, W.1, quoting No. 1626. No application can be considered unless received on the prescribed form not later than the 14th October, 1946 (for candidates in the United Kingdom) or 14th November, 1946 (for candidates overseas). Service candidates may apply without regard to the date of their release in Class A. 885

## LEEDS COLLEGE OF ART.

### SCHOOL OF ARCHITECTURE.

Applications are invited for the appointment of full-time HEAD OF THE SCHOOL OF ARCHITECTURE. The school is a department of the Leeds College of Art, and its diplomas are recognized for statutory registration and by the R.I.B.A. and the Town Planning Institute for exemption purposes.

Applicants must be Associates or Fellows of the R.I.B.A. The maximum salary will probably be £1,000 a year, and private practice will be allowed.

Further particulars and forms of application may be obtained by forwarding stamped addressed foolscap envelope to The Director of Education, Education Offices, Leeds, 1. 863

## Partnership

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

ASSOCIATE (33), hard working, well experienced, accurate and thoroughly reliable, with highest references, seeks Junior Partnership in progressive firm of high standing; capital available; anywhere in U.K., where prospects are good. Box 899.

## Tenders

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### COUNTY BOROUGH OF SMETHWICK.

#### TO BUILDERS AND CONTRACTORS.

ERECTION OF 80 TWO- AND THREE-BEDROOM COTTAGE-ON-COTTAGE DWELLINGS (FOUR STOREY HIGH), AND 12 ONE-BEDROOM MAISONNETTES (TWO STOREY HIGH), CHURCH ROAD, SMETHWICK.

The Housing Committee invite Tenders for the erection of the above Dwellings within the County Borough of Smethwick.

Bills of Quantities and Form of Tender will be sent to Builders and Contractors making written application to Mr. Roland Fletcher, M.Inst.C.E., Borough Engineer and Surveyor, Council House, Smethwick, not later than Saturday, 14th September, 1946. This should be accompanied by a crossed cheque for £2 2s. made payable to the "Borough Treasurer, Smethwick," which will be returnable upon receipt of a bona fide tender on the official form supplied for the purpose.

Detailed working drawings can be inspected at the office of the Borough Engineer each day between the hours of 9 a.m. and 5.15 p.m., except Saturday, when the office is closed at 12 noon.

Tenders must be enclosed in the official envelope, and reach the undersigned not later than Saturday, 28th September, 1946.

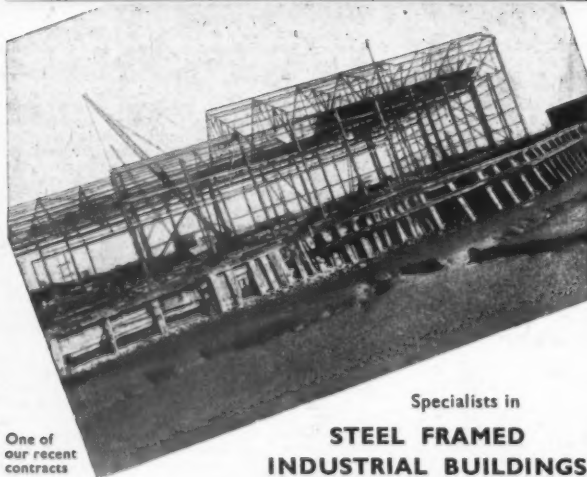
The Corporation do not bind themselves to accept the lowest or any tender.

E. L. TWYECROSS,  
Town Clerk.

Council House, Smethwick.  
27th August, 1946.

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(CONSTRUCTIONAL ENGINEERS LTD.)



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STANCHIONS—RIVETTED  
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## WANDSWORTH BOROUGH COUNCIL.

## ERECTION OF PERMANENT BRICK-BUILT HOUSES.

The Council propose to arrange for the erection on various sites in the Borough of small groups of permanent brick-built houses. Registered Building Contractors in the Borough who wish to submit tenders for the building of these houses should forward their names to the Borough Engineer and Architect, Mr. H. W. Tee, M.Inst.C.E., Municipal Buildings, Wandsworth, S.W.18, not later than 30th September, 1946. Bills of Quantities and Specifications for the various types of houses are in course of preparation, and contractors will be notified when these documents are available.

R. H. JERMAN,  
Town Clerk.

Municipal Buildings, Wandsworth, S.W.18.  
6th September, 1946. 852

## Sale by Auction

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

## RAYNES PARK.

FREEHOLD SITE AT SHANNON CORNER,  
on the  
KINGSTON-BY-PASS AND BURLINGTON  
ROAD.

AN IMPORTANT POSITION WITH AN  
ASSURED FUTURE.  
AREA ABOUT 1.120 ACRE.

Suitable for the immediate erection of  
EIGHTY FLATS,  
the ground floor of which may later be  
converted to  
TWENTY SHOPS.

Total frontage about 440 ft.  
All services available for connection.  
For Sale, by Auction, by Messrs.  
KNIGHT, FRANK & RUTLEY,  
at the Hanover Square Estate Room, on Thurs-  
day, 10th October, at 2.30 p.m. (unless previously  
sold privately).

Solicitors: Messrs. Ranger Burton & Frost,  
Stafford House, Norfolk Street, W.C.2.  
Auctioneers: Messrs. Knight, Frank & Rutley,  
30, Hanover Square, W.1. (29722/T/R.B.). 864

## Architectural Appointments Vacant

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

Wherever possible prospective employers  
are urged to give in their advertisements full  
information about the duty and responsi-  
bilities involved, the location of the office,  
and the salary offered. The inclusion of the  
Advertiser's name in lieu of a box number  
is welcomed.

TWO additional Architectural Assistants re-  
quired for busy Cambridge Architect's office;  
salaries £350-£400, according to ability; know-  
ledge of quantities advantageous. Box 768.

SENIOR and JUNIOR ARCHITECTURAL  
ASSISTANTS required; pleasant working  
conditions; good salary and interesting work.  
Full particulars to Forshaw & Greaves, 33, Albion  
Street, Hanley, Stoke-on-Trent. 819

TWO SENIOR ASSISTANTS required im-  
mediately for Prestatyn (North Wales  
North) and London Branches; other vacancies at  
Luton and Shrewsbury; salary £350 to £450.  
Apply in writing, stating branch preferred,  
Goronwy Owen, A.R.I.B.A., P.A.S.I., 211, High  
Road, Streatham, London, S.W.16. (Streatham  
2611 or Prestatyn 163.) 826

ARCHITECTURAL ASSISTANTS (Draughts-  
men) required at once by Ministry of Works,  
23, George Street, Edinburgh, 2; salary accord-  
ing to age and experience. Applications contain-  
ing this information to "The Secretary" at the  
above address. 828

ASSISTANT ARCHITECT and ARCHITEC-  
TURAL ASSISTANT required immedi-  
ately for Arch. Dept. of large firm engaged on  
design of Houses, Flats and Schools, S.W.1;  
salary according to qualifications. Apply Box 837.

JUNIOR ASSISTANT, for private practice,  
W.C.2; capable of measuring up Houses and  
prepare Schedules of Dilapidations; neat  
draughtsman in ink and pencil essential.  
Box 839.

JUNIOR ASSISTANT (R.I.B.A. Inter-  
Standard) wanted for Architect's Office; able  
to work up to 1 in. and 1/2 in. working drawings.  
Apply, stating age, experience, and salary re-  
quired, to Hedley A. Mobbs, F.A.S., L.R.I.B.A.,  
10a, High Street, Boston, Lincs. 840

INTERNATIONAL CORRESPOND-  
ENCE SCHOOLS require for immediate full-  
time employment JUNIOR ARCHITECTURAL  
ASSISTANT, qualified by R.I.B.A. examination.  
Write or 'phone (Holborn 3971), stating experience  
and salary required, to Director of Instruction,  
International Correspondence Schools, Kingsway,  
W.C.2. 838

QUALIFIED or experienced ARCHITEC-  
TURAL ASSISTANTS, also QUANTITY  
SURVEYOR, required in Architect's Department,  
for work on Business Premises and Factories,  
etc.; salary according to qualifications. Appli-  
cants to give details of experience, age, salary  
required, to Architect's Department, C.W.S., Ltd.,  
90, Westmorland Road, Newcastle-upon-Tyne. 846

ASSISTANT ARCHITECT required by W. H.  
Smith & Son, Ltd., in their Estate Depart-  
ment; aged about 30-35; must be fully qualified  
and commercially minded; preference given to  
applicants who have had practical experience  
with a multiple firm; position is permanent and  
pensionable, and offers good scope to a man of  
proved ability. Write, in confidence, stating age,  
qualifications, experience, and salary required,  
W. H. Smith & Son, Ltd., Estate Manager, Strand  
House, London, W.C.2. 861

ARCHITECTURAL DRAUGHTSMAN re-  
quired by the Iraqi State Railways for  
three years in the first instance; salary between  
I.D. 40 and I.D. 50 a month, according to qualifi-  
cations and experience, plus high cost-of-living  
allowance of between I.D. 11 1/2 and I.D. 15 a  
month, according to salary and dependants  
(I.D. 1 = £1). Free passages. The post is not  
pensionable, but there is a Provident Fund.  
Candidates must have had a good civil engineer-  
ing experience, particularly in the drawing office.  
Apply at once by letter, stating age, whether  
married or single, and full particulars of qualifi-  
cations and experience, to the Crown Agents  
for the Colonies, 4, Millbank, London, S.W.1,  
quoting M/N/12654, on both letter and envelope. 877

FULLY qualified Architectural Assistant,  
with several years all-round office experi-  
ence, urgently required for London office; work  
mainly on restaurants, factories, schools. Write,  
giving full details of age, experience, and salary  
required, to E. C. Kent, F.R.I.B.A., Parkway  
Chambers, Welwyn Garden City. 873

JUNIOR ARCHITECTURAL ASSISTANT re-  
quired in South London office; must be  
capable draughtsman. Reply, stating age and  
experience, to Box 865.

JUNIOR ASSISTANTS (20-22 years) urgently  
required in private practice for surveys,  
housing and industrial, sketch and working  
drawings. Write or 'phone Clark, 44, Gt. Russell  
Street, W.C.1. Museum 4400. 894

AN Architect and Surveyor in the Midlands,  
with a good general practice, urgently re-  
quires a Senior Assistant. Applications to state  
age, experience, and salary required, and such  
to be sent to E. H. Crump, F.S.I., A.M.Inst.C.E.,  
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ASSISTANT required for General Practice;  
permanence, with prospects. Apply, giving  
details of experience and salary required, to  
C. B. Martindale, A.R.I.B.A., Cathedral  
Chambers, Castle Street, Carlisle. 900

ARCHITECTURAL ASSISTANT required  
immediately for busy East Anglian practice;  
inter. or final R.I.B.A. essential; interesting  
permanent post, where initiative, responsibility,  
and progression welcomed. Cautley & Barefoot,  
A/R.I.B.A., The Thorofare, Butter Market,  
Ipswich. 902

ARCHITECT'S ASSISTANT required. Apply,  
stating age, experience, and salary re-  
quired, to Henry C. Smart & Partners, Archi-  
tects, 251-3, Finsbury Pavement House, 120,  
Moorgate, London, E.C.2. 906

A Man to plan, cost, and supervise the erection  
of 150,000 sq. ft. factory in Liverpool area,  
wanted for a new company interested in making  
and marketing useful, reliable, high value for  
money, goods for the home in all countries.

Applicants should state as briefly as possible  
in tabular form:—

- (1) Reasons for wanting the job.
- (2) Philosophy of life.
- (3) Taste in music and literature.
- (4) Principal leisure interest.
- (5) Willingness to go overseas, if necessary.
- (6) Military service if any, giving rank on  
entry and on demobilization.
- (7) Age, marital state and nationality.
- (8) Qualifications and experience.
- (9) Present or last salary, as the case may be.
- (10) When free.

Starting salary, £15 per week.

Frank Murphy of London, Ltd., 7, High Grove,  
Welwyn Garden City, Herts. 898

JUNIOR DRAUGHTSMEN and TRACERS  
(six) required by Westminster firm of Re-  
inforced Concrete Engineers; full instruction will  
be given to suitable applicants, preferably  
between 17 and 25 years old, to qualify as  
detailers and advance to designers under tuition.  
Reply, stating age, experience, and salary re-  
quired, to Box 887.

AN experienced Quantity Surveyor in all  
branches of profession required in South  
Yorkshire Architect's office; give full particulars;  
salary by arrangement, according to capabilities.  
Box 888.

## Architectural Appointments Wanted

Advertisements from Architectural Assis-  
tants and Students seeking positions in  
Architects' offices will be printed in "The  
Architects' Journal" free of charge until  
further notice.

ASSISTANT, just released from R.A.F., on  
return from Far East; good draughtsman;  
5 years' pre-war experience (general), including  
surveying, mapping, perspective, modelling,  
details; good character; Kent and London area  
preferred, others considered. Box 74.

YOUNG LADY, well educated, holding school  
certificate (with honours in art), seeks  
position in Architect's or Commercial Artist's  
office as Student; London area, north of Thames;  
ability with pencil and fair for sketching.  
Reply to H. E. Goldsmith, Beech House, Beech  
Hill Avenue, Hadley Wood, Herts. 75

ARCHITECT'S ASSISTANT (37) desires  
change from present office; 7 years' office  
experience in flats, housing, licensed premises,  
sketch plans, working drawings, surveys of build-  
ings, etc. Box 81.

ARCHITECTURAL ASSISTANT; L.C.C. ex-  
perience (schools), working drawings,  
measuring buildings; 4 1/2 years draughtsman; ex-  
perience in schools, rectories, churches, etc.;  
national certificate standard in building con-  
struction; knowledge of quantities; London area.  
F. N., 41, Matheson Road, W.14. 82

ARCHITECTURAL DRAUGHTSMAN; school  
trained; sketch plans; working drawings  
1/2, 3/4, and F.S. details, surveys; experience hotel  
work, pubs, housing, etc.; salary £7; S.W.  
England preferred. Box 83.

A.R.I.B.A. Dip. Arch., certificate in town  
planning (25), good general office experi-  
ence, accurate measured surveys, first-class  
draughtsmanship, conscientious worker; London  
district. Box 84.

STUDENT R.I.B.A., preparing for Finals,  
desires position in Architect's office, in or  
near Oxford; 2 1/2 years' varied office experience;  
quick, accurate draughtsman. Box 78.

ASSISTANT requires evening and week-end  
work; sketch plans, working drawing,  
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ASSISTANT (age 25), 8 years' experience,  
industrial, commercial and domestic works;  
available October to any firm able to arrange  
tenancy of unfurnished house or flat. Grey, 99,  
Westborough, Scarborough. 80



**ARCHITECTURAL ASSISTANT** (aged 24), Part I R.I.B.A. final examination, 4 years' architectural education, 5 years' varied office experience, seeks post in London or South England. Please write Box 76.

**ASSISTANT** requires position in County of Durham or nearest, ready to start immediately, good draughtsman, experienced quantity surveyor and estimator, young and energetic, desires change; qualified A.M.I.E.T., L.I.O.B.; preparing for A.R.I.B.A.; used to working on own initiative; reply, stating salary offered. Box 77.

### Other Appointments Vacant

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

**REPRESENTATIVES** or **AGENTS** wanted by well-known Building Materials Company; London and all counties; good connections with architects and civil engineers essential. Box 886

### Other Appointments Wanted

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

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**QUANTITY SURVEYOR** desires spare-time commissions for the preparation of detailed Bills of Quantities, Estimates, etc., from plans and specifications; co-operative basis with architects welcomed. Box 869.

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**PHOTOSTAT MACHINE** and necessary accessories; inspection arranged on request. Secretary, Hearts of Oak Benefit Society, Euston Road, London, N.W.1. 897

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**R.I.B.A. QUALIFYING EXAMINATIONS**. Mr. C. W. Box, F.R.I.B.A., M.B.S.N.I. Courses of Correspondence and Personal to Studio. 115, Gower St., London, W.C.1. (Tel.: Euston 3906).

**R.I.B.A. and T.P. INST. EXAMS**. Private Courses of Tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, 212, Euston Road, N.W.1. Tel.: EUS. 7760.

**PROPOSED RESIDENTIAL SCHOOL OF ARCHITECTURE**—Refresher Courses and Specialized Training for R.I.B.A. Qualifying Exams.; personal tuition; concentrated courses arranged for individual post-war requirements. Enquiries to Major C. T. Larrington, Greenaway Cottage, Ashburton, Newton Abbot, S. Devon. 834

## London County Council.

### HAMMERSMITH SCHOOL OF BUILDING AND ARTS AND CRAFTS.

Lime Grove, Shepherd's Bush, W.12.  
Telephone: SHEpherd's Bush 2265.

Principal: H. W. MOLE, F.R.I.B.A., M.I.Struct.E.

Session 1946-47.

New session commences on 23rd September, 1946.  
Enrolment week: 16th September, 1946.

#### BUILDING DEPARTMENT.

**EVENING CLASSES** for—  
**ARCHITECTS BUILDERS LAND AND QUANTITY SURVEYORS STRUCTURAL ENGINEERS, RE-INFORCED CONCRETE ENGINEERS AUCTIONEERS AND ESTATE AGENTS HEATING AND VENTILATING ENGINEERS BRICKLAYERS, MASONS CARPENTERS AND JOINERS WOODCUTTING MACHINISTS PLASTERERS PLUMBERS PAINTERS DECORATORS AND SIGN-WRITERS.**

#### SENIOR BUILDING SCHOOL.

Full-time day classes are held for the training of students desiring admission to administrative posts in the Building Industry or other positions in the Building professions. The new session commences on 9th September, 1946.

#### ART DEPARTMENT.

**DAY AND EVENING CLASSES** in Art Subjects.

#### JUNIOR DEPARTMENT.

The Junior Building School and Junior Art School resumed on 9th September, 1946.

For further information as to fees for any of the above, etc., apply to the School.

By Order of the  Minister of Supply

## GODDARD & SMITH

announce that they are holding a

### SALE BY AUCTION

AT WARREN PARK, BORDON, HANTS

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## 10,000 VEHICLES

Comprising Ford and Chevrolet Mobile Workshops (fitted lathes, grinders, vices, wall drills, generators, dynamos, benches, etc.), Trucks and Vans, Office and Wireless Vans, Tipplers and Quads, Ambulances, Breakdown Lorries, 6-ton Lorries, Six-wheel Pontoon Lorries, 6-ton Tractors, 15-cwt., 30-cwt. and 3-ton Chassis and some by G.M.C., Mack, Bedford and Albion; also about

### 600 JEEPS

Vehicles are to be offered at 11 a.m. on each Tuesday, Wednesday, Thursday and Friday until approximately September 27th. Those to be offered on September 10th, 11th, 12th and 13th may be viewed between 9 a.m. and 4 p.m. on Saturday and Monday, September 7th and 9th and between 9 a.m. and 10.45 a.m. on each Sale day.

#### ADMISSION BY CATALOGUE ONLY

New obtainable, price 6d. (post free), for each week's sale. Applications marked 'CARS' to the Auctioneers

## GODDARD & SMITH

22, KING STREET, ST. JAMES'S, S.W.1

ESSEX EDUCATION COMMITTEE.

SOUTH-WEST ESSEX TECHNICAL COLLEGE  
AND SCHOOL OF ART.  
FOREST ROAD, WALTHAMSTOW.

DEPARTMENT OF ARCHITECTURE AND  
BUILDING. SESSION, 1946-1947.

Particulars of Full-time and Part-time Courses in Architecture, Town Planning, Structural and Civil Engineering, Land, Quantity, Valuation and Building Surveying, Building and the Building Crafts can be obtained on application to the Head of the Department of Architecture and Building at the College.  
Full-time Day Classes commence on Wednesday, the 11th of September, 1946. Part-time Day and Evening Classes commence on Monday, the 23rd of September, 1946.  
Enrolment for Part-time Day and Evening Classes: 7 to 8.30 p.m. each evening, Monday to Friday, 16-20th September, 1946. Intending full-time day students are interviewed at any time by appointment. 908

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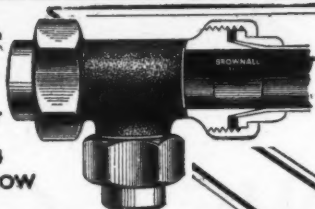
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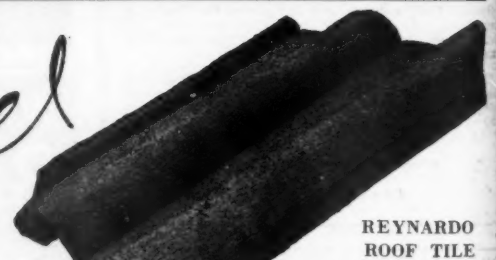
	PAGE		PAGE		PAGE
Adams, Robert (Victor), Ltd.	xxviii	Floor Renovations, Ltd.	liii	Park Foundry (Belper), Ltd.	xxii
Aerialite, Ltd.	xxviii	Franki Compressed Pile Co., Ltd.	xxvii	Parnall, George, & Co., Ltd.	xxii
Air Conditioning & Engineering, Ltd.	xxviii	Fulwood & Bland, Ltd., R. J.	xxvii	Patchett & Co., Ltd.	xxii
Aluminium Union, Ltd.	xxviii	Fyvie Gate Co.	xxvii	Peglers, Ltd.	xxii
Ardor Insulation Co., Ltd.	xxviii	Gaze, W. H., & Sons, Ltd.	xxvii	Poles, Ltd.	xxv
Arena Controls, Ltd.	xxviii	Gillett & Johnston, Ltd.	xxvii	Precision Roofs, Ltd.	xxv
Ascot Gas Water Heaters, Ltd.	xxviii	Goddard & Smith	xxvii	Pressed Steel Co., Ltd.	xxv
Ashley Accessories, Ltd.	xxviii	Gray, J. W., & Son, Ltd.	xxvii	Pyrotenax, Ltd.	xxv
Associated Metal Works (Glasgow), Ltd.	xxviii	Greenwood's & Airvac Ventilating Co., Ltd.	xxvii	Radiation, Ltd.	xxxi
Bakelite, Ltd.	xxviii	Griffiths Bros. & Co., London, Ltd.	xxvii	Renfrew Foundries, Ltd.	xxxi
Bailey, Sir W. H., & Co., Ltd.	xxviii	Hall, Robert H., & Co. (Kent), Ltd.	xxvii	Reparations & Steam Brush Co., Ltd.	xxxi
Barton, Wm., & Sons, Ltd.	xxviii	Harvey, G. A., & Co. (London), Ltd.	xxvii	Ross, S. Graham, Ltd.	xxxi
Bath Cabinet Makers & Artcrafts, Ltd.	xxviii	Helliwell & Co., Ltd.	xxvii	Rowson Drew & Clydesdale, Ltd.	xxxi
Beetle Bond, Ltd.	xxviii	Henderson, P. C., Ltd.	xxvii	Rowney, George, & Co., Ltd.	xxxi
Belling & Co., Ltd.	xxviii	Hobdell Engineering Co., Ltd.	xxvii	Ruberoid Co., Ltd.	xxxi
Birmabright, Ltd.	xxviii	Holden & Brooke, Ltd.	xxvii	Rubery, Owen & Co., Ltd.	xxxi
Black & Decker, Ltd.	xxviii	Hope, Henry, & Sons, Ltd.	xxvii	Sadd, John, & Sons, Ltd.	xxxi
Bolton Gate Co., Ltd.	xxviii	Hopton Wood Stone Firms, Ltd.	xxvii	Sanders, Wm., & Co. (Wednesbury), Ltd.	xxxi
Boulton & Paul, Ltd.	xxviii	Huntley & Sparks, Ltd.	xxvii	Scaffolding (Great Britain), Ltd.	xxxi
Boulton Tubular Structures, Ltd.	xxviii	Ilford, Ltd.	xxviii	Schori Metallising Process, Ltd.	xxxi
Braff Colbran, Ltd.	xxviii	Industrial Engineering, Ltd.	xxviii	Service Electric Co., Ltd.	xxxi
Briegs, William, & Sons, Ltd.	xxviii	International Correspondence Schools	xxviii	Sharman & Sons	xxxi
British Aluminium Co., Ltd., The	xxviii	Isteg Steel Products, Ltd.	xxviii	Sharpe Bros. & Knight, Ltd.	xxxi
British Cast Iron Research Assoc.	xxviii	Jones, Samuel, & Co., Ltd.	xxviii	Smith, E. H. (Croydon), Ltd.	xxxi
British Electrical Development Assoc.	xxviii	Johnston Bros. (Contractors), Ltd.	xxviii	Smith, Henry (Constructional Engineers), Ltd.	xxxi
British National Electric, Ltd.	xxviii	Kautex Plastics, Ltd.	xxviii	Smith & Wellstood, Ltd.	xxxi
British Togo Gypsum, Ltd.	xxviii	Kent & Sussex Contractors, Ltd.	xxviii	Staines Kitchen Equipment Co., Ltd.	xxxi
Britmac Electrical Co., Ltd.	xxviii	Key Engineering Co., Ltd.	xxviii	Sundeala Board Co., Ltd.	xxxi
Bromsgrove Guild, Ltd.	xxviii	Kieft, Cyril, & Co., Ltd.	xxviii	Symons, R. J., Ltd.	xxxi
Brown, Donald (Brownall), Ltd.	xxviii	Lacrinoid Products, Ltd.	xxviii	Thermovent Heater (E. K. Cole, Ltd.)	xxxi
Carrier Engineering Co., Ltd.	xxviii	Laing, John, & Son, Ltd.	xxviii	Thompson Beacon Windows, Ltd., John	xxxi
Carter & Co. (London), Ltd.	xxviii	Leaderflush, Ltd.	xxviii	Thornborough & Son (Manchester), Ltd.	xxxi
Caston & Co., Ltd.	xxviii	Lead Industries Development Council	xxviii	Thornton, A. G., Ltd.	xxxi
Cement Marketing Co., Ltd.	xxviii	Lever, James, & Son, Ltd.	xxviii	Thorpe, John B.	xxxi
Chloride Electrical Storage Co., Ltd.	xxviii	Limmer & Trinidad Lake Asphalt Co.	xxviii	True Flue, Ltd.	xxxi
Colthurst Symons & Co., Ltd.	xxviii	Lloyd Boards, Ltd.	xxviii	Trussed Concrete Steel Co., Ltd.	xxxi
Corner, G., & Co., Ltd.	xxviii	London County Council	xxviii	Tudor Accumulator Co., Ltd.	xxxi
Crittall Manufacturing Co., Ltd.	xxviii	Lowe, J. & H. (Cranes), Ltd.	xxviii	Turners' Asbestos Cement Co., Ltd.	xxxi
Croft Granite, Brick & Concrete Co., Ltd.	xxviii	Main, R. & A., Ltd.	xxviii	Tylers, Ltd.	xxxi
Cole Ventilation, Ltd.	xxviii	Marley Tile Co., Ltd.	xxviii	Uni-Seco Structures, Ltd.	xxxi
Dawnays, Ltd.	xxviii	Matthews & Yates, Ltd.	xxviii	Universal Asbestos Co., Ltd.	xxxi
Diespeker & Co., Ltd.	xxviii	McCall & Co. (Sheffield), Ltd.	xxviii	United Steel Companies, Ltd., The	xxxi
Durafencing, Ltd.	xxviii	McCarthy, M., & Sons, Ltd.	xxviii	Val de Travers Paving Asphalt Co., Ltd.	xxxi
Duresco Products, Ltd.	xxviii	Mellows & Co., Ltd.	xxviii	Vent-Axia, Ltd.	xxxi
Durham Timber Co., Ltd.	xxviii	Metropolitan-Vickers Electrical Co., Ltd.	xxviii	Vulcanite, Ltd.	xxxi
Eagle Pencil Co., Ltd.	xxviii	Midland Woodworking Co., Ltd.	xxviii	Wardle Engineering Co., Ltd.	xxxi
E.C.D., Ltd.	xxviii	Mills, Scaffold Co., Ltd.	xxviii	Walker, Crowther & Co., Ltd.	xxxi
Electrolux, Ltd.	xxviii	Ministry of Labour & National Service	xxviii	Ward, Thos. W., Ltd.	xxxi
Ellison, George, Ltd.	xxviii	Mumford, Bailey & Preston, Ltd.	xxviii	West, A., & Partners, Ltd.	xxxi
English Joinery Manufacturers Assoc.	xxviii	Newalls Insulation Co., Ltd.	xxviii	Wheeler, F. H., & Co., Ltd.	xxxi
Etchells Congdon & Muir, Ltd.	xxviii	Newsam, H., Sons & Co., Ltd.	xxviii	Wimpey, George, & Co., Ltd.	xxxi
Ewart & Son, Ltd.	xxviii	North British Rubber Co., Ltd.	xxviii	Warwick Rim & Sectioning Co., Ltd.	xxxi
Excel Asphalt Co., Ltd.	xxviii	Northern Polytechnic	xxviii	Zinc Alloy Rust Proofing Co., Ltd.	xxxi
Ferguson Edwards & Co. (London), Ltd.	xxviii	Odom, Alfred A., & Co., Ltd.	xxviii	Zinc Development Assoc.	xxxi
Fisher & Ludlow, Ltd.	xxviii				

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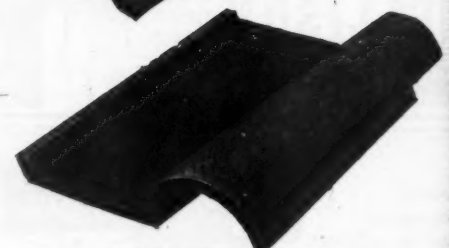
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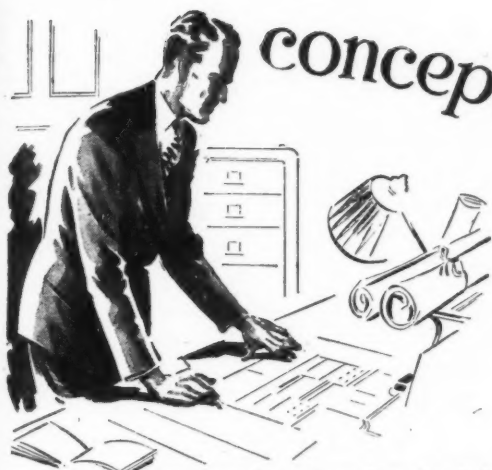


PAGE
xli
iv
xxx
xxxiv
xlii
xxxv
xxiv
liii
liii
xiv
i
liii
xlvi
liii
xxvi
vi
liii
ii
liii
xxx
xliii

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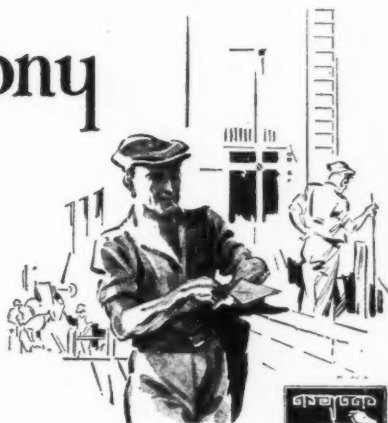
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