

THE ARCHITECTS' JOURNAL



standard contents

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

NEWS and COMMENT

Astragal's Notes and Topics
Letters
News
Diary
Criticism

TECHNICAL SECTION

Information Sheets
Information Centre
Current Technique
Working Details
Questions and Answers
Prices
The Industry

CURRENT BUILDING

Major Buildings described:
Details of Planning, Construction, Finishes and Costs
Buildings in the News
Building Costs Analysed
Architectural Appointments Wanted and Vacant

No. 3436 [Vol. 133]
THE ARCHITECTURAL PRESS
9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1.
Telephone: Whitehall 0611

Price 1s. 0d.
Registered as a Newspaper.

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: J. H. Holden, College of Art, Cavendish Street, Manchester 15	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5533
ABT	Association of Building Technicians. 156, Waterloo Road, S.E.1.	Waterloo 5427/8
ACGB	Arts Council of Great Britain. 4, St. James's Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 5861
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BASA	British Architectural Students Association. Building Centre, 26 Store Street, W.C.1.	Museum 5400
BC	Building Centre, 26, Store Street, Tottenham Court Road, W.C.1.	Welbeck 4185
BCC	British Colour Council. 13, Portland Square, W.1.	Ealing 9621
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Redditch 716
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Fremantle 8494
BDA	British Door Association. 10, The Boltons, S.W.10.	Hunter 1951
BE	Building Exhibition. 11, Manchester Square, W.1.	Temple Bar 9434
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, S.W.1.	Trafalgar 8855
BR	Building Research Station. Bucknalls Lane, Watford.	Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
CABAS	City and Borough Architects Society. C/o S. A. G. Cook, A.R.I.B.A., Borough Architect and Director of Housing, Town Hall, High Holborn, W.C.1.	Holborn 3411
CAS	County Architects' Society. C/o J. Hurst, A.R.I.B.A., County Hall, Dorchester.	
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Belgravia 6661
CDA	Copper Development Association. 55 South Audley Street, W.1.	Grosvenor 8811
COD	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors, 14, Bryanston Street, W.1.	Welbeck 1781
FBBDO	Fibre Building Board Development Organization Ltd. (Fidor), Stafford House, Norfolk Street, W.C.2.	Covent Garden 3008
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 33, John Street, W.C.1. Tel.: Chancery 7583 (6 lines)	
FPC	Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GPDA	Gypsum Plasterboard Development Association. 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Belgravia 4321
GG	Georgian Group. 2, Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1.	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square.	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers, 37, Soho Square, W.1.	Gerrard 5056

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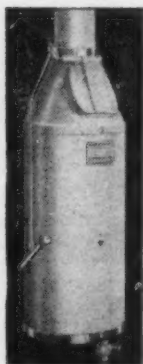
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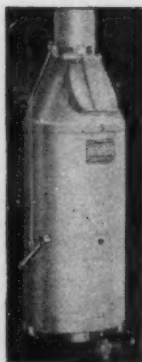
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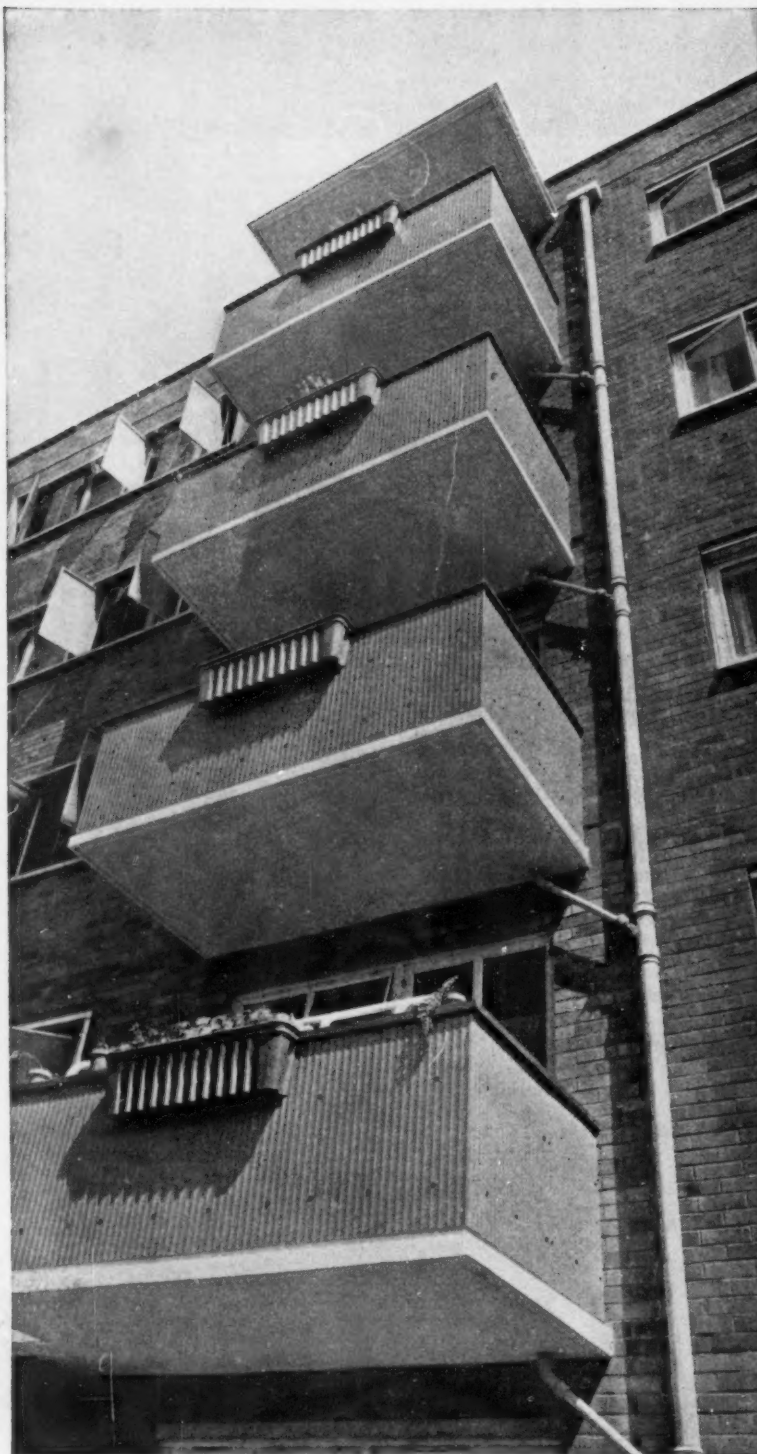
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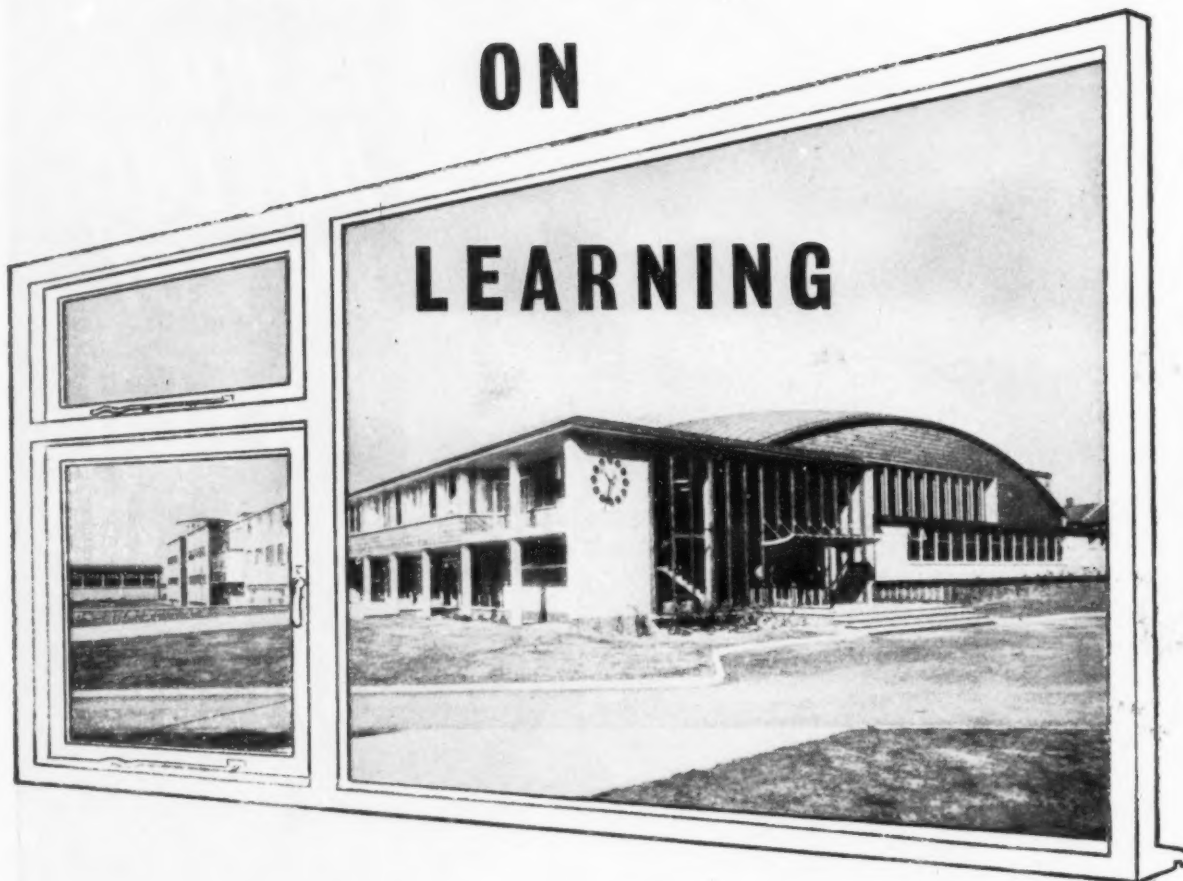
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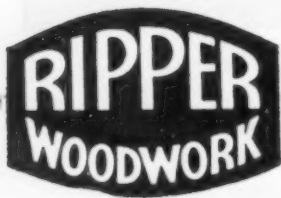
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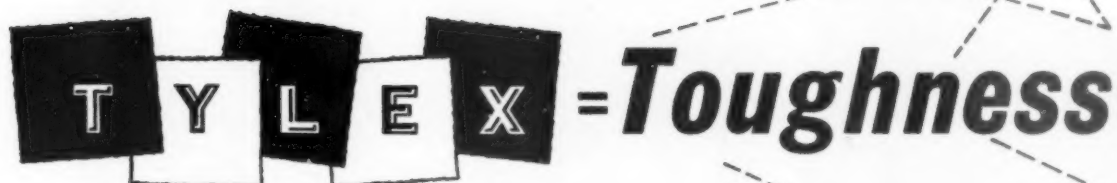
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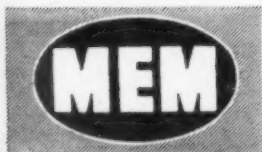
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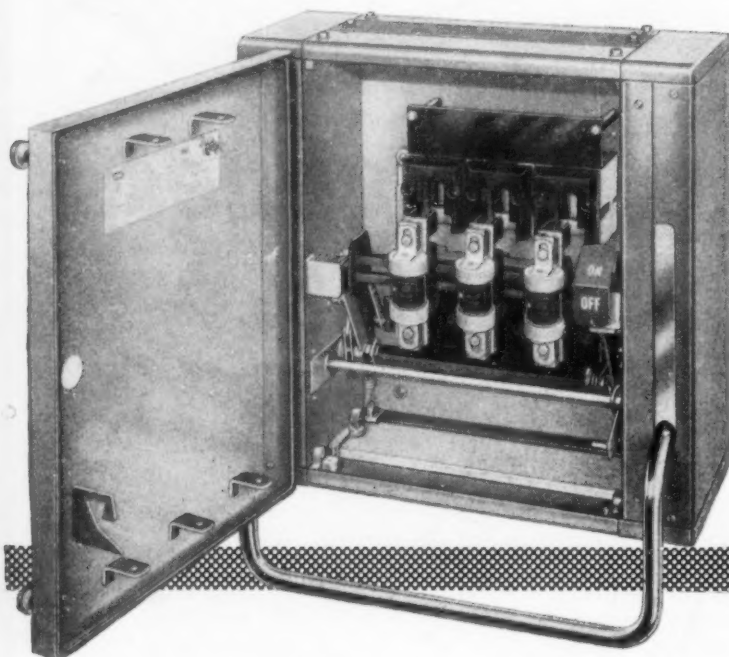
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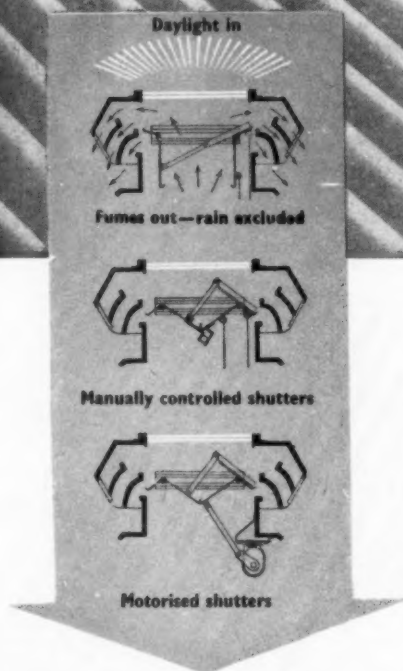
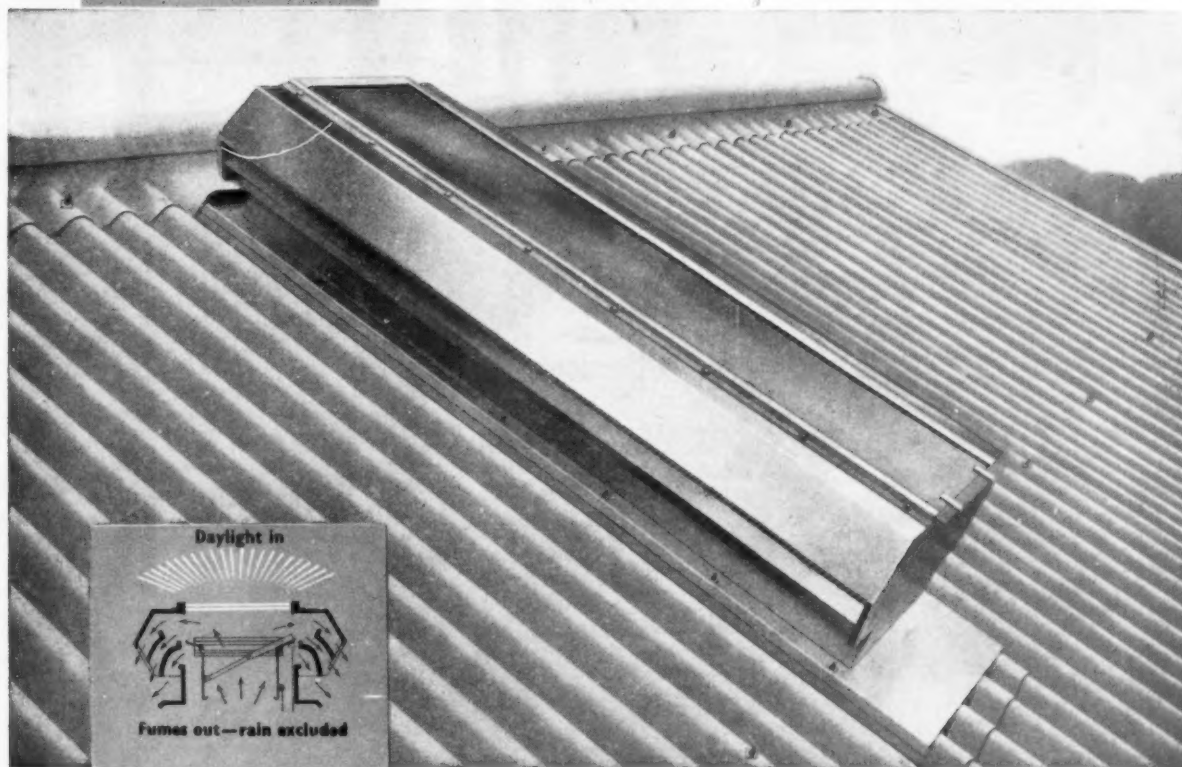
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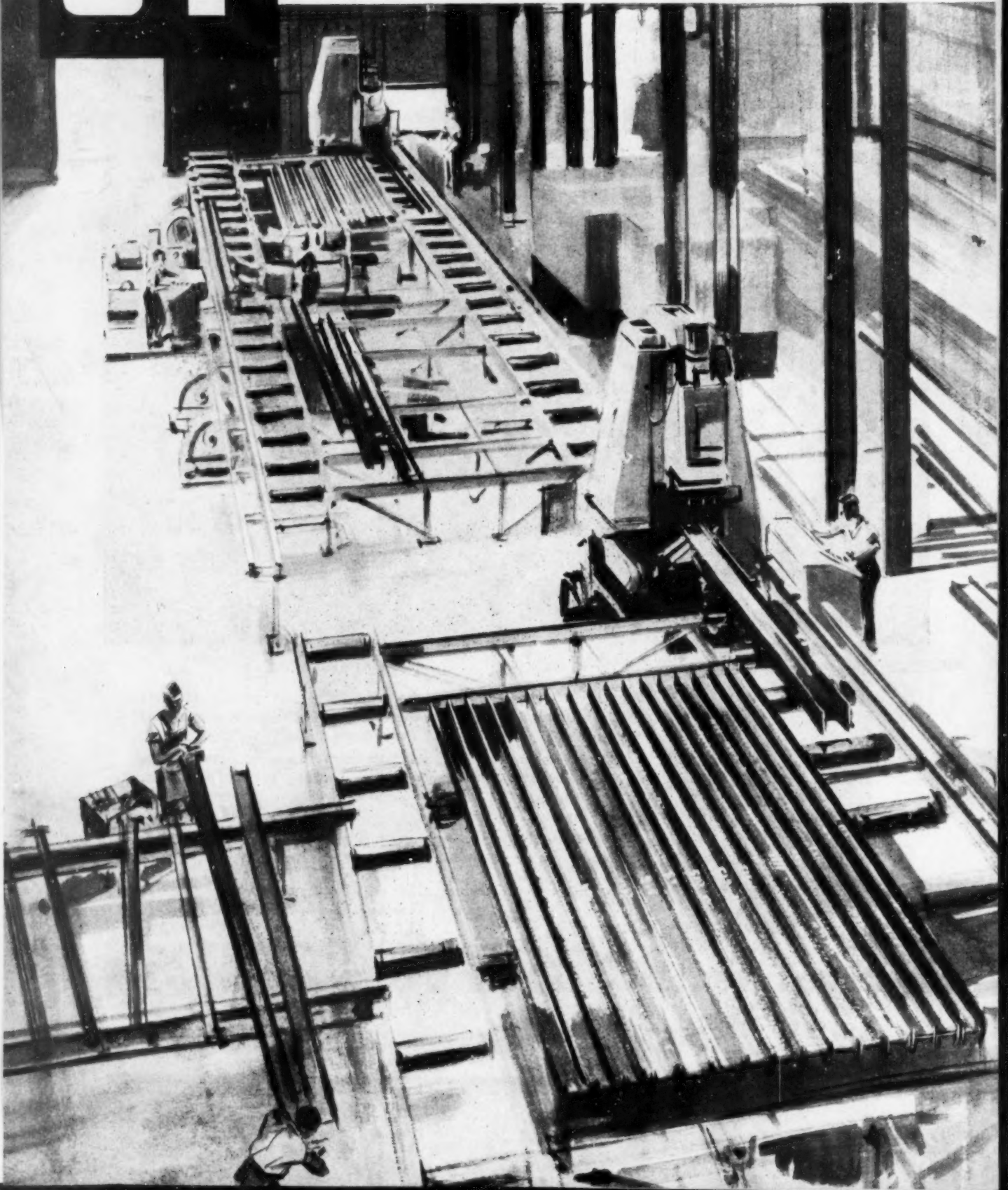


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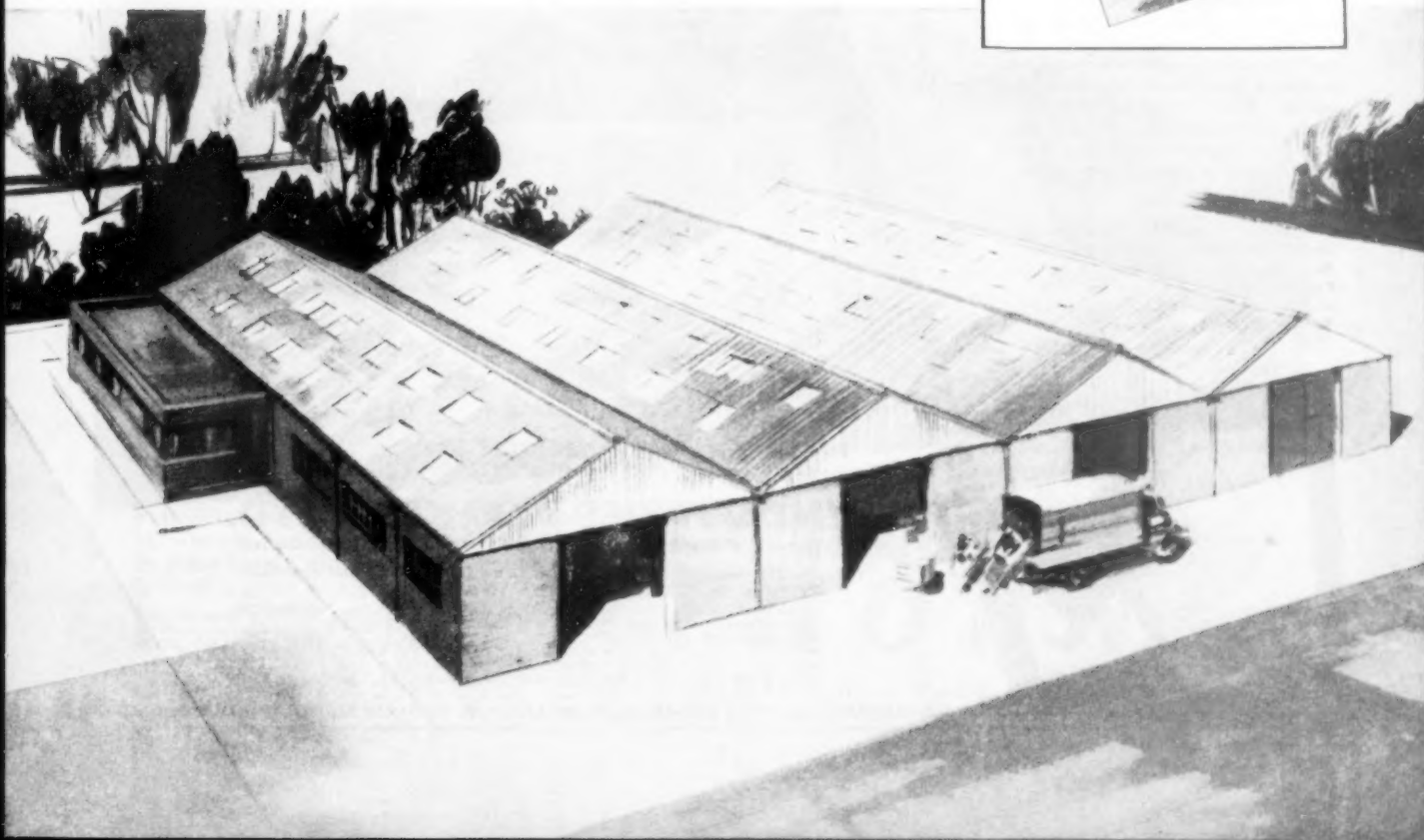


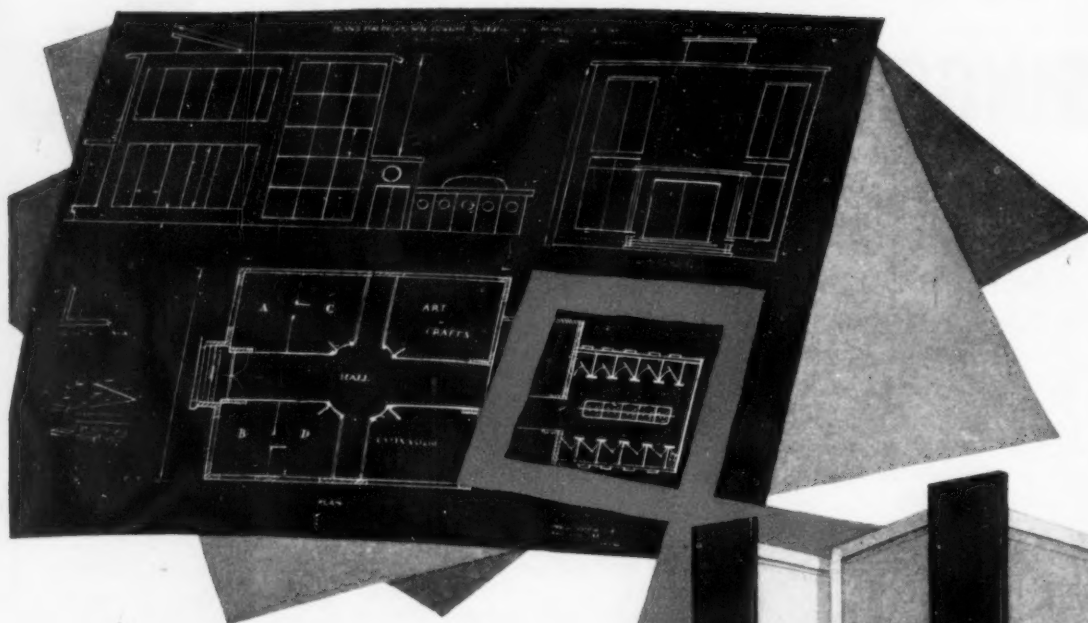
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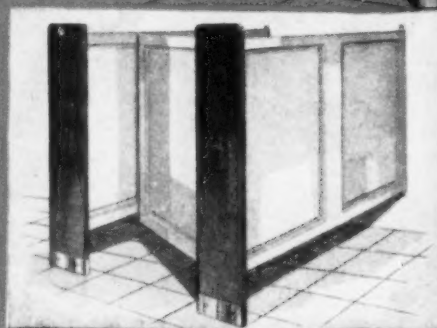




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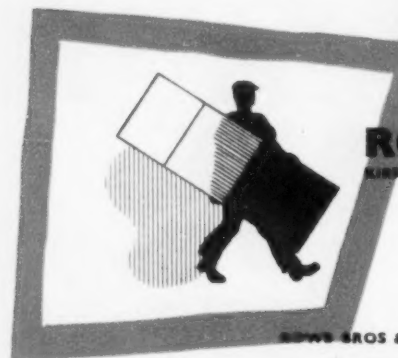
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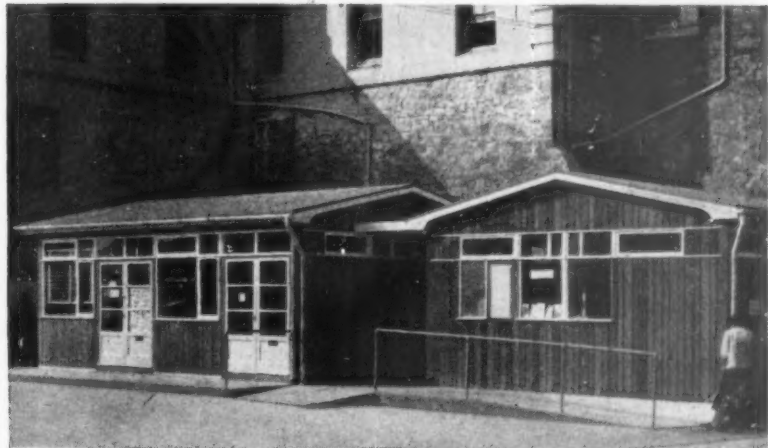
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CLUB HOUSE. 80ft. by 40ft.

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TEMPORARY SHOPS

Photograph by courtesy of The City Architect, City of Exeter.



TEMPORARY SERVICES BLOCK 150ft. by 30ft. for SALISBURY CATTLE MARKET

Photograph by courtesy of The City Engineer, City of New Sarum.

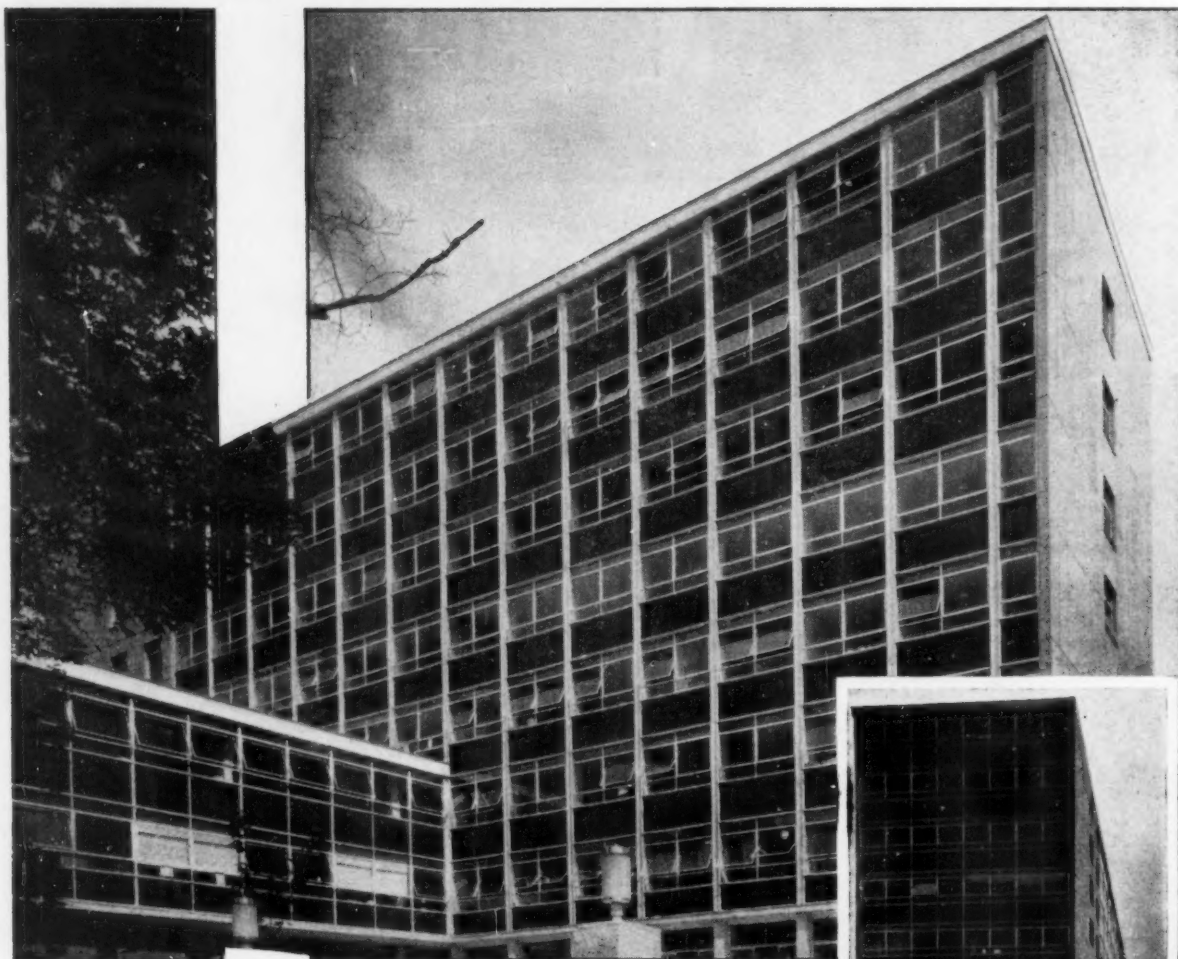
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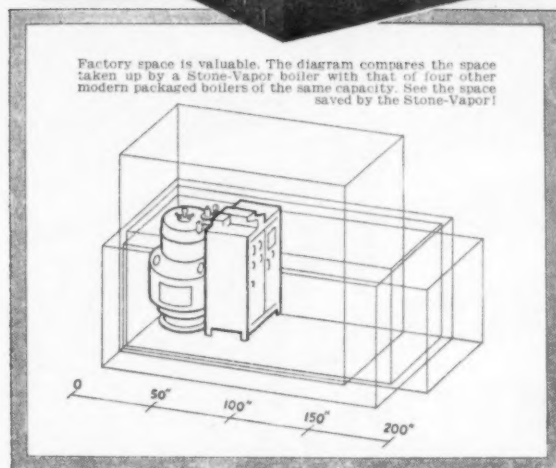
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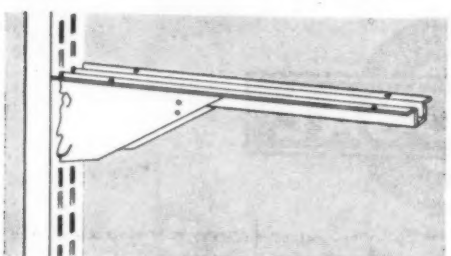
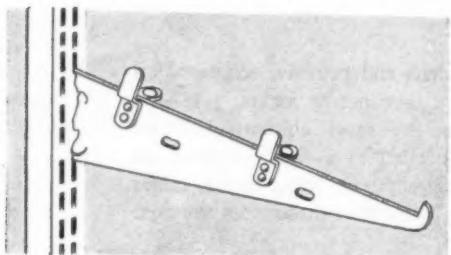
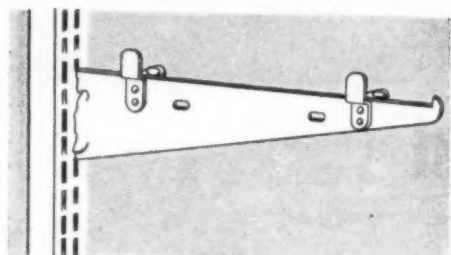
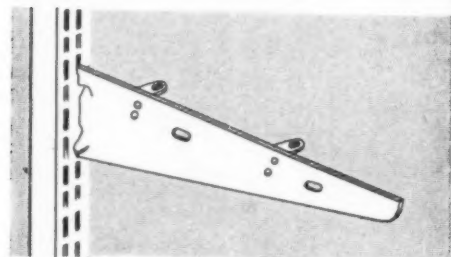
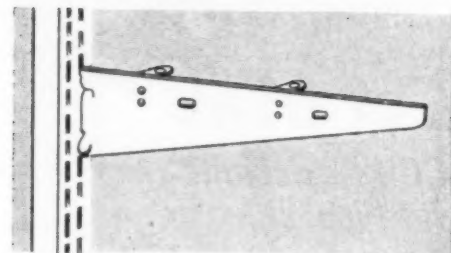
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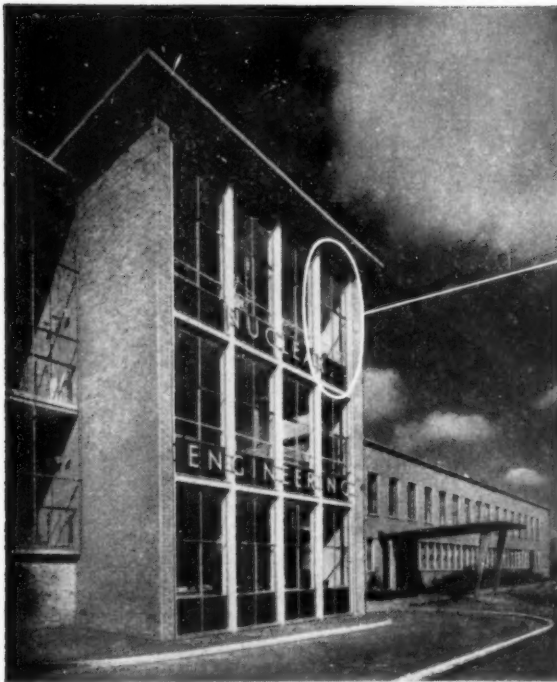
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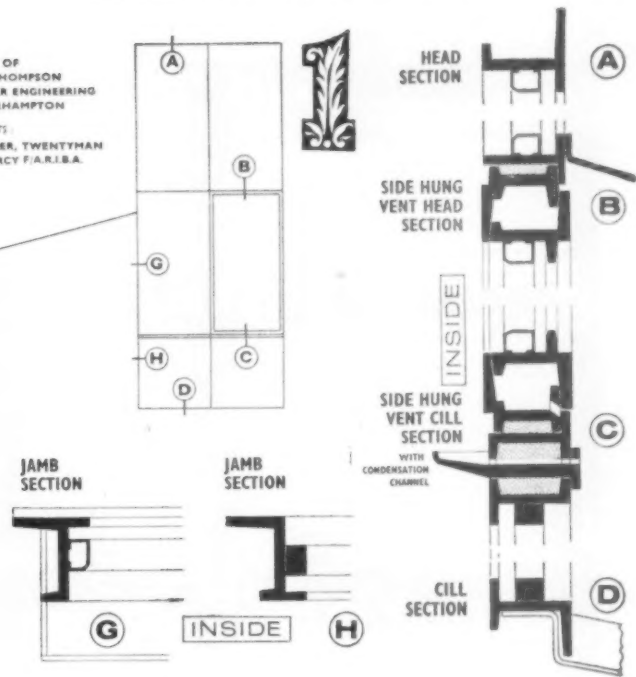
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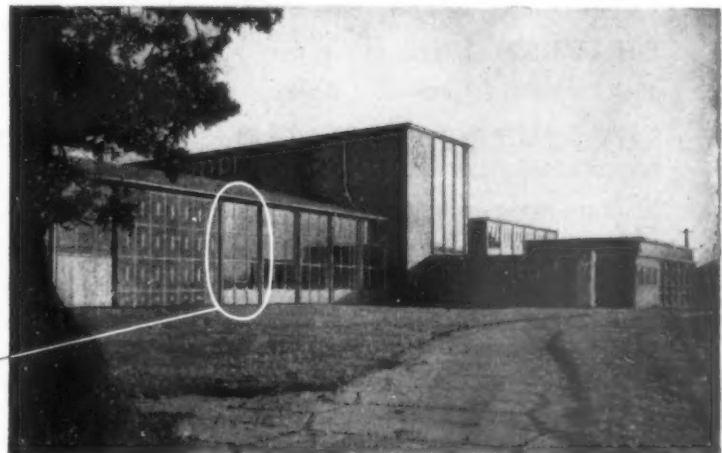
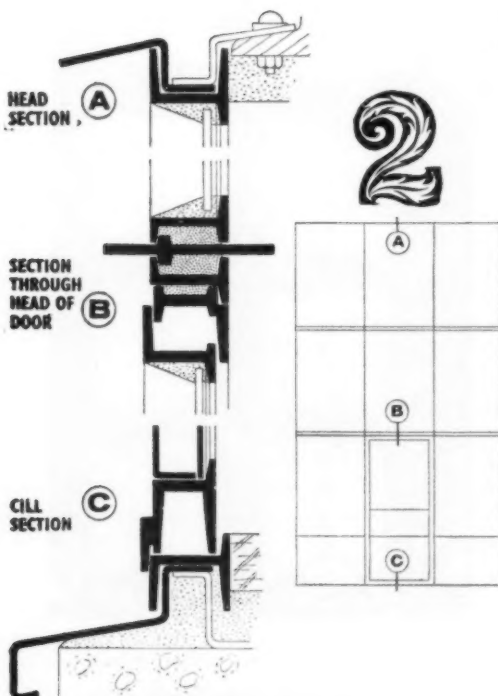
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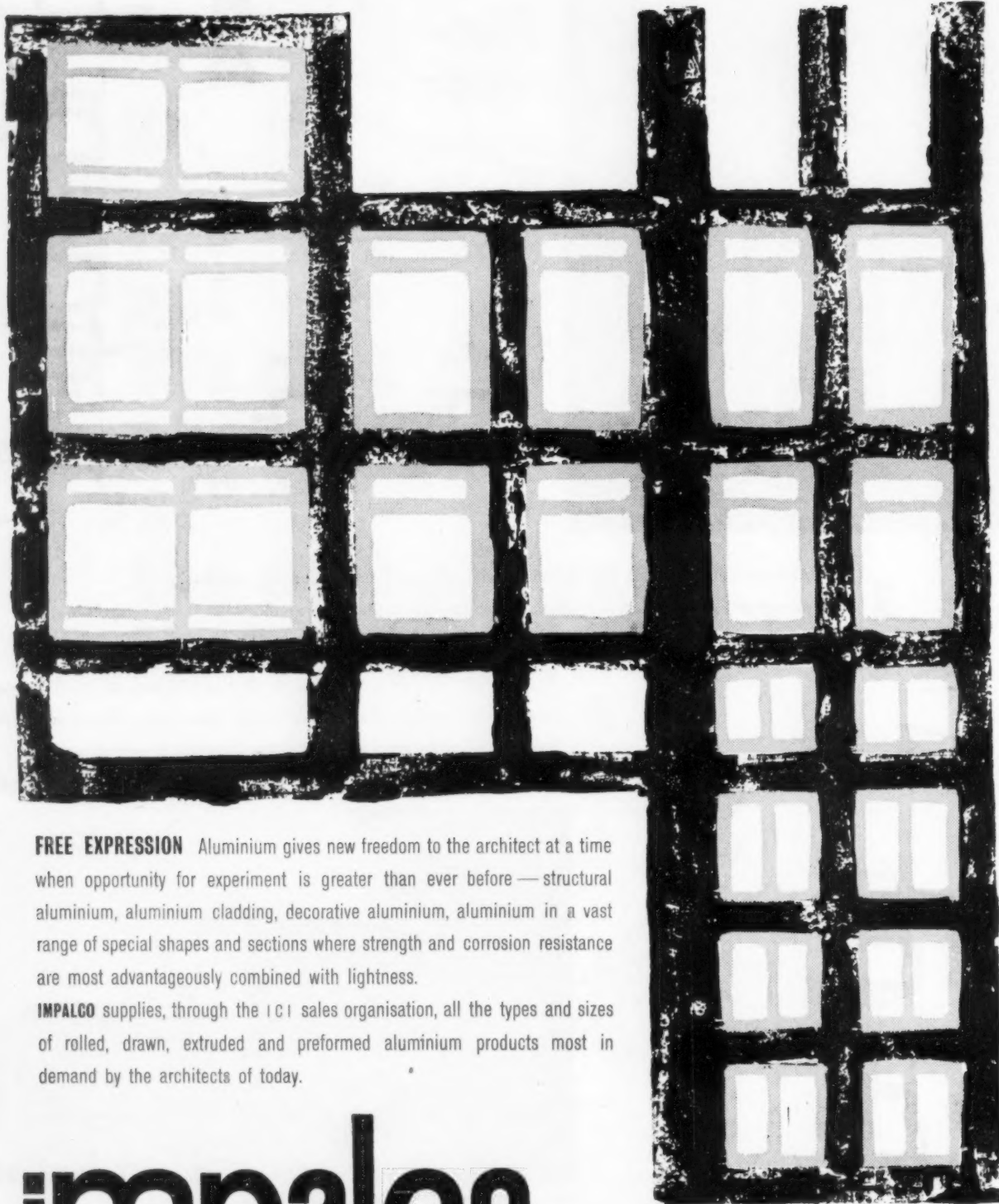


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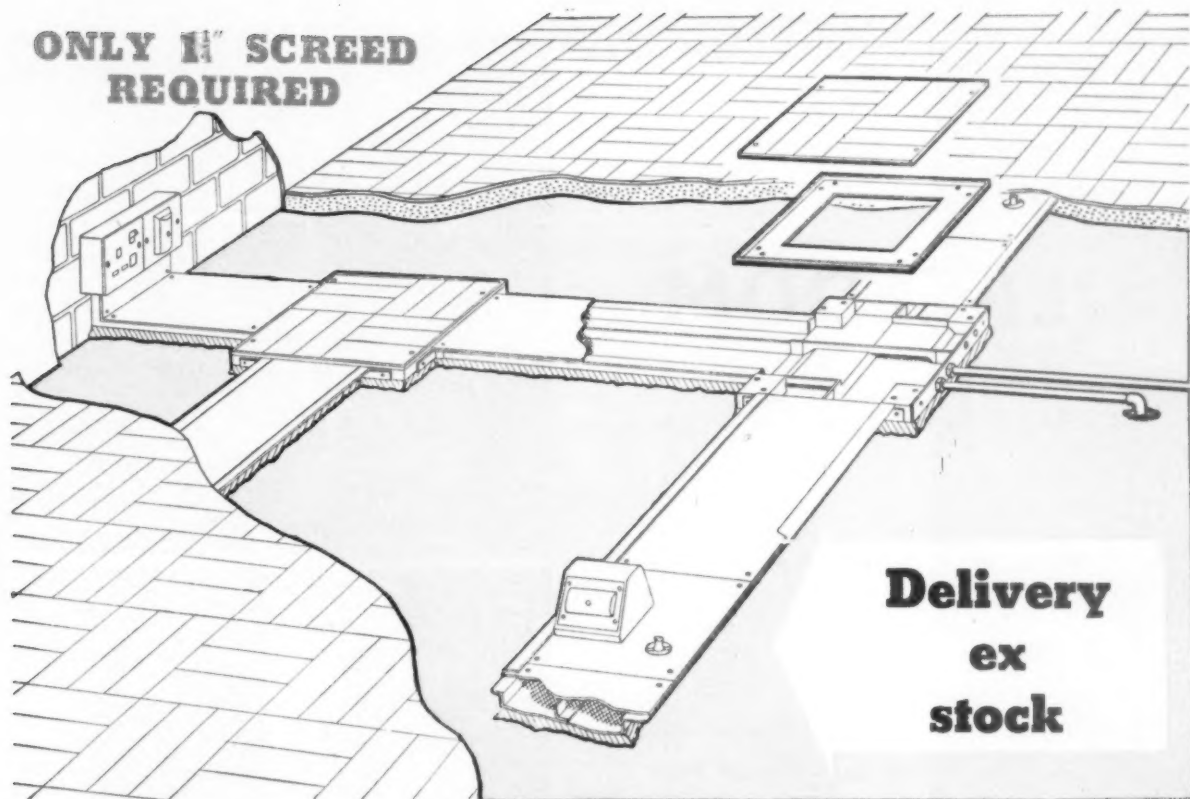
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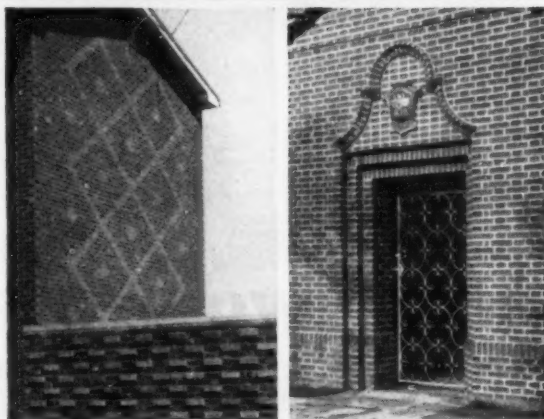
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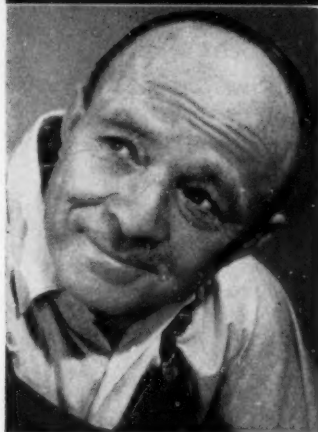
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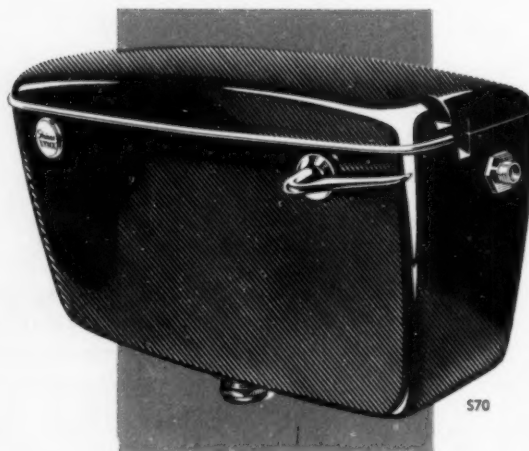
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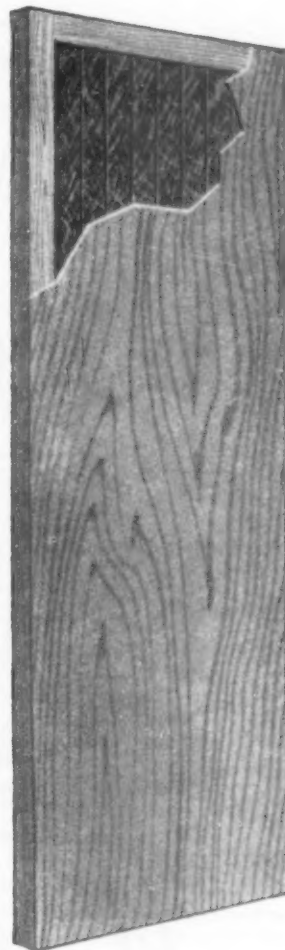
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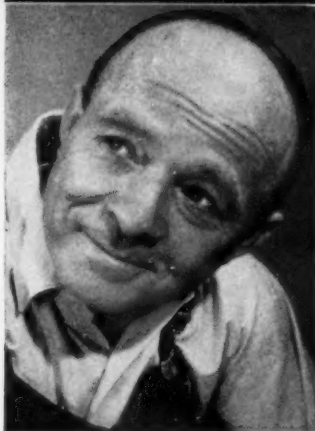
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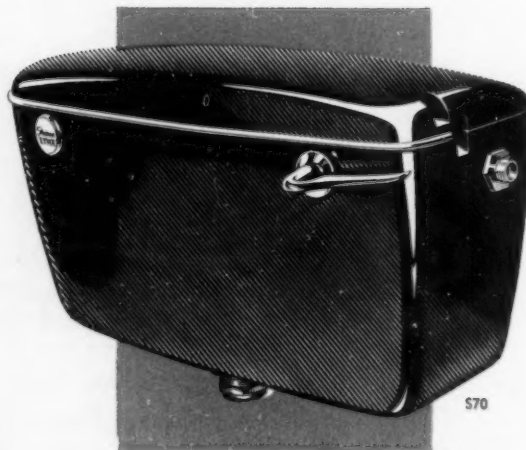
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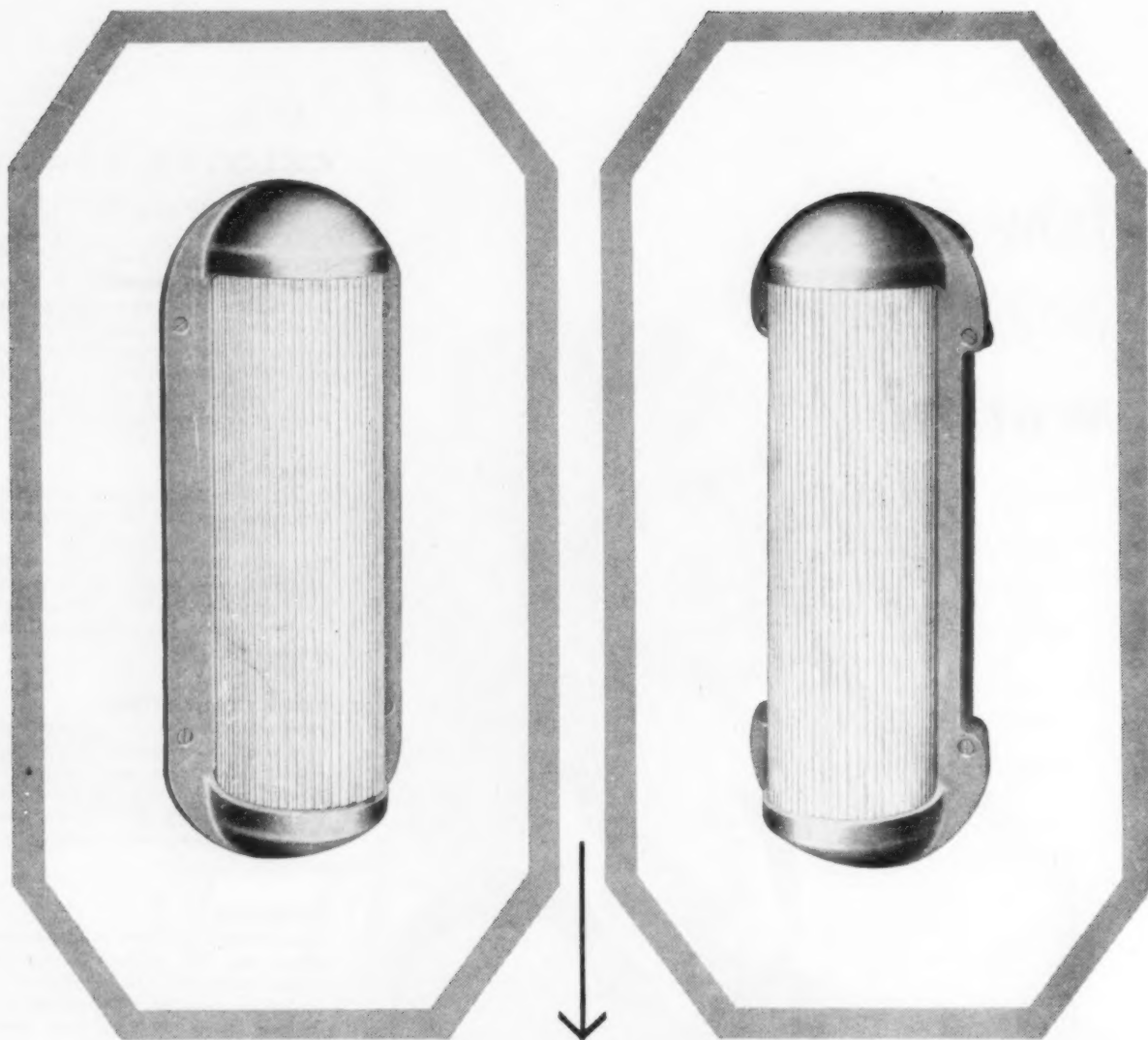
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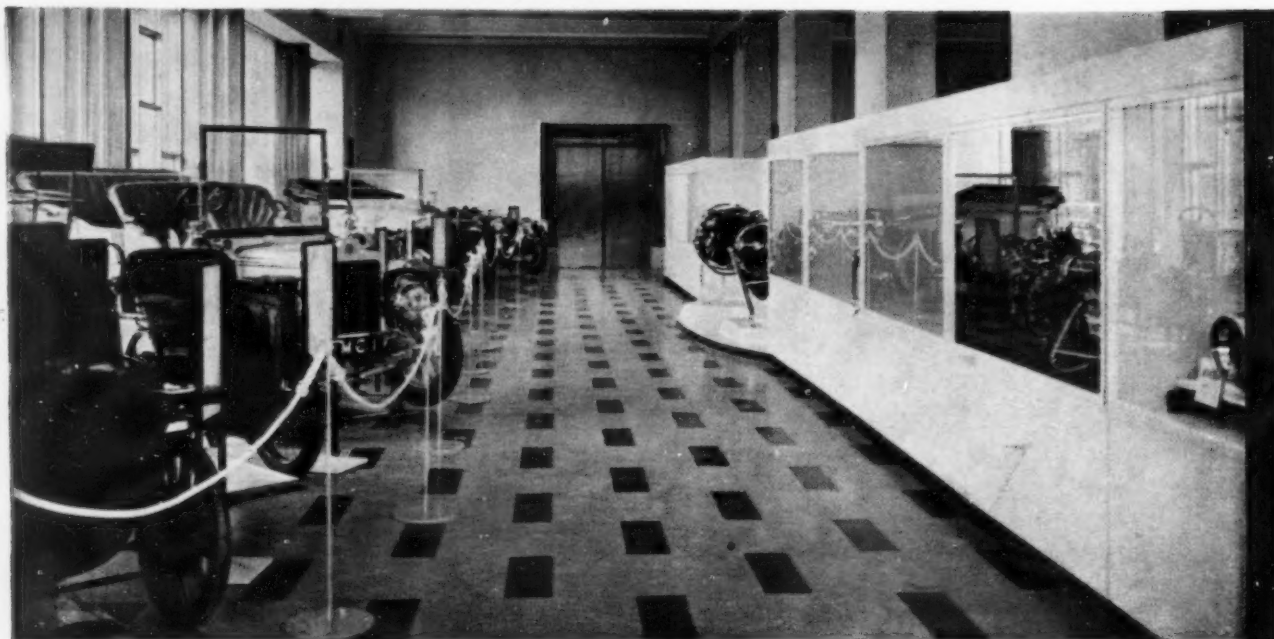


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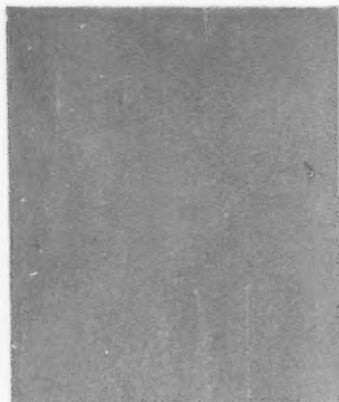
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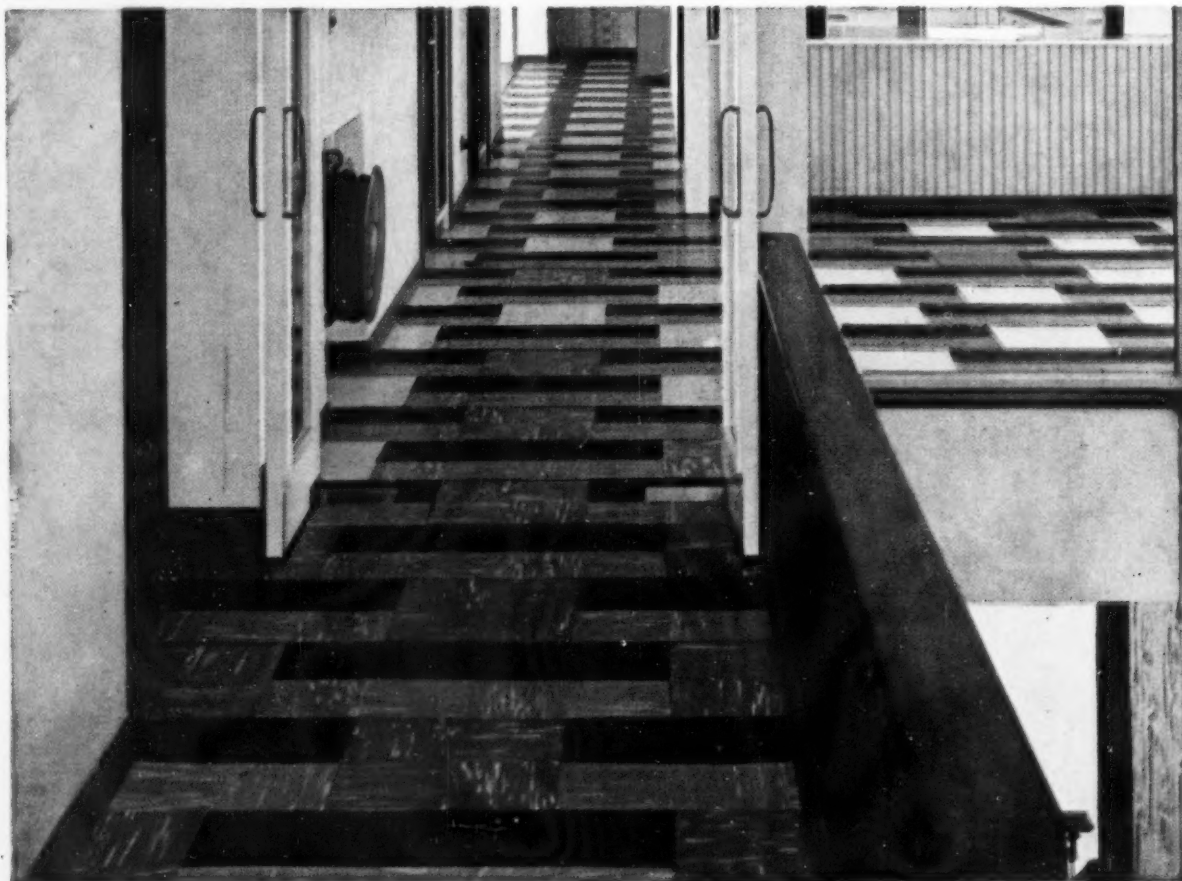
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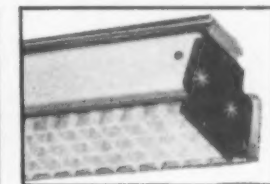
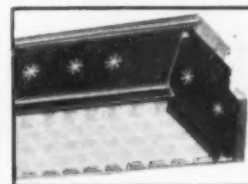
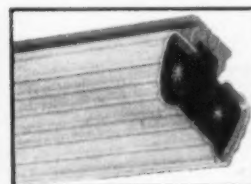
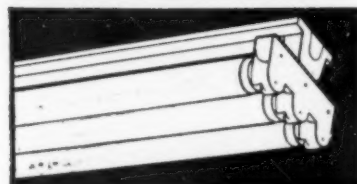
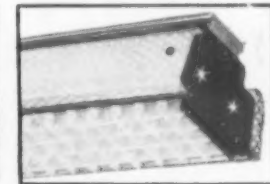
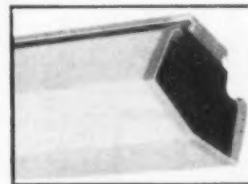
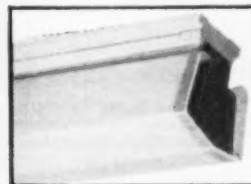
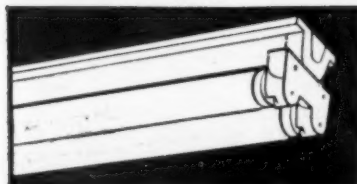
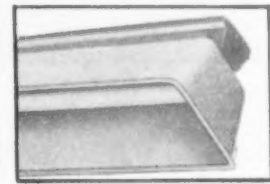
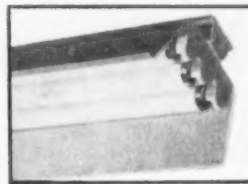
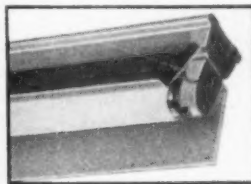
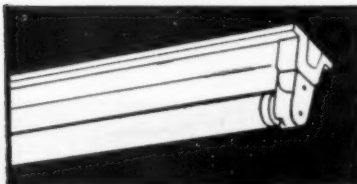
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Philips Streamlite – it's the newest thing in fluorescent lighting fittings. And it out-dates every other type of fitting on the market. For Philips Streamlite – so slim, so sleek, so stylish – has far more to offer than any other fluorescent fittings you can buy, including some advantages that are as unique as they are striking:

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- It is extraordinarily reasonable in price.
- It is suitable for single and continuous mounting.
- Philips Sprung Rotor lampholders with earth plungers for lamp end-caps—rapid fixing, automatic positioning.
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Please send me the comprehensive leaflet giving full details of Philips 'Streamlite' fittings.

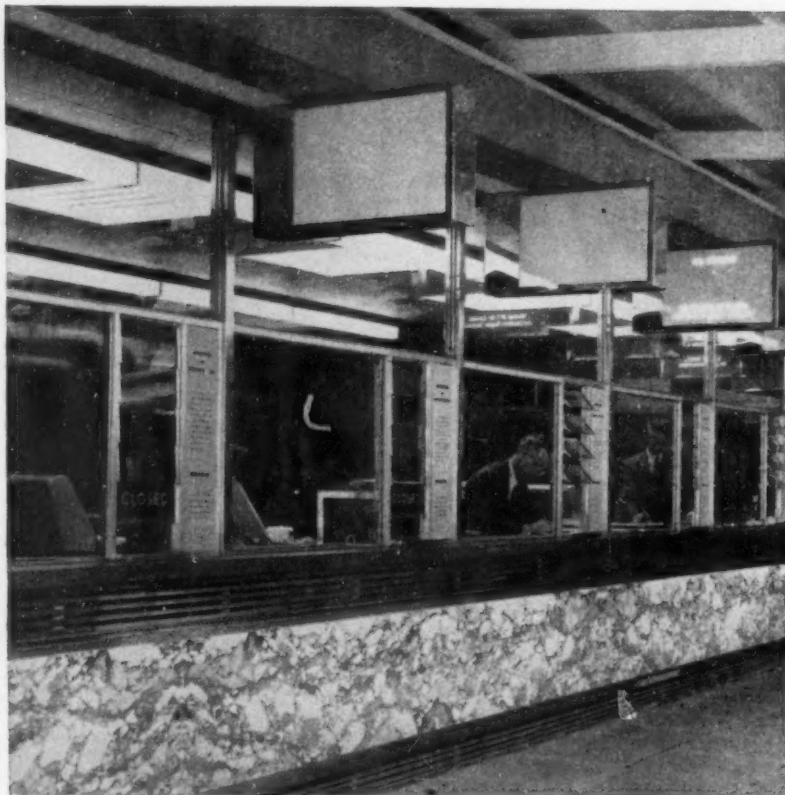
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PHILIPS LEAD THE WORLD IN LIGHTING

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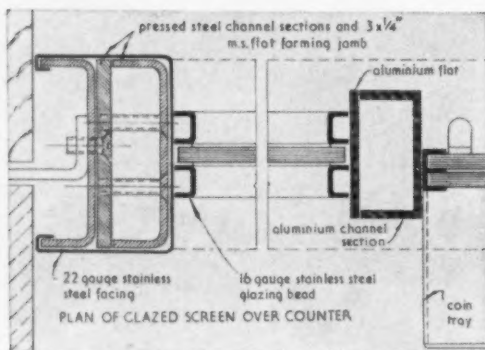


BRITISH TRANSPORT COMMISSION
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ARCHITECTURAL METALWORK IN

stainless steel

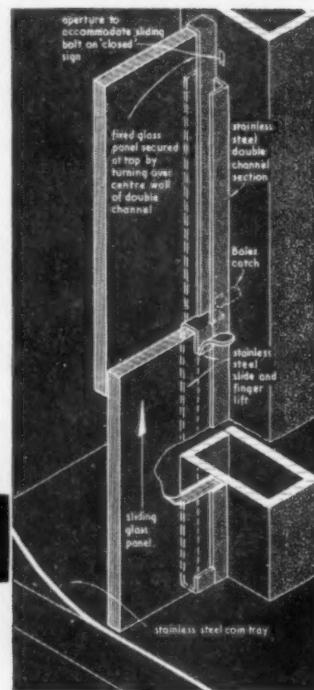


Framework of glazed screen constructed from mild steel sections faced by thin gauge stainless steel. Adjustable glass louvres fitted to Ticket Office windows provide an hygienic draught-proof screen which at the same time permits of audibility.

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TYPE 'A'

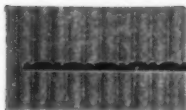
(LINENFOLD)

MOULDED HARDBOARD

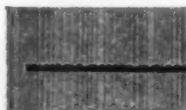
*Now
Available*
**LONG AND
CROSS
MOULDED**



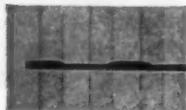
Type 'A'
Linenfold



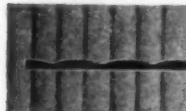
Type 'B'
Reed and
Bead



Type 'C'
Striated



Type 'D'
Slatted

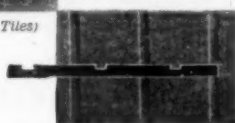


Type 'E'
Close Slatted



Type 'G' Wide Slatted

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Type 'H' 2" Corrugated



With its attractive design and exceptional strength, L.W. Type 'A' Moulded Hardboard is ideal for interior fitting and decorating of every description in home and office, shop and exhibition.

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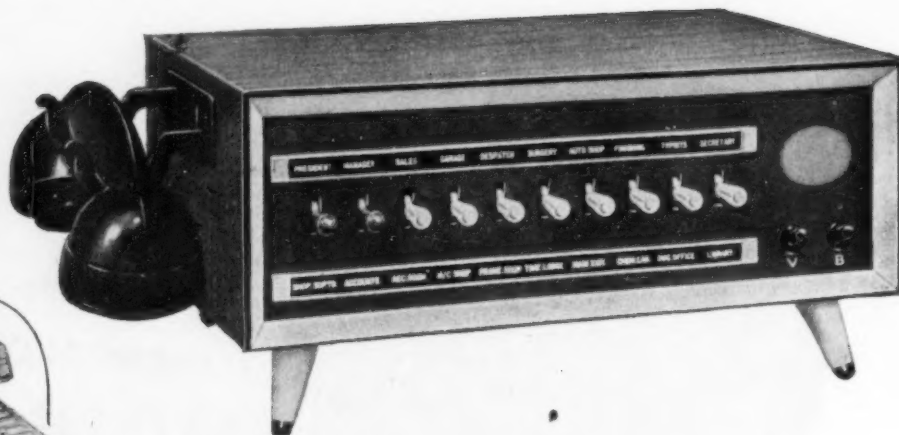
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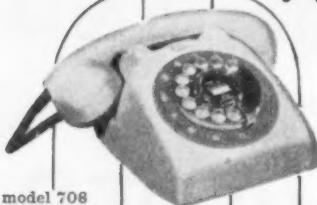


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OR FOR USE WITH
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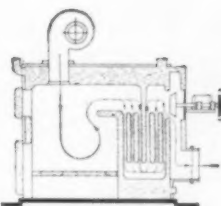
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induced draught

Utmost efficiency 90%

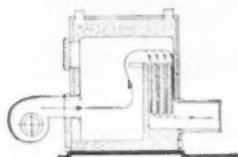
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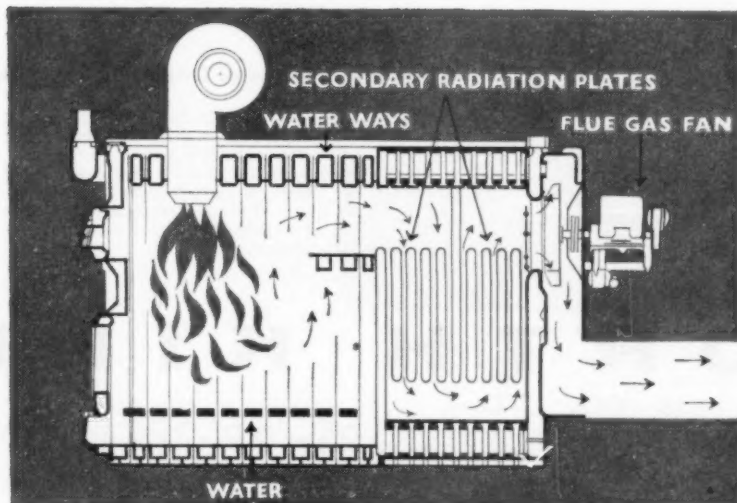


Top mounted burner with induced draught fan. High efficiency boiler.



Front mounted burner; standard convection sections, normal efficiency boiler.

HOW THE UEG WORKS

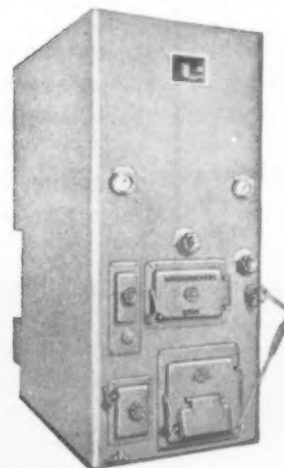


The Unit construction of the Swedish UEG boiler gives the heating engineer the opportunity to build up *precisely* the equipment required for any job in the boiler's range. Two possibilities are shown; but there are many, many more. And you can increase capacity any time by adding new sections.

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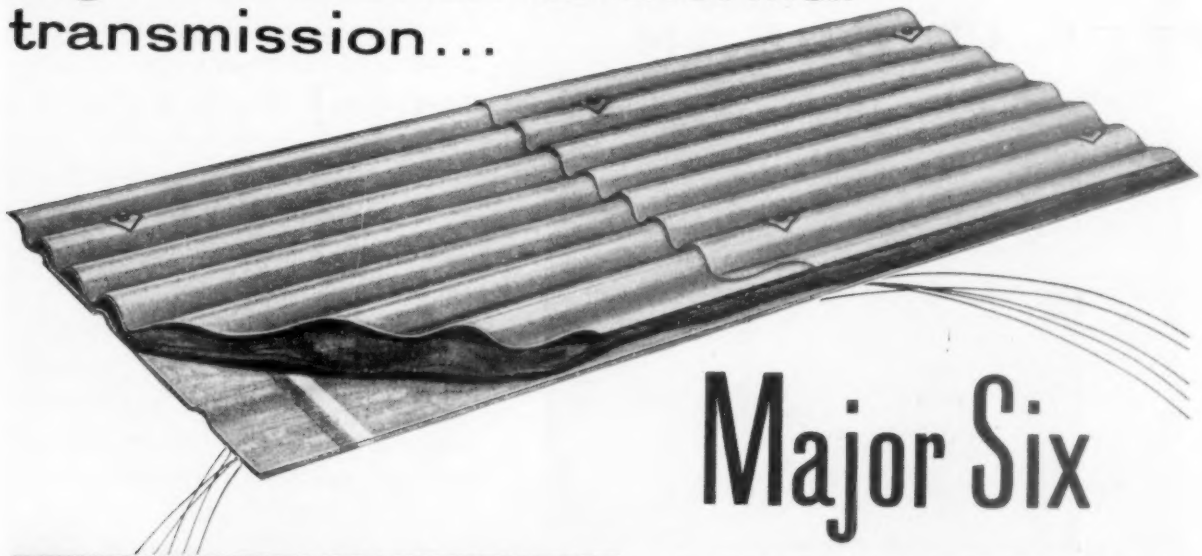
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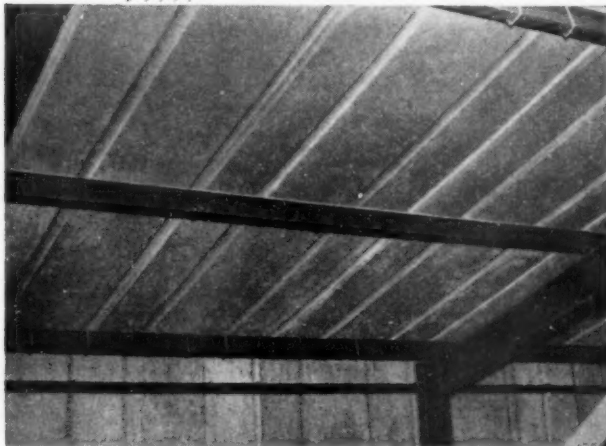
Also Ashworth Kirk (Woodwork) Ltd.—Joinery Manufacturers and Precision Woodworkers

High resistance to thermal transmission...



Major Six

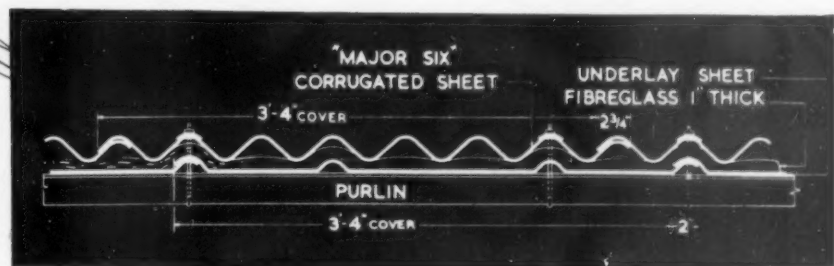
DOUBLE CLADDING INSULATION



Photograph above illustrates interior view of roof

"Major six" DOUBLE cladding insulation provides a high resistance to thermal transmission, contributing to higher equable interior temperature and consequent economical heating. Here is dependable roofing made for quick erection and permanent service.

It's the DOUBLE cladding that does it!—a rigid asbestos-cement underlining sheet laid directly to purlins as a soffit upon which the sheet of insulation is laid before putting the "Major six" sheet in position.



Easily fixed with hook bolts and washers. "Major six" Double Cladding Insulation complies with the requirements of "Thermal Insulation Industrial Buildings" Act.

 **THE Atlas Asbestos**
CEMENT COMPANY LIMITED
A Subsidiary of The Atlas Stone Co. Ltd.

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*on the
right lines...*

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Roofing at the Longsight Electrification
Depot, completed recently for British
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Contractors: Charles R. Price
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* **JOHN ROWELL**
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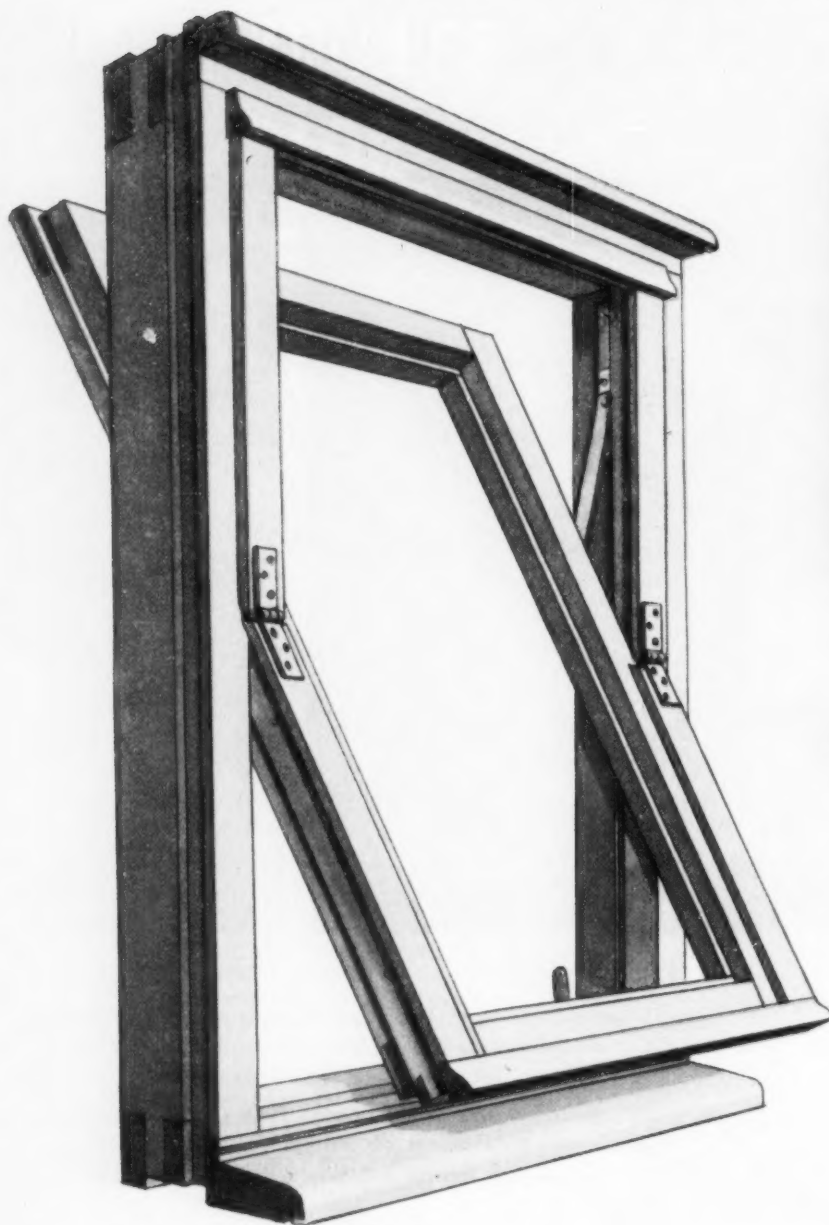


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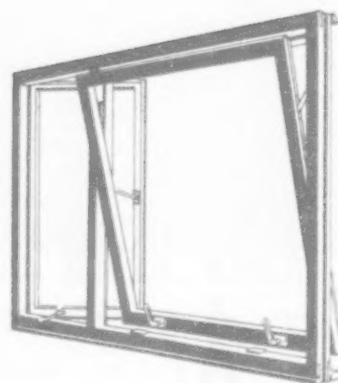
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BUILDING

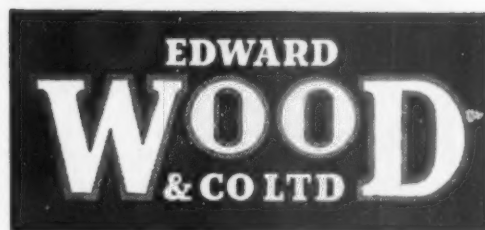


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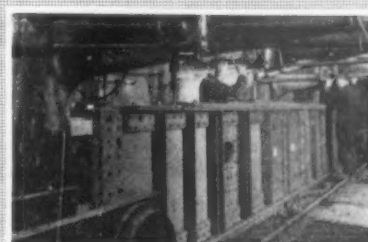
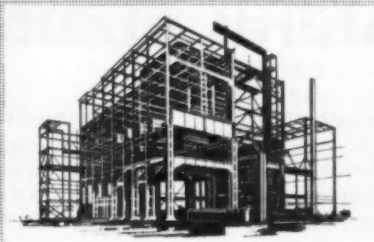
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Jim Edwards' smile is worth ten million! Just about that many rivets have been hammered home by him in forty fast-working years at Woods. A squad leader, Jim inserts hundreds of rivets a day with the pom-pom gun or hydraulic machine. He's a very useful member of the Works Committee too. We value this cheerful, energetic craftsman and all those like him at Woods. Continuity in service and craftsmanship have made and maintained our high reputation for steel construction.



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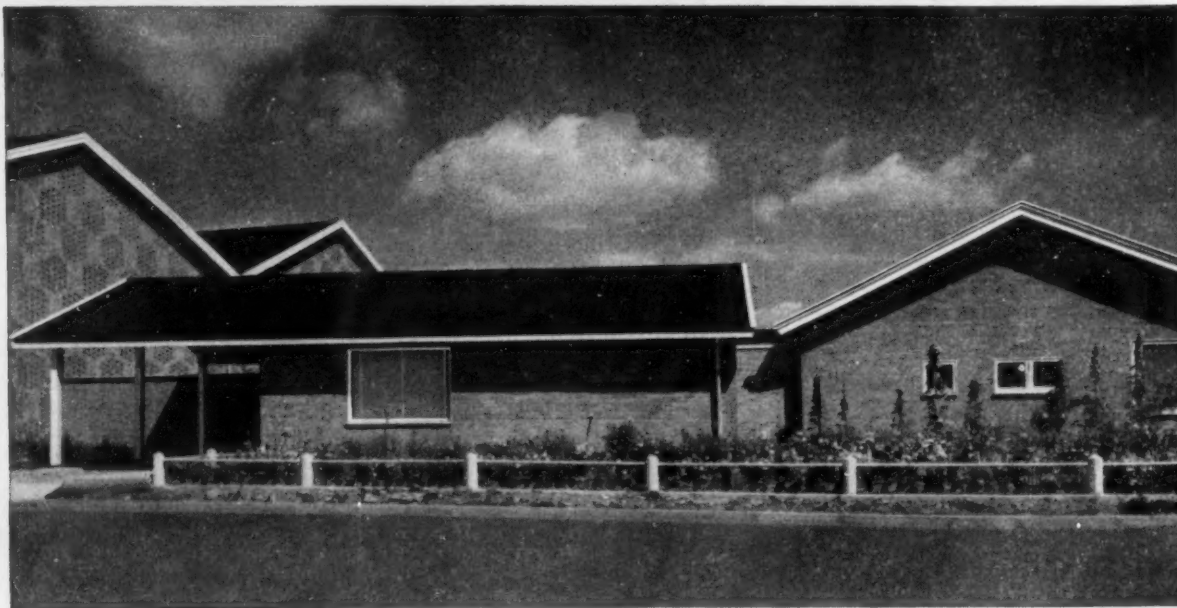
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ELECTRIC FLOOR WARMING

INFORMATION SHEET

6



New Imhofs factory at Uxbridge. Architects: Tayler and Green, F.F.R.I.B.A.

For the ultra-modern Imhofs office block electric floor warming was the natural choice

A complete and refreshing departure from conventional industrial architecture, the attractive new Imhofs factory is built around a garden court: two sides form the administration block, the third the executive wing and the fourth the main production block.

Planned for comfort

A withdrawable system of electric floor warming with a total loading of 75 kW provides the ideal heating system for the administration section. Total area covered is 5,000 sq. ft. Hours of electrical intake are 7.0 p.m. to 7.0 a.m. The installation is designed to provide temperatures varying between 65°F and 70°F according to the room.

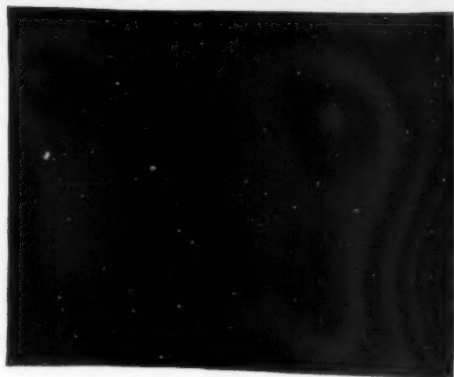
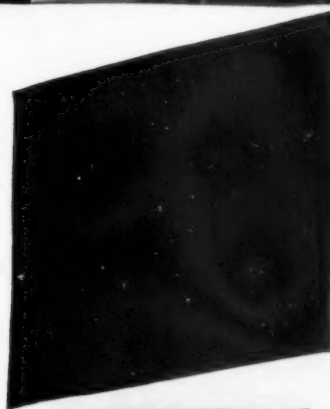
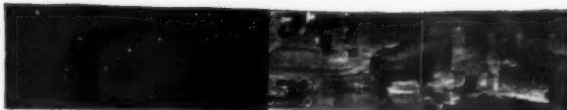
Cheap installation

With electric floor warming, boiler houses, chimneys, pipe trenches and fuel stores are not required. Inside the rooms it is the same economic story: no pipes, radiators, fireplaces, flues and chimney breasts are needed.

Economical to operate

Electric floor warming quietly goes about its job of giving constant, even warmth—storing up heat for the day by using cheap off-peak electricity at night. All chores connected with fuel handling are eliminated; so, too, is the need for boiler-room staff.

If you are thinking of installing electric floor warming, ask your Electricity Board for details.



PARTITION

1 *par-tish'* an; 2 *par-tish'* on. *I. vt.*

1. To set divisions between
so as to make separate; divide,
as into compartments

(Funk & Wagnalls Dictionary)



THE *Braby* DEFINITION

flexible, moveable, infinitely adaptable partitions fabricated from extruded aluminium alloy for the disposition of the Architect in the service of better space-utilisation.

Braby Bar-Form metal partitions are available in a range of standard units, or can be purpose-made for special applications.

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TREORCHY, GLAM.

ASCOT AND THE PRIVATE BUILDER: 2



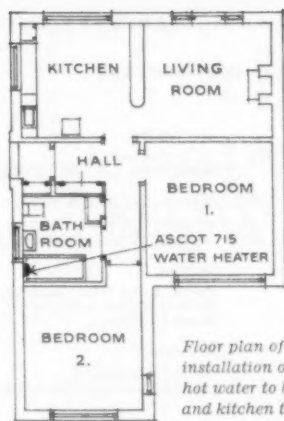
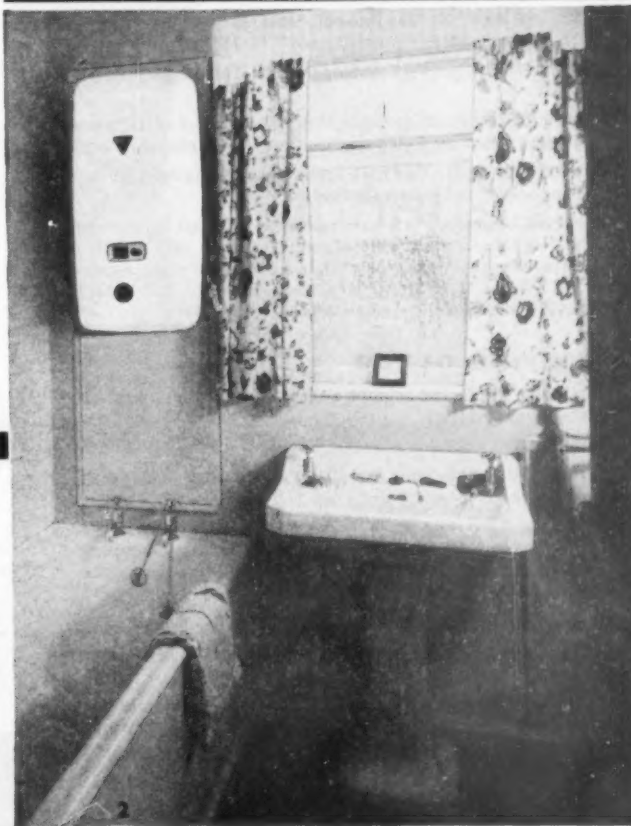
**STOCKTON ROAD
ESTATE
WEST HARTLEPOOL**

(30 semi-detached 2 and 3-bedroomed bungalows)

Builder: Taylor and Evans, Ltd., 22 Elwick Road, West Hartlepool

Architect: T. A. Turnbull, Esq., L.R.I.B.A., 6 Scarborough Street, West Hartlepool

Hot Water: Ascot 715 multipoint instantaneous water heaters



Floor plan of a bungalow showing installation of Ascot 715 to supply hot water to bath, bathroom basin and kitchen through existing taps.

WHG/A458

This is the second of a series of building case histories illustrating the installation of Ascot instantaneous gas water heaters in private enterprise housing. This example of private building at West Hartlepool shows how Ascot 715 "balanced flue" multipoint gas water heaters were used to provide a comprehensive instant hot water service for an estate of 30 semi-detached modern bungalows.

1. Two semi-detached 2-bedroom bungalows at Stockton Road.
2. Interior of a bathroom with an Ascot 715 within the 11" cavity wall over the bath.

ASCOT
IS IDEAL FOR YOUR
BUILDING SCHEME!

For full information write to

ASCOT GAS WATER HEATERS LIMITED
255 North Circular Road, LONDON, N.W.10

A Radiation Company



SWEDISH PERSTORP DATA SHEET 3

HOW TO WORK PERSTORP

For the purposes of giving directions to machine joiners the following is printed:

HAND TOOLS Perstorp can be sawn, drilled, planed and smoothed with ordinary carpenter's hand tools.

POWER TOOLS

CIRCULAR SAWING Use fine-set, hard carbon saw with 6-8 teeth per inch, for Peripheral speed 7-10,000' per min.

BAND SAWING Use 8-12 teeth per inch, Run at 65-80 ft. per second.

SPINDLE MOULDING AND ROUTING High speed cutters are satisfactory but for long runs use tungsten carbide cutters.

POWER DRILLING Use high speed twist drills with 50°-60° cutting angle, and long flute lead.

GENERAL Perstorp is a hard material. It must be worked with sharp tools, preferably of good quality. Perstorp should be worked with the decorative face uppermost. When chamfering edges work from the decorative side with the filing stroke towards the underside.

SPECIFYING GLUES

Gap-filling glues and impact adhesives are recommended, bearing in mind that:

- 1 Glues with high water content lead to warping.
- 2 Gap-filling glues with low shrinkage factors reduce risk of warping.
- 3 As Perstorp and base materials have different coefficients of expansion, heat induces stress. Clamping should be done at room temperature, for hot gluing the absolute ceiling is 140°F.
- 4 Clamping pressure should not exceed 70 lbs. per sq. in.
- 5 Extended clamping can have same ill effects as excessive pressure.
- 6 PVC adhesives, PVA and synthetic rubber cements can all give satisfactory results for many types of work, though resin glues, if the installation allows their use, give the very finest results.

SPECIFYING CORE MATERIAL

The base to which Perstorp is to be bonded may be blockboard, chipwood or plywood. It should be at least 1" thick and have a moisture content between 6-10%. The surface of the blockboard or core material should be dead flat. Any unevenness is likely to telegraph through the laminate, causing high spots and uneven wear. If a blockboard core is used, the gluing pressure must be kept low, and gibbon and abacci are recommended for cross-banding: pine should not be used.

CUT OUT THIS PAGE AND PLACE IT ON FILE

FIXING PERSTORP TO WALLS

will appear in Swedish Perstorp Data Sheet 4 together with information about

MOUNTING PERSTORP

For complete sets of the Data Sheets write to your nearest Perstorp Distributor.

SPECIFYING COUNTER VENEER

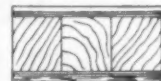
A 2mm birch counter veneer can be specified but 0.8mm Perstorp counter veneer is better. For best results specify 1.5mm Perstorp counter veneer with counter matching pull equal to facing panel. A counter veneer is not necessary when the bonded panel is well fixed to a rigid frame.

SPECIFYING EDGING

Shown here are some of the methods of edging Perstorp which have proved most satisfactory.



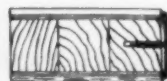
Machined edging



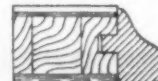
Perstorp as edging



Flush Timber edging with C.V.



Plastic and/or Metal moulding



Wooden beading

Perstorp is carried to the edge, where it should be chamfered. If the edging is slightly lower than the Perstorp surface the top is easier to clean.



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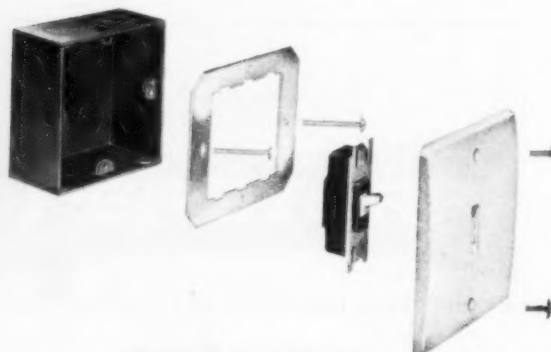
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in both MOULDED and METAL patterns



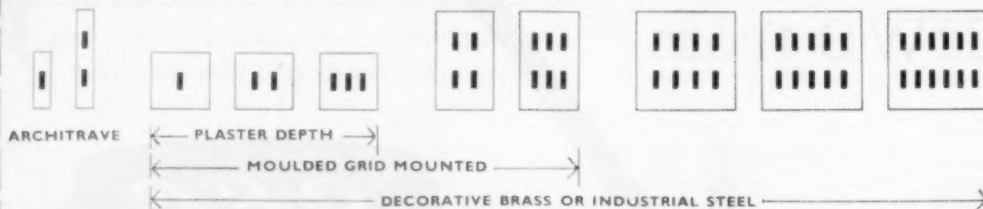
Moulded and metal patterns to choice—and now, with no less than 44 different switch plates available, you can specify 'Mutac Clipper' switch assemblies for every installation.

'Mutac Clipper' switch assemblies are precision made, silent of course, and they bring you the proven advantage of simplest ever installation, with obvious savings in time and money. A handy switch selector is available, free on request, to simplify ordering.



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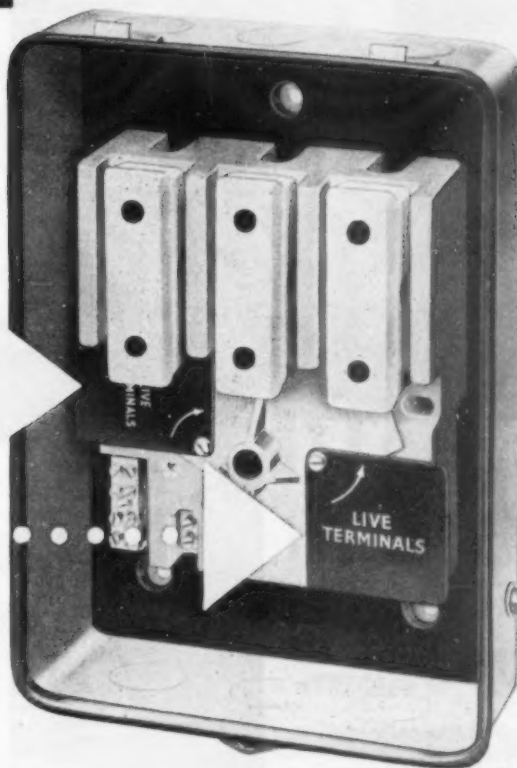


to specify

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Complete safety is assured by

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Neutral Switchfuses
with either H.R.C. or
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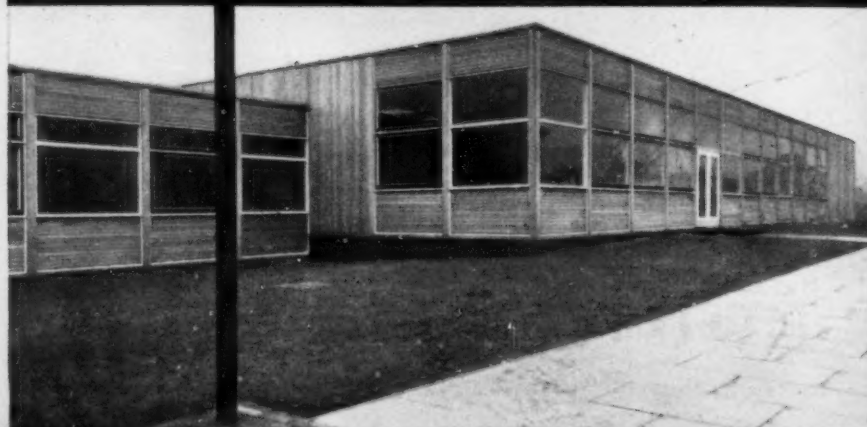
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Write for FREE booklet on Central Heating and list of other technical publications to the Coal Utilisation Council, 3 Upper Belgrave Street, London, SW1. Also available 'Central Heating for Houses', a complete 120-page illustrated survey of all the various systems available, from the open-fire-and-back-boiler to the small pipe system. Copies 2/6d each.

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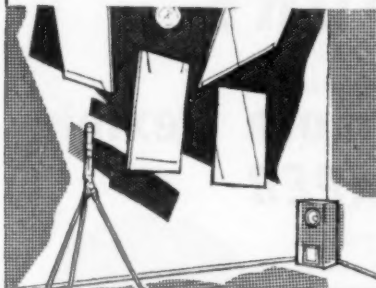
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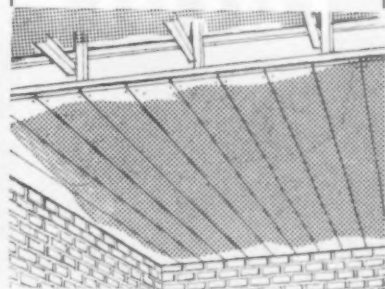
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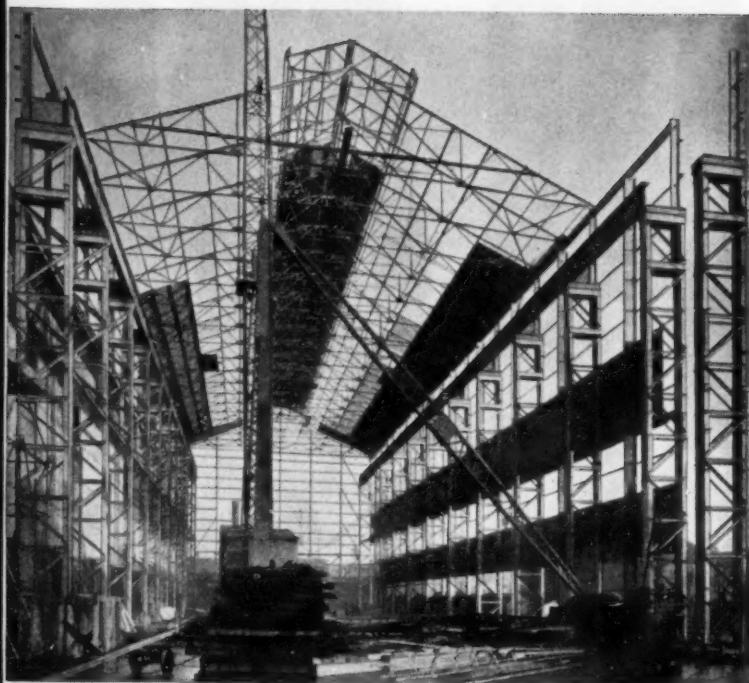


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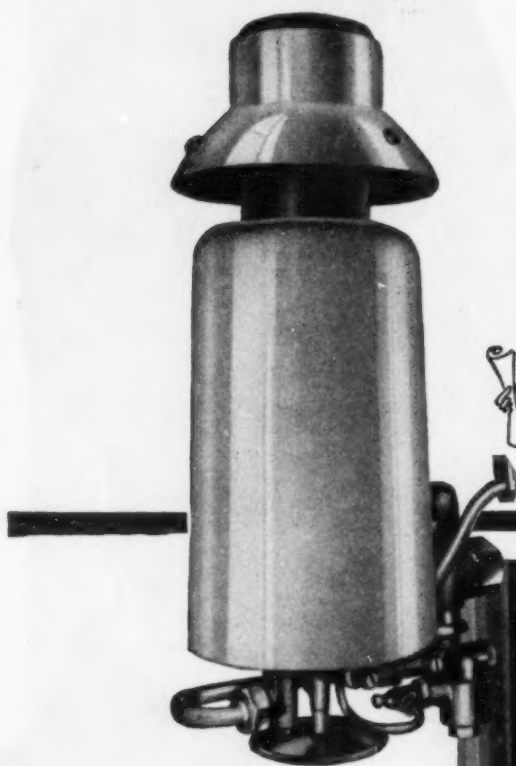
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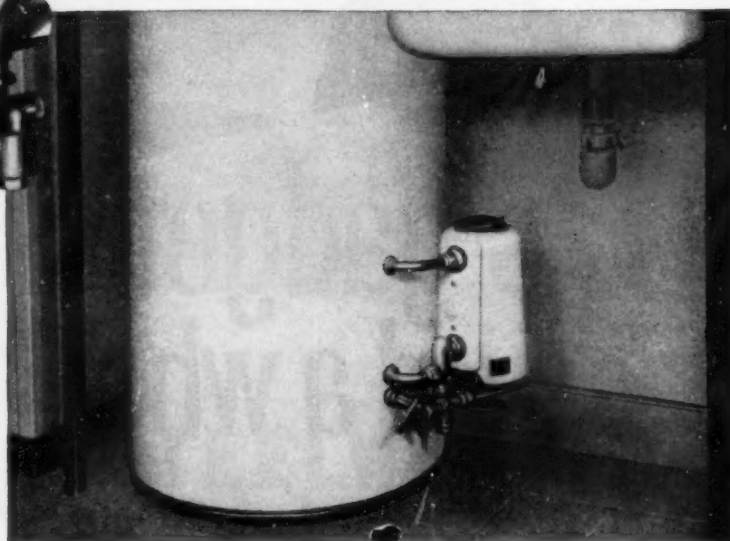
NEW WORLD CIRCULYN GAS WATER HEATERS

Architects and Municipal authorities interested in dwellings, modernisation and conversion are using more and more gas water heaters with storage systems.

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usually adequate and do not need replacement. Design is such that the minimum of maintenance is required over a long period of usage.

NEW WORLD Water Heaters also can be used as an auxiliary to a solid fuel system for intermittent use.

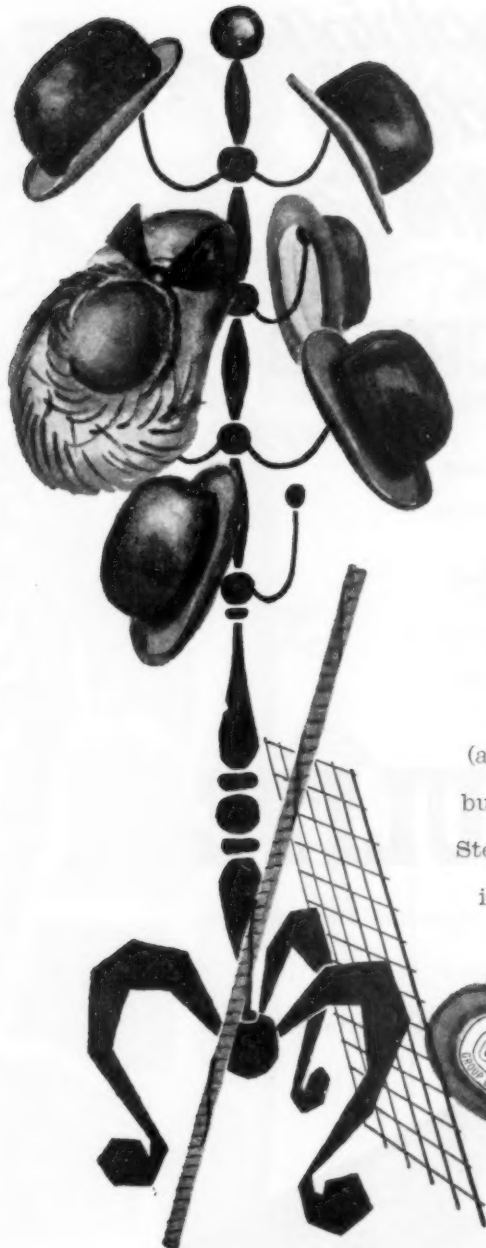
Some 35 County, Borough, Urban and Rural Councils are using the C.12LF./20 gallon cylinder Under Draining Board unit including: L.C.C., Willesden, Ilford, Camberwell, Battersea, Coventry, Lambeth, West Ham, Enfield, Edinburgh, Preston, Romsey, Liverpool.

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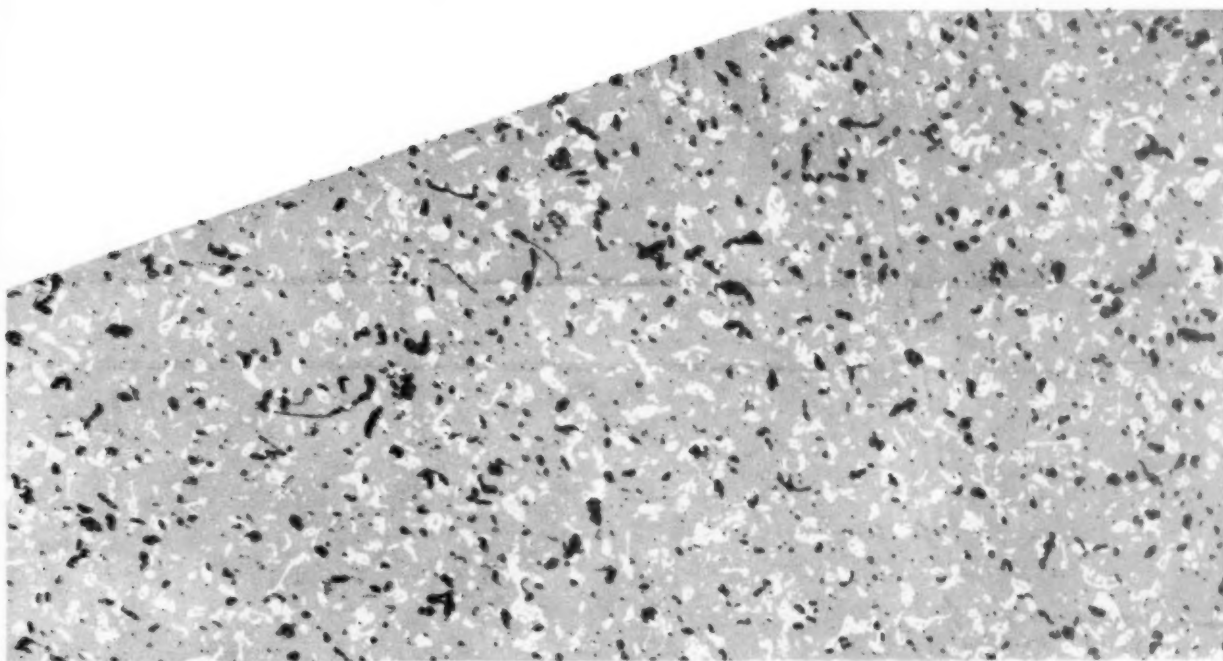
Here's a rich, decorative surface that looks like expensive plastic sheeting or a careful stippling job. Yet it's done in one quick spray application with this fascinating new paint, Porterfleck.

Porterfleck has startling physical characteristics: it keeps its secondary colour "flecks" suspended in the basic colour, so that they don't mix, even when applied. The flecks are of sufficient size to give a strong visual texture. Secondly, Porterfleck is "anti-static"—its molecular composition stops dirt from settling and keeps the surface clean indefinitely.

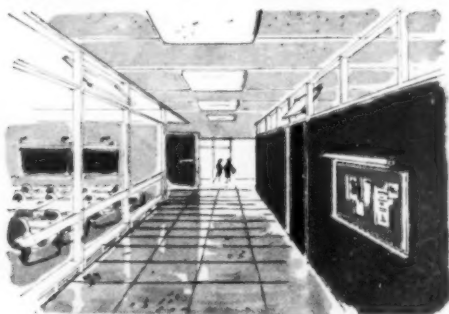
PORTERFLECK SAVES MAINTENANCE. Besides its revolutionary dirt-repellent property, proof against normal accretion of dust and grime, Porterfleck has a very hard surface which is washable, unaffected by condensation, and highly resistant to scratching and chipping. It has an unusually long life and maintenance costs are cut almost to zero.

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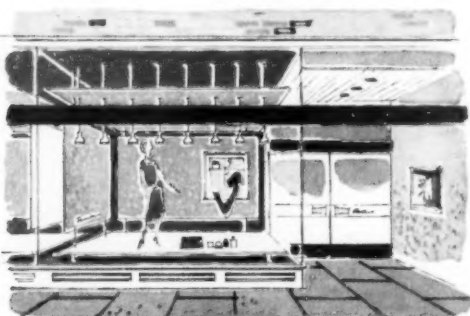
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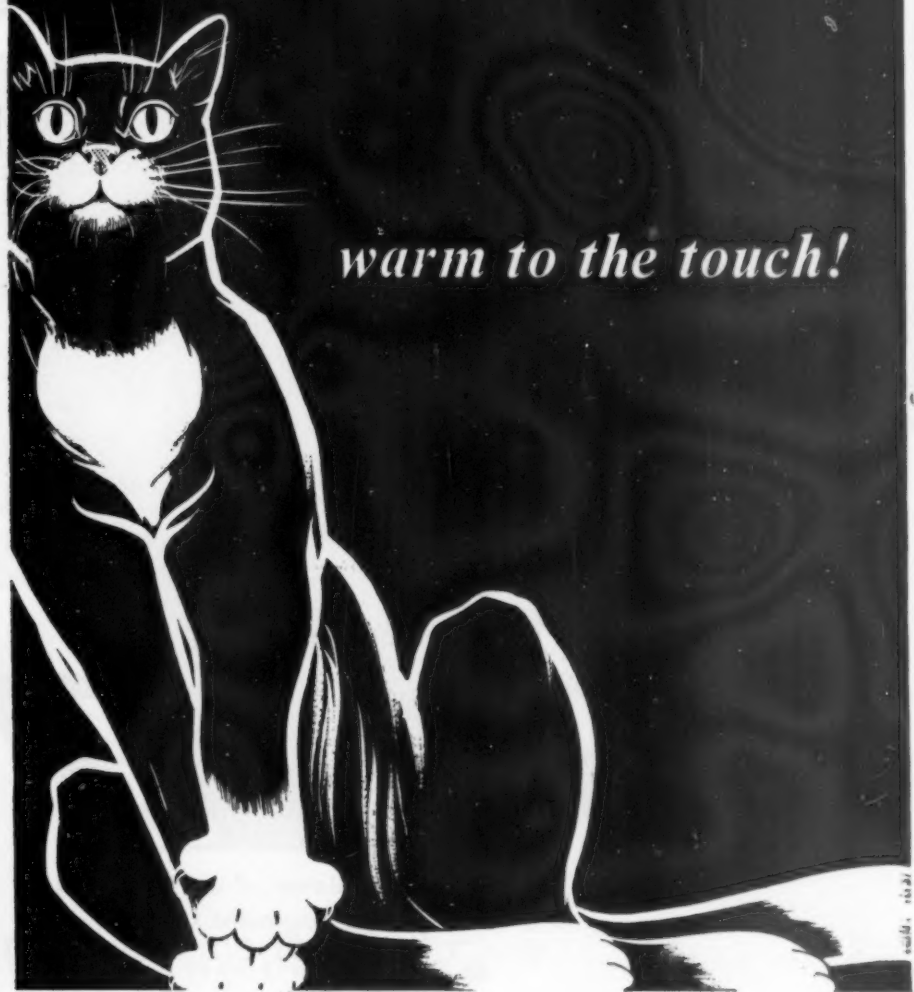
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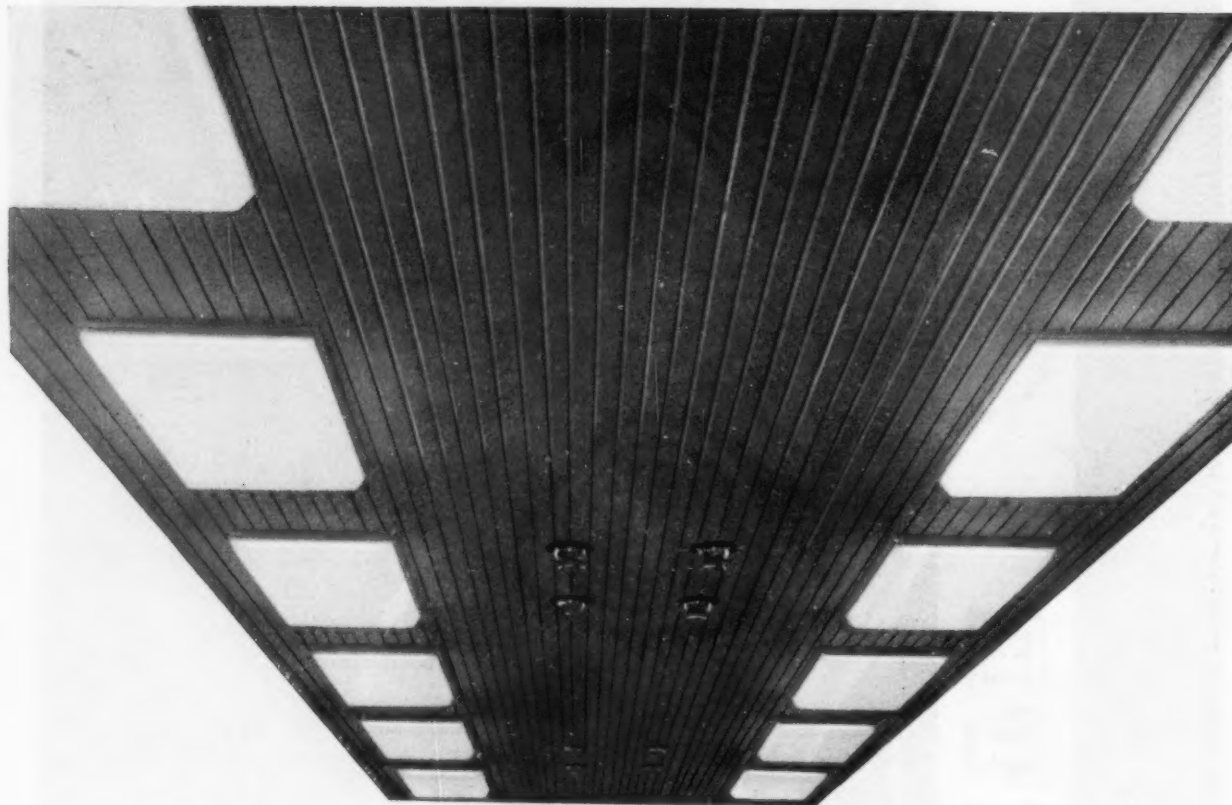


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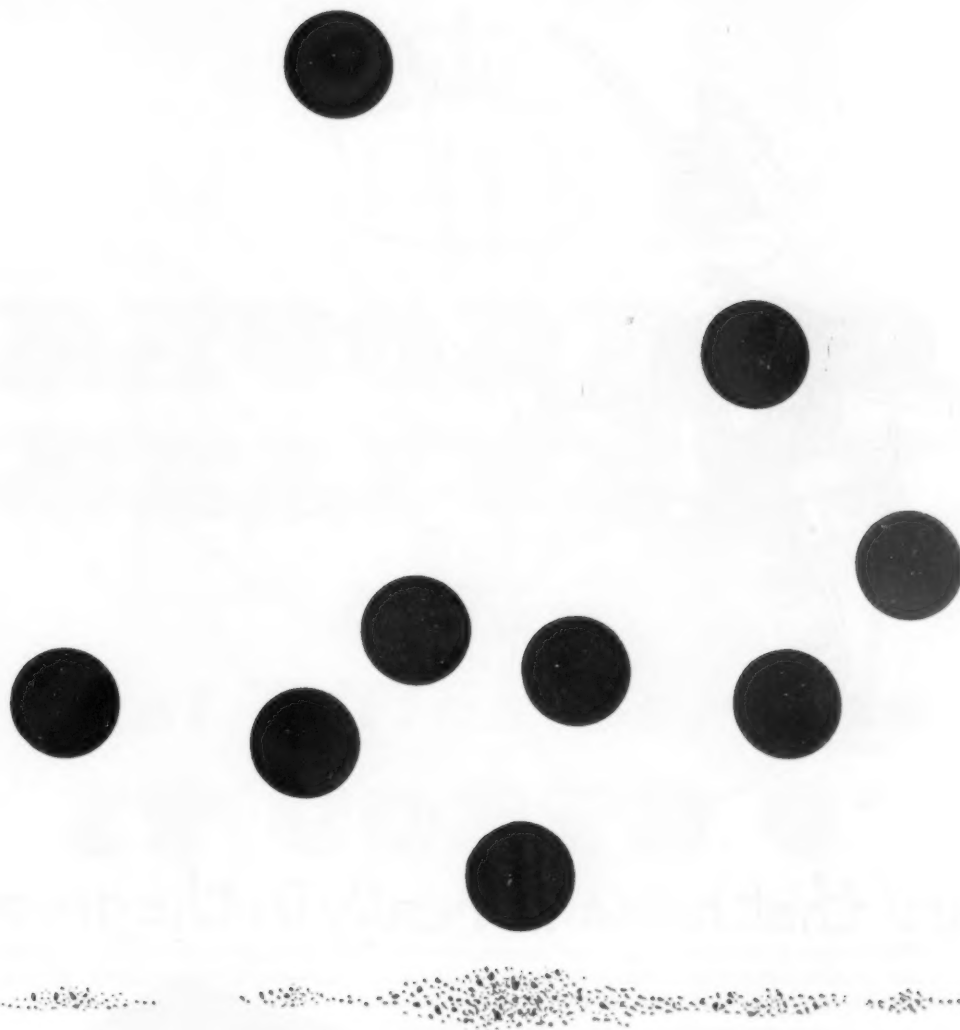


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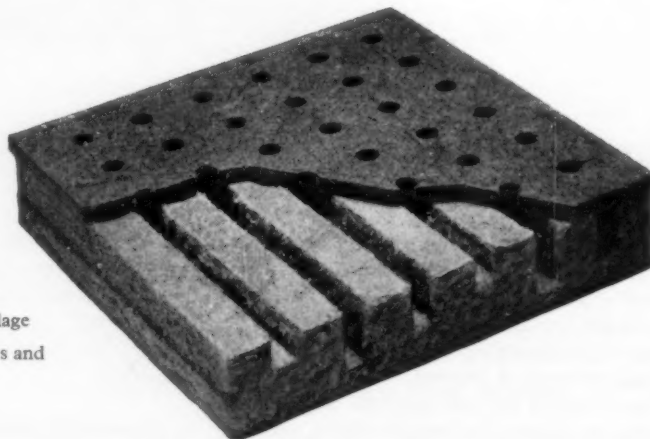
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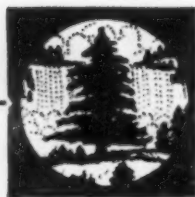


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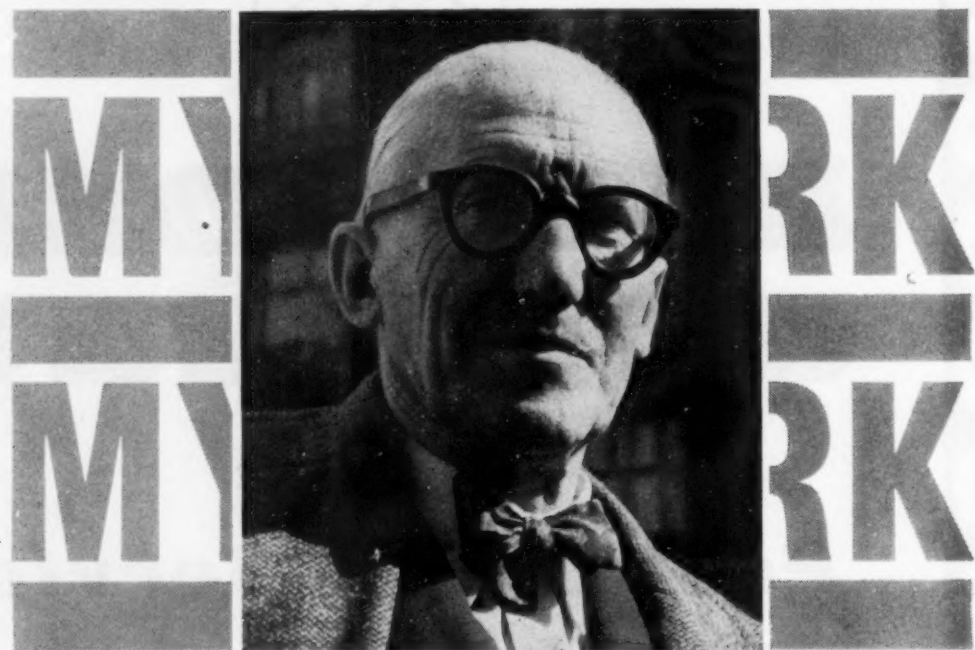
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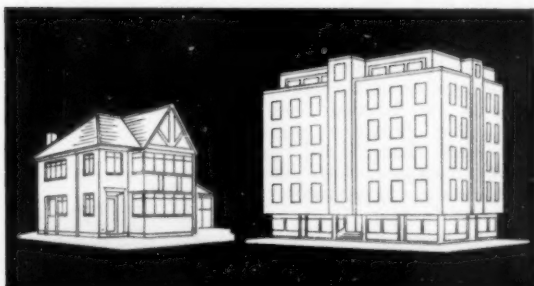
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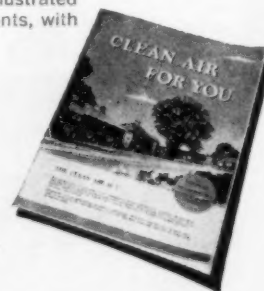
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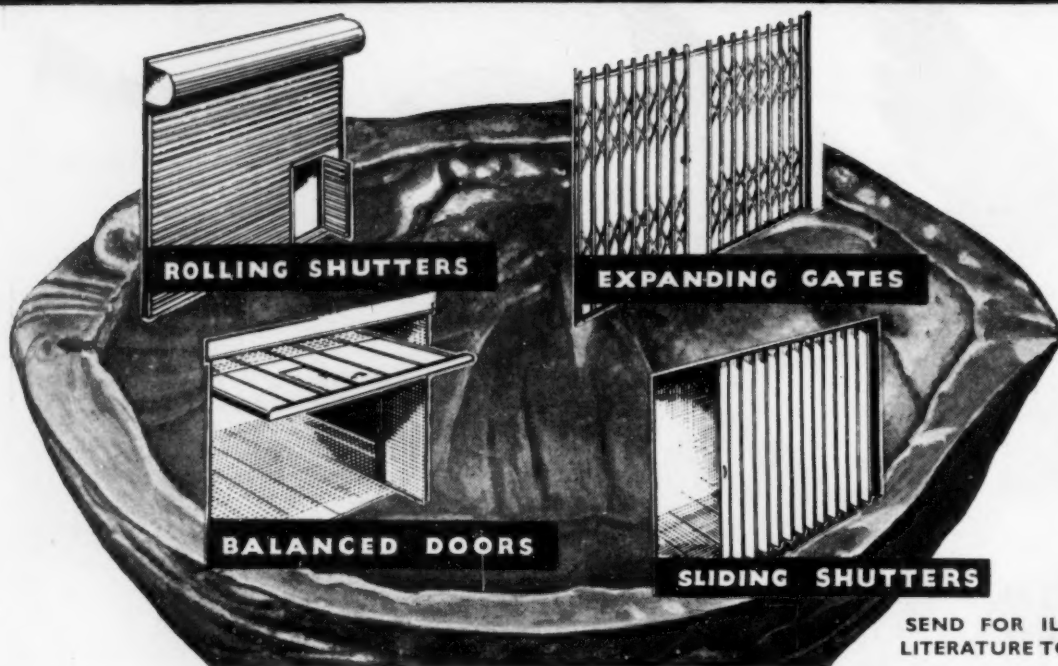


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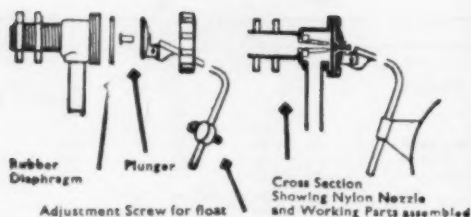
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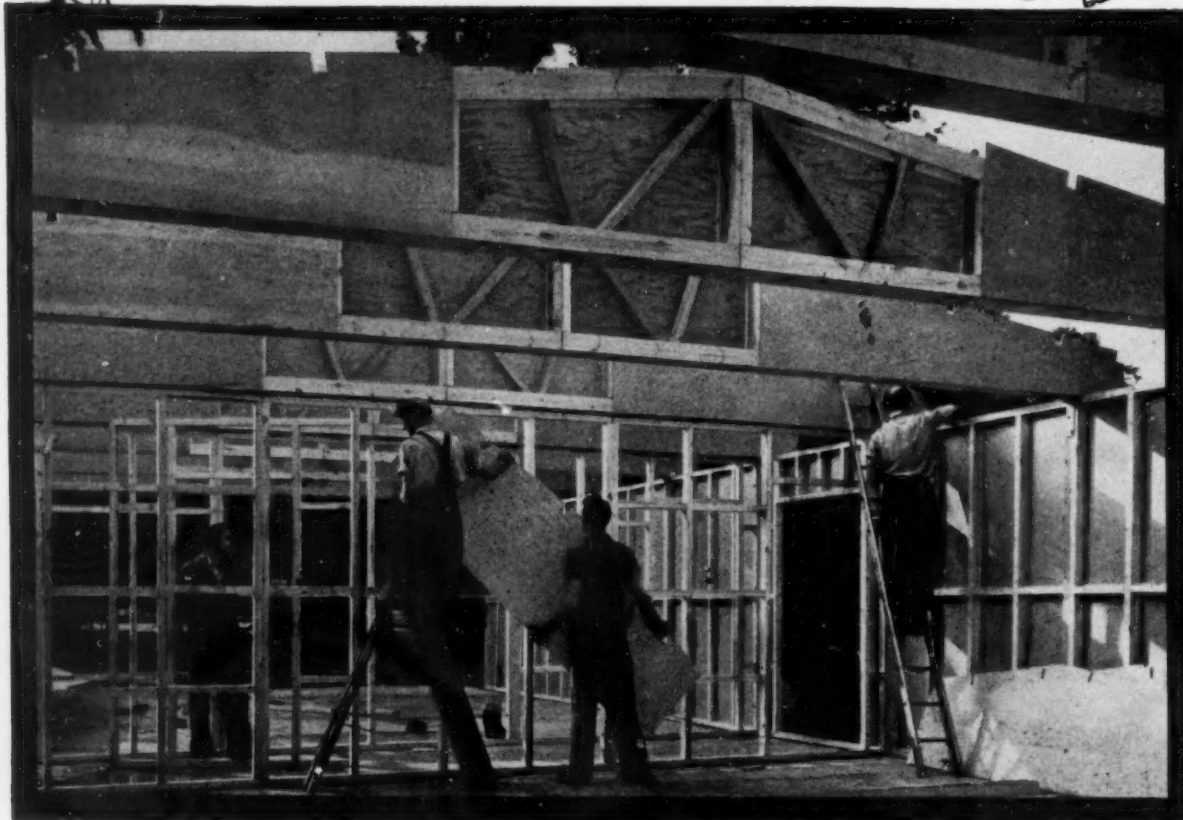
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CELSIUS

[188]

celsius See THERMOMETER (person)

celt 1. *n.*, chisel-edged prehistoric tool (imaginary L.)

celt 2. *n.*, (*pl.*) peoples speaking or having spoken languages akin to that of the Gauls (Bretons, Cornish, Welsh, Irish, Manx, Gaels) (*sing.*) member of such people.

celtic (*adj.*; *-ically*) of the Cc. (Celtic fringe, the Scots, Irish, Welsh and Cornish, in relation to the U.K.) (*n.*) the Celtic language, celticism, celtomania, celtomaniac, celtophobe, celtophobia, *nn.* (L. Celta)

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cement 2. *v.t.* Apply c. to, line or cover with c., unite (as) with c. To C. for best results *see* TUNNEL

cemetery *n.*, Burial ground other than churchyard (Gk. Koimao, put to sleep)

cenobite *see* COENOBITE

cenotaph (-ahf) *n.* Sepulchral monument to one whose remains are elsewhere.

censer *n.* Incense-burning vessel. Cense *v.t.* adore or perfume with incense (INCENSE 2)

ensor 1. *n.* Ancient-Roman supervisor of census and public morals; modern official examining
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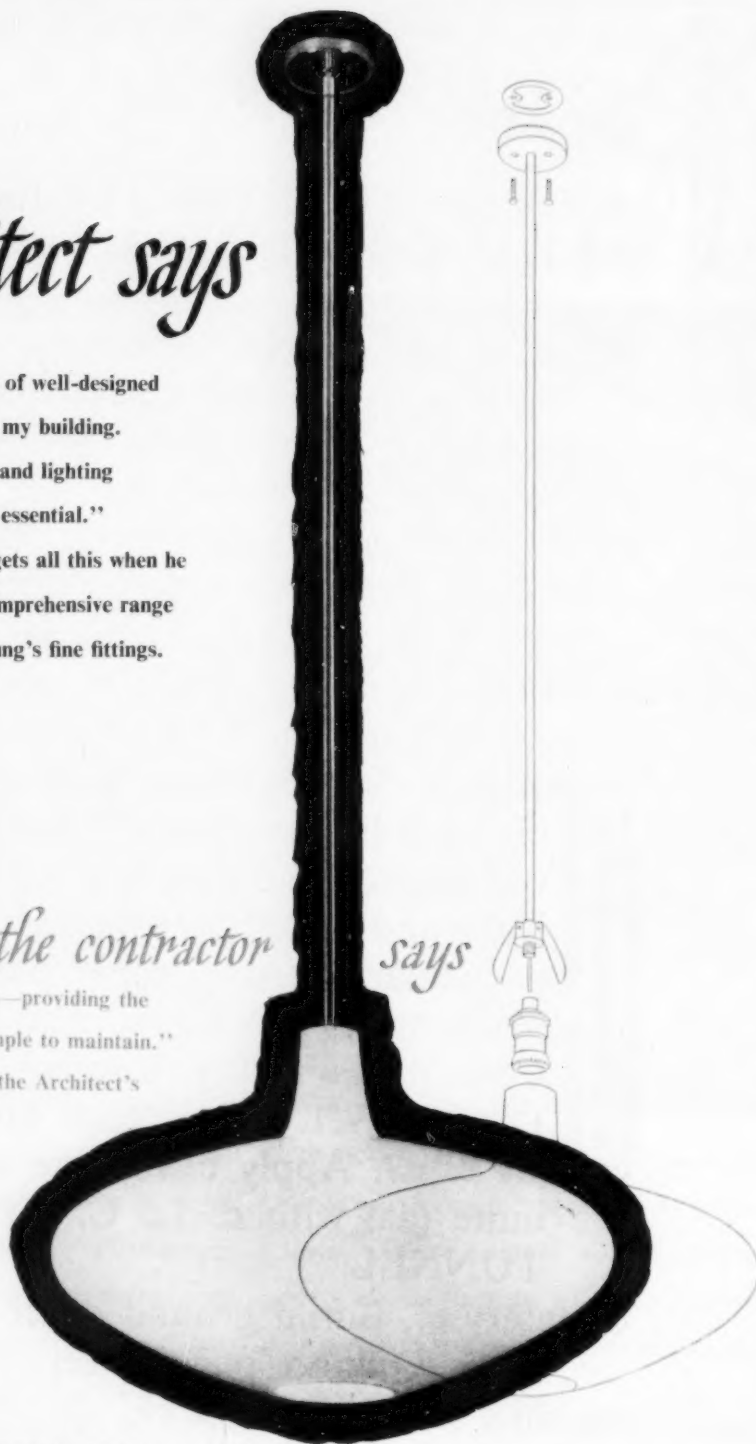
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The Architects' Journal

No. 3436. Vol. 133. February 23, 1961

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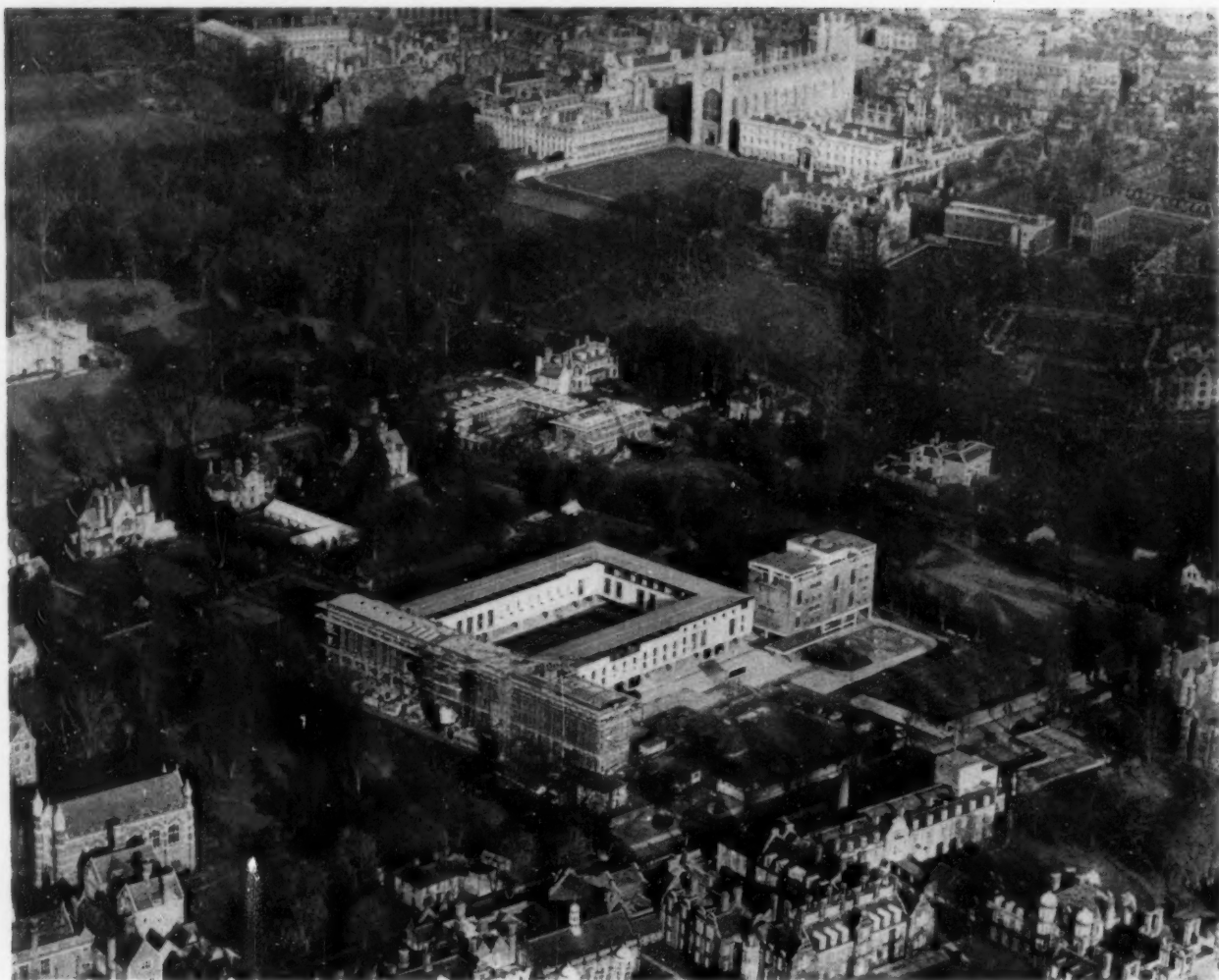
NOT QUITE ARCHITECTURE

Letter from Melbourne

"Melbourne?" said the Sydneysiders, conscious of being somehow at the wrong end of a long-standing rivalry... "very quiet place; the pubs close at 6; no night life—its much more *English* than Sydney—you'll like it..." And you are left with the implication that the cosmopolitan life around the Harbour is a bit too much for you.

All I really knew was that the capital, Canberra, only came into being because neither Sydney nor Melbourne would give way when Federation set in.

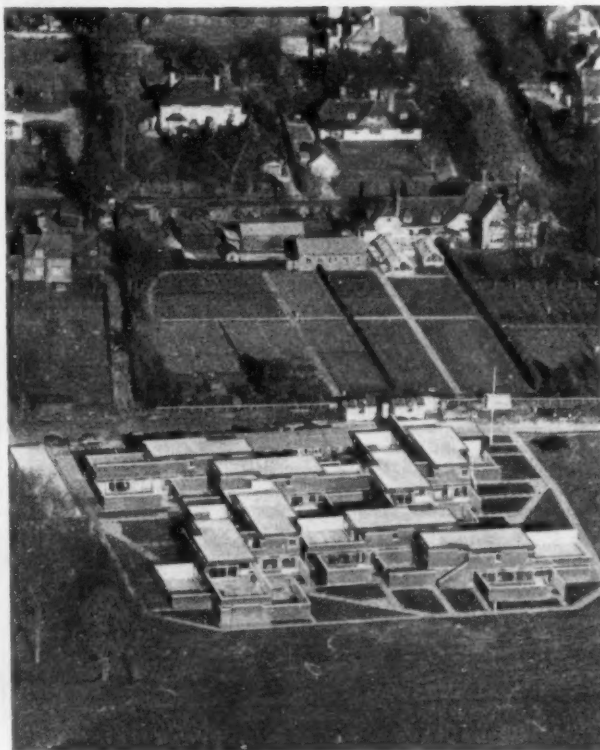
If you have never before seen a town laid out on the gridiron plan, Melbourne is, by implication, a revelation of the effect on our lives of English crooked street patterns: the sheer effort of finding one's way about, the problems of bends and curves, the maladjustment between street width and traffic density, the headaches for police and traffic signal engineers at multiple junctions! Melbourne is a soothing balm: spacious right-angled crossings march away at regular intervals in both directions towards some axial eye-stop—a war memorial or a Snow Hill-type railway station or even a new skyscraper proclaiming the success at once of insurance and aluminium curtain walling. Along the centreline of each broad street, little green trams—each a testimony inside to the Edwardian cabinet maker's skill—pursue their ruler-straight routes. Wide pavements carry just the right density of people. You walk slowly past prudent façades, find yourself falling in with the demeanour of unsmiling faces, hesitate before quality shops which (in *this* country) discreetly breathe the notion of social exclusiveness. There are even a few of those "tea rooms" of a kind long gone from English towns but lingering here and there in Nice; a restaurant that could be a provincial offshoot of Simpsons and bookshops



The New Cambridge

At Cambridge the University and the colleges, each jealously autonomous, expand in Sidgwick Avenue area and the pattern, or the lack of pattern, begins to emerge. In the centre of the picture the first part of Casson and Conder's University Faculty buildings is approaching completion, with lecture block to the right, the magnet-shaped modern and medieval languages library in the centre, and the economics and politics library in progress across the ends of the "magnet." Beyond, between the Faculty buildings and the river, can be seen Leslie Martin's new building for Caius, and across the river Spence's extension to Queen's College, bedded down quite comfortably with the rest of the college. Alongside the Faculty Buildings, in the gardens of Selwyn, Stirling and Gowan's college extension will shortly begin. Opposite, Newnham embarks on a new library block.

On the right, the first stage of Sheppard, Robson and Partners' Churchill College, the Master's and married dons' quarters, also nears completion.



in the alleyways bisecting the dead square street blocks, that could be far flung outposts of Bumpus—except that you may (as I was) be served by an Australian poet anthologised in Penguin.

Unlike Sydney, no barefooted, brown torsoed building workers sprawl on hot pavements outside pubs; and that turn-of-the-century boom which left immense and aggressively eclectic banks, stock exchanges and town halls in the main streets of so many cities, appears to have passed Melbourne by. What has not passed her by is the between-the-wars suburban growth of gimcrack, implacably one-storey development, threaded by an electric train network labelled by apt coincidence—"Victorian Railways." One four-track suburban station I discovered to be run entirely by one man. The barrier gate shut and locked itself behind me. With the aid of a penknife I escaped from lonely imprisonment on platform 3 and went, solely out of curiosity, to ask the booking clerk (as he then was) what would happen if a whole train load found itself imprisoned—with penknives. His answer was—"you can't get staff!" My only other excursion into the suburbs—to St. Kilda—revealed a beach and Luna Park of Southend-like depravity. Sydney has the edge on Melbourne for beaches. Melbourne's claim to be the cultured city of Australia is well supported by the Art Gallery. Three Rembrandts, Victor Pasmore, Buffet, El Greco, Blake's illustrations to the Divine Comedy, Bratby . . . most of them bought with the Felton bequest. There is also an "unrivalled" Oriental collection. I should add that plans for a new, ambitious and splendid art gallery and cultural centre have been put into the hands of Australia's most militantly outré architect (who lives, of course, in Melbourne). I gather from architectural gossip that the most pressing problem at present is to decide what exactly a "cultural centre" is.

*

But the real delight of the city for me was its Botanical Gardens. If you pictured a kind of glorified Victorian fernery you would be quite wrong. At seven o'clock in the morning (the mosquitoes woke me) you wander into the great spread of rolling park, winding paths that dip and turn through belts of trees. Not a soul in sight—only water sprinklers which catch the morning sun. Some shoot a fine curtain of water; others an atomised mist that floats across the mown grass. The best are those that spit long bullets of water in a gradually turning circle to slap against the grotesque leaves of some equatorial African tree or fall at the feet of giant bamboos from Japan. There are lakes of strange water plants not unlike the primeval part of St. James's park. Near the keeper's cottage, an English elm; round the corner a whole unearthly thicket of cactus proclaiming an alien aesthetic. Beyond the fringe of trees you hear the gathering stream of morning cars—bronzed, white-shirted businessmen going to their offices.

JOHN CARTER

The Editors

UNIVERSITY QUESTIONS

COMPARED with £1,650 million for defence, £30 million a year for university building is chicken feed; but even so is it going to be spent to best advantage? Richard (Churchill College) Sheppard weighed in last week, at a TCPA forum, against the official encouragement on halls of residence which imitate the Oxbridge tradition of regarding undergraduates as juvenile delinquents. He contrasted the ceremonial dinners, eaten under the eye of a warden/scoutmaster, with the mature and self-reliant student communities of France, Scandinavia and the USA.

At the same meeting, Peter Chamberlin, author of the far-sighted development plan for the University of Leeds, criticised those who took the line of least resistance by locating new universities in suburban fringes. Other university questions also demand closer attention than they are getting. For instance: by the time there is a university within daily reach of almost every home, will the educational advantages of residence still justify the enormous outlay—£1,250 a place—they demand? Again, are university premises too intermittently occupied to justify central sites? On the other hand, even if we are rich enough to put up buildings which are used for only two thirds of the year, should terms be rearranged as they were in the War to get more students through courses by keeping university teachers as fully occupied (on correspondingly higher salaries) as the rest of the working population? This radical view is advanced in some quarters because present university building plans, aimed at increasing the number of places by 70 per cent. in the next ten years, will still leave supply 30,000 short of the potential demand in 1970.

Might not better use be made of playing fields—or even some of the university buildings—if the university shared them with the town? Might it be socially healthier if students played in teams alongside their contemporaries from other walks of life? In any case why should teaching and sports areas be side by side especially if this makes the university miles from the nearest book shop? If financial stringency alone pushes universities into the suburbs, perhaps it would be economical to spend more money on land acquisition. With a large population, and people usually preferring to live near their work, the university seems such an ideal means of leavening and revitalising urban centres that civic authorities might be well advised to offer financial inducements to get them in; and might not the universities themselves, in origin essentially urban, benefit equally from easier contact with the business and professional life of the town? So far only prejudice has supplied an answer to such questions. Factual evidence is needed to settle them with authority. Perhaps the new Robbins Committee on Higher Education will seek out some of it; but planning authorities and the MOHLG should be taking an active interest too. The modern university with 5,000 students is the equivalent, when teaching and administrative staff are added, of a business

employing 6,500 people, of whom 1,200 or so have families and need homes and schooling. It is high time officialdom woke up to the impact such universities will inevitably make, wherever they are sited, on land values, markets, housing, transport and the public services in the next decade.

ARITHMETIC OF THE WHITE PAPER

The Housing White Paper has been greeted with a curious silence, considering that it is likely to revolutionise the rent structure of many local authorities: this is the stunned silence of housing committees trying to work out how they will fare with the formula, *expenditure on new housing: notional income from previous housing* determines size of subsidy. We await the verdict of the local authorities as to whether this will indeed reverse the present decline in local authority building.

Meanwhile the decision to stimulate the building of more houses to rent by encouraging non-profit-making housing associations with Exchequer loans is heartily welcome. We only wonder why the Exchequer charges 6½ per cent for its money. Surely cheap money is one of the easiest ways by which governments can encourage what they regard as a desirable object?



CAPITAL ASSESSMENT

In the first of his Lethaby lectures at the Royal College of Art last week, Henrique Mindlin reminded us (with splendid coloured slides) that Brazil's architecture began before the 1920's. He brought out the essentially Brazilian, as distinct from Portuguese, character of the later examples of baroque, and no doubt his second

lecture (to be given before this note appears) will show quite as clearly what modern Brazilian architecture owes to the baroque tradition.

*

Mindlin, who is one of Brazil's busiest architects, now has five Brasilia buildings on the drawing board (including a Hilton hotel). He will be talking about the new capital—hitherto considered a place with performing rights by Niemeyer—in his final lecture this week.

LIGHT AMONG THE DIM-WITS

I wrote on February 2 about Harrow Council's plans for a civic centre in the Traditional manner, and said that "it is preposterous not only that the country's really dim-witted councillors still want this kind of building, but that there are architects available to perpetrate it." Since then the Council have met to approve the layout and sketch design of the building. Although it got through there were several far-from-dim councillors present who fought hard against it. It is nice to see they fought not on political grounds (both Labour and Conservative members were against the scheme) but for two other reasons: one that Harrow hadn't put up any decent architecture for 800 years, and the other that a neo-Georgian building would be inefficient in its working.

It would be bad-mannered to wish ill luck to a member of the profession. Let me simply say that I hope the sketch design will be seen by ministry and county officials with stomachs as weak as mine.

SIR GERALD REMEMBERS

In a paper delivered last week to the Royal Society of Arts, Sir Gerald Barry looked back to the Festival of Britain and the South Bank Exhibition, made a series of utterances that sounded as if he was really saying something about their influence and then admitted it would be pretentious to claim that any particular advance in design was due to the Festival. This seemed very sensible and honest, and I hope that the dozens of writers and speakers who will be picking up the theme of "Ten Years After" will learn something from Sir Gerald—if it is only the useful moral that it is better to say positively nothing at all than to say nothing at all in several hundred words.

*

Perhaps Sir Gerald didn't realise until he had finished writing his paper that in fact, he had nothing to say. And perhaps by then it was too late for him to begin again with a paper giving examples not just of *influences* on design in the last ten years, but of progress made during that time. If he had done this he might not have found it necessary to round off his talk with a pathetic list of Festival heirlooms, including the memorial gardens next to St. Paul's. In any case he was eighteen months late with his hope that the face-lifting operation instigated by the Civic Trust in Norwich would be tried in other cities.

MEGALO-JUMBO

You saw it in the *Observer*. Or was it the *Sunday Times*? You can't usually remember, but this week you can hardly forget. The first paper described the *Architectural Press* publication, "My Work," by Le Corbusier (84s.) as a hotch-potch with little design and much nonsense adding kindly that it was the nonsense of a genius. And the other paper printed Robert Harling's praise for a story whose "machine-gun prose" would fascinate most readers and arouse "every young architect." I shall

only add that the book would be of little use to anyone who knew nothing of Corb, his work and his particular brand of megalomaniac. For more details turn back to the review in last week's JOURNAL.

YOU'RE ALL RIGHT, Mc.

You must apply by March 1 if you want a fellowship or scholarship (your keep, tuition and up to 500 dollars) at what Peter Shepherd calls "the best landscape course in the world." To be eligible for this course at Harvard's Graduate School of Design you need a degree or diploma in architecture, landscape or otherwise, and successful applicants are eligible for Fulbright travel awards covering all transport expenses. Ian L. McHarg, who will deal with applications (he is chairman of the Department of Landscape Architecture, University of Pennsylvania, Philadelphia) tell me he has been involved in a local CBS television series that should make us envious—thirteen thirty-minute programmes based on one of his courses on "Man and Environment"! Television producers here who want to impress the Pilkington Committee might like to note that these programmes included not only astronomers, sociologists, physiologists, theologians and ecologists but also architects.

CRUSADERS INC.

"How can architects exercise leadership towards a better physical environment—a leadership which, by virtue of our skill and calling must be ours?" A familiar question, and this time it is asked in America—in the first of a series of articles by Philip Will Jr., the AIA president, in the Institute's *Journal*. Not so familiar is his summing up of the architect's object as "the responsibility and the leadership for the total man-made environment, as the medical profession assumes the responsibility and leadership for public health and the legal profession for the rule of law." How many architects in this country see themselves in this light? And if we don't take this responsibility, who can?

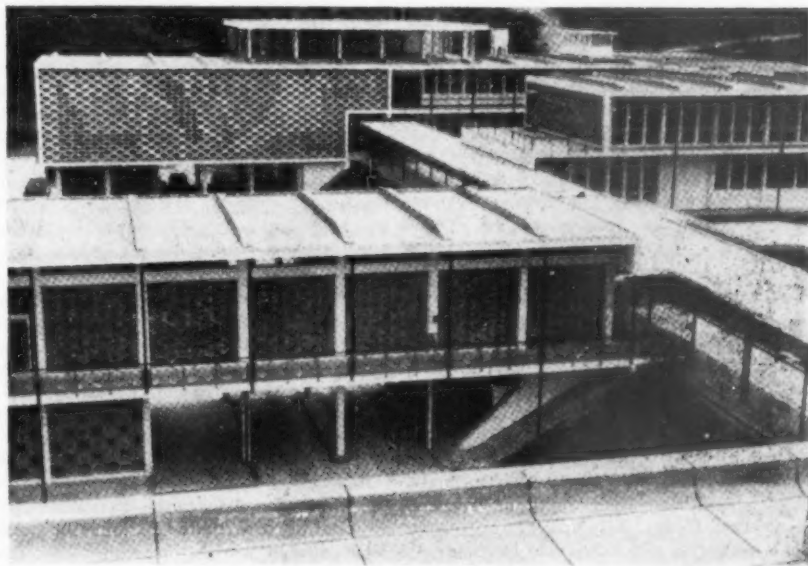
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Another quotation. "Ask anyone at a cocktail party to name you a nationally famous doctor or lawyer and he will be hard put. Most likely, however, he will be able to name three or more famous architects."



Top, an aerial view of the new University of Kuala Lumpur, from the north: the science block, bottom left

Below, the Botany and Zoology block.



That out-of-this-world remark came out of America—again from Philip Will. Before I even begin to try it on friends I am saddened by the memory of a recent *Round Britain Quiz*. "It's some thing to do with Sir Basil Spence," said the BBC's helpful question-master. "Sir Basil Spence," muttered the baffled quizzee: "who on earth's he? An astronomer?"

SYMBOLIC ARCHITECTURE

This week my illustrations show two buildings of the new University of Kuala Lumpur—a place where you

won't find any support for the popular supposition that a university brings together the arts and sciences in a culturally-integrated whole. The various faculties are two to three hundred yards apart and even science and engineering, which you might expect to have some sort of affinity, face each other across a central campus containing playing fields and an artificial lake. Symbolic, no doubt, of the true state of affairs among specialists—complete isolation except on matters of sport.

ASTRAGAL

LETTERS

R. E. M. Short, Dip. Arch.

*L. M. De Syllas,
F.R.I.B.A., A.A. Dipl.*

*W. G. Fiske,
Chairman of the LCC Town Planning
Committee*

Architecture on TV

SIR: Astragal asked us (AJ, Feb. 9) to face his proposition that "Architecture and building are not as fascinating to the layman as science." I wonder if this is true?

Certainly some, if not all, of our architectural spokesmen in the Sunday and weekly papers, on the Third Programme and television, appear more bored than fascinated themselves by the subject. Their approach may differ, some sugaring the pill with jazz or scientific titbits, but they all have one thing in common: they are outside the subject, they are not involved with it. John Berger, Kenneth Tynan or Tom Margerison would be equally good, if not better, in the place of their architectural equivalents. What then should we look for if we are to fascinate the layman? We might look first, as is fashionable, at the men who are the most successful protagonists for science: on radio, P. B. Medawar and J. Z. Young, on television, Bronowski, Lawrence Bragg and Grey Walter. Why are they so good? Because not only are they practising scientists passionately interested in what they are doing, but they are capable of conveying their enthusiasm to other people.

There are as many bores in science as in architecture, but science has been luckier—so far. In science young FRs like Francis Crick and John Kendrew and more recently Martin Ryle have spoken and written well on their subjects for lay audiences. Their equivalent in architecture may be (I stick my neck out and hasten to add they know nothing of this and, for all I know, might be horrified) men like Andrew Derbyshire, Peter Chamberlin, Peter Smithson, Walter Segal, Eric Lyons, Bill Howell. Speaking on his own subject, lucidly and at length, believing it was important he should be understood, I believe that the architect could achieve what in fact should have been infinitely more difficult for the scientist, namely a sympathetic understanding for his problems.

Personalities, however, are only half the problem, the visual presentation is the other. A great deal of the credit for the "layman's fascination for science" should go to the BBC who sweat blood making the abstract comprehensible. Who has bothered for architecture? Astragal's contribution is to condemn any documentary on architecture that lasts longer than the average sequence on *Tonight or Monitor*.

On the present score I think he is right. In fact the Civic Trust and the Design Centre have proved it. But I wonder if Richard Cawston would have been given the chance to make his documentary on the legal profession if Astragal had been Con-

troller of Programmes? And isn't architecture, in the widest sense of the word, concerned in Denis Mitchell's documentaries on Teenagers and Soho and in Philip Donnellan's film on Coventry?

These are personal statements about our environment made with imagination and are a clue to the use of film in architecture. Or do I misunderstand Astragal, does he mean shots of the new Civic Centre from front, side and top? Because if he does I think a minute of film time would be too long.

No, the trouble is not in the subject, but in the attitude towards it. Good films, books or reviews are good because somewhere in their creation someone got imaginatively involved with the problem. Good journalism and a knowledge of art history are no substitute.

RAMSAY SHORT

London, W.C.2

Stressed Skin Space Grids

SIR: There is nothing to add to your "Tech Man's" reply to Mr. Crosby on the subject of ethics in structures. For the record, however, it might be worth having a less emotional statement on the design of the Lagos Bristol Hotel roof when compared with the IUA Exhibition Hall roof.

In co-operation with a firm of fabricators, Architects' Co-Partnership invited Dr. Makowski to develop a roof for our project. We had already abandoned two previous proposals for systems of space frame construction, due to climatic and economic reasons.

In our brief to Dr. Makowski, we asked him to consider the following proposals:

- (a) All parts of the structure, including the weatherproof and insulation membrane to participate in the structural effectiveness of the whole system.
- (b) Because of the high cost of aluminium rods, tubes and extrusions, maximum use to be made of a flat aluminium sheet.
- (c) The simplest and neatest possible detailing of the multiple junctions.

We think Dr. Makowski has admirably achieved these requirements in the final details he has worked out with us for the Lagos roof. The system has been sufficiently developed for him to undertake a standardised technique which he is calling *Pyradek*. Essentially this type of space frame combines the advantages of both skeleton system and stressed skin system space structures and is highly economical owing to the following factors:

- (1) The stressed distribution is of the membrane type—i.e. the strain energy stored in these systems is mainly due to axial forces, the bending stresses being of a negligible order.
- (2) The load carrying capacity of the structure is greatly increased as the compression members in the sheet pyramids or tetra-hedra are restrained laterally by the side sheets—this prevents very effectively their tendency to buckle.
- (3) All the components are stackable and can be stored, transported and shipped very economically.

Such structures exhibit a remarkable stiffness, deriving most of their strength from their geometrical form. In consequence, they are rather light and can be subject to stress reversal under wind suction.

Where the simplest form of structure is used—i.e. open pyramids or tetra-hedra whose flanges form a grid of the same dimensions as the tubular elements connecting their apices, they can be used either way up equally effectively.

If, however, it is necessary to introduce a horizontal membrane for insulation and weather proofing purposes, as in the case of a permanent building in West Africa such as the Bristol Hotel, it is evidently more economical to employ this membrane as a stressed skin, and in this form it is logical that the pyramids should point downwards using the tubular elements in tension.

In a temporary building with no snow-load or insulation requirements, the IUA solution seems perfectly reasonable and is probably lowest in cost.

But whether it is "ethical" to design the module of your structure to accommodate a water tank, rather than base it on the economical sheet stiffness of the material, remains an open question! !

L. M. DE SYLLAS

London, W.1.

LCC at Blackheath

SIR: An article appeared in your issue of February 16 alleging that the LCC wished to ban Mr. Eric Lyons, O.B.E., F.R.I.B.A., from designing buildings in Blackheath.

The LCC's position was fully explained in the course of the public inquiry commencing February 14 into three town planning applications by Mr. Lyons on behalf of Span Developments Ltd. and Priory Hall Ltd., and I think it is desirable in the public interest that it should now be made clear to your readers that the LCC is not opposed to permission being granted for the three schemes which were the subject of the public inquiry, nor is there discrimination of any kind against Mr. Lyons as an architect, or against the development companies. Schemes of the type designed by Mr. Lyons at Hallgate, Priory Park and Corner Green meet the needs of good town planning and have many characteristics in common with the LCC's own nearby estate at Brooklands Park. Mr. Lyons has in fact designed schools and housing projects for the LCC.

The three schemes now in question, however, are on much smaller sites, and although the LCC does not oppose them, it is feared that numerous small scattered developments of this sort might do irreparable damage to some of the fine groups of historically interesting buildings with which Blackheath is richly endowed, without making any positive contribution to the town planning of the area. It is in order to clarify the town planning issues in Blackheath that the LCC intends to prepare a plan for the area.

W. G. FISKE

*Chairman of LCC Town Planning Committee,
The County Hall,
London, S.E.1.*

NEWS

MOHLG

Housing White Paper

The new statement of Housing Policy for England and Wales issued last week by the MOHLG, and soon to be the basis of a new Act of Parliament, is mainly designed to concentrate local authority housing effort in the worst areas, such as the industrial towns of the north of England; to push local authorities who want to qualify for maximum subsidy into raising rents, probably by differential rent schemes; and to stimulate the private building of more houses to let.

It is proposed to do this, not by altering the present total amount provided for housing subsidies—about £61 million, rising at a rate of £3 million a year—but by relating the rate of subsidy a local authority is entitled to draw to an estimate of its "financial need" based on a standard measure of its potential rent resources. Subsidy will no longer be for slum clearance only. At the same time Exchequer loans up to a maximum of £25 million are to be made available to approved housing associations, subject to the condition that the houses will be kept available for letting at economic rents. Under this new arrangement co-operative housing schemes, such as are well established in Scandinavian countries, would be eligible for loans.

The White Paper begins by claiming "an immense improvement in the housing situation." But "there are still serious shortages in some areas and there remains some terribly bad housing. . . . Many families are still without a separate home, or are living in unfit houses, or in badly cramped or over-crowded conditions. There is as yet nothing like enough accommodation suited to the needs of the elderly. Large numbers of older houses, which could be made much more comfortable and convenient need to be converted or modernised. The total number of separate households has greatly increased since the end of the war and will continue to do so; and the population is still rising."

The document goes on to give figures of new houses and flats: 3,250,000 have been built since 1945, of which two-thirds have been provided by local authorities. Since 1951 however "there has been a rapid and continuous expansion of private building. Taking both together the rate of house building . . . has been maintained at an average figure in excess of 300,000 houses a year": it therefore seems that local authority building has declined as fast as private building has grown.

Last year, it is pointed out, private building accounted for three out of every five new dwellings in England and Wales. But while this growth "is meeting the wide demand for home ownership . . . the Government's aim is to secure that there will be houses for sale and houses for rent in sufficient numbers to keep pace with the rising demand of a prospering society."

Of the 3½ million publicly owned houses, the White Paper states that many "which ought to be available to those who really need them are still occupied by people who, whatever their situation when they first became local authority tenants, have since become well able to make their own arrangements without need of subsidy." Differential rent schemes, charging economic rents are clearly of use not only to increase the income from rents of local authorities but to encourage more prosperous council tenants to move out and fend for themselves.

The White Paper then turns to slum clearance: since 1955 a quarter of a million of the 850,000 slum houses in this country have been demolished, but there are still 600,000 to be dealt with, and "these are being cleared at the rate of about 60,000 a year"—not much to write home about, when this has been a "a priority task of housing authorities since 1955"? However, "at the present rate of progress well over half the 1,469 housing authorities in England and Wales should . . . have completed the clearance programmes" by 1965, and meanwhile it is hoped that the improvement grants system is diminishing the rate at which old houses are slipping into slumdom.

In fifty areas, however, including the largest towns in the North and Midlands—e.g., Manchester, Liverpool, Birmingham (with an exceptionally low rate of slum clearance, as the figures show) "there are heavy concentrations of slums, accounting for a considerable proportion of all the houses in the area." Priority is to be given to these areas, and the need for more new towns for overspill as acknowledged. London County Council is recognised as having co-operated "persuasively and effectively" with other local authorities to whom it has "exported" population.

Finally, in this section, it is recognised that the "slum clearance" limitation on subsidies has left out of account many families living in unfit, unconverted houses, whose needs were sometimes even more pressing than those of the dwellers in slum areas.

The distribution of subsidies is therefore to be recast: "Two main changes are proposed. . . . The first is that subsidy will be payable in respect of all houses built by local authorities, provided that they are approved by the Minister. . . . Before giving his approval the Minister will require to be satisfied that there is a genuine need for the authority to build for the purposes proposed. The second main change proposed is that in future there will" . . . (subject to certain exceptions) . . . "be two basic rates of subsidy: £24 a year payable to authorities who satisfy a test of financial need, and £8 a year payable to authorities who do not satisfy that test."

The proposed test of financial need is to be based on "the potential rent resources of each authority," calculated as "an amount equal to twice the 1956 gross value of all the dwellings owned by the local authority." The 1956 gross value was the estimated letting value in 1939. In other words the "notional value" of a local authority's rents is twice the 1939 letting value. This figure will be compared with the authority's

expenditure on housing (which would include expenditure from the rates on subsidising council house rents, as well as on new building) and if the income falls short of the expenditure the authority will qualify for the higher rate of subsidy: if not, not.

The White Paper goes on to claim, with a blandness which will be salt in the wounds of local councils hostile to the idea of a means test, that "each authority will retain control of their own rent policy. . . . But in determining the amount of subsidy the Government are entitled to assume that councils will pursue reasonable rent policies, and the changes now to be made . . . will encourage them to do so." How many councils or council tenants this encouragement is likely to affect, the Press office at the Ministry could not say.

The section on subsidies closes by pointing out that housing subsidies normally run for 60 years, but that "the Government propose to take power to reduce the annual payment of subsidies authorised from now on if after a period of years it appears, following consultation with local authority associations, that so great a change has taken place in the financial position of council tenants generally that a continuance of payments on the original scale for the remainder of the 60-year period could no longer be justified."

The White Paper then turns to the question of private building of houses to let: "The Government have . . . been studying the possibilities of bringing other agencies back into the field of building to let. They believe that there are people who would prefer to rent rather than buy a house and who would willingly pay an economic rent if they could find what they wanted. As an experiment, the Government propose to make arrangements under which money will be advanced to approved non-profit making housing associations which are prepared to build houses to let at economic rents. They regard this as essentially a pump-priming operation and hope that it will serve to show the way to the investment of private capital once again in building houses to let." A maximum of £25 million is therefore to be made available for Exchequer loans, at the same rate of interest as the Public Works Loan Board (which lends at 6½ per cent interest on loans up to 30 years, and 6¼ per cent for longer periods). On land for building, the Ministry points out the need for co-operation, between Ministries, and with local authorities, so that "the fullest use is made of the land which is developed and that overall enough land is allocated for development," and the White Paper concludes with proposals to encourage the modernisation of old houses by increasing the percentage that landlords can get back from rent increases, and promises "to introduce new powers to provide . . . for the proper maintenance and management of such houses" and to strengthen the power of local authorities to insist on repairs being carried out.

A similar policy for Scotland is to be published shortly.

Later in the week the text of the Housing Bill to incorporate the changes outlined in the White Paper was published.

Two additional points are covered in the Bill: in future landlords are not to be able to make tenants liable for full repairs in leases of less than seven years. And it is to be possible for clearance orders on unfit houses to be revoked or varied, where these can be made fully fit for habitation.

THE COAL EXCHANGE

Efforts to stop Demolition

The decision to demolish the Coal Exchange was temporarily withdrawn on February 2, for four weeks to provide opportunity for the decision to be debated in the House of Commons, as a result of campaigning by the Victorian Society and many individuals, and of questions asked in the House by Tom Driberg, M.P.

Professor Nikolaus Pevsner, John Betjeman for the Victorian Society and Sir Mortimer Wheeler have all pressed the suggestion that since some building has to be sacrificed to the necessary widening of Lower Thames Street, the choice should fall on the rear of the Custom House opposite the Coal Exchange.

Tom Driberg urged in the House that "it would be quite easy to remove a small part of Custom House without doing any damage," but Sir Keith Joseph then replied, for the MOHLG that the Custom House was "an absolutely outstanding building" while the Coal Exchange was "a considerably less outstanding building." Professor Pevsner, however, makes the point that the Coal Exchange was "the first metallic construction to be taken seriously aesthetically" and compared it with the "featureless back" of the Custom House.

John Betjeman proposes that the City Corporation should take over the Coal Exchange and use the building as an art gallery, to replace the Guildhall art gallery which once housed the Corporation's collection of painting and sculpture.



These flats at Annfield, Newhaven, designed by Sir Basil Spence & Partners (above), and the housing scheme by R. E. and B. L. C. Moira at Heddell's Park, Lerwick (below), have just received Saltire Society Awards.



SCOTTISH PRIZEWINNERS

Saltire Society Housing Awards

COMPETITION

Building Exhibition Stand

Heywood-Helliwell Ltd., manufacturers of patent glazing, metal windows and insulation and allied products have announced an open competition under RIBA rules for the design of an Exhibition Stand to be erected at the Building Exhibition at Olympia this November.

The assessor is Geoffrey A. Rowe, ARIBA, Dip.Arch., and the awards for the three winning entries are for 200 guineas, 50 guineas and 25 guineas. Applications for conditions of entry should be sent to the Sales Director, Heywood-Helliwell Ltd., Bayhall Works, Huddersfield, not later than March 31. Closing date for entries, May 17.

The Saltire Society have announced their awards for Scottish housing completed during 1959. For houses, they have selected the scheme at Heddell's Park at Lerwick, designed by R. E. and B. L. C. Moira for the town council. The equivalent award for flats has been made to flats at Annfield, Newhaven, designed by Sir Basil Spence and Partners for the Edinburgh Corporation. The Society praise the Lerwick layout which consists of a series of enclosed courts at different levels, as an imaginative and carefully worked out design, not only of the housing itself but equally for the landscaping of the public areas. Their only criticisms are of the exposed plumbing, and of the unsatisfactory choice of street light fittings. In selecting the flats at Newhaven the Society particularly praise the way in which the architects have fully exploited the

changes in level, and the careful attention they have given to details of paths, steps and retaining walls. They also like the limited vocabulary of external facing materials. They are, however, critical of some of the block junctions, which they regard as points of weakness. But they commend the design of the blocks running across the contours with external staircase access to upper floors, which they believe might well be studied by other authorities who are building on steeply sloping sites. In addition to these awards, the Society commend two further schemes, the 15-storey tower block in the George Street Paisley redevelopment scheme, designed by the Corporation's architect John A. MacGregor, and the single-storey housing clusters in the Part I development at Cumbernauld New Town (architect: L. Hugh Wilson).

Furniture '61

*The furniture exhibition
at Earls Court reviewed by
John and Sylvia Reid*

Robin Day has designed this newest addition to the Hille range of dining room furniture. The group consists of a 6 ft. 0 in. long sideboard, a fixed-top dining table 7 ft. 6 in. long, and dining chairs, upholstered in saddle leather, which are available with or without arms. The wood used can be either rosewood or teak and the approximate retail prices are £283 and £232 respectively for a group.

1961 finds the Furniture Industry busily having a depression. As in the Motor Car Industry, so in the Furniture business, and factories that a few years ago were happily quoting long delivery dates are now all too often on short time.

The main scapegoats for the industry are our old friends Hire Purchase restrictions and Purchase Tax. Undoubtedly these are the main reasons for so few people buying furniture at the present time, but are these the only reasons? Could it be that the buying boom of a few years ago has encouraged false estimates for future requirements and caused an over-optimistic expansion programme? It appears that most manufacturers do not wish to think about this aspect of the problem.

Bearing all this in mind it might be expected that there would have been fireworks at Earls Court, with manufacturers doing battle for the largest slice of the market they could get for themselves. Keen, hard selling with plenty of good new designs and experimental models designed to try to tickle the public's palate so that they would really be enticed to buy something and make the effort to find the down payment. Indeed, what an exciting show it should have been, but it wasn't!

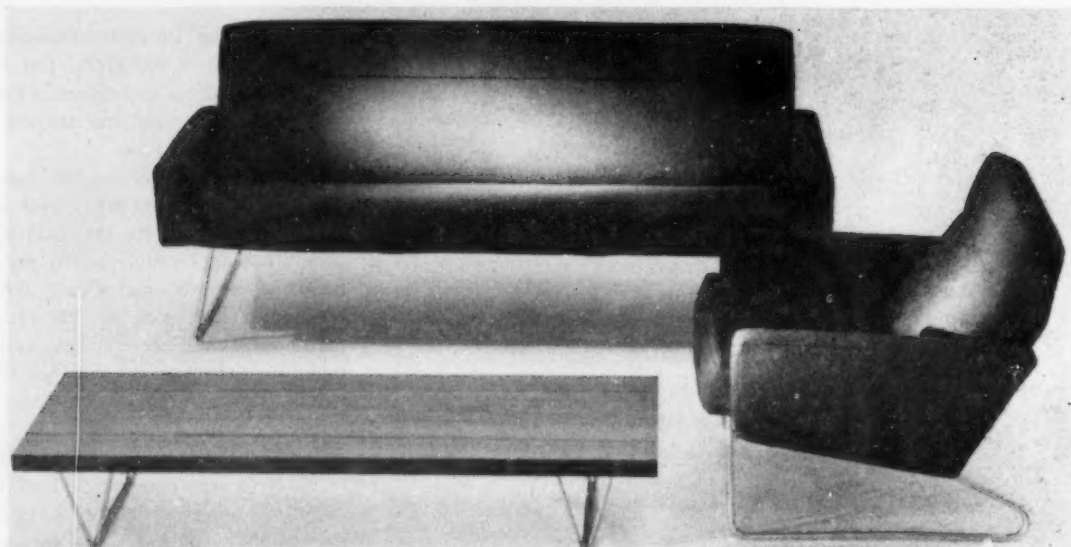
The general attitude seems to be—"the public aren't buying so what can we do?" and then go and chat to a neighbouring manufacturer about the poor exhibition attendance figures. Better still the attitude of the retail buyers, we quote, "This is no time to experiment with untried lines"!!! the exclamation marks are ours.

When will it be realised that when the public are not buying the Industry must do the selling and to do this it must have first class designs that people will really want to have in their homes with people who believe in them to sell them.

Furniture design you may have gathered has not been



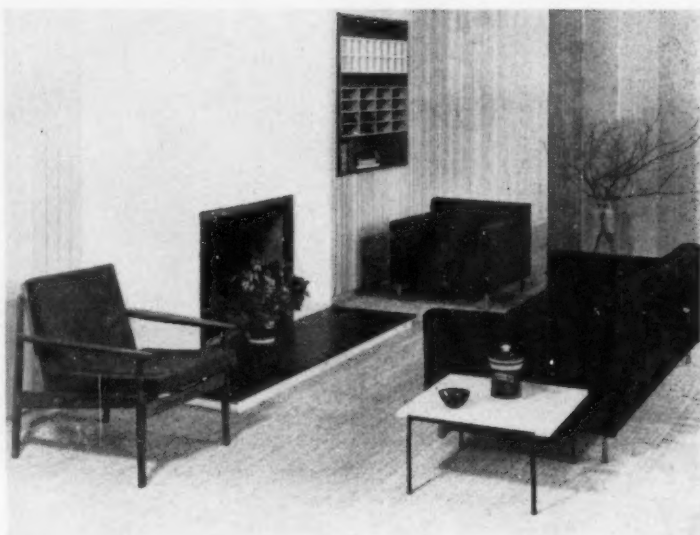
furniture '61 continued

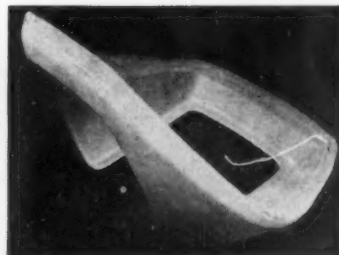
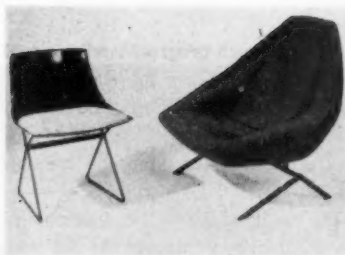


The Stag Cabinet Company have entered the field of upholstered furniture with a series of chairs and settees designed by John and Sylvia Reid. The group illustrated shows the three-seater settee, retail price £48, and the armchair, retail price £24. A two-seater settee and an armless version of the chair are also available. Foam rubber on Pirelli webbing is used with a pure wool fabric in plain colours. The skid legs are chromium-plated steel. The bench-table in teak is uniform with the existing dining-room range and retails at £7 10s.

Conran Furniture have a wide range to offer. Some of it is imported such as the small Danish easy chair, in the group illustrated, which also has a very attractive matching sofa. The frame is oiled teak with reversible foam cushions with removable covers supported on tension springs. The designer is Svend Age Eriksen. Retail price from £22 18s. according to fabric. The settee unit consists of from 2 to 10 individual seat units linked together, the price being approximately equal to the price for a single chair multiplied by the number of seats required. The fully upholstered furniture has reversible foam cushions on Pirelli webbing. The armchair costs from £45 and the sofa from £67.

Occasional furniture is a neglected part of much modern design. This interesting group by Archie Shine uses an interesting stacking principle and is a welcome addition to what is at present available. A 6 ft. 0 in. table costs about £23 in rosewood, a small table £11. Designer Robert Heritage.





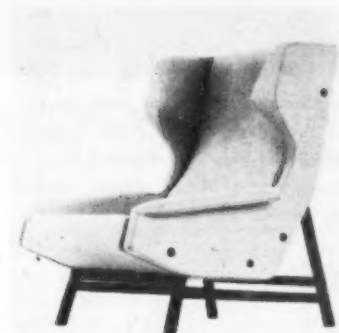
Two new glass fibre chairs by Aidron Duckworth, far left, the design consultant of Vitafoam's newly formed subsidiary Vitesta Ltd. The large easy chair is of double shell construction, with latex foam cushioning and rubber strapping in both seat and back. The dining chair has a recessed seat accommodating a thin latex foam cushion. The shell of the large chair, left.



Austinsuites, who have not been a particularly progressive firm from the design point of view, now have Clive Latimer as their consultant. This dressing table from his range shows promise of rapid design development.

Aeropreen showed an interesting international collection of chairs designed to use Aeropreen polyether foams, and the whole collection made an intriguing comparison of national characteristics (a, b, c, d).

a. From Italy this rather angular armchair designed by Gianfranco Frattini. Typical of the Italian furniture featured at the Milan Triennale last year.

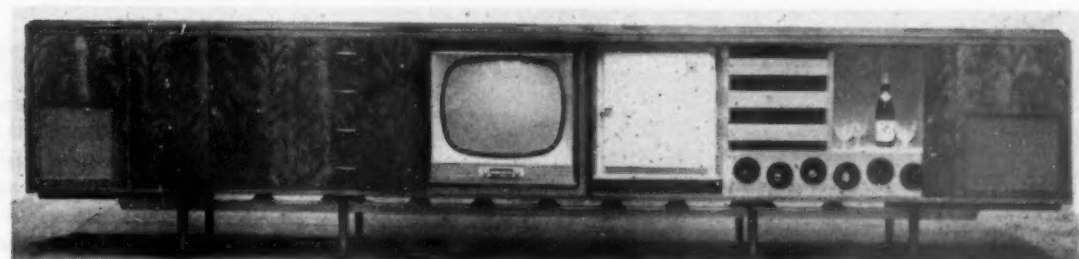


b. From Sweden a chair by Arthur Carlsson in the typical Scandinavian manner.

c. Also from Italy was this chair by Allieni Attilio, again angular and somewhat aggressive in what is the current Italian manner.

The long sideboard to end all long sideboards. This 14 ft. £1,250 unit incorporates a stereophonic Hi-Fi unit, 21 in. television set, cocktail bar, refrigerator, tape recorder.

d. From England the "Tripos" group by Ernest Race. Square steel underframes with wooden arms and tops and loose foam cushions, right.

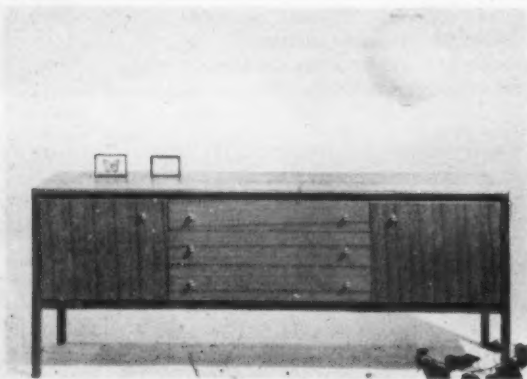


furniture '61 continued



Another neglected piece is the dinner wagon—here is Robin Day's answer to the problem for Hille. The pleasing detail is a welcome change from most dinner wagons. The frame is square section in either bright chrome or stainless steel, the tops are white melamine with a mahogany trim. Retail prices: stainless steel £28 2s. 6d., bright chrome £24 6s. 6d.

Archie Shine makes this 6 ft. 0 in. long sideboard in solid mahogany, mahogany and rosewood veneers, or in walnut and French walnut veneers, or afromosia and teak veneers. Designer Robert Heritage. Retail price £37.



making much progress lately, indeed the few firms who have been leading the way in design over past years are, in fact, dwindling in number! Some names that a few years ago were respected for their progressive outlook can now only be counted among the also-rans.

The result of the lack of leadership is generally causing a mediocrity of design. As the designs of a few years ago are being assimilated by the firms who do not provide their own creative effort, a generally standardised form of semi-modern is evolving. This has fairly severe lines but is spoiled by detailing and choice of materials which lacks the conviction that the originals had. The results are therefore something that the public can hardly be expected to get excited about.

However, if the atmosphere at Earls Court this year was in the main apathetic, there was a keener mood at the Central Hall, Westminster. The export effort of our Furniture Industry is quite ludicrous, with only about 2 per cent of its production being sold overseas. The Swedes, on the other hand, have an exceedingly export-minded outlook and this year they staged their own Furniture Exhibition at the Central Hall.

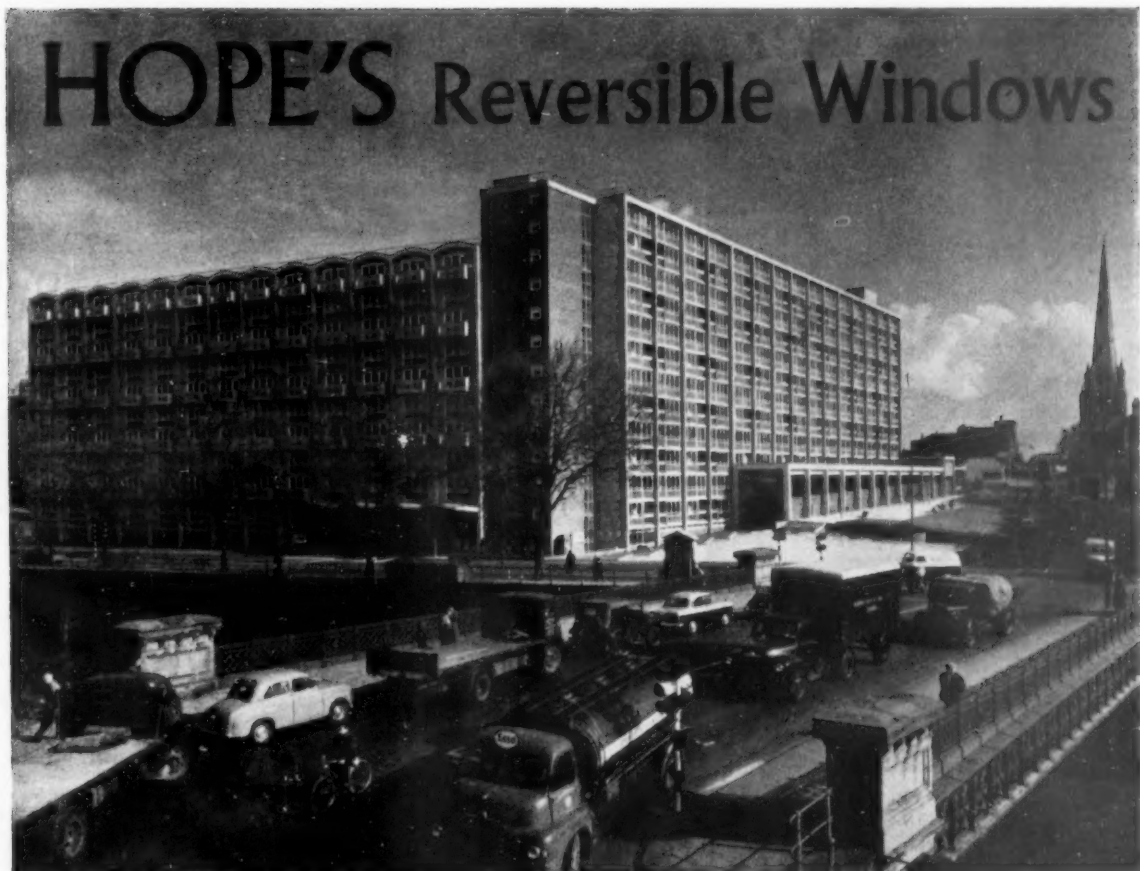
As might be expected it was well and simply staged. It was also well organised. Invitations were sent to buyers, designers, etc., direct from Stockholm and included a brochure on the exhibition with instructions on how to get to the Central Hall by public transport and to Earls Court afterwards!

Where are the British manufacturers that could do the same thing in reverse?

What was this exhibition like? Typical comments were "rather monotonous," "not very exciting," "we've seen it all before," but these were from people who are in some way or other involved in the furniture business. At first sight it certainly was true that most of it has been seen before, or at least something very much like it, and nearly everything was in teak. It must be remembered, however, that nearly all eighteenth-century furniture was in mahogany and conformed to strict tenets of design, which does not seem to have hampered Sheraton, Hepplewhite and Chippendale all that much.

Probably the most important thing about the Swedish Exhibition was that all the furniture there had the standard of design and quality of workmanship that one would be prepared, and often pleased, to have in one's own home. This was not a selective, prestige exhibition but a hard, commercial selling show with some 14 manufacturers taking part. Where among the hundreds at Earls Court could you find 14 firms of which the same thing could be said? With luck you might find half a dozen.

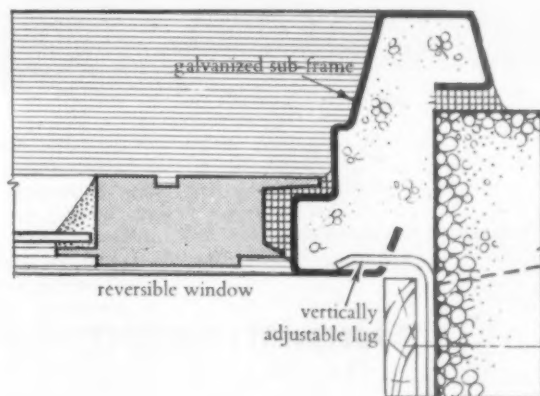
No single reason exists for this year's apathetic show. Lack of drive and determination on the part of most manufacturers who just do not know which way to go is obviously largely responsible. The lack of discrimination and talent in most retail stores also plays its part. Fundamentally, however, one just cannot help but wonder whether designers of sufficient calibre exist to deal with the present situation.



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Albert H. Clarke, F.R.I.B.A., Bristol City Architect John Laing & Son Ltd., Building & Civil Engineering Contractors

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THE INDUSTRY

This week Brian Grant describes a room thermostat, tubular building components, roof insulation and insurance against woodworm.

Room Thermostats

The illustration on the right shows the new Satchwell TM room thermostat, the actual working temperature differential of which is claimed to be less than $\frac{1}{2}^{\circ}$ F for the majority of applications. The unit is smaller and cheaper than its predecessors, but will deal with loads up to 20 amps. Temperature is adjustable through a graduated knob, and two adjustable stops are fitted so that day and night settings can be readily found. A thermometer to indicate the actual room temperature can be incorporated in the adjustment knob, and there is also a version with a neon indicator lamp, which should be particularly useful for showing any faults in off peak heating systems. Various other types are produced with different temperature scales and incorporating permanent on or off positions. Price is 61s. (*The Rheostat Co., Ltd., Slough, Bucks.*)

Standard Building Components

Tubewrights have just introduced a new range of standard tubular building components. Trusses are made for spans up to 80 feet, and for use with columns to give clear heights from 8 to 20 feet, with purlins of 3 and $3\frac{1}{2}$ in. diameter to suit 12 ft. 6 in. and 15 ft. truss centres. Trusses up to 35 ft. span are supplied in one piece, over that in halves for bolting together on site. These standard components are light in weight, and are cheap and quick to erect, while maintenance and painting costs are lowered as the surface area to be painted is about 40 per cent less than with other forms of steel framework. All components are designed to conform to the relevant British Standards, and most of the requirements for pitched roof industrial buildings can be

met. The sketch shows the head of a tubular valley column with an asbestos cement gutter mounted on standard purlins. These components are only sold through the firm's associates and direct to structural engineers. (*Tubewrights Ltd., Egginton House, Buckingham Gate, London, S.W.1.*)

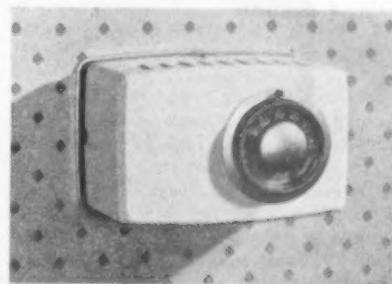
Insulating Materials

A small leaflet sets out the economics of roof insulation with Bondalay, a very light wadding made from crimped fibres of cellulose acetate, produced by Courtaulds, bonded together with a plasticiser and coated on each side with a layer of aluminium foil. The material is supplied in rolls 16 in. wide and 21 ft. long (12s. 6d. retail) and is easy to handle, needing no special clothing or gloves. Weight as laid, with a nominal thickness of 1 in., is 5 oz. per square yard. Assuming a roof structure of tiles on felt, with a plasterboard ceiling, with a U figure of 0.43, Bondalay over joists will reduce the figure to 0.14, or to 0.18 if laid between joists. The fibres have high resistance to attack by fungi, and are treated to make them self-extinguishing. (*Robinson & Sons Ltd., Wheatbridge Mills, Chesterfield.*)

Insurance against woodworm

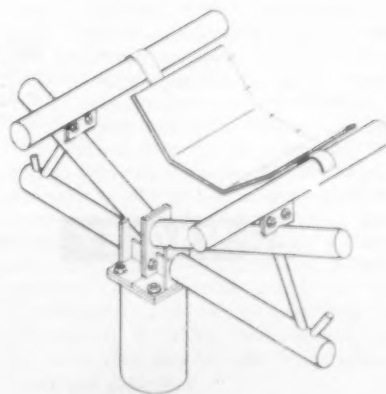
The Rentokil Group has recently formed a subsidiary company, in conjunction with the Crusader Insurance Co., called the Woodworm Insurance Co. The procedure is quite simple. No charge is made for the preliminary survey, the only proviso being that if any infestation by woodworm or other borers is found, it must be dealt with by an approved firm, after which the entire building can be covered against attack, though the policy expressly excludes furniture, and garden sheds or posts. Annual premium is 1s. 3d. per £100 of the fire insurance or market value of the house, but is 1s. 6d. for houses between 10 and 30 years old, as this appears to be statistically, the danger period. Policies can be transferred if the house is sold and the premiums can be included in the repairs allowance for Schedule A income tax. It will obviously be up to the householder to look after the furniture, for one could hardly expect structural repairs to be car-

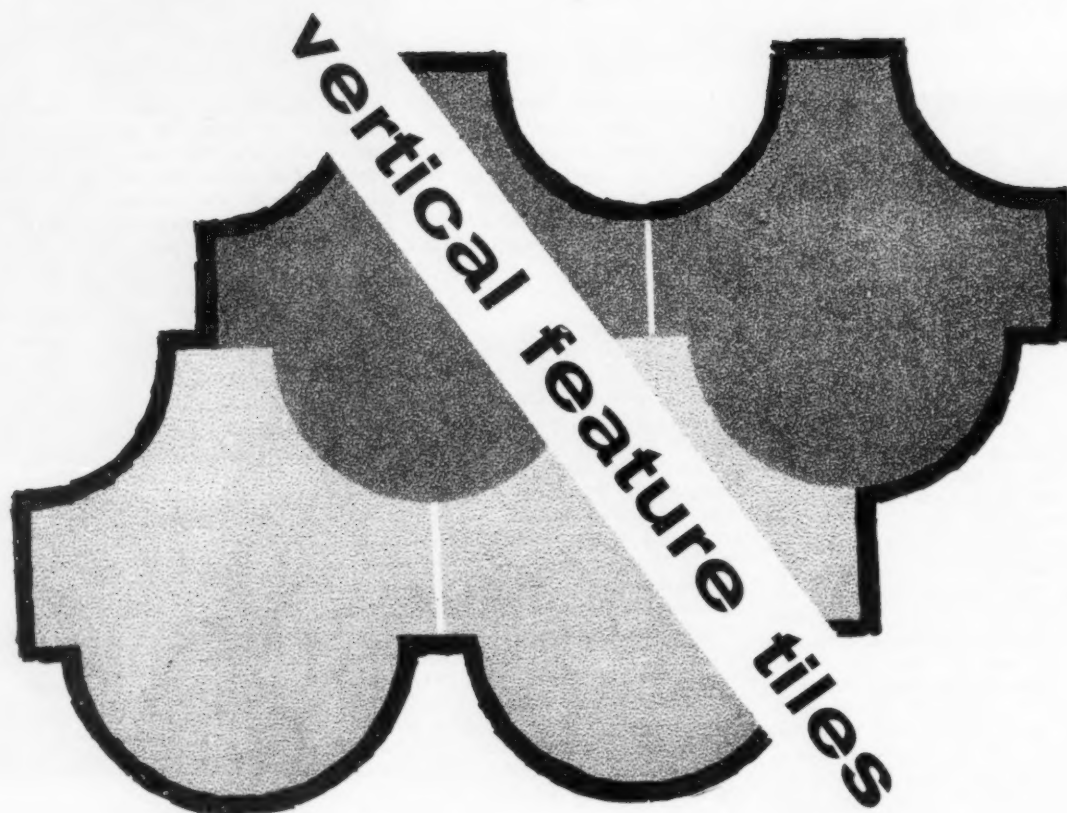
ried out free if woodworm had been introduced through the purchase of secondhand furniture. The scheme seems, on the face of it, reasonable, and not particularly expensive. The sponsors claim that woodworm is property enemy No. 2, with fire as No. 1. Fungal attack must also be somewhere quite high on the list, and it is difficult to see how this could be covered, except at a fairly high premium, when one thinks of the damage possible when a building is insufficiently dried out after floods, or when leaks in roofs and rain water pipes can go on for weeks unnoticed. (*Woodworm Insurance Co., Ltd., 16, Dover Street, London, W.1.*)



Satchwell room thermostat

The head of a tubular valley column by Tubewrights





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INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

(91)

631-2

10.203 design: building types

COW HOUSES

New Housing for Dairy Cows in the East Midlands. A Technical and Economic Survey. Kenneth A. Ingersent & Peter Manning. Published by University of Nottingham, Dept. of Agricultural Economics, Sutton Bonington, Loughborough, Leics. Price 10s. This survey of buildings for dairy cattle has been made by an architect and an economist. The survey restricts itself to entirely new or largely reconstructed buildings erected between 1951 and 1955 in the East Midlands. Although the introduction of the Farm Improvement Scheme in 1957 has changed the general design procedure adopted by many farms, the material contained in the survey will be of great value to those contemplating extending or modifying their farms, and the conclusions reached are a useful guide to those engaged in the design of farm buildings.

The survey commences with the results obtained by a preliminary enquiry sent out to 260 dairy farms. The object of the enquiry was to gain a general idea of the range of designs, methods of construction and variations in the costs of buildings. This was followed by a second enquiry sent out to 73 of the farmers who had replied to the first enquiry and it asked for more precise information on layout, cattle feeding and milk production. In the course of the survey three questionnaires were circulated; one to all owners replying to the first enquiry which sought information on the methods of design, tendering procedure and the types of contract used. A second was sent to all the builders who had been responsible for the construction of buildings included in the survey and a third to members of the Farm Buildings Association which asked for information on the advice available to farmers and the charges made for such advice.

The results of the two enquiries and three questionnaires form the body of the published survey. Detailed case studies of five farms, three with cowsheds and two with covered yards, are included. Comments are made and conclusions are reached. A number of useful appendices, for example on daylighting, on ventilation, insulation and

condensation and on the method used to assess the efficiency of farm layouts, are added.

Of the conclusions on design procedure it would appear that little use was made even of the free advisory services available before the 1957 Act. Since then the situation has changed radically because farmers are obliged to accept advice rather than exchange opinion or they forgo grant aid. In many instances farmers are even prepared to employ a consultant if only to fill in the necessary forms or in the belief (often correct because the information given is clearer) that an application for grant aid will pass through the Ministry at greater speed. It would be unfair not to add, however, that in several instances farmer-builders have achieved equal or better results than the combination of designer and contractor but the survey indicates that the economic savings of this procedure are not as spectacular as many farmers like to claim.

On tendering and contract procedure the survey finds that farmers rarely obtained competitive tenders and a comparative analysis indicates that building costs could not be related systematically to the amount of work actually done, costs might vary by as much as 20 per cent depending on the interest or other commitments of the builder employed. Again this situation has changed since the introduction of the 1957 Act which insists that at least two competitive estimates should be submitted if a grant is to be approved (as an alternative an applicant may accept a standard cost schedule issued by the Ministry but the costs allowed under this schedule are well below the actual costs issued when a contractor is employed on the work).

On the construction of the buildings the survey contains two statements which are fundamental to the design of all but the most specialised farm buildings. Firstly that no correlation could be found between the quality of the building and the milk yield of the cattle. Good management and efficient equipment are more important than good buildings although it is true that buildings may aid or hinder management to some extent. Secondly "For buildings of this type . . . the general cost of depreciation is, on average, likely to be four times as great as the cost of maintenance. Hence additional expenditure on the building at the time of erection . . . is likely to be a losing economic proposition." Farm buildings therefore, are examples of expendable constructions, and quite logically the authors of the survey make a plea for the design and manufacture of a number of standard components which are not related to specific functional needs but which can be assembled, taken down and reassembled to meet a variety of needs over a reasonably economic period of time. Such components would need to be simple to handle, robust and versatile so that they could be assembled in a variety of different ways to meet changing needs with some degree of precision.

In conclusion there is a brave appendix on the appearance of farm buildings.

(94)

725-5

10.204 design: building types

NOISE IN HOSPITALS

Noise Control in Hospitals. Published by King Edward's Hospital Fund for London, 34, King Street, London, E.C.2. Price 1s.

In November 1958, King Edward's Hospital Fund published a report of an enquiry conducted by them into the problem of noise control in hospitals. This recent pamphlet, under a similar heading, is a report of a follow-up enquiry in which 19 hospitals participated, including the 15 originally studied.

Noise is rather a "matter of taste"—it affects no two people in the same way, and therefore an accurate determination of its nuisance value is almost impossible. Clearly, to employ a scientific method of sound measurement alone is insufficient since it ignores the human element involved. Perhaps for this reason the Fund decided to rely almost entirely upon human opinion for their information. Patients in the hospitals concerned were handed a questionnaire and asked to state whether noises which irritated them most were:—

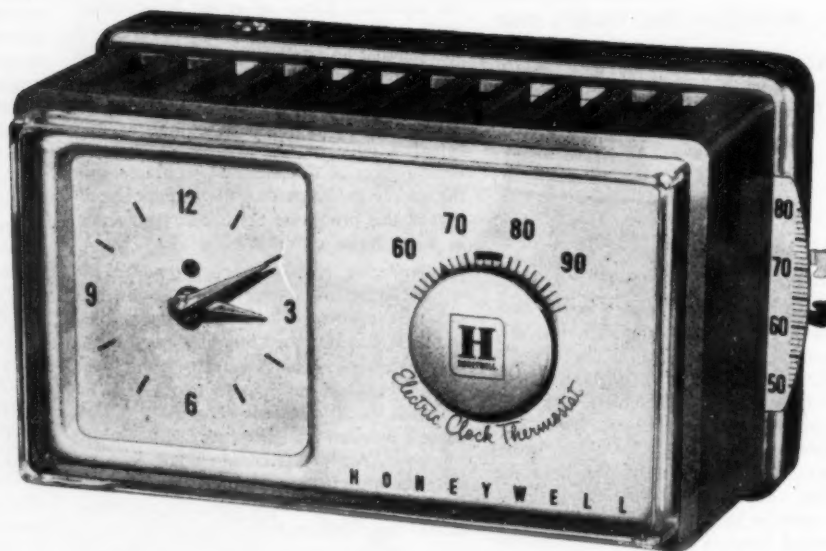
- (1) Those made by equipment;
- (2) Those made by people;
- (3) Those made outside the ward;
- (4) Those made outside the building.

The subsequent report is presented under these four major headings, each of which is further sub-divided and "consists largely of verbatim extracts from the questionnaire sent in by the patients together with descriptions of the action taken or views held by the hospitals concerned."

Although nearly half the patients replied that they were not unduly affected by noise many did complain of both mechanical and human disturbances some of which were rather unusual. The real value of this report however is not so much the listing of the unusual, as the focusing of attention upon the habitual noises many of which pass unnoticed by the hospital staff who live and work with them continually. The causes of these habitual noises are described individually and their relative importance assessed. There is no attempt to offer specific technical advice that may have been of interest to architects, but some general design principles are mentioned. The siting of wards away from busy roads, adequate sub-division of the ward, the correct disposition of its ancillaries, together with a careful choice of structure and equipment, are some of the factors to consider when planning for noise control in an area required to accommodate a varied patient load and a variety of noises. The "human element" is responsible for a great deal of unnecessary disturbance and although experience has shown "that the greatest single factor in controlling noise is staff discipline," only constant vigilance will reap results. Architects and hospital planners can contribute greatly to this administrative problem by providing an environment in which both people, and the noise they generate can be accommodated and controlled.

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20 CONSTRUCTION : COMPLETE STRUCTURES

Sydney Opera House progress report 1

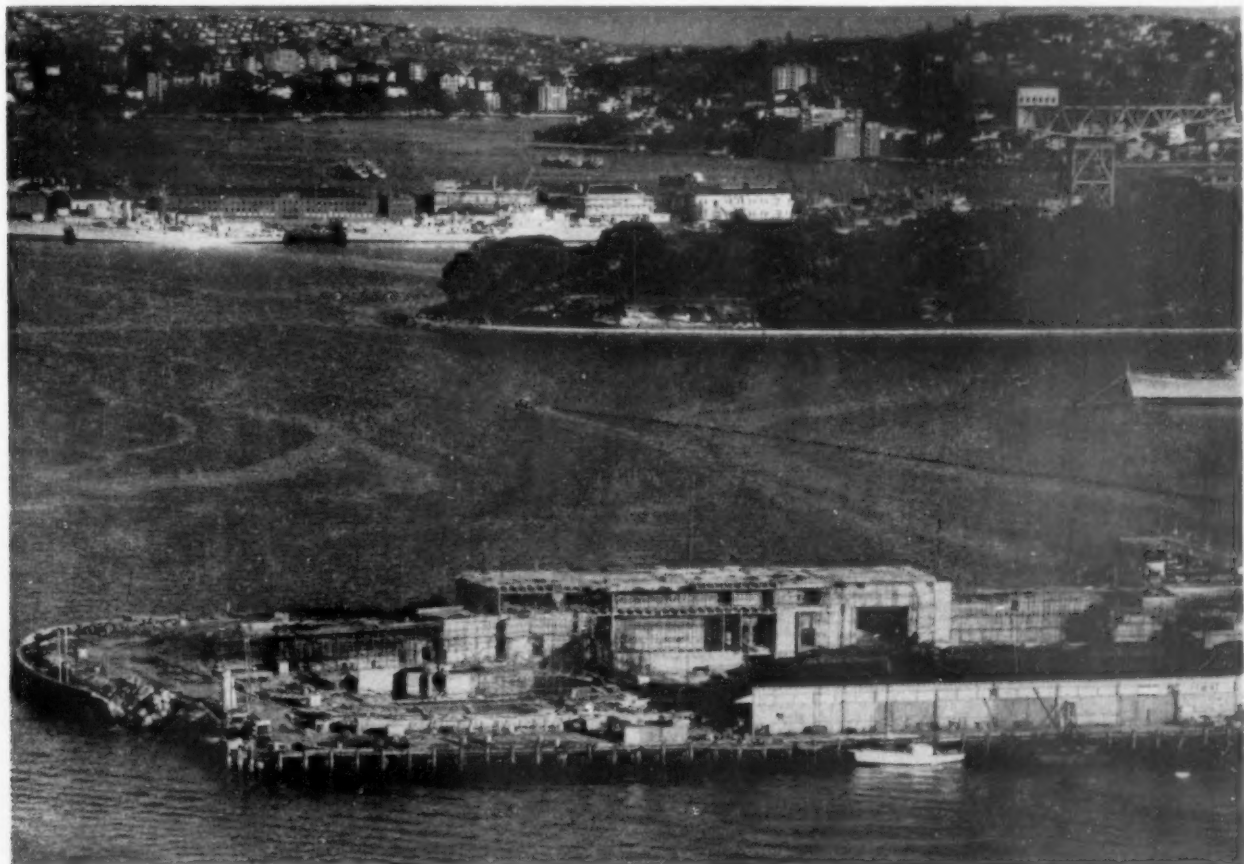
Whilst the full dramatic impact of Utzon's Opera House will not be evident until the huge shells have been cast, work on the site so far gives a clear picture of the engineering ingenuity behind this scheme. This week we publish a progress report by John Carter describing work up to level 42, the level of the main stage and the central accessway and the springing line of the shell roofs.

architect: Joern Utzon
structural engineer: Ove Arup & Partners
quantity surveyors: Rider Hunt & Partners
contractors: Civil and Civic Contractors Pty. Ltd.

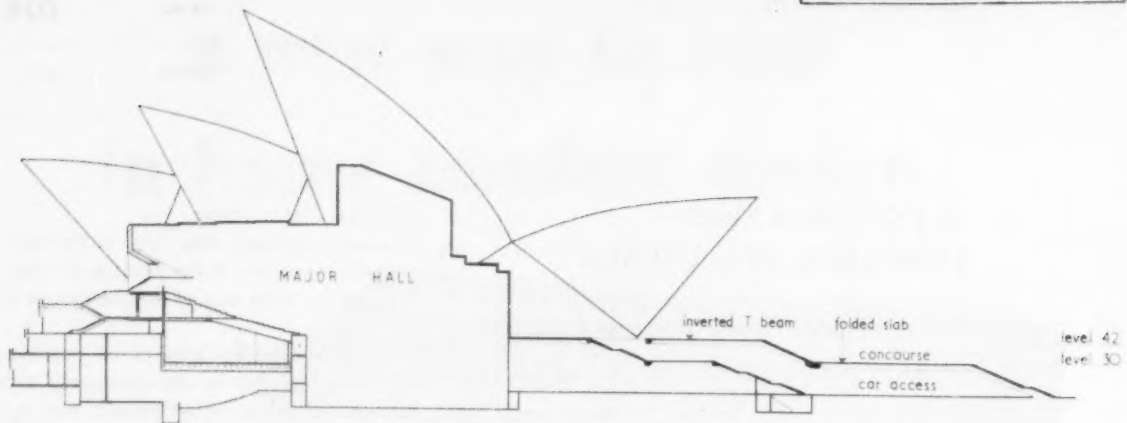
This article describes some of the problems and feats of construction, but no one clambering about the scaffolding can avoid asking himself how a building so ambitious in scope and equipment, so lavish in structural expression can be in scale with the city and state that is building it. The client is the New South Wales Government, but for all practical purposes Sydney will be the real catchment area for a building that would be astonishing in London or New York.

The only answer seems to be that Australia is in the mood for big projects—enormous dams and hydro-electric schemes, projects for whole city blocks, offices, flats and hotels of the 30-storey mark, elevated expressways and new steelworks of a size that Wales itself would not be ashamed of. The Opera House is more a

Sydney Opera House under construction on the Bennelong Point site. The long top deck is level 42, the highest floor of the central accessway and the springing line of the shell roofs



technical section



scale 1/4" to 1'-0"

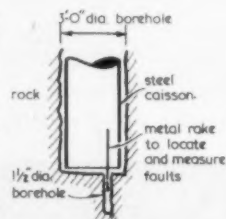
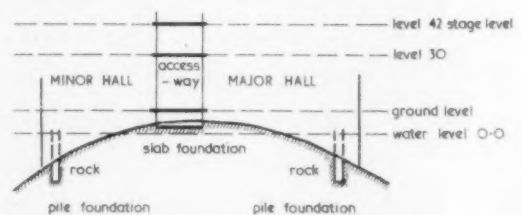
Longitudinal section taken along major hall axis, the gallery has since been eliminated and the seating carried through at one level

symbol than an economic and social calculation—a hope rather than a natural growth.

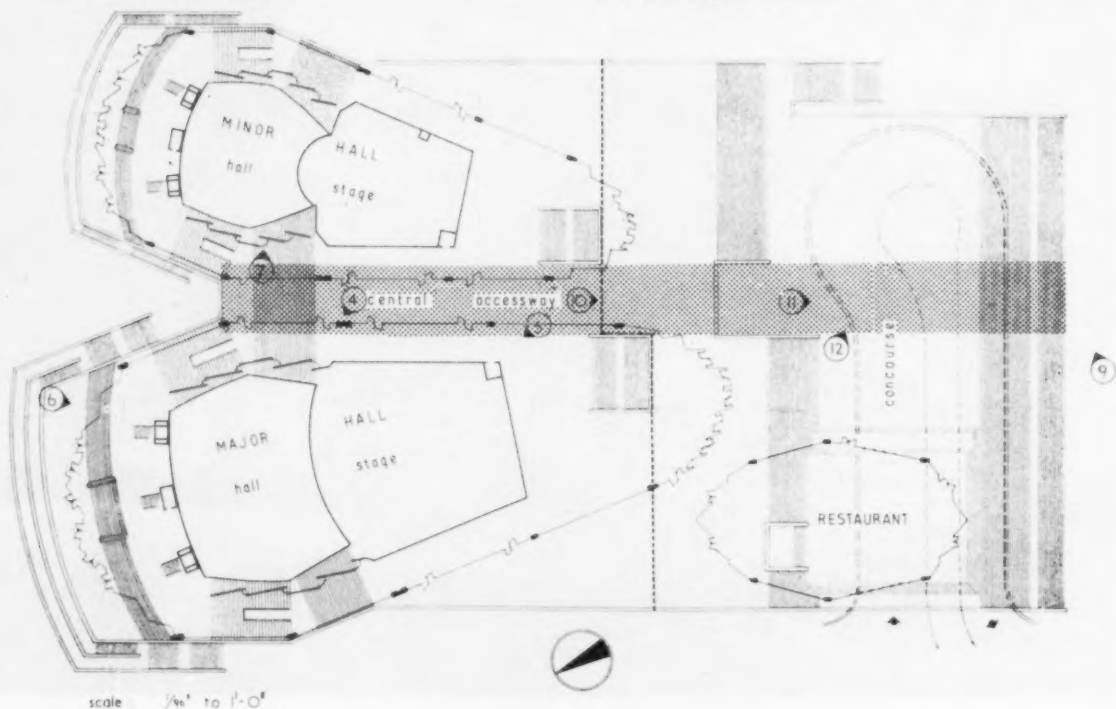
The present contract, for £A1.4* million (foundations and superstructure, excluding shell roofs, services and finishes) is well subscribed by Opera House lotteries, but no one seems to fear for the remaining £A4 to £A5 million that will be needed. Thus, unlike the Harbour Bridge, begun in the depression and still being paid for, the building will start life debt free, and in this boom town atmosphere it is not difficult to

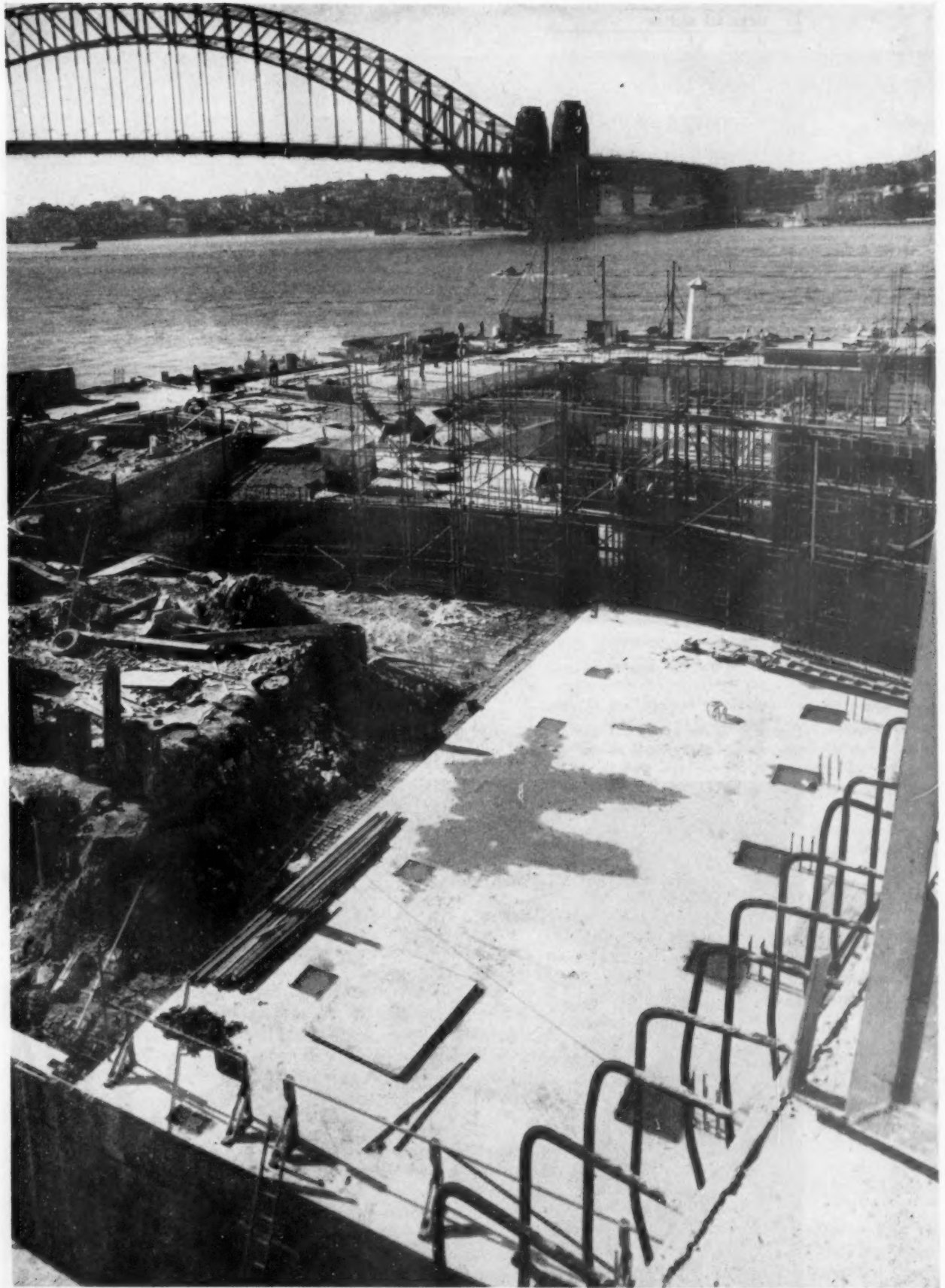
* A £1 = stg. 16s. approximately.

Plan at level 42. Shaded portion is the part of the superstructure built so far. Thick dotted line is the only expansion joint in the whole building. Arrows indicate photograph positions. The dotted line at the south end is the car access road under the concourse



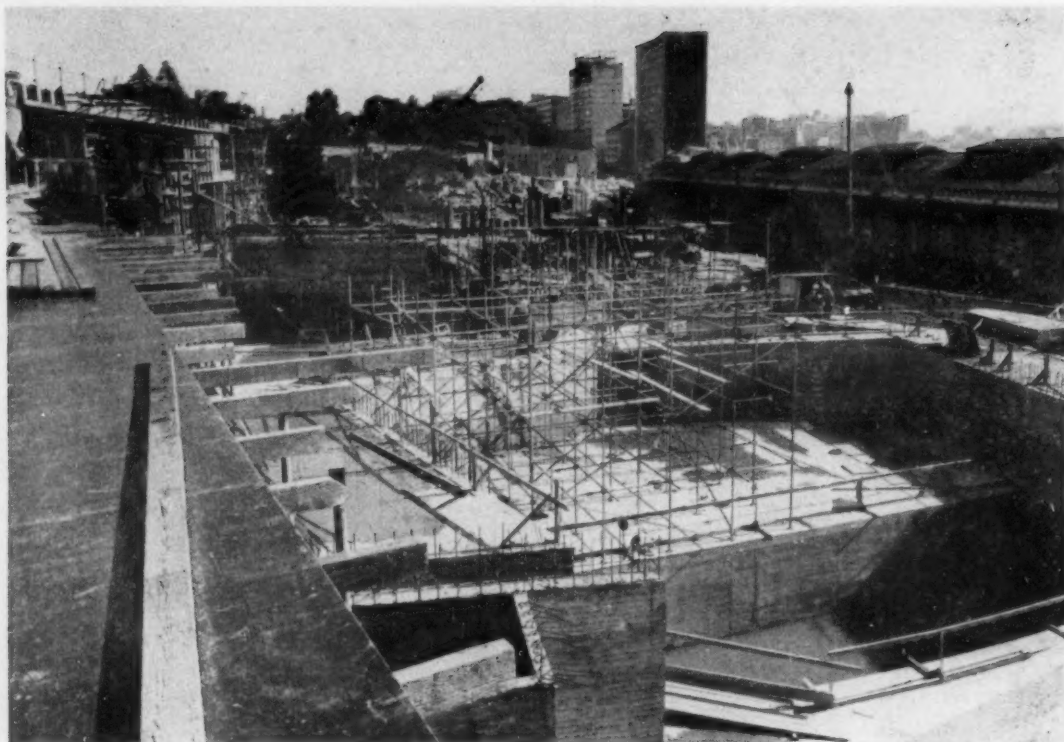
Diagrammatic section of the site. The enlarged detail shows the method of testing boreholes in the rock; the one-prong rake locates fissures in the sides of the small drilling in the bottom of the borehole





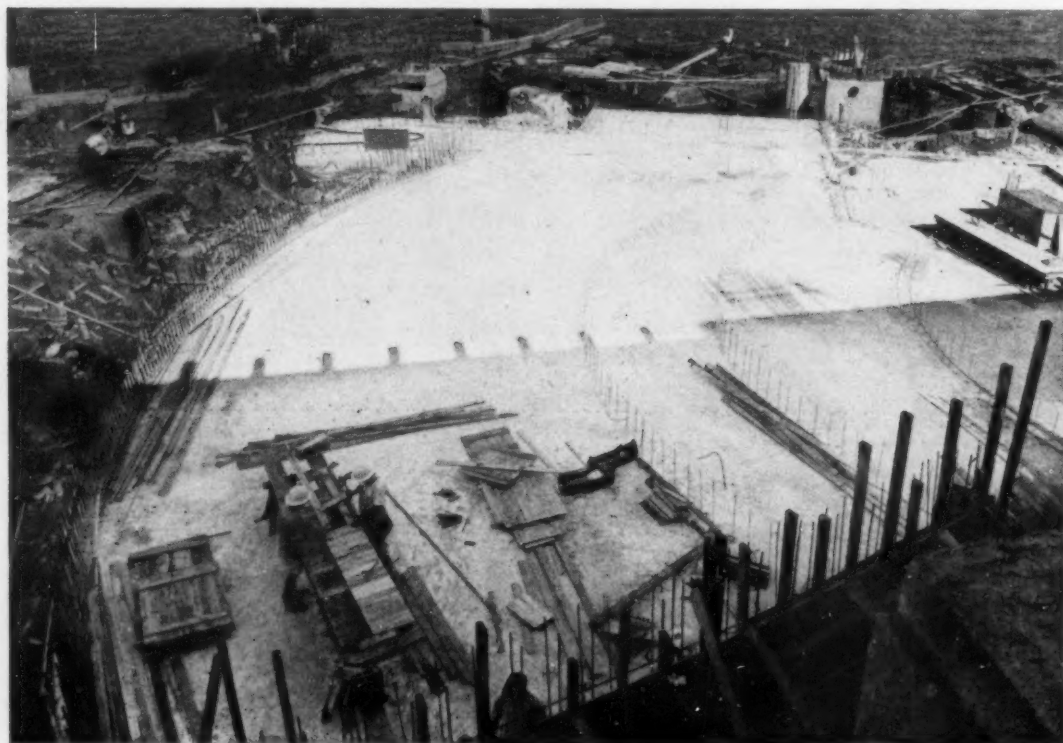
Base slab of the stage area of the major hall looking north-west, position 5. The row of starter bars in the foreground base slab marks a row of columns which will rise three floors to stage level. Reinforcement in the near foreground is part of a system of horizontal ties across the springing of the shell roof

technical section



Base slab of the experimental theatre, position 6. The inverted T beam slab in the top left hand corner is level 42, the main stage level

Base slab of the minor hall, position 7. Starter bars mark the walls of radio and television rooms. The two large piers in the background on the waterline will continue as shell roof supports



believe that the orchestras, singers, soloists and conductors—and the audiences, will come “many a mile” to see this astonishing architectural gesture in the great amphitheatre of Sydney Harbour.

Of course, it is not only an Opera House. There is a major hall seating 1,800 for operas or 2,800 for concerts; a minor hall seating 1,100, experimental theatre for 430 (an item not in the original competition) a recital room for 310 and a restaurant for 250; besides two enormous bars and some 15 rehearsal rooms. Everything from boxing matches to political meetings and perhaps a school of dramatic art will find a home there.

Progress

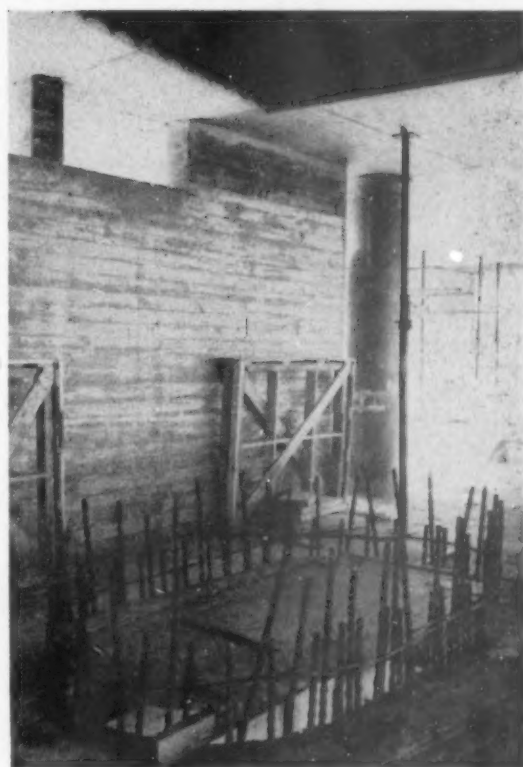
In essence, the building consists of a broad central three-storey accessway, which is a kind of trunk branching out on either side into the major and minor halls (see plan). At the root of the trunk—where the peninsular site joins the “mainland” is a 280-ft.-wide flight of steps—the main approach leading up on to an immense concourse (level 30). One floor above this, at level 42, is the stage level and the springing line of the shells. The abrupt contrast between what lies above and what lies below this level gives both a structural and an organisational clarity to the scheme. Whether you feel this clarity to be genuine or not depends upon your feeling about the shells (which in this article I shall not discuss). The present contract stops at the springing line. For finishes, shells and services, separate tenders will be called. The only signs of the shells so far are holes left in the floors for future support piers (photograph from position 4).

Site clearance began in February, 1959, and excavation of the central accessway basement (where the air conditioning plant will be) about three months later. From then on progress was outward and upward until the accessway is now complete to its highest floor. Base slabs for major and minor halls are in (Pos. 4, 5 and 6) the outermost supports for the shells are above ground and the first spans of the great concourse are being poured.

The entire structure is in situ reinforced concrete, and all the drawings in use on the site are from Ove Arup's London office—they hang in a kind of voluminous “drawings wardrobe” in the resident engineer's office. Most of the work is technically orthodox, except perhaps for its scale and complexity—but the most dramatic and interesting operation is evident the moment you walk on to the site—it is the prestressed folded slab concourse.

Foundations

Sydney lies on a thick layer of sandstone—which extends in a hump-shaped profile under the site, Bennelong Point, about 5 feet below the surface in the centre, but well below water level (see section diagram). Thus foundations under the access way are normal slab in the cut out rock, but under the outer parts of the halls they are of piles bored by a percussion rig to take a 3-ft.-dia. steel caisson which is then filled with concrete. The reason for the large diameter



Hole in floor at level 30 for one of the main shell roof support columns, position 4

lies in the method of testing. Sydney sandstone is liable to faults, clay “lenses” or “floaters” (loose boulders). When the borehole has penetrated rock a 1½-in. drilling is made in the bottom of the hole, a man then descends, and with a kind of one prong rake, scrapes the sides of the drilling to measure the size and frequency of the faults. Local experience has evolved formulae which relate these to bearing capacity.

Average pile depth is about 30 ft., but the longest pile goes down to 57 ft. below water level.

The base slab of the experimental theatre is shown in Pos. 6. The little room just behind the proscenium wall in the foreground is a vertical duct connecting huge ring ducts which encircle the auditoria at three levels and house the air-conditioning system.

Concourse

In August, 1960, about 18 months after the contract began, construction of the concourse was started. It is a folded slab, about 4 ft. deep, 280 ft. long and spanning 160 ft. at its longest span—from sloping support at the main approach steps to the beginning of the main superstructure at the others (Positions 10 and 11).

It was originally intended that the south-west end (foreground of the photograph from Position 9) would bear against the rock sub-stratum. Faults in the rock, however, made necessary a prestressed tie at ground level, back to the main

THE LOGICAL USE OF COLOUR IN BUILDING



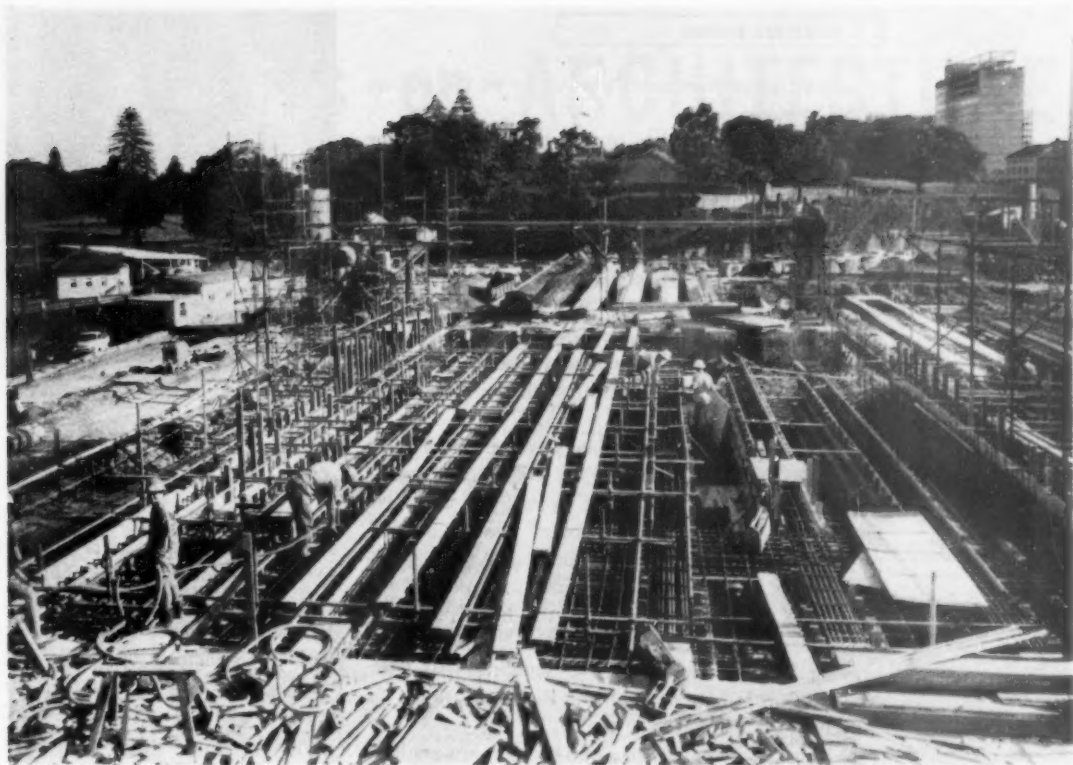
Distribution of artificial light

A slow evolutionary change in outlook in the use of artificial light has been taking place over a period of many years.

When artificial light was at first adopted point sources alone were used. The candle, oil lamp, batwing gas burner, the incandescent gas burner, and, later, the tungsten electric lamp, were all point sources of light giving satisfactory illumination only in the immediate vicinity of the lamp. By increasing the number of point sources, increasing the intensity and other devices, the area of diffuse illumination was increased, but such methods were limited. Nevertheless they showed that a background of diffuse light, together with an emphasising point source, gave considerably better lighting conditions than the older methods. The introduction of the mercury arc fluorescent lamp accelerated this change because such lamps now offered a line source of light, and, a bank of such lamps, an area of diffuse light, particularly if the tube or bank of lamps were provided with a suitable fitting.

This change of outlook in turn altered the outlook towards decoration. The light reflecting value and the hue of the floor, walls, ceiling and furnishings were now of importance and it was soon found that decorations offering a high light reflection offered also a balanced decorative scheme. Feature and accent areas could be introduced to create a contrast and the desire to regain a balanced decorative scheme.

This is one of a series by Goodlass, Wall and Co. Ltd. paint specialists since 1840—who will be pleased to give free advice on colour schemes and painting specifications. Goodlass, Wall & Co. Limited, Corn Exchange, Liverpool 2 and 179/185 Gt. Portland Street. London W.1.



Looking down from level 42 towards the concourse, position 10. At the far end the folded slab; in the foreground continuation of the folded slab in inverted T beam construction

The folded slab concourse. There are three main types of trough beam. The one shown here occurs opposite the main accessway and is the longest in span, position 11



technical section

structure, hence the cables protruding at the bottom in the photograph.

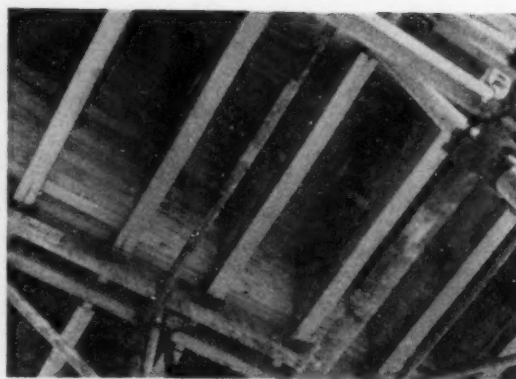
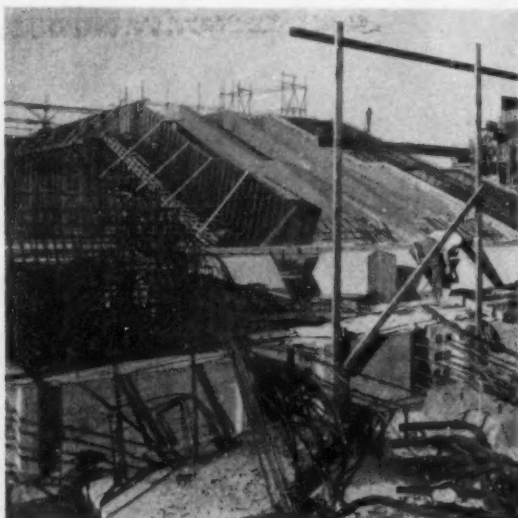
Between the folded slab of the concourse and the inverted T beam (foreground Pos. 10) is an immense transverse beam whose main task will be to withstand torsional forces from the folded slab. Prestressing cables in the concourse folding slab begin some distance in from the bearings and cluster in a number of short overlapping lengths (Pos. 11). The small "boxes" in the shutter sides hold anchorage blocks. One purpose for the m.s. reinforcement is to maintain the exact location of the prestressing cables to very critical tolerances.

If you go to a concert on foot, you will climb these steps and walk the length of the concourse towards the soaring shells. If you arrive by car, you will drive *under* the concourse to the foot of two main stairways that go up and into the building. As you climb out of your car, you will look up at the soffit of the slab—47 "troughs" shaped like the hulls of racing canoes to match the change from maximum positive bending to maximum negative bending (Pos. 10). And you *will* look up, for the ceiling is to be lit entirely from the floor.

The shutters for the folded slab (Pos. 12) are made in 8-ft. lengths. For demounting the metal clips at the bottom are undone, centrepieces of the diaphragms drawn out so that the two shutter sides can collapse towards each other and be taken away. The boards along the trough bottoms remain in place until the whole slab has been cast and stressed.

The mathematical expressiveness of the slab design—a characteristic Arup contribution—is matched by the contractor's resourcefulness in shutter design (Pos. 11). When in position, the bottom shutters present a beautifully finished hardboard surface with joints filled flush with plastic wood and suggesting fascinating, but

Beginning of the folded slab concourse at the 280-ft.-wide flight of steps up to the concourse, position 9



Looking up at the "turned boat" shutters of the folded slab, position 12

doubtless misleading analogies between the streamlining of boats, and stress distribution. Shutters have to be extremely strong (the whole slab, excluding decking and the 100 lbs./sq. ft. live load) weighs about 10,000 tons. They have to remain stable, despite periodic drenching by Sydney's torrential rain and they have to be demountable and re-useable in a manner that leaves the trough bottoms securely propped until the whole slab has been cast and stressed.

Each trough contains about 20 19-strand cables, each of which will be given a 62-ton pull on the Gifford Udall system. No single cable extends the whole length of the span; they cluster at certain critical sections—for example over the "knee" where the slab turns down to form the steps and they overlap to give continuity. Nor do they follow a straight course when viewed in long section, but curve according to changes in stress from point to point in the length. Location of cables thus varies in a very complicated manner along the span and location tolerances are extremely close. Hence what appears at first to be normal reinforcement in the slab is as much for cable location as for shrinkage control.

Cable anchorages emerge mostly in the sides of the troughs and so will remain permanently accessible, by merely lifting the stone decking slabs.

The stressing sequence will be to tension one pair of cables in each of the 47 troughs, then another pair and so on, so that the vast expanse of monolithic concrete comes into compression evenly and gradually.

With last summer's record temperatures in mind (113 deg. F.), one asks about expansion joints—a marked feature of Australian construction—even in brickwork. The surprising answer is that there is only one main joint in the whole building, between the end of the concourse and the main structure. Thermal movement otherwise is allowed for in the design, which means presumably that in Sydney's blazing very humid January, the concourse will gently "hog." The rest of the structure, monolithic r.c. walls and floors will be fully air conditioned. Even so, the mutual and multiple buttressing of this complex would seem to provide ample opportunity for dispersal of stress concentrations.

Eight new books on ARCHITECTURE

MY WORK by Le CORBUSIER

Written, designed and supervised by Le Corbusier, this book surveys the great architect's development from his early days to the completion of his latest building. Drawings, used to amplify Le Corbusier's ideas when working, are here used to reinforce his explanatory text. He explains and illustrates the principles governing his work, and his contention that architecture must be integrated with other art forms is reinforced by a wide selection of photographs of great buildings, paintings and sculptures. Size 11½ × 8½ ins. 328 pages. Illustrated throughout. 84s. net, postage 2s. 3d.

New Japanese Architecture

UDO KULTERMANN

Western opinion seems to have built up an image of modern Japanese architecture as something spare, elegant and informal. Dr Kultermann's book shows how different the work of leading Japanese architects has turned out to be. It is an architecture that is not afraid of mass and solidity; not afraid to exploit the gross material qualities of wood, stone and concrete; not afraid of bold plastic forms; not afraid to mate advanced technology with hallowed traditionalism. All these qualities are brought out in dramatic photographs, backed by analytical texts and biographies of some two dozen leading architects. Size 11½ × 8½ ins. 212 pages. 180 half-tone illustrations. 63s. net, postage 1s. 6d.

Theory and Design in the First Machine Age

REYNER BANHAM

In the first thirty years of this century, architects made a tremendous effort to adapt their art, and to create a new climate of ideas. Dr Banham's subject covers theoretical writings, buildings, projects, industrial designs, paintings and sculptures. He shows how one unifying theme finally emerges: the architecture of the International Style. Into its growth went many designs, which the author illustrates and analyses; many publications, from the scholarly to the scandalous, from which he quotes extensively, showing the relationship between theories, theorists and products. Size 9 × 5½ ins. 340 pages, over 150 half-tone and line illustrations. 45s. net, postage 1s. 9d.

Design and Detail of the Space between Buildings

ELISABETH BEAZLEY

Few good examples of paving, walling and fencing are being built to-day. One reason for their rarity may be that the available information on materials and details is now widely scattered, and much time is wasted in long searches. This handbook sets out to collect all information from all sources, to assess the character, availability and wearing qualities of materials, the relative merits of constructional methods, and to help the planner avoid incongruities of detail. Size 10 × 7½ ins. 230 pages. 130 half-tone and 85 line illustrations. 42s. net.

Antoni Gaudi

JOSEP LLUIS SERT & JAMES J. SWEENEY

For too long the great Spanish architect Antoni Gaudi has been regarded merely as an eccentric, and the significance of his contribution to architecture has been misunderstood. The authors trace Gaudi's life and work from his days as a student to his death in 1926. The picture emerges of a wholly sincere architect-builder who lived only for his work; we are reminded of Gaudi's constant reference to nature, his preoccupation with structural principles, his habit of making models which showed him what stresses his buildings would have to bear. Photographs, some in colour, and detail drawings, show how richly Gaudi's work deserves attention. Size 11½ × 8½ ins. 184 pages. 184 half-tone illustrations, 13 in full colour. 73s. 6d. net.

The Landscape of Roads

SYLVIA CROWE

In the next three years £230 million will be spent on British roads. This book clearly and forcefully demonstrates the disastrous effect on the landscape when roads are treated purely as an engineering problem. Text, drawings and photographs together show how the skills of a combined team of experts can produce roads which fit the landscape, are far pleasanter to use and do not necessarily cost any more to build. Size 9 × 5½ ins. 70 half-tone illustrations, 18 drawings. 18s. 6d. net, postage 1s.

Lettering on Buildings

NICOLETE GRAY

This is the first book to deal with lettering as applied to all kinds of buildings. The author is an internationally acknowledged authority. She first examines and illustrates the history and development of letter forms and then outlines a new way of looking at problems and possibilities. Her approach is illustrated by many examples of lettering *in situ*; and she thus demonstrates how present-day architects and designers can tackle the task of integrating lettering with all kinds of buildings. Size 9 × 5½ ins. 192 pages with 270 half-tone and line illustrations. 25s. net, postage 1s. 2d.

Architects' Working Details Volume VII

EDITORS: D.A.C.A. BOYNE & LANCE WRIGHT, A.R.I.B.A.

This seventh volume returns to English examples. The series aims firstly to provide architects and students with easily accessible solutions to everyday design problems, and secondly to record the latest stages reached in the study of these problems, thus providing a starting point from which architects can develop their own improvements. Each detail is illustrated by a large photograph facing the relevant working drawing. Size 12 × 8½ ins. 160 pages. 148 half-tone and line illustrations. 25s. net, postage 1s. 9d.

The Architectural Press, 9-13 Queen Anne's Gate, London S.W.1

Bringing a building to life



making it breathe

A modern building is a living organism. It must breathe for its occupants, and ventilation or air conditioning systems are its lungs. How it breathes; the number of air changes, the amount of heating or cooling and humidity of the air depends on many factors; its function, number of occupants, aspect and seasonal changes. These must be calculated, and plant, fans, ducting and outlets

designed at an early stage. Then, as the building grows, the installation proceeds, at the pre-arranged pace.

It's a problem of design, teamwork and timing, needing organisation and experience. In fact, if it's a big job, it's more than likely that the whole thing was left in the hands of Haden — capable hands, thoroughly versed in the problems of bringing a building to life.

HADEN

Heating, Air Conditioning, Piping and Sanitary Engineers

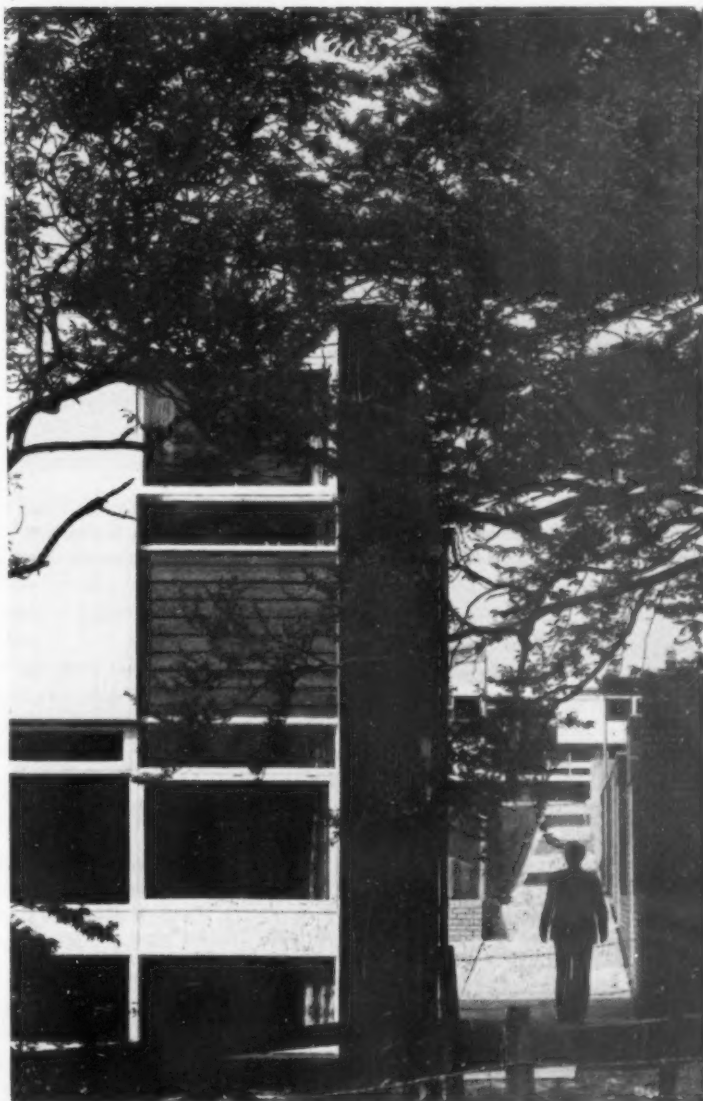
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TA37P

Housing

in Peterlee New Town

Within severe limits imposed by mining subsidence, a positive attempt is being made at Peterlee to produce housing with a much more urban character (see *A.J.*, 29.9.60). Here we describe some of the first areas to be completed using this approach. For reasons beyond the control of the Development Corporation, we are unable to publish a cost analysis, but a typical specification of one of the houses is included.



Old Shotton Colliery, below

Houses in Chapel Hill district of Peterlee, 1953, bottom



designed for PETERLEE DEVELOPMENT CORPORATION

chief architect R. A. J. GAZZARD

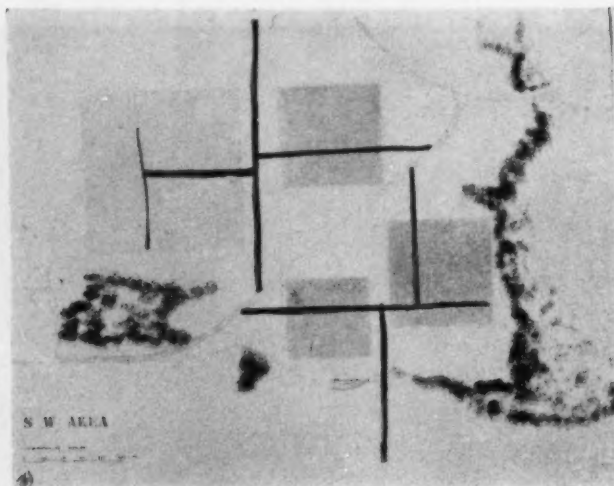
in succession to
W. J. SCOTT

design and planning unit P. G. DANIEL
F. G. DIXON
V. PASMORE

assistants C. ROGERS
B. WALKER

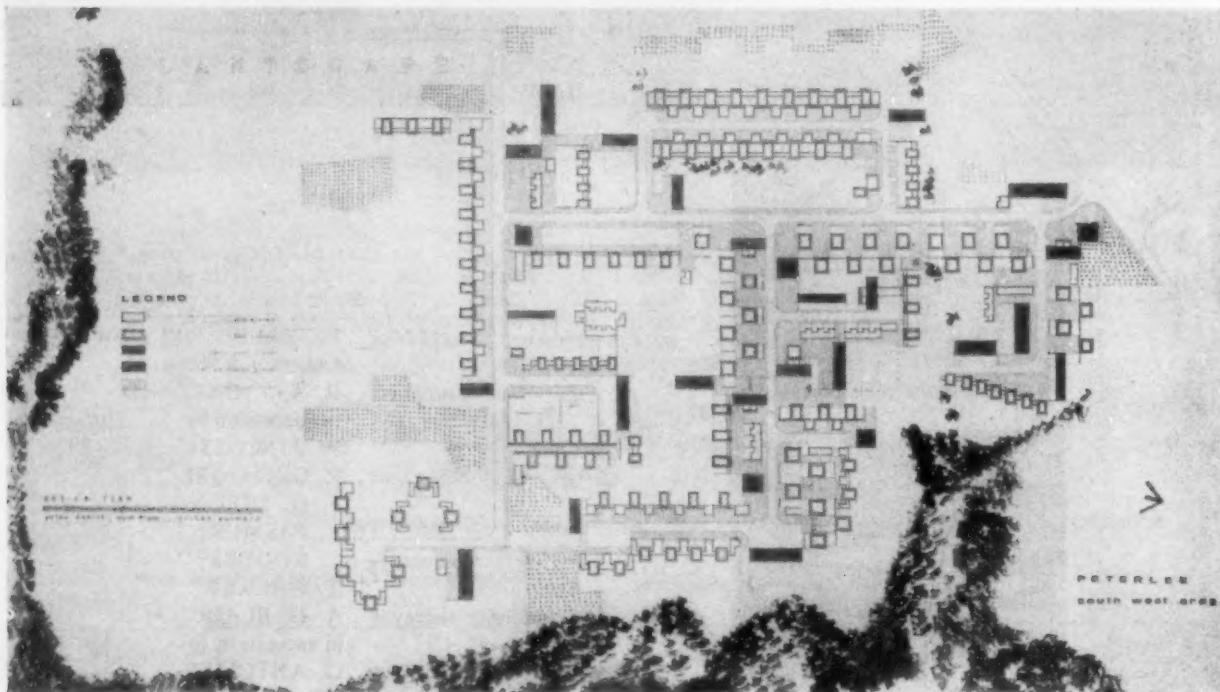
quantity surveyor A. G. BLAIR
in succession to
G. ANTCLIFF

building illustrated



The principle of the south-west area: four visually separated communities (no through traffic) held together by a systematic road and landscape structure. The first stage, nearest the dene, is shown in the housing layout

Detail layout of the first community: Passfield Way to the north-west, the dene to the east. Stippled areas indicate the 1,500 trees planted before completion of the housing



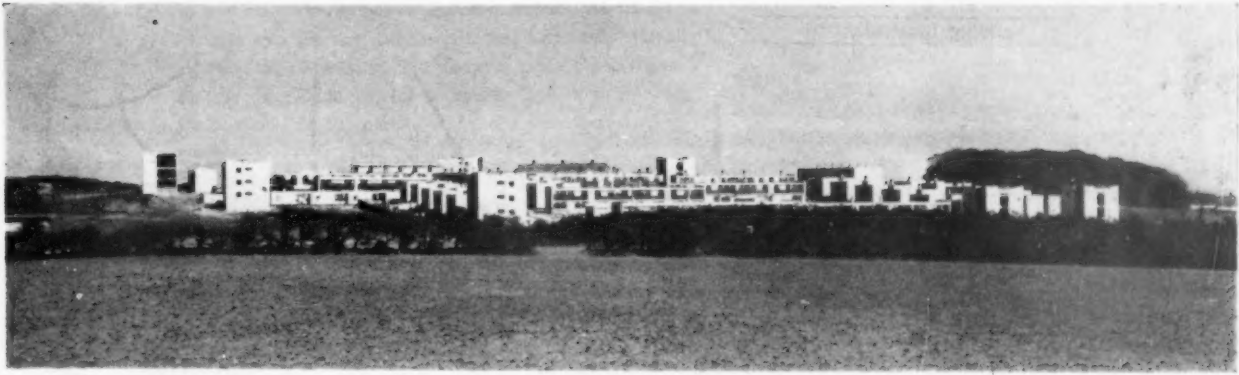
APPRAISAL: Near Durham, in an undulating landscape worthy of better things, one comes across small towns hugging the pit heads. Judging by the grime and their air of hopelessness, they seem to possess an ancient history. In fact these houses of red brick sprang up in the 1920s, built to accommodate the men working the new seams. One such town is Horden, suddenly entered and, thankfully, as quickly left behind.

It was in the palmy days of the late 1940s, when this country was standing (it may be remembered) on the threshold of the New Britain, that the New Town of Peterlee was conceived—a planned community in which miners could enjoy the same standards and amenities as other people in more-favoured circumstances.

An account of Peterlee's growth is a mirror held to the events of the last fifteen years. A master plan does indeed exist but its effects cannot be felt. Long rows of new red brick houses wheel their way around the contours like dribblings of treacle from some gigantic spoon: meaningless bit-by-bit development without enthusiasm or intention. The continuing small and random elevational differences—here grey rendering, there a bit of boarding—bear witness to the succession of architects who have come, worked, built, and gone.

In 1955 the Development Corporation's general manager, A. E. Williams, realised that something positive must be done. He promptly brought together, as a Planning and Design Team, two architects and an artist, and told them to do better—at the same cost. A 300-acre site to the south-west of the town was provided.

Now in this country the collaboration of architects and artists usually means that where the architects leave off the artist begins—a game of decorating flank walls and entrance halls using ceramic tiles and polyester resin. At Peterlee the team managed to establish an integrated working relationship which continued from the layout onwards. Learning to work together in this way and simultaneously thinking about the problem took almost a year. For those who have eyes to see,



Sharp definity has been achieved between housing and surrounding countryside

the hand of Pasmore is everywhere in the design and that fact is surely the justification of this period.

The team finally summarised its conclusions under six headings (see Planning Aims). In their proposals for the design of the South-West Area these six points were applied in practice. The attempt to apply them led the team into a series of long-drawn-out conflicts with various authorities, not all of which ended in the team's favour.

The South-West Area is separated from the older parts of Peterlee by corridors of unstable land. Along one edge lies a dene, a geological fault, wide, deep and twisting and reaching out almost to the North Sea. Its sheltered interior has developed a magnificent vegetation. Traditionally, the dene is used as a park, and the residents of the Area will have direct access to it.

The sweep of the ground, clumps of trees and occasional hedgerows together make this a severe but poetic site. Here, the team thought, were circumstances in which winding roads bore no relationship to romantic landscaping. Instead they decided to impose an open grid pattern. This abandonment of the concept of the picturesque so commonly and mistakenly held is fundamental to the team's achievement. However, it required an independent and favourable report to the Corporation by the Hon. Lionel Brett before a reluctant Ministry would allow the layout to proceed.

The South-West Area is divided into four housing groups. Each group has its own identity and is separated from adjacent areas by grassed belts. Yet its areas are connected and held together by the grid. The roads work well and avoid those vast concrete aprons, held in pawn by the motor car, that are characteristic of other towns. So far from dominating the layout, the roads complement it as parts do a whole. The grid, so rigid on plan has, as Pasmore says, been shaken up by the landscape.

Over 1,500 trees have been planted. They are associated more with the overall layout than with the housing groups, though they tend to define their edges. Sited to provide shelter from coastal winds, they incidentally make sporadic housing "extensions" virtually impossible. One tends to notice and be grateful for the thought given to such things as street furniture, including lamp posts, and the blessed absence of overhead wires.

Because of the continual mining of coal from under the site, most houses in Peterlee cannot be higher than two storeys nor longer than a pair. Three storeys have been built only in

exceptional cases. Thus semi-detached houses are the natural expression and the team have used them. The team insisted that the houses should not be built in the soulless way we know so well, but in tighter urban complexes. This intention brought them into further conflict with an arthritic Ministry, which had rules about how far apart houses must be. The courtyard house is the best type remaining after dilution of the scheme. It is used in conjunction with other types, all sited with great sympathy. Together they succeed in breaking up the "semi-detached look" and providing a mass housing scheme of great distinction.

The site plan shows the layout of the most easterly housing group, which comprises the first stage of the South-West Area. Its 388 dwellings include three-storey flats and houses, two-storey detached and semi-detached houses and single-storey houses, for old people.

Garaging provision is realistic: 100 per cent is the aim. 174 garages and carports are attached to houses, 31 are in inconspicuous blocks, making a total so far of 205. The difficulty of identifying garages on the layout shows how carefully they have been sited to blend with the layout.

Much of the success is due to skilful and systematic use of levels. There are three main ground planes:

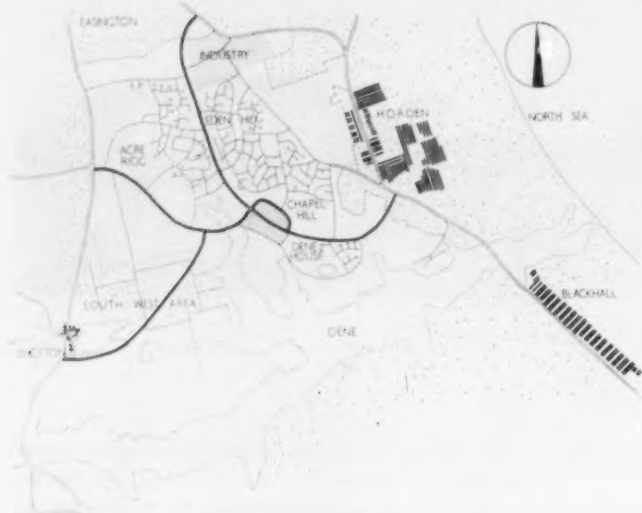
1. The inclined plane of roads and forecourts.
2. The horizontal plane of the houses.
3. The free contour form of major open space.

These planes are linked by ramps and terraces which mark the transition from road to house and house to greensward. These stages are emphasised by careful design of "floor-scape." Space about houses and roads is regarded as urban and its floor is paved. Trees in that area are enclosed in the paving pattern. Only behind the houses, where wide sweeping views occur, is grass used, and then in large stretches easy to maintain and difficult to trample.

Wherever one stands, all the housing looks related both to a plan and to the way people actually live. There are no odd corners or dead legs. Furthermore, and this fact puzzled some authorities, there are no "back" elevations.

The break with the usual type of semi-detached street elevation has been made by planning six houses round a courtyard, which is at a lower level than the road and connected to it by the hard standing. Each court provides access to four houses through a patio provided with each house instead of a back garden. This substitution, quite apart from the architectural gain, makes it possible for small children

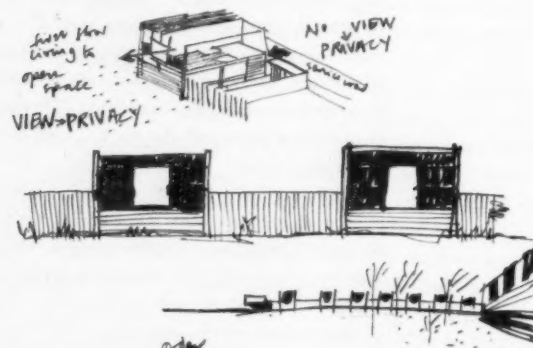
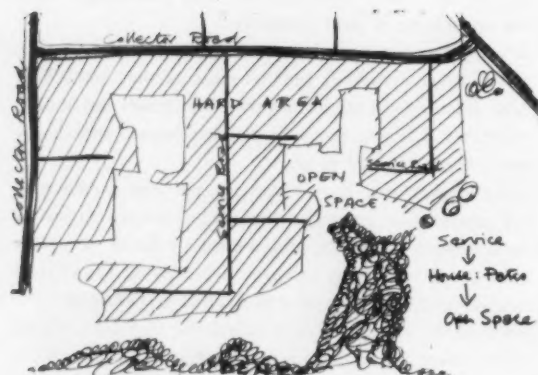
building illustrated



Master plan of Peterlee showing the relationship between the areas. Compare road pattern of the south-west with that of Eden Hill, left

Service roads join four collector roads, two on either side of Passfield Way. This main road links the south-west area with the rest of the town, above

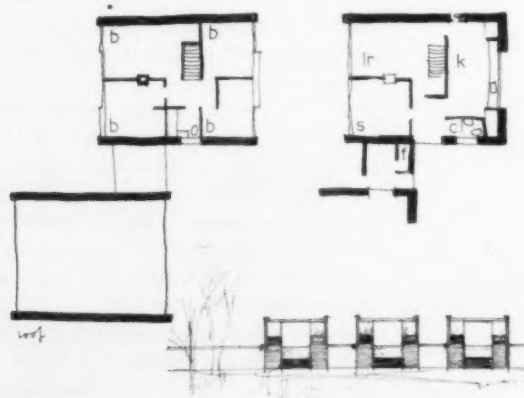
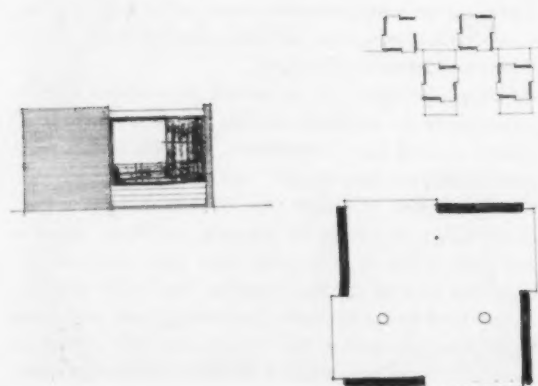
Planning structure of the first community, below left



Design intentions. Division of activity translated into separation of surface, above

Original massing of the type 3B house. This was subsequently amended to the more conventional elevation built, below left

Detached four-bedroom house, type 4H, not chosen for analysis, below



to play under immediate supervision and for the tenant to use the area for any purpose without necessarily visually affecting the community. The entrance to the house is into a living-room which adjoins a kitchen and a sitting-room (once known as the parlour). Upstairs three bedrooms are reached by a stair rising out of the living-room.

The structure is of white and black brickwork. Timber infill panels are prefabricated on a 5-ft. module and finished with white paint or stained grey and black. These muted colours go well in the north-east English landscape. Small areas of bright colour are provided by tenants' curtains.

The house interior does not demonstrate that intensity of expression found elsewhere in the scheme. Rooms lack interest mainly through timidity in the detailing. Thus the staircase, mantelpiece and kitchen fittings are not in character with the boldness of the outside design. Details such as the slight roof pitch look unconvincing. It would be easy to make this house look much better internally, and this, no doubt, is what the team will do.

The design team's brief stipulated that building costs be no greater than for traditional houses: for example, a three-bedroom house for £1,600. The courtyard house actually costs less, even including the large amount of paving in the scheme. The Development Corporation was fortunate in obtaining a contractor, new to the district and to house building on this scale, who was willing to take advantage of the standardisation implicit in the design and the consequent savings involved. All the more pity, therefore, that the construction appears to have proceeded without that degree of control in the contract stage which would have ensured a closer adherence to the architects' intentions.

The completed buildings are of a standard which is quite acceptable today. Whether buildings of this nature could be built for a similar price elsewhere is somewhat questionable. The design team see their future task as continuing their investigation into the ways large numbers of people can best live together. It would be easy to permit the planning developments of the 50s to become the stereotypes of the 60s. At the same time, not all authorities are yet reconciled to the courtyard group, and the team recognises that a reluctance to experiment would presumably raise barriers to architectural development. One hopes that the Corporation will continue to support its architects as whole-heartedly as hitherto. If it does, the next site will consist largely of single-storey housing tightly knit, with occasional three-storey buildings used as punctuation. The housing tendency of the last ten years has been towards living on the ground, and it will be interesting to see whether this works in high densities.

This team has amply proved the validity of its planning aims and it is possible that the South-West Area will have a place in the history of town planning. A modern housing layout has been created on the fringes of the old. If the environment is not a total one, the design team is not to blame. The buildings provided consist only of housing: the nearest school is a mile away and provision of a library, community centre, or even a fitted playground, is not within the architects' brief.

Today planners and architects are living in a situation inimical to their activities and frequently operating under a hostile administration. Also we know that the barrenness of housing provision has its roots in the social history of the subject. Yet it is surely those people whose work it is to mould the environment who should be most concerned at the



Consistency of house, street and floorscape between

Four-bedroom detached houses, type 4 H. Careful "floorscape" but heavy-looking bollards. It is surprising in such a three-dimensional layout to find that the elevations, and especially the panels, are almost two-dimensional abstracts. However, this play of shape looks good

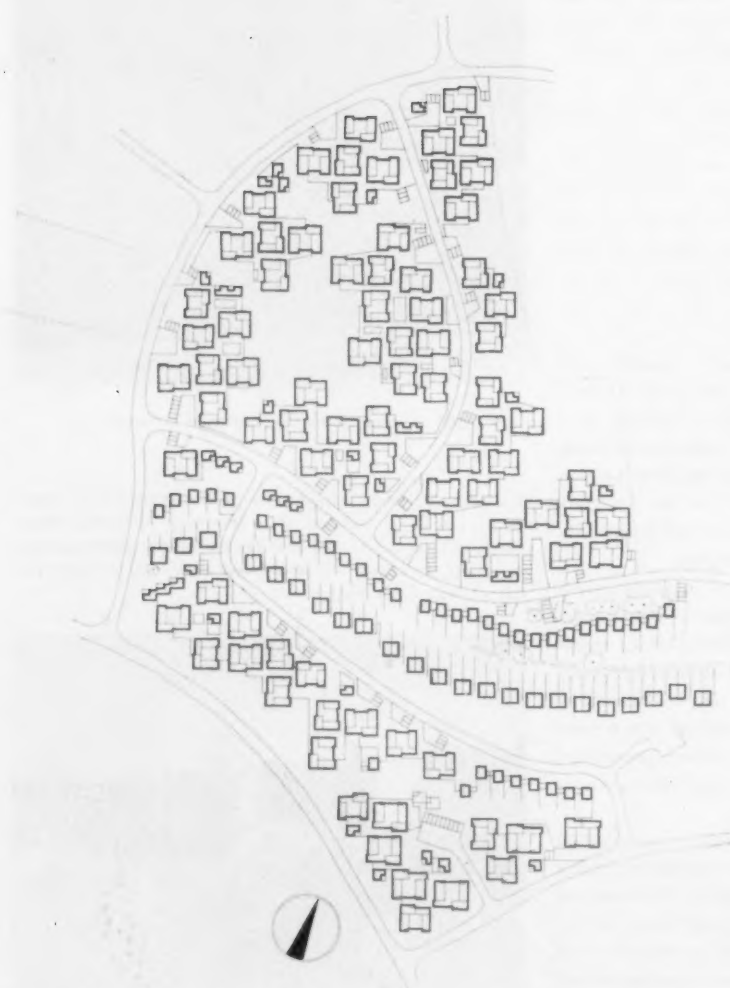


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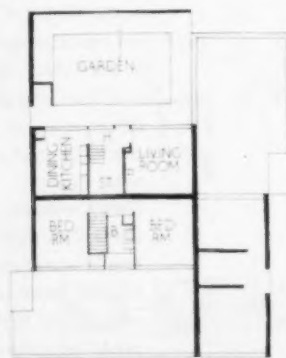
Four-house clusters, above and below. These show experimental developments of the courtyard principle. Neither met the requirements of local building by-laws for space about buildings
[Scale: $\frac{1}{8}" = 1' 0"$]

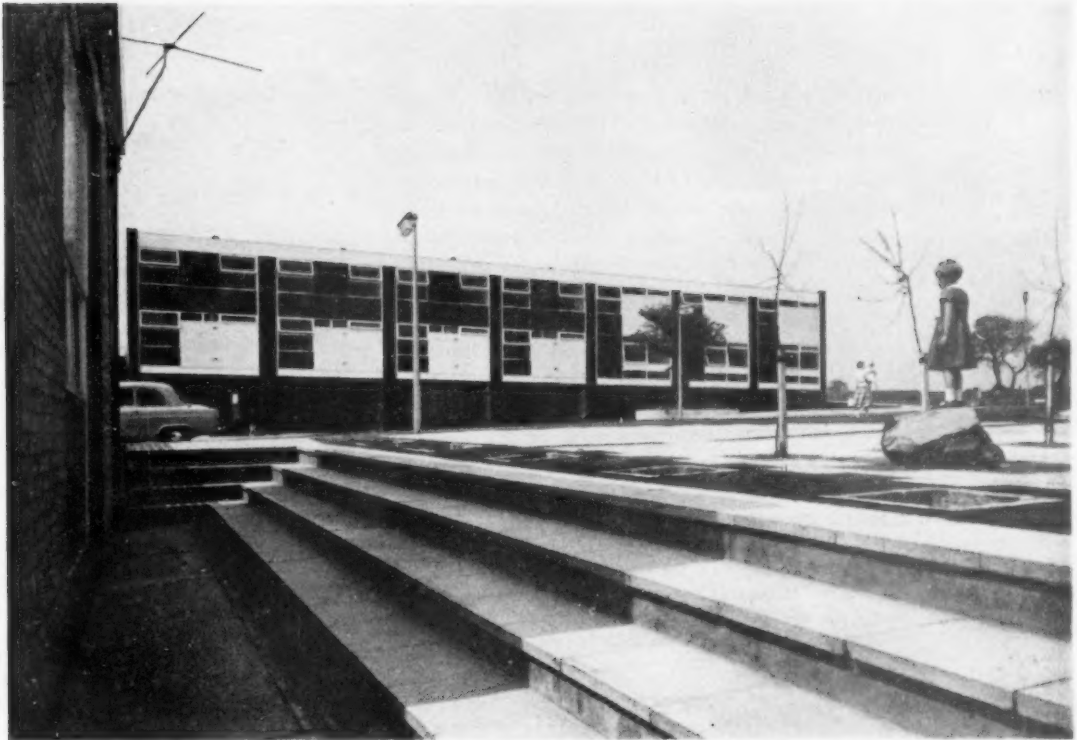
Project for Chapel Hill, using four-house cluster, left



Project for Acre Rigg, using three-house cluster, lower left

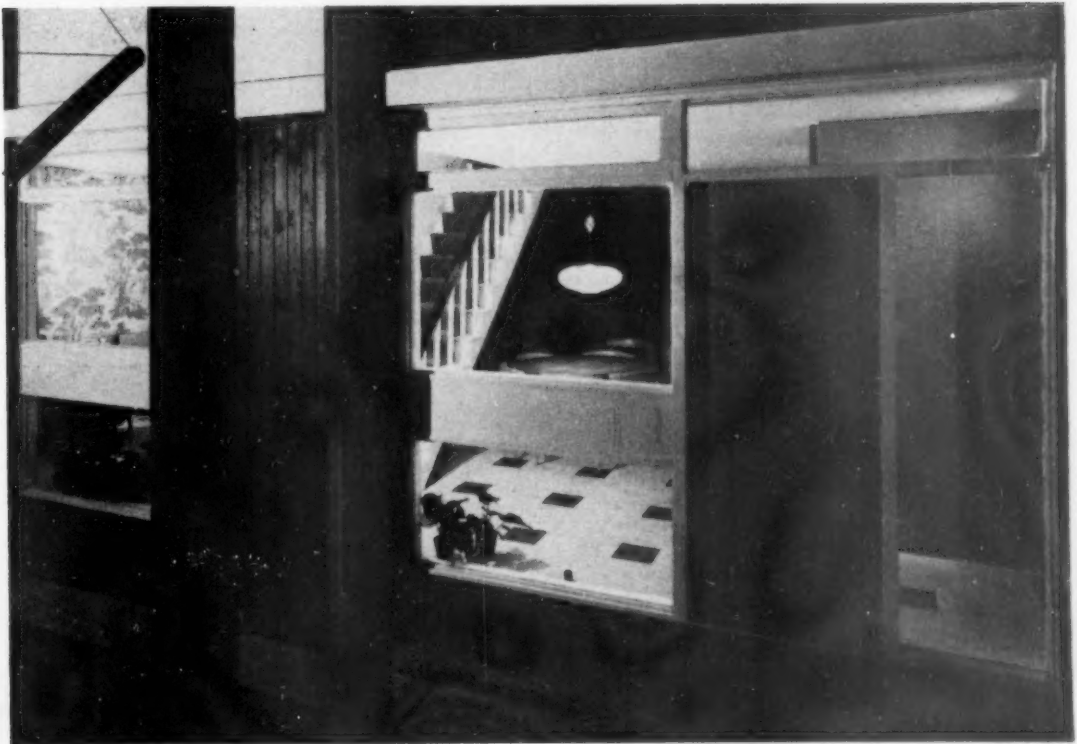
Three-house cluster, below





Four-bedroom terrace houses. The ground floor is taken up with a garage and a garden room. The elevation, like some others, suffers from a slight over-abundance of cladding patterns

The living-room. The stair does not seem to belong



building illustrated

scanty and grudging provision of all building except housing and by the consequent mockery of the New Town idea that this involves. If a means had been consciously sought whereby our new housing areas could be prevented from organic functioning, then the existing arrangements would be the ideal solution. Also, it is about time that public building programmes were reorganised to permit the architectural team to design, as a unity, all buildings in its area. For all this to come about, many major changes are needed. Not the least is in the average local authority architect's attitude to his work.

Messrs. Daniel, Dixon and Pasmore have spelt out their commitment in the "architecture of the new humanism." Where they have led, let the other New Towns follow.

CLIENT'S REQUIREMENTS

To prepare a project for the south-west area of Peterlee, in the autumn of 1955. The Corporation required the team to justify the aesthetics of its planning proposals in the terms of what was socially and economically practicable.

SITE

300 acres bordering the Castle Eden Dene and separated from the rest of Peterlee New Town by land unsuitable for building.

PLANNING AIMS

To attempt a new interpretation of a planned environment, it was decided to attack six of the existing practices common in the New Town layouts:

1. Mechanical planning by rule and by-law.
2. Purely drawing-board planning.
3. Failure to insulate the community from roads and motor vehicles.

4. Visual monotony of continuous housing and negative open spaces.

5. Complete subordination to old-fashioned building techniques.

6. The mistaken concept of the picturesque.

SPECIFICATION OF TYPICAL HOUSE

Work below ground floor level

Excavation, reinforced concrete raft on reinforced concrete edge beam. D.p.c. over raft. Electric and gas ducts and drainage under raft.

STRUCTURAL ELEMENTS

External walls

11-in. hollow wall comprising two half-brick skins with facings externally. 49 sq. yds.

11-in. hollow wall comprising one half-brick outer skin, 4½-in. foamed slag block inner skin, with facings externally. 37 sq. yds.

One brick wall with vertical softwood weatherboarding on grounds externally. 10 sq. yds.

Windows and external doors

Combined window, door and wall panels with softwood weatherboarding externally and hardboard internally; doors and windows framed in panels.

Area of doors, 48 sq. yds.

Upper floors

2-in. × 7-in. softwood joists.

Roof

Three layer built-up felt roofing on screeded wood-wool slabs 2 in. thick on 2-in. × 9-in. softwood joists treated against rot.

Vitreous enamelled r.w.p.s. and gutters. 2-in. × 1-in. × ½-in. aluminium in angle at edge of roof.

Area of roof: 531 sq. ft.

Staircase

3 ft. wide over strings. Overall rise 8 ft. 8 in.

SCHEDULE OF ACCOMMODATION

House type and description	Area in sq. ft. inclusive of stores*	Number of bedrooms	Number in scheme	Number with attached garages or carports
4G Three-storey with first-floor living-room and ground-floor day living kitchen	1,132	4	21	—
4H Two-storey detached house	1,062	4	24	12
3G Three-storey with first-floor living-room and kitchen, ground-floor garage and drying area	975	3	42	42
3B Two-storey with courtyard garden	918	3	62	—
3BA Two-storey with single-storey link and courtyard garden	950	3	36	36
3T Long terrace house with ground-floor bathroom and w.c.	813	3	12	—
3Ci Cantilever house with relatives' separate apartment on ground floor	917	3	12	—
	267	1	12	—
3CG Cantilever house over garage and ground-floor entrance and stores	917	3	8	8
2B Two-storey semi-detached with side patio garden	772	2	72	48
2P Split-level semi-detached house for middle-aged couples	600	2	16	12
2PM Enlarged version of 2P	640	2	16	16
2Fi Three-storey flat block two units to each floor, single person units on ground floor	723	2	20	—
	438	1	10	—
OP Single-storey old person's house	441	1	25	—
	Total		388	174
				31
				205

Number of garages in detached blocks

* Areas of houses exclude garage areas where they are part of the house. Space has been reserved for the future provision of further garages.



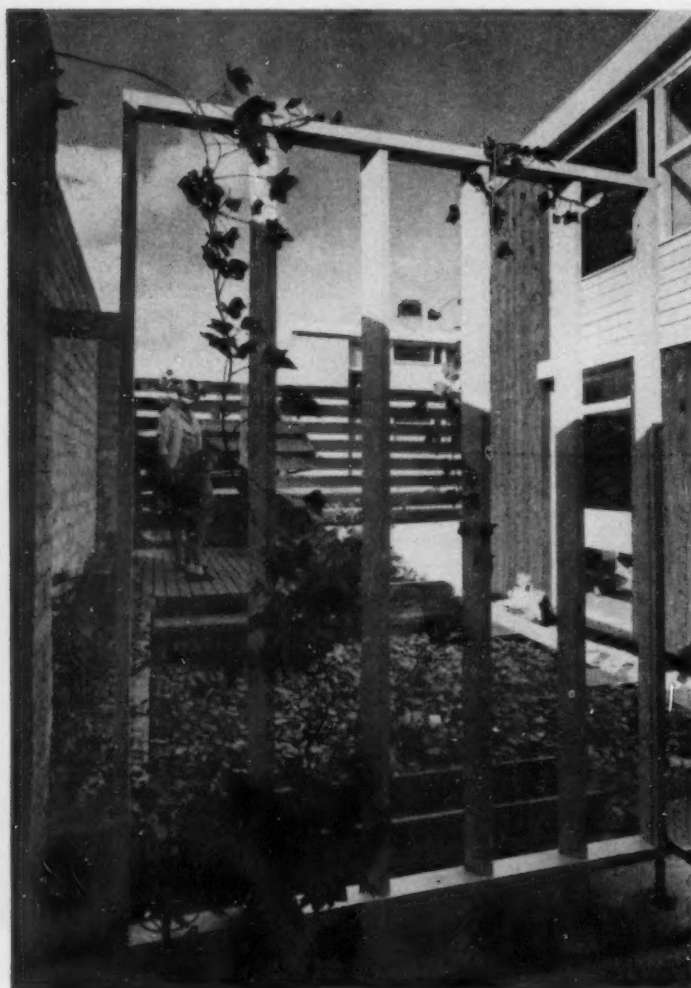
This view into the sitting-room shows the contrast between the interesting external materials and textures and the relatively static interior

building illustrated



The courtyard complex from the rear. It will be noticed that the area is not a smokeless zone

A private patio, an urban but open space to be used at the tenant's discretion



Internal structural walls

Half-brick walls including concrete lintels.
Area: 26 sq. yds.

Partitions

Half-brick walls including concrete lintels.
Area: 10½ sq. yds.

Internal doors

Flush plywood doors. Area of clear openings:
144 sq. ft., in 7 single doors and 1 double.

Ironmongery

Vitreous enamelled door furniture.
Aluminium casement stays and cockspur fasteners to windows. Brass bolts and roller catches.

FINISHES AND FITTINGS

Wall finishes

Internal facings: area 19 sq. yds.
Plaster: area 220 sq. yds.
Thermoplastic wall tiles: area 3 sq. yds.

Floor finishes

Clay tiling and skirting: area ½ sq. yd.
Lino tiles on ¾-in. screed: area 46 sq. yd.
1-in. t. and g. flooring: area 46 sq. yd.

Ceiling finishes

¾-in. asbestos insulation board: area 48 sq. yd.
Plasterboard and setting coat: area 44½ sq. yd.

Decorations

Three oils on woodwork externally. Protective stain on weatherboard. Two oils on woodwork internally. Twice distemper walls and ceilings.

Fittings

1-in. softwood shelving, various widths.
Plywood-faced flush sliding hatch in mahogany surround.
One floor cupboard unit under sink top, having three flush doors. One floor cupboard unit with door and five drawers.
Working tops finished in laminated melamine plastic.

SERVICES

Sanitary fittings: lavatory basin, w.c. pan with black plastic cistern, white porcelain enamelled cast-iron bath; sink; enamelled double drainer sink top.

Waste, soil and overflow pipes

A cast iron "one pipe system" soil and vent pipe.
Copper wastes and traps including hardboard casings.

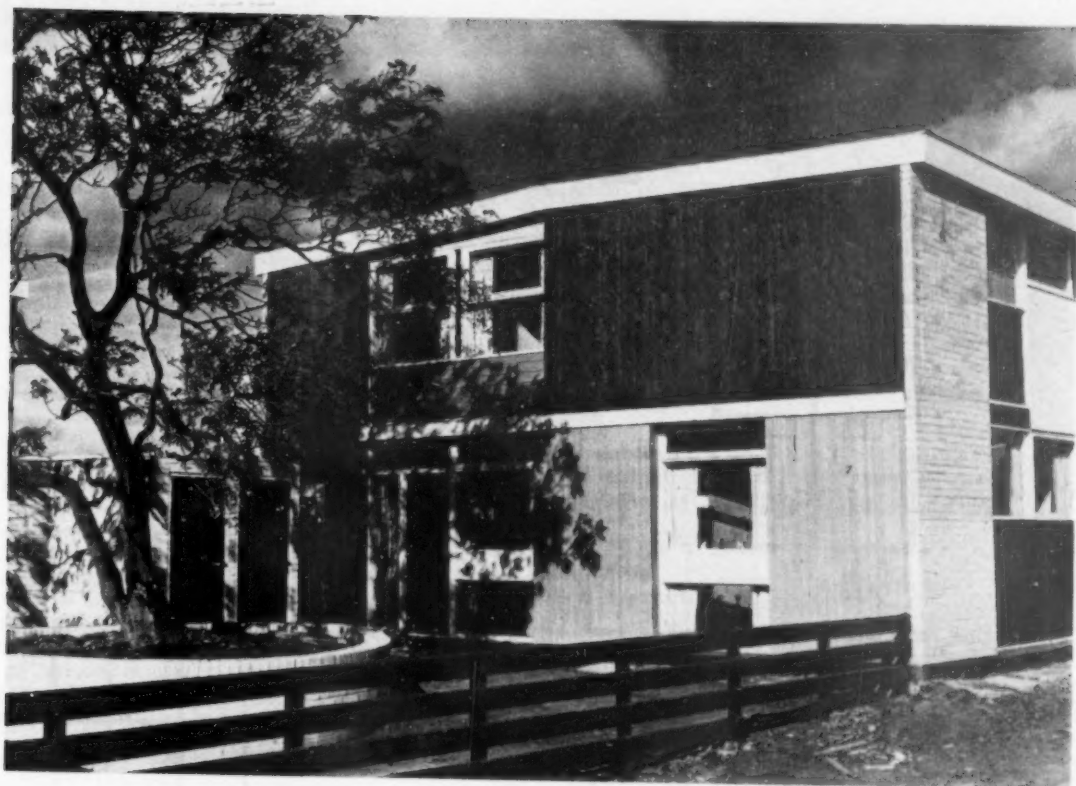
Cold water services

½-in. copper pipe to five draw-off points.

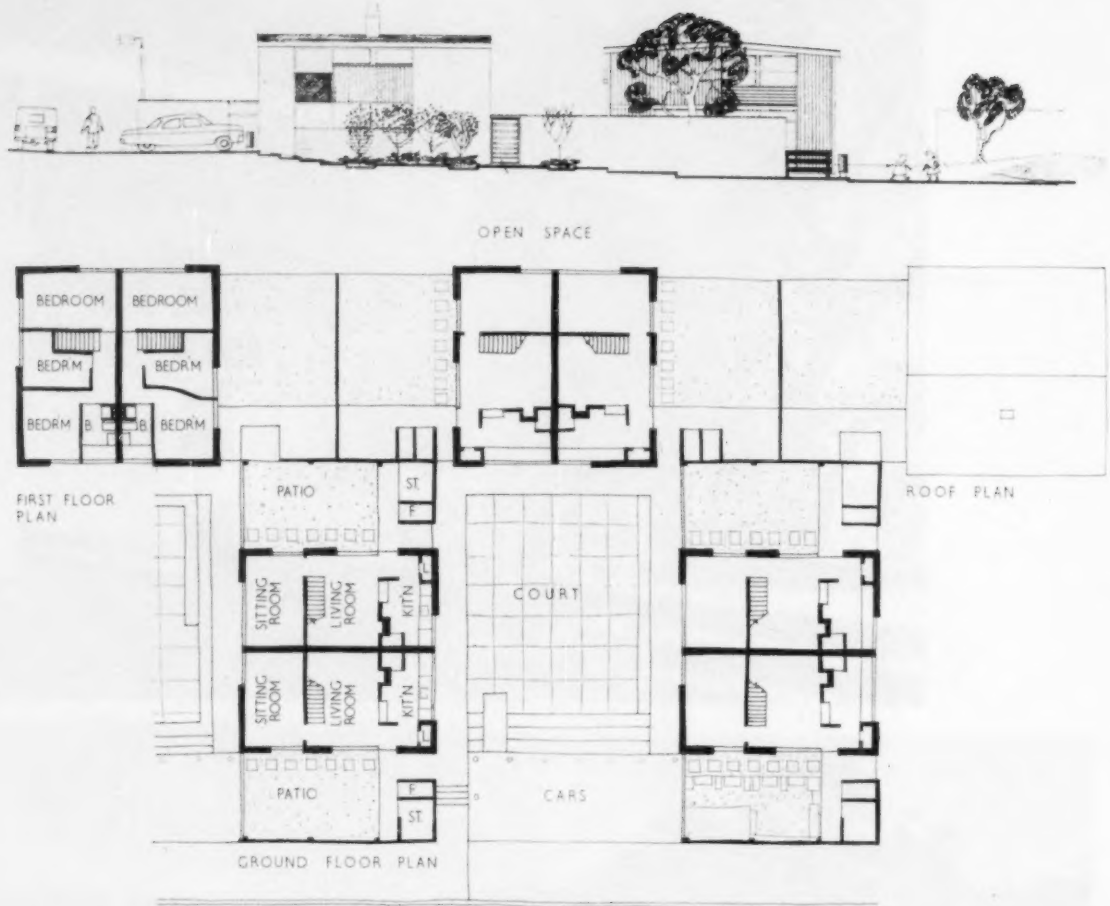
The entrance elevation from the patio. Existing trees are protected as shown, top right

The first housing group of the south-west area seen from across the dene. Paths lead down into the dene, which is magnificent within but unimportant seen thus. The housing blends into the landscape, centre right

Complex of courtyard houses from the service road. The asymmetrical windows into the courtyard are a device to give unity to the block of houses, thus breaking down the "semi-detached" look, right



building illustrated



Plan and cross section through courtyard as built, showing how the changing levels contribute to the intimate scale

Plan now being developed for the medium density second housing community, below. Privacy, sunlight, aspect and shelter are its advantages. Single-storey housing does not carry subsidies, so here is an opportunity for the Corporation to support its architects and for the Ministry to realise that an attempt at better planning is being made

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



Hot water and heating services

Chimney breast, solid fuel stove with back boiler. Mahogany mantel, black clay floor tile hearth. Copper pipe to three points, to radiators and flow and return.

Two 2-column radiators, 62 sq. ft. heating surface.

30-gallon indirect hot water tank insulated with 1-in. magnesia plastic encased in hardboard.

Gas services

Copper tube to cooker, boiler and gas poker point.

Electrical services

9 lighting points; 6 socket outlets; 1 cooker control unit; 1 wash boiler outlet; 1 wall fire point; 1 point for radio; screwed conduit and draw wire for TV. aerial point; wall-mounted 2 k.w. electric fire.

CONTRACTORS

General contractor: Milton Hindle Ltd. Sub-contractors: Electrical: John Calvert (Electrical) Ltd. Ommia floors: Sam Tyzack & Co. Ltd. Floors (Williamson lino tiles) laid by Marley & Co. Nominated suppliers—Prefabricated panels: Kingston Architectural Craftsmen. Stoves: Radiation Group Sales, Leeds. Uxbridge Flint Bricks: Cape Building Products Ltd. Waage Wood Wool Ltd. Washington Radiators. Square Grip Reinforcement. Kitchen cabinets: A. J. Wares. Leeds Fireclay Sybarite basins. Bilston Atlanta baths.

TIMBER | CHIPBOARD | GENERAL DATA

The Architects' Journal Library of Information Sheets 807. Editor: Cotterell Butler, A.R.I.B.A.

·PLIMBER· WOOD CHIPBOARD: GENERAL DATA

This Sheet is one of a series on Plimber resin-bonded wood chipboard, its properties and uses. Other Sheets in the series give details of its application for wall lining and partitioning, flooring, roofing and general joinery and also deal with decoration of the boards.

Material

Plimber wood chipboard is made by a three-layer process using softwood chips finely milled to a uniform size and bonded with urea formaldehyde synthetic resin. It is manufactured in accordance with the standards of quality required by B.S.2604: 1955. It has great strength, which makes it suitable for loadbearing purposes, such as suspended flooring or work benches, and its rigidity commends it for partitioning and lining, for which a light stud framework at 4 ft. 0 in. centres is all that is required. Plimber is a constructional rather than an insulating board: its insulating properties are similar to those of timber of the same density.

Wood-veneered Plimber is obtainable in oak, mahogany or any other wood that is suitable and available.

Sizes

The maximum size as manufactured is 16 ft. 0 in. by 4 ft. 0 in., but the standard size normally in stock with timber or builders' merchants is 8 ft. 0 in. by 4 ft. 0 in. It is available in $\frac{1}{2}$ in. and $\frac{3}{4}$ in. thicknesses.

Weight and Density

The boards weigh 30 oz. and 45 oz. per sq. ft., respectively, for $\frac{1}{2}$ in. and $\frac{3}{4}$ in. thicknesses. Their density is 45 lb./cu. ft.

Strength

When test pieces of board 8 in. by 4 in. are placed on bearers at 6 in. centres and a load applied at mid-span, the mean breaking load is 270 lb. for $\frac{1}{2}$ in. thickness and 620 lb. for $\frac{3}{4}$ in. thickness. (B.S. 2604: 1955).

Modulus of Elasticity

The modulus of elasticity $E = 30 \times 10^4$ lb./sq. in.

Moisture Movement

Moisture movement is negligible under normal conditions. From normal to extreme humidities, undecorated and unrestrained boards remain constant in length and width at 0.22 per cent (Forest Products Research Laboratory test no. 25/3/67).

Thermal Insulation

The thermal conductivity k of Plimber boards is 0.90 B.t.u./sq.ft./hr./deg.F. (National Physical Laboratory test report no. R.G.86).

Sound Insulation

The sound absorption coefficient is 0.20 over the frequency range 125 to 4,000 c.p.s. (National Physical Laboratory test report no. S.968); the sound reduction factor is 26 decibels over the range 100 to 3,200 c.p.s. (National Physical Laboratory test report no. S.1236).

Fire Resistance

Tested in accordance with B.S. 476, the boards are classified Class III (F.R.O.S.I. test report no. 372). They are classed as "flameproof" by the London County Council.

Resistance to Fungal Attack

The resistance of Plimber to dry rot and other fungal attack is as untreated softwood. Where attack is likely, wood preservative should be used.

Resistance to Wood-Boring Insects

The material has been found by experience to be immune from attack by wood-destroying insects, except termites against which the normal precautions for timber should be taken.

APPLICATIONS**Partitioning and Lining**

The only framing required for a Plimber partition or lining is that necessary for holding the boards in position. The supports should, therefore, consist of vertical posts at 4 ft. 0 in. centres, no other studding being required.

Flooring

The boards provide a robust and durable surface for industrial and domestic flooring. They are rapidly laid and are stable, with a minimum number of joints. The finished surface gives a good base for any form of floor covering, e.g. carpet, linoleum, tiles. Alternatively, the Plimber can be filled, sealed and waxed to give a hard-wearing finished floor.

Roofing

For flat and pitched roofs $\frac{3}{4}$ -in. Plimber is suitable for nailing over joists or rafters at 2 ft. 0 in. centres; care must be taken to ensure that the boards are protected from rain. For roof lining $\frac{1}{2}$ -in. Plimber boards may be nailed direct to the rafters or purlins.

11.F2 · PLIMBER · WOOD CHIPBOARD: GENERAL DATA

General Joinery

Cupboard doors: Hinged or sliding doors can be made from Plimber and hung in exactly the same manner as timber doors. Both sides and all edges should be cleaned up by sanding before decorating. The edges can, if desired, be lipped all round with hardwood, but this is not generally necessary. For sliding doors, the edges of the Plimber can either be grooved or be housed to take sliding gear fittings.

Shelving, work surfaces, bench tops: $\frac{3}{4}$ -in. Plimber can be used for a variety of purposes, with the same general framing as for $\frac{3}{4}$ -in. timber: large areas can be covered without jointing or cutting. Any finish or decoration that is suitable for wood can equally well be used on Plimber.

Shuttering

Plimber can be used for many kinds of formwork where large areas of concrete have to be poured and where repeated use of the shuttering is required. According to whether $\frac{1}{2}$ -in. or $\frac{3}{4}$ -in. Plimber is to be used, struts should be spaced as for timber of similar thickness. It is essential that the boards be sealed, preferably on both sides, soon after their arrival on the site. The boards should be cleaned down and oiled again before each further use, so that they may be reused the greatest number of times, to facilitate striking and to ensure a smooth finished surface to the concrete.

Working and Finishing

Plimber is worked and finished in exactly the same way as wood.

Storage

Plimber should be stored flat in a dry building. On a wood floor, no air space is necessary between the bottom board and the floor. On a concrete or asphalt floor there should be an air space of at least 2 in. and the boards should be laid level on battens at not more than 1 ft. 0 in. centres. In no circumstances should Plimber be stored in damp conditions or out of doors and during transport it should be protected from rain.

Further Information

The manufacturer maintains a technical advisory department available to answer questions dealing with details of construction and decoration of Plimber boards.

Compiled from information supplied by:

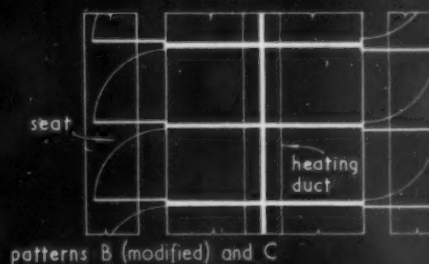
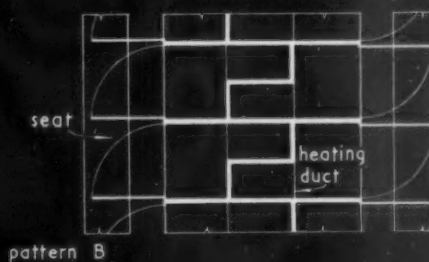
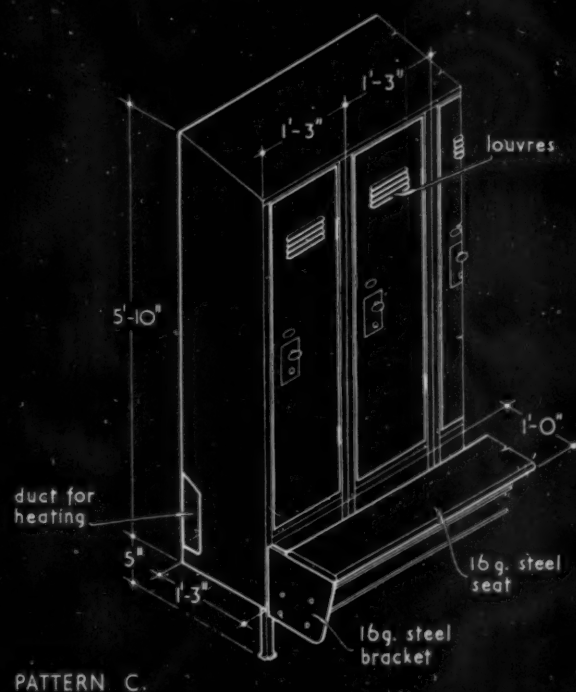
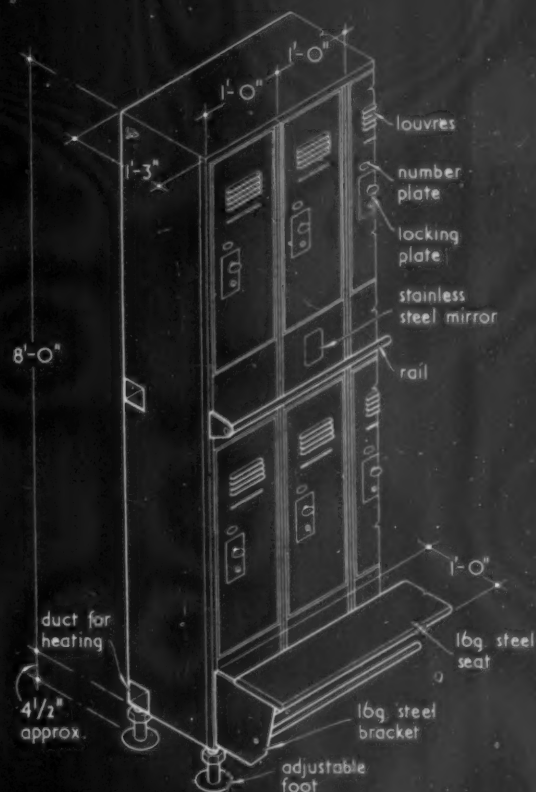
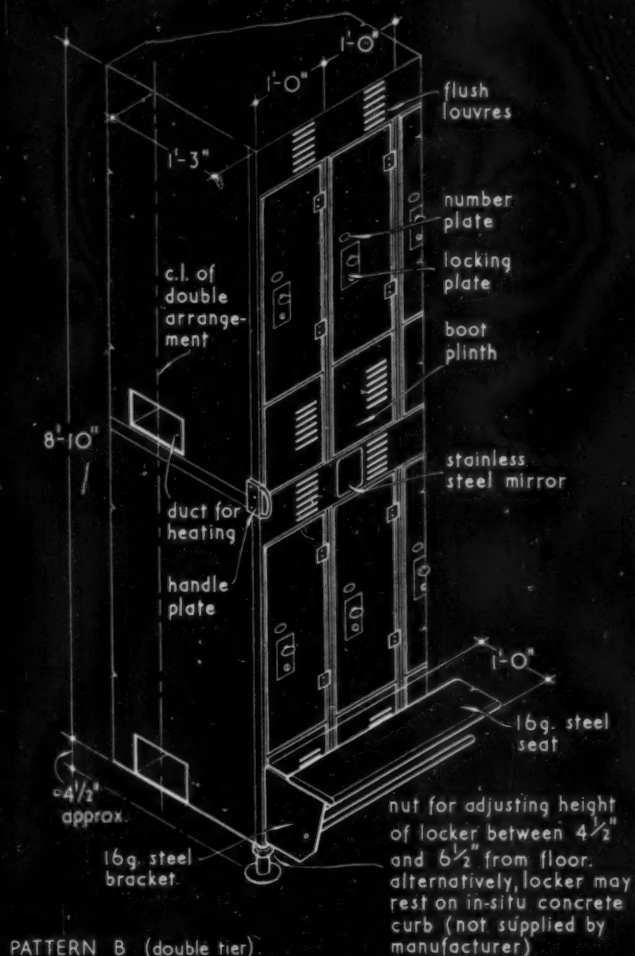
British Plimber Limited

Address: Dovers Corner, New Road, Rainham,
Essex.

Telephone: Rainham 5262.

FURNITURE | LOCKERS**42.E1**

The Architects' Journal Library of Information Sheets 808. Editor: Cotterell Butler, A.R.I.B.A.



DIAGRAMS SHOWING DOUBLE ARRANGEMENTS.

42.E1 · SPEEDWELL · CLOTHING LOCKERS

This Sheet describes Speedwell clothing lockers which may be used in factories and offices to provide efficient individual drying and hanging space for clothes for all types of workers. Three patterns of locker are shown to meet slightly differing requirements and each allows for considerable flexibility of layout in its installation. Provision for heating is incorporated in the design of the lockers.

General

Assemblies are built up on rods from any number of individual locker units; the recommended minimum for an aisle length is six. Pattern B, however, is obtainable in units of three lockers, which may be connected to each other by a simple coupling allowing for rearrangement if desired. Pattern B may be arranged in single or double tiers and all types may be in single rows for wall fixing or back-to-back in double rows. Ducts and cover plates, as described under *Heating*, are included in the design of the lockers.

Types

The drawings on the face of the Sheet show the general appearance of the three types of locker.

Pattern B: This single- or double-tier locker has flush doors with ample inside space and full length hanging space for overcoats. The backs are staggered as shown in the drawing on the lower right of the Sheet.

Pattern B (modified): This locker gives compact but adequate accommodation in two tiers with flush doors and streamlined appearance.

Pattern C: This gives full length hanging space with shelf and other facilities, and is particularly suitable for use in offices and laboratories. Variations are available for hospitals, fire stations, abattoirs and other special applications.

Construction

The lockers are constructed from 20 g. pressed annealed steel sheet framed with 16 g. steel sections. Edges of sheets are rolled wherever possible. Overall dimensions of the units are given on the face of the Sheet. End partitions and tops are continuous sheets, and units are joined together by means of $\frac{5}{16}$ -in. rods passing through holes in the sheets and uprights and tightened up on the ends with nuts.

Doors: Doors in pattern B and B (modified) are pressed sheet with the edges turned over a welded frame of $\frac{5}{16}$ -in. diameter rod. Doors in pattern C are of pressed sheet construction with stiffeners.

Seats: 16 g. steel seats are provided as shown in the drawing. The edges are rolled and the seat is supported on 16 g. steel brackets.

Fittings

Locks: Each locker door is fitted with an English 6 lever pin key dead lock. Where required, lock combinations may be in pairs so that one key operates two lockers. (This is for installations where it is desirable to provide a "clean" and "dirty" locker

for each worker.) Normally keys are supplied in triplicate with a 1-in. split ring, but installations for master keys can be provided at a slight extra cost. The lock case is of pressed steel.

Number plates: Each locker has an oval plastic number plate $2\frac{1}{4}$ in. long.

Mirrors: Stainless steel mirrors are fitted to the "clean" lockers where required.

Clothes hooks: Each locker has a clothes hook fitted to the partitioning. In addition, patterns B (modified) and C are fitted with a four-way coat hook at the top and pattern B with a special coat hanger and trouser bar.

Installation

The manufacturers will supply suggested layouts of lockers to meet specific requirements.

Heating

Plenum ducts are provided in each tier of lockers and there are four 4 in. louvres in it for each locker compartment. Doors or roofs are louvred where appropriate to promote free circulation of air up through the body of the lockers. Standard vertical feeds for connecting to overhead trunking or adapting for unit heaters can be supplied for plenum-heated installations.

Where steam or water coil heating or electric strip heating is to be installed, it may be accommodated under a cover plate in the bottom of each locker. For these forms of heating standard end shrouds with access doors are available. Fully-dimensioned drawings are available for heating and installation engineers.

Finish

All steel components including lock cases and clothes hooks are rust-proofed or non-ferrous. In addition, the lockers are spray-painted on the site, after erection, with best quality grey paint, and all external surfaces treated with special aluminium paint. The tightening nuts and bolts are rust-proofed.

Heater Unit

Purpose-made electric plenum units are available for supplying up to 96 lockers in an aisle. Alternatively, specially designed and rated tubular heaters can be installed, complete with switch panels for immediate connection.

Compiled from information supplied by:

The Speedwell Gear Case Co. Ltd.

Head Office

and Works: Tame Road, Witton, Birmingham, 6.

Telephone: East 2261.

Telegrams: Speedwell, Birmingham.

London Office: Palace Chambers, Bridge Street, London, S.W.1.

Telephone: Trafalgar 4421.

Coventry Office: Needlers End Lane, Balsall Common, near Coventry.

Telephone: Berkswell 3227.

Telegrams: Speedwell, Coventry.

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The Architects' Journal Library of Information Sheets.
Editor: Cotterell Butler, A.R.I.B.A.

working detail

WINDOWS: 82

WINDOW: SHOP IN NOTTINGHAM

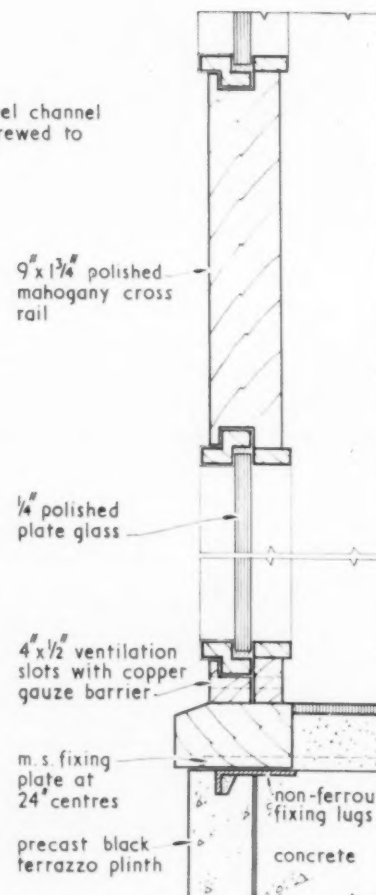
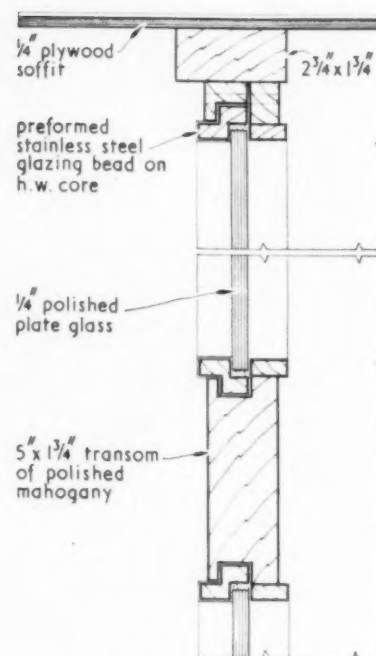
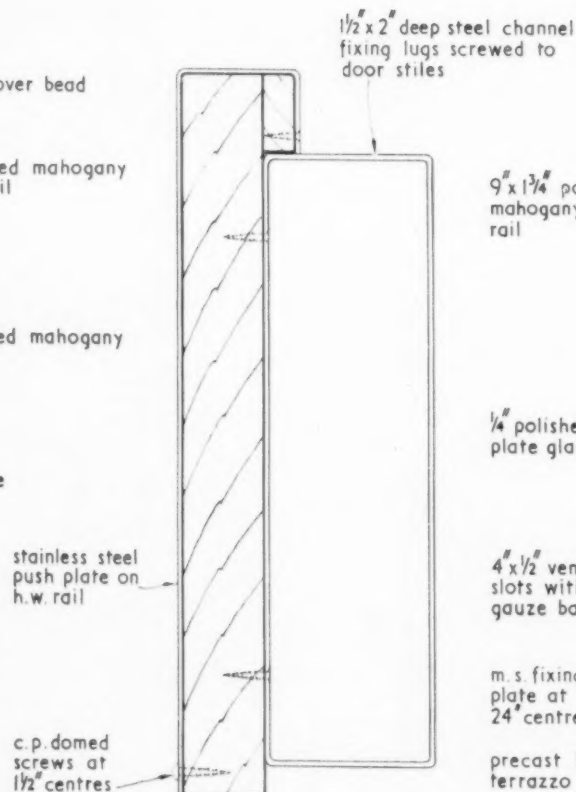
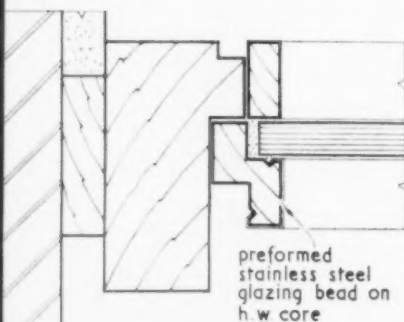
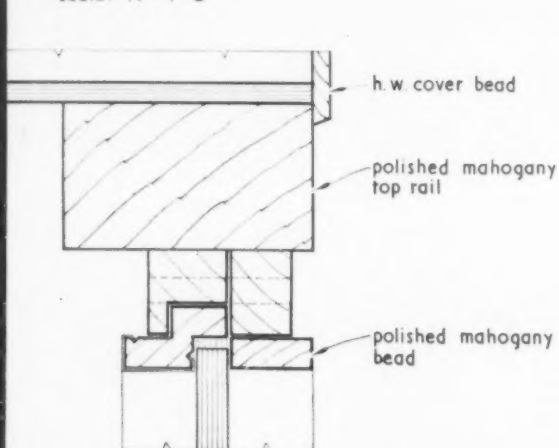
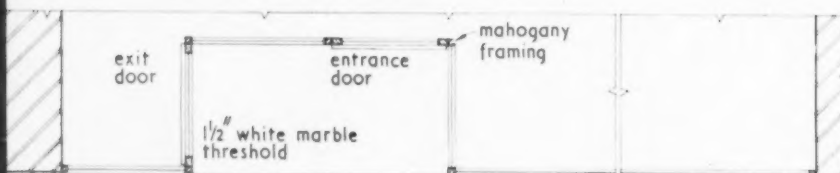
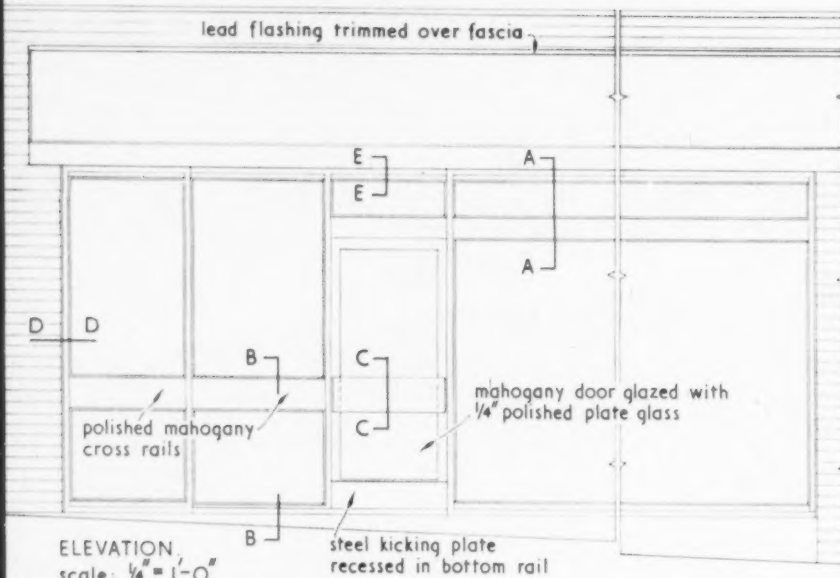
J. M. Austin-Smith and Partners, architects

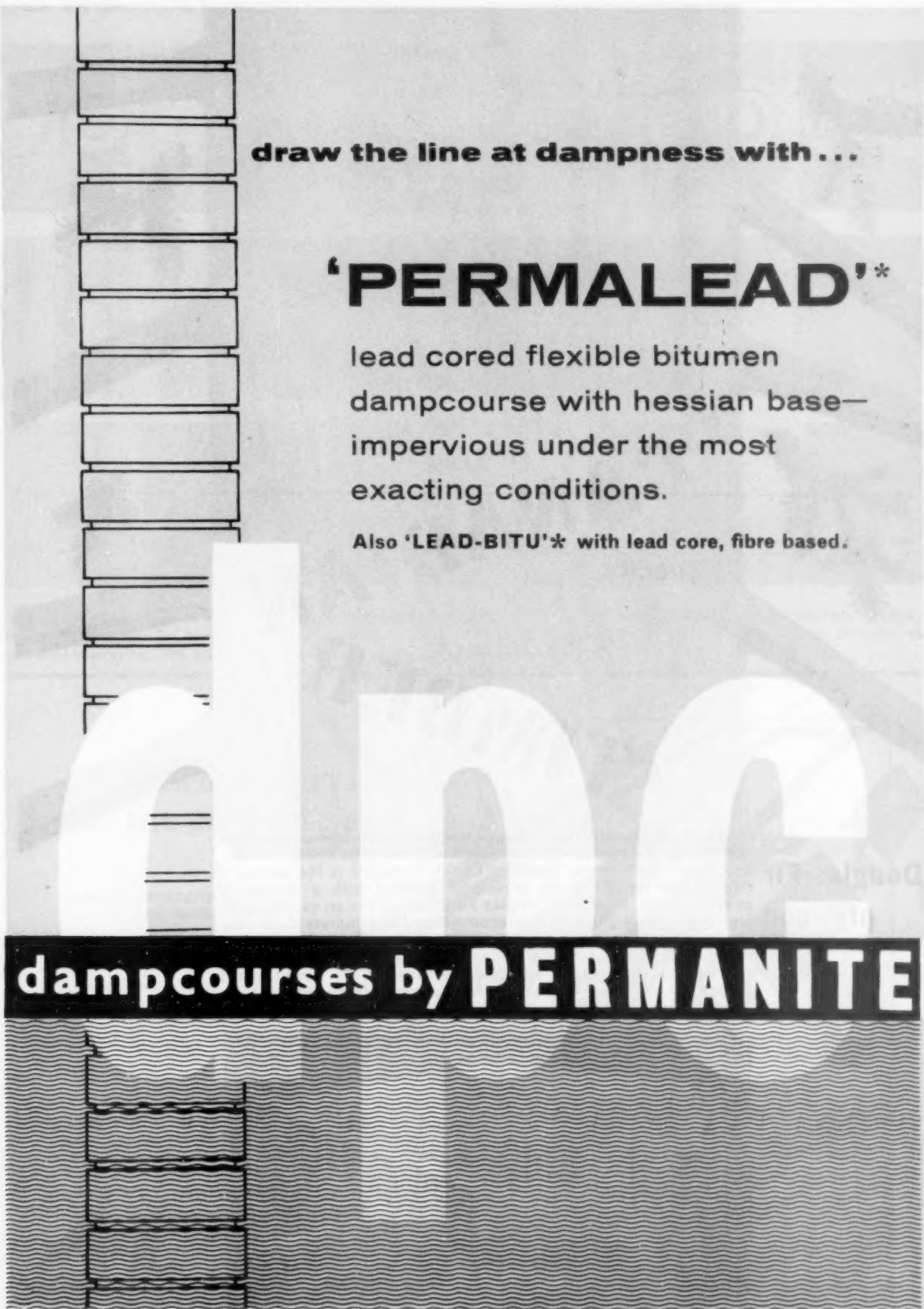


The main point of interest in this shop front is perhaps the use of preformed stainless steel glazing beads in conjunction with mahogany transoms. Note also the ventilation holes at the top and bottom of the windows. These are essential if steaming in cold weather is to be prevented.

working detail

WINDOW: SHOP IN NOTTINGHAM

J. M. Austin-Smith and Partners, architects



draw the line at dampness with ...

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lead cored flexible bitumen
dampcourse with hessian base—
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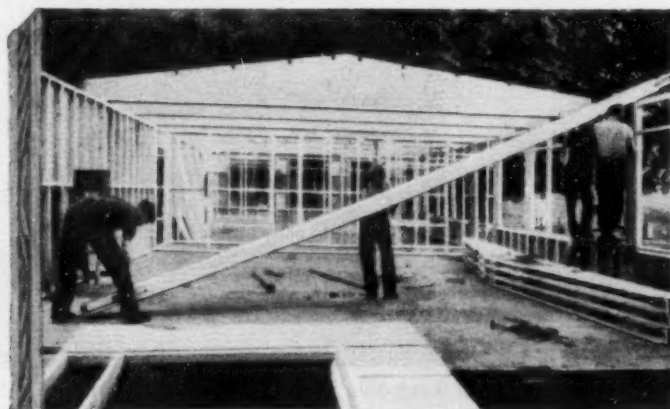
dampcourses by PERMANITE

* 'PERMALEAD' conforms to B.S. 743:1951 Type 5D 'LEAD BITU' conforms to B.S. 743:1951 Type 5E



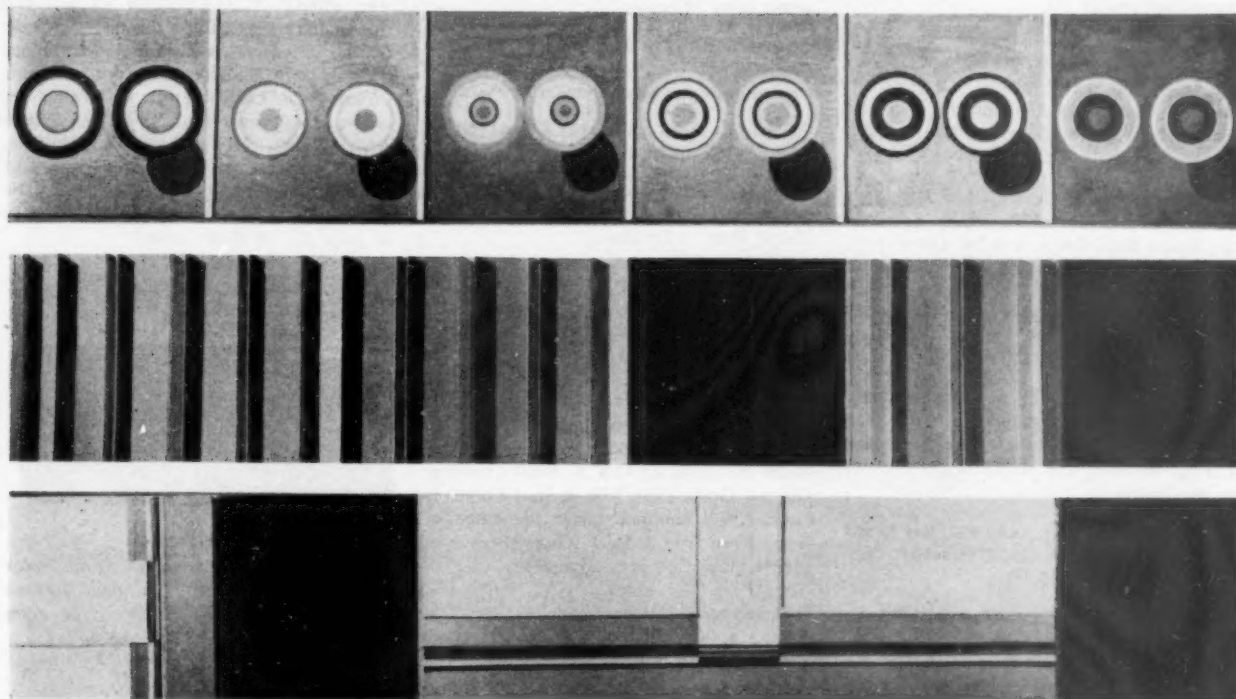
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Birth of a new school;
using prefabricated
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Murals for the IUA Congress Building



The recently published design for the IUA buildings on the South Bank (AJ, February 16, 1961) includes a number of murals. Here we show three examples, all to be eight feet high; top, designed by Bernard Cohen, will be in the west courtyard of the exhibition building; the other two by Peter Stroud (centre) and John Plumb (lower photograph) are for the exhibition building itself.

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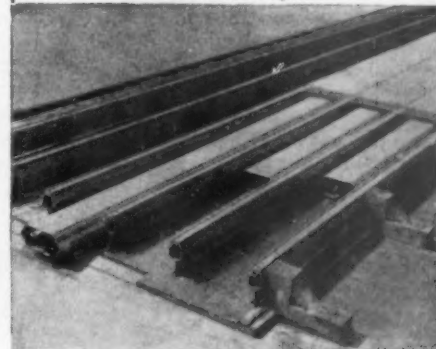
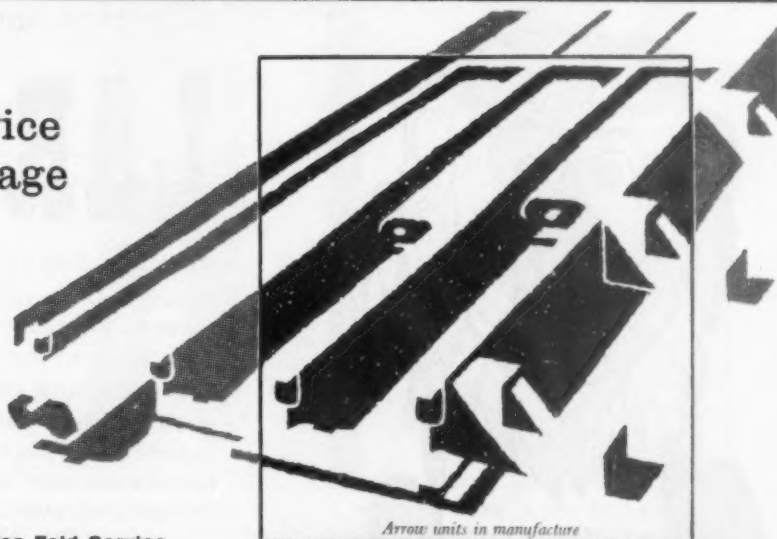
Precast Division, Staines Road, Bedfont, Middlesex. Tel: Ashford (AS 9) 5601

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Announcements

PROFESSIONAL

Gordon and Ursula Bowyer, A/A.R.I.B.A., Richard Finch, A.R.I.B.A., Walter Greaves, A.R.I.B.A., and Peter Moro, F.R.I.B.A., are moving their respective practices to 14, Buckingham Street, London, W.C.2 (telephone Whitehall 0282/5).

R. W. Lightfoot, A.R.I.B.A., has become a partner in the firm of Tooley & Foster of Buckhurst Hill, Essex, and 38, Great Portland Street, W.1.

C. D. Spragg, C.B.E., has been elected an Honorary Member of the Federation of Malaya Society of Architects.

Andrew Rankine, O.B.E., A.R.I.B.A., who has just retired as City Architect to the Hull Corporation, has joined J. H. Fenner & Co. Ltd. as Building and Architectural Adviser to the Group.

John C. Rose, A.A.Dip., A.R.I.B.A., has joined Barbara Hill & Partners, "Geneva," Garrison, Barbados, B.W.I.

TRADE

Volex Electrical Products have prepared a demonstration room in their works at Frederick Road, Salford. It is preferable to make an appointment. (Telephone: Pendleton 2442.)

Venesta Plywood Ltd. announce that B. W. Saunders has joined the company as Plywood Sales Manager.

A. R. Neelands has accepted the position of President of the Cementation Group of Companies upon his retirement as chairman.

Wilfred C. Ash, B.Sc., M.I.C.E., has retired from the Board of Gilbert-Ash Ltd.

J. M. Harris has been appointed managing director of Holland & Hannen and Cubitts (Great Britain) Limited.

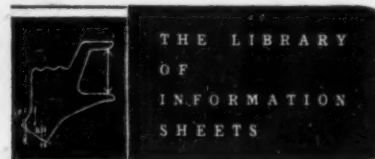
R. Lewis Stubbs, Director of the Zinc Development Association, has been appointed Director-General of the Lead Development Association and the Zinc Development Association.

The iron and steel making companies of the G.K.N. Group, have been amalgamated under the name of G.K.N. Steel Company Limited. Guest Keen Iron & Steel Company Limited will continue under the name of Guest Keen Iron & Steel Works (Branch of G.K.N. Steel Company Limited).

The Industrial Welfare Society (Inc.) is holding a two-day course at Robert Hyde House on Monday 20th, Tuesday 21st March, 1961, on "Site Labour in the Building and Construction Industries." For further particulars apply to the above, 48, Bryanston Square, London, W.1.

Correction

The editors of *Specification* much regret that in their 1961 edition the manufacturers of the *Windsor* prefabricated wood-block flooring were inadvertently given as Onsite Flooring Co. Ltd., whereas this should, of course, have read *Winsorflor Ltd.*, Enham Arch Works, Newbury Road, Andover, Hants, who are the sole manufacturers of this patented flooring. Will all holders of the above publication kindly amend the entry on page 355 of their copies?



46.Z4 REFERENCE BACK

Readers are asked to note that on this Index Sheet under "W.C.s." "fittings, vitreous china" and "flushing cisterns," the entry 33.Z4 should read 33.Z1 in each case.

CANCELLATION

Readers are asked to note that Sheet 26.J20 published 27.4.50 is cancelled and should be removed from the Library.



NO MATTER HOW

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OR HOW SMALL

If you have a catering equipment problem Stotts of Oldham are at your service. No matter if your enquiry is for a complete scheme or just a single item, our experienced designing and installation staff will be made immediately available.



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for
him...



for
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THE DISTRIBUTOR. Here's a fully automatic boiler the distributor can sell with absolute confidence.

Elegant, clean-line appearance. Packaged unit makes for easy handling. Exclusive "glass" coated flue-way protects against corrosion and reduces maintenance. Certain to out-sell any other comparable boiler. And very competitively priced.

THE INSTALLER. With these new gas-fired boilers on the market, no installer need ever go grey before his time.

A new Diplomat is easy as ABC to install. Quick. Simple. Precise. The casing is rigid and fits flush at first go. The door has lift-off hinges and magnetic catches which take all the snags out of hanging and lining-up.

THE CUSTOMER. A new Diplomat's biggest feature for the customer is the five-way selector switch.

It provides heating and hot water automatically at times they're wanted, without the customer having to lift a finger. Installation time is reduced because all electrical connections are made by plug and socket. And wrong connections cannot be made.

*Model illustrated is the Diplomat 44 small-bore unit, typical of this new range of boilers.

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A Shell Photograph

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Matching or contrasting with tiles

QUADRANT Economic and practical alternative to skirtings

FEATURE STRIP

Adds character to a floor

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Phone: Reading 71577/8

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- ★ 5 It is available in a range of colours. ★

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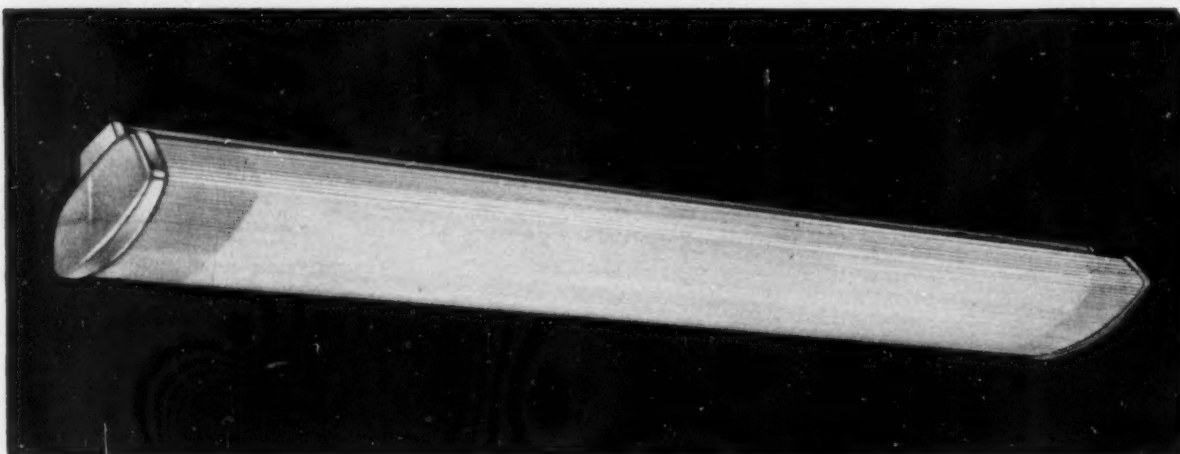
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The idea that transformed fluorescent lighting design



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ECONOMY

Minimum power consumed for each size and type.

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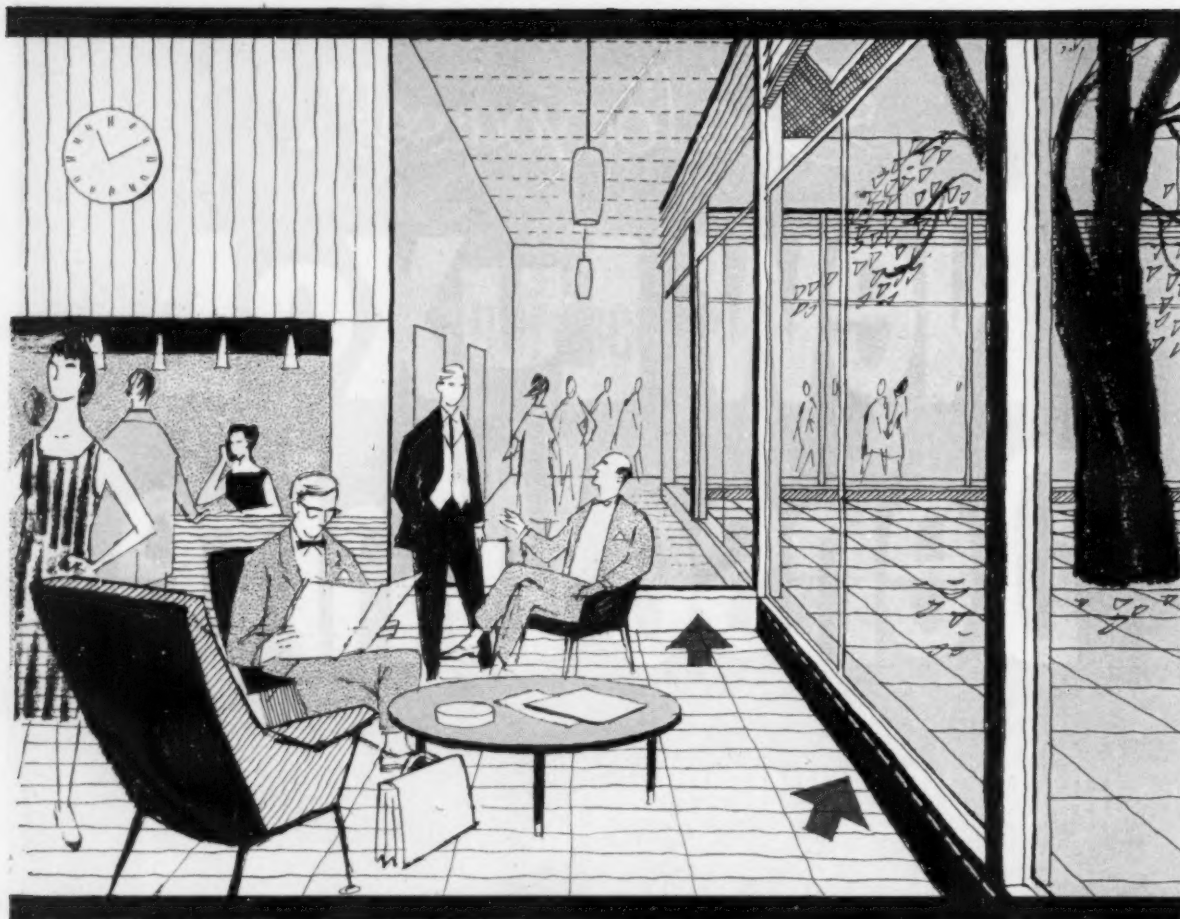


Decorators everywhere
approve the new white
out of the ordinary

NEW LUXOL

Dense White

D124



When windows must be wide and deep

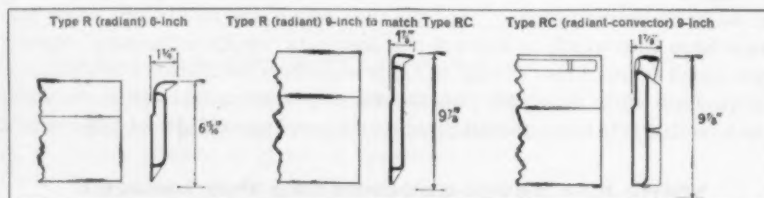
The need to introduce—whether for practical or for aesthetic reasons—windows that reach generously from floor to ceiling and wall to wall, might appear to present a problem: the problem of installing an efficient heating system economically without taking up valuable space or marring an otherwise uncluttered design.

There is one system that is designed to answer problems of this kind. It is a system of skirting heating developed by Crane Ltd. Crane Skirting Heating is so unobtrusive and its application so flexible that a great deal of freedom of arrangement is attained.

This heating system takes the form of panels which are used in place of the normal skirting. They avoid local 'hot spots' and distribute the warmth evenly where it is needed, without taking valuable floor or wall space. In the example illustrated, and indicated by arrows, 9-inch Type RC (radiant-convector) panels are employed to off-set high heat loss.

3 types of Crane Skirting Heating

Type RC 9-inch is particularly suitable for installing beneath picture-windows and similar features, using elsewhere Type R 9-inch to match. Type R 6-inch meets smaller heat requirements. Panels are in 2-ft and 1-ft lengths and are made in cast iron for resistance to damage and corrosion.



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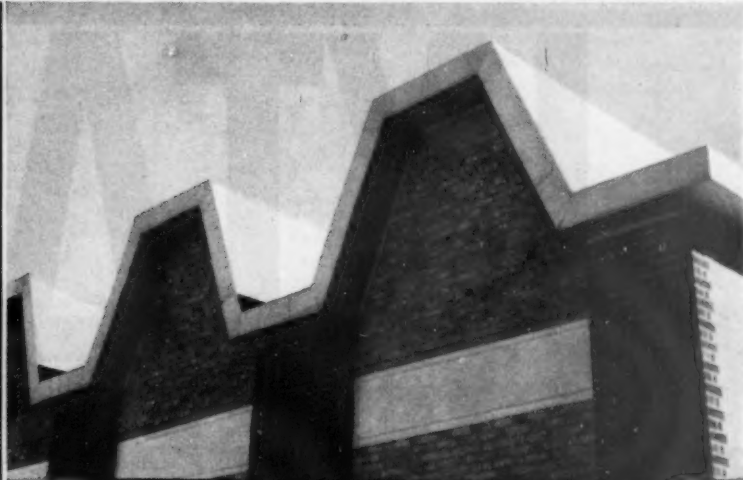
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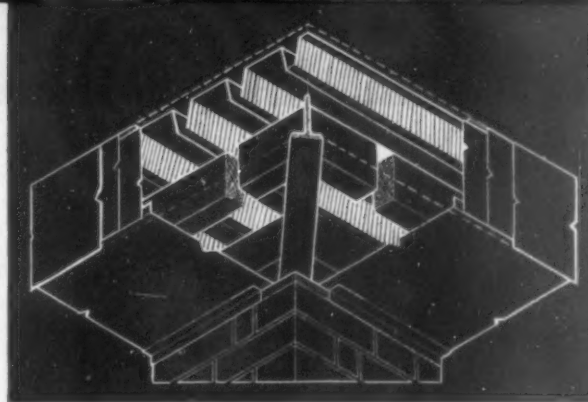
SOUTH LODGE HOSPITAL, ENFIELD

Architects: F. W. Mackenzie & Partners



* This was achieved by the introduction of timber spacers below the oversailing roof deck units, to which the aluminium soffit was fixed, and the provision of an aluminium angle to bridge the gap between decking and soffit at the oversail line to waterproof the detail and to provide backing for the aluminium fascia.

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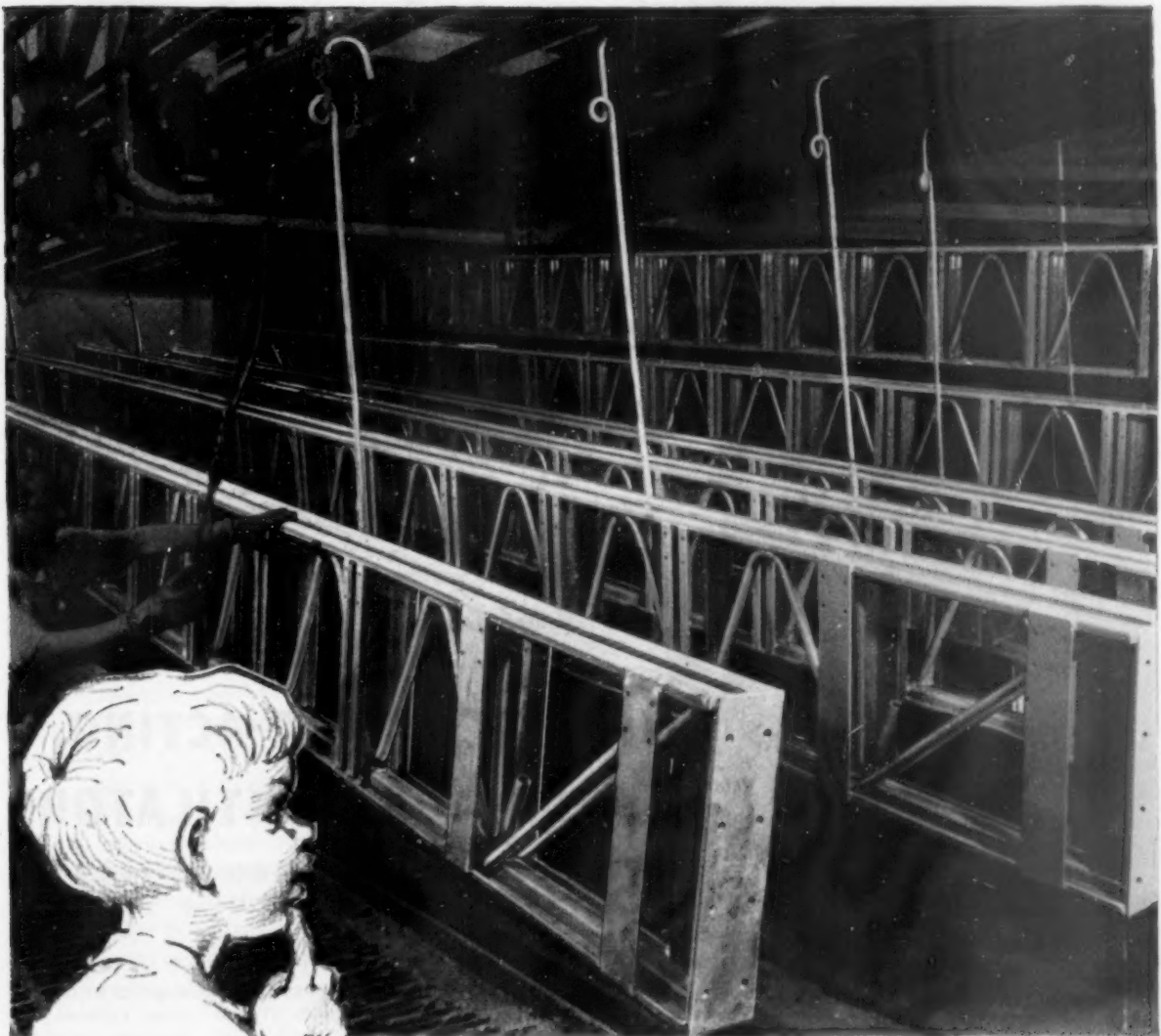
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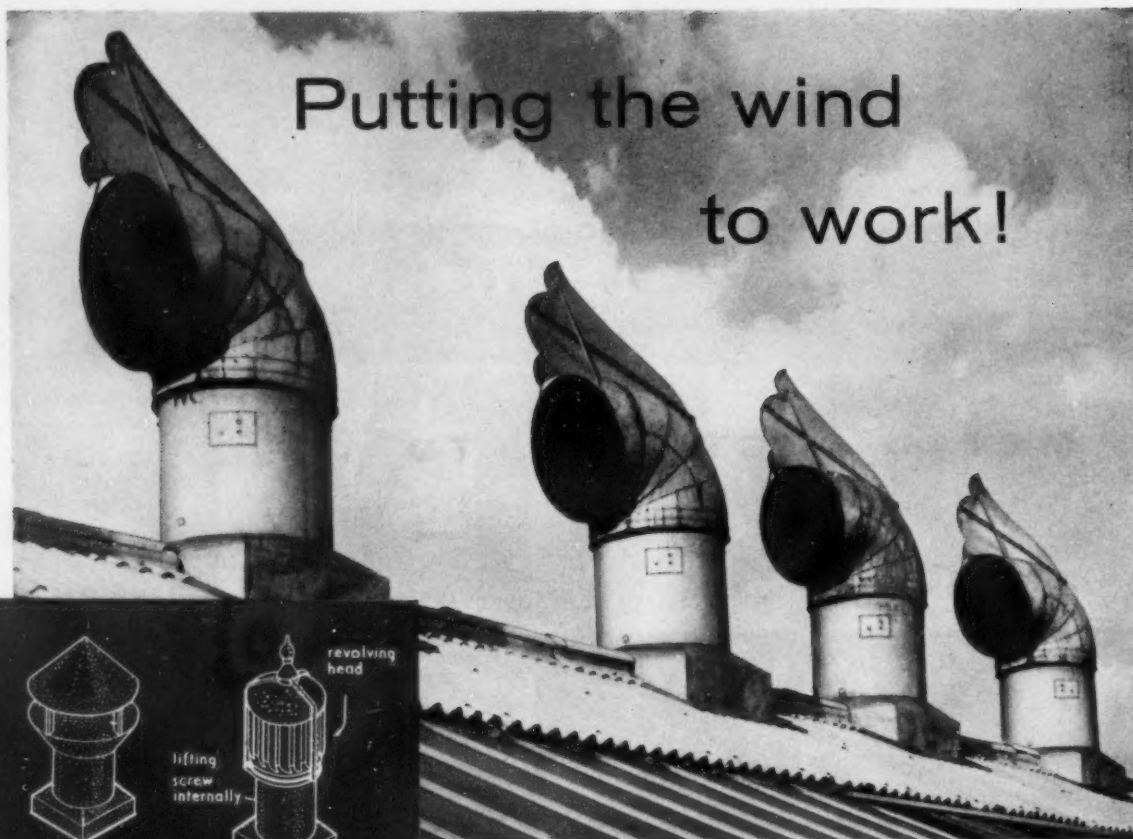
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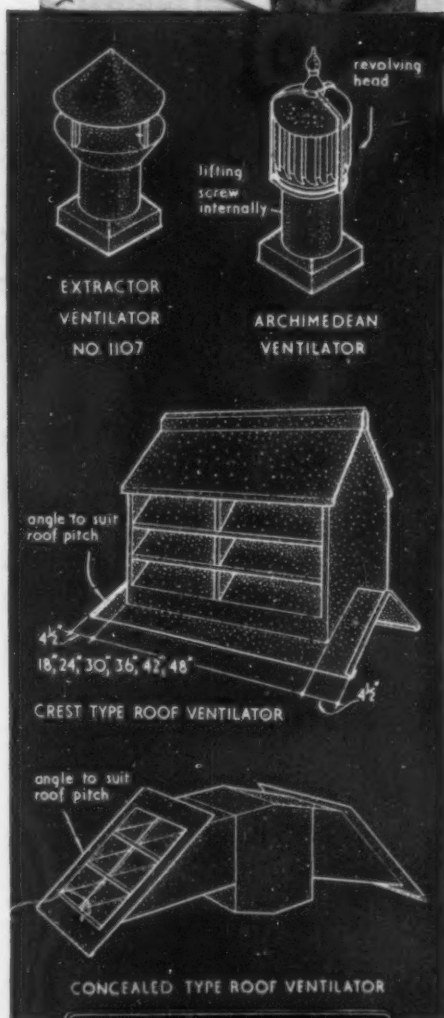
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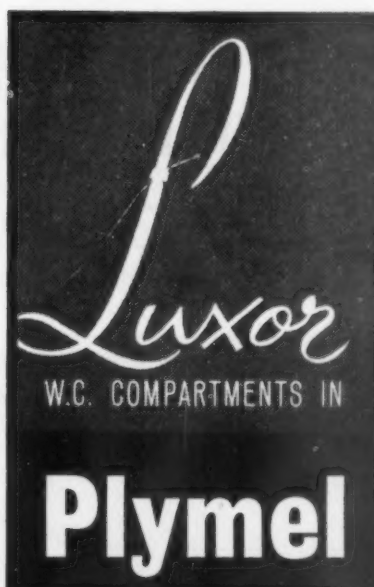
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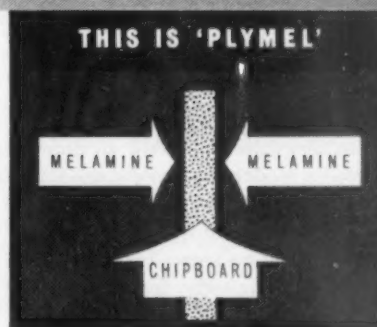
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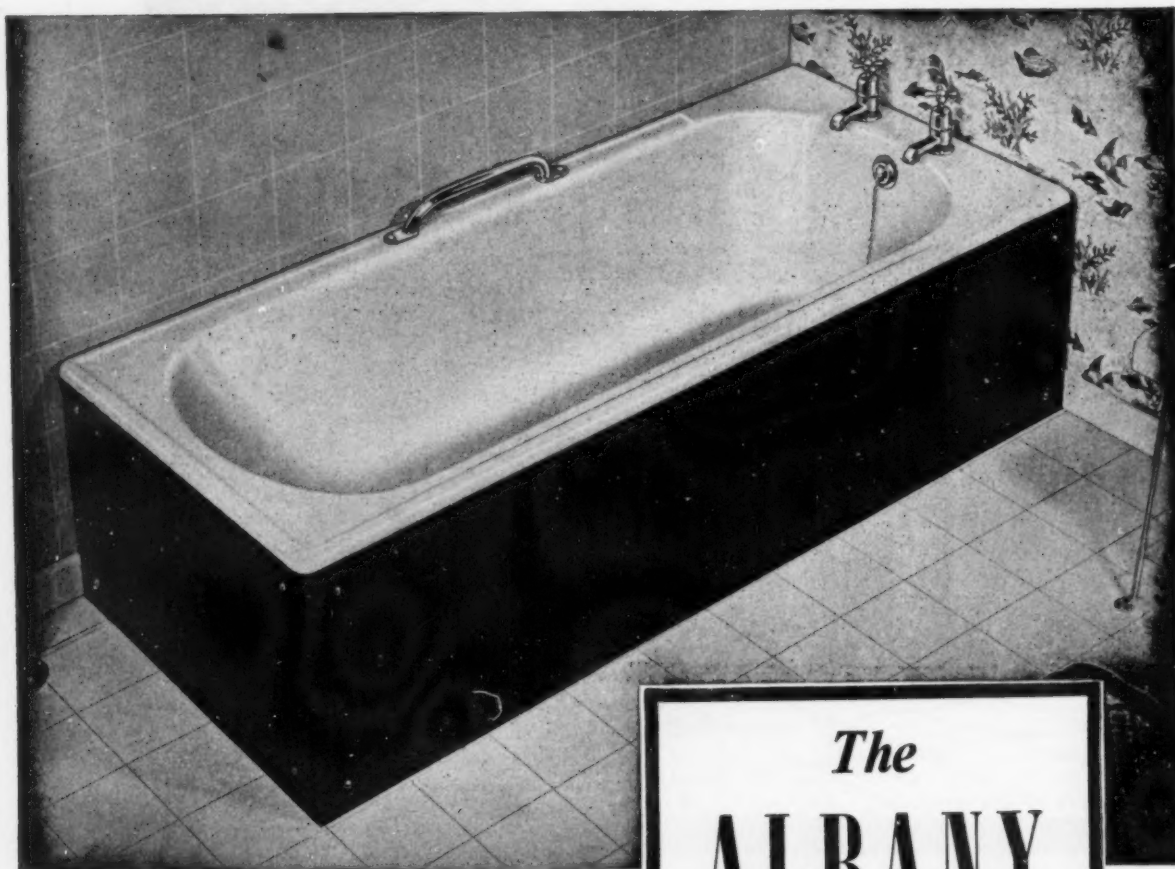


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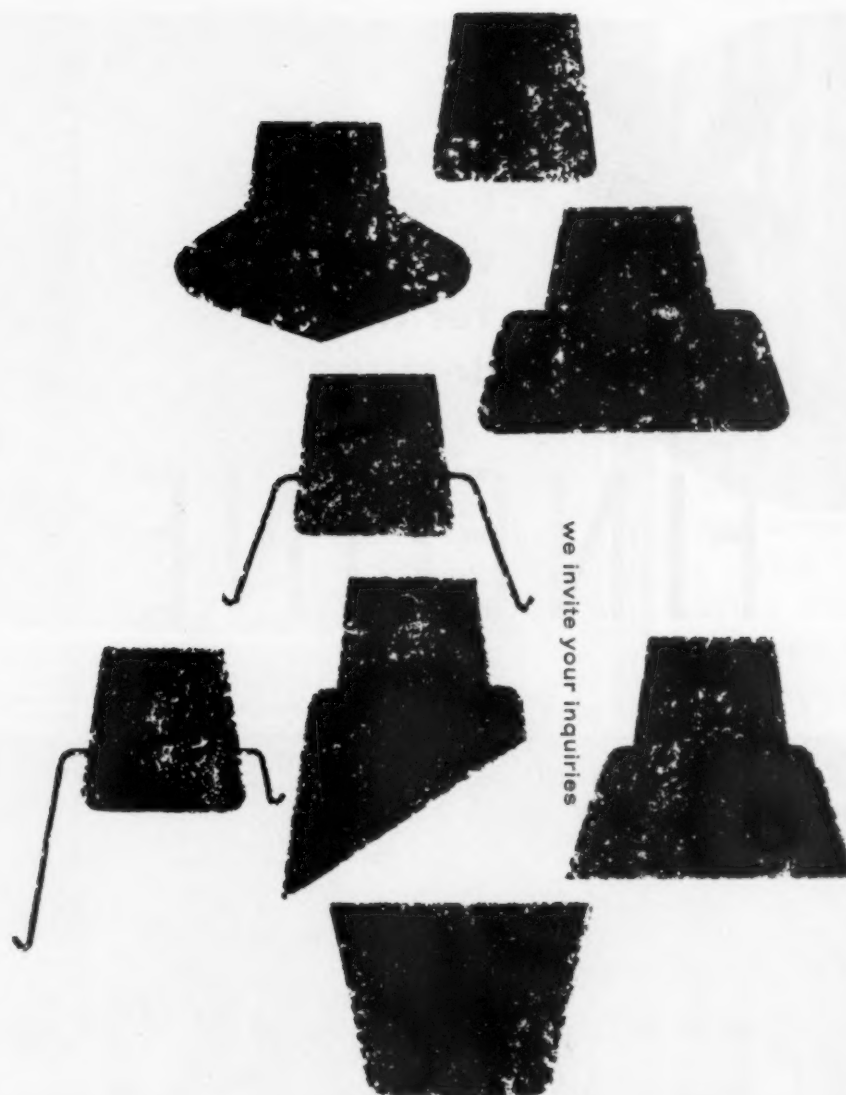
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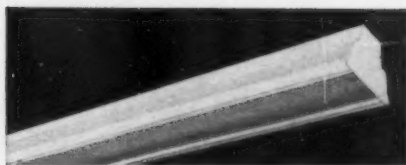
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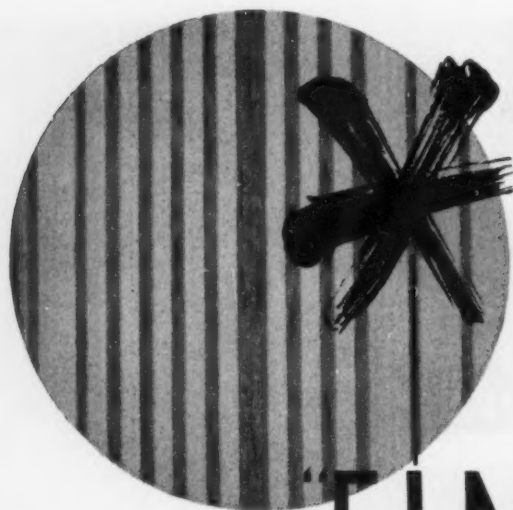
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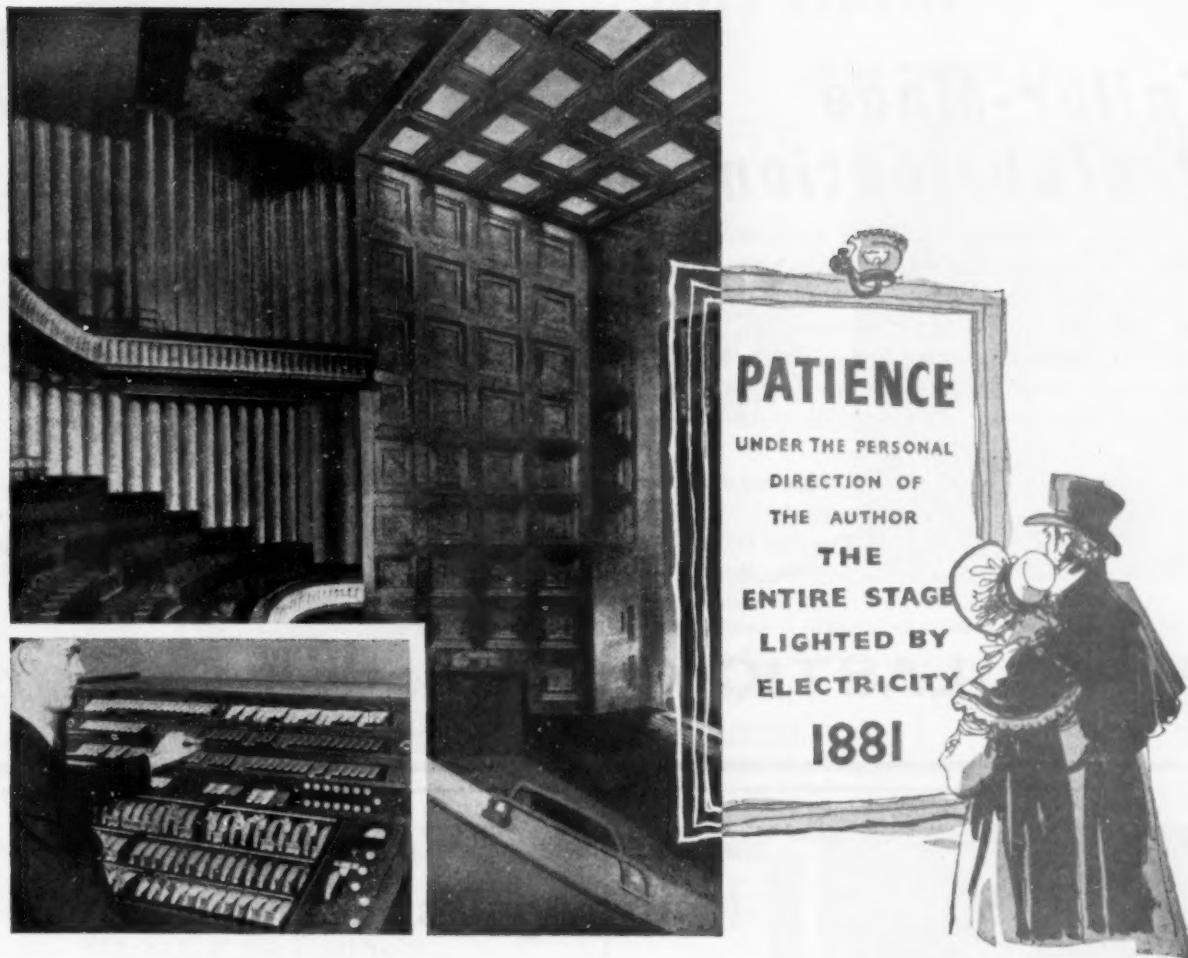


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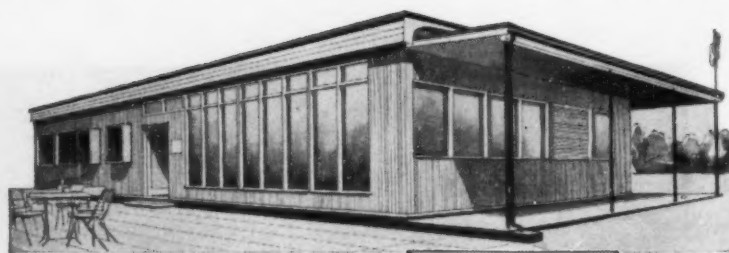
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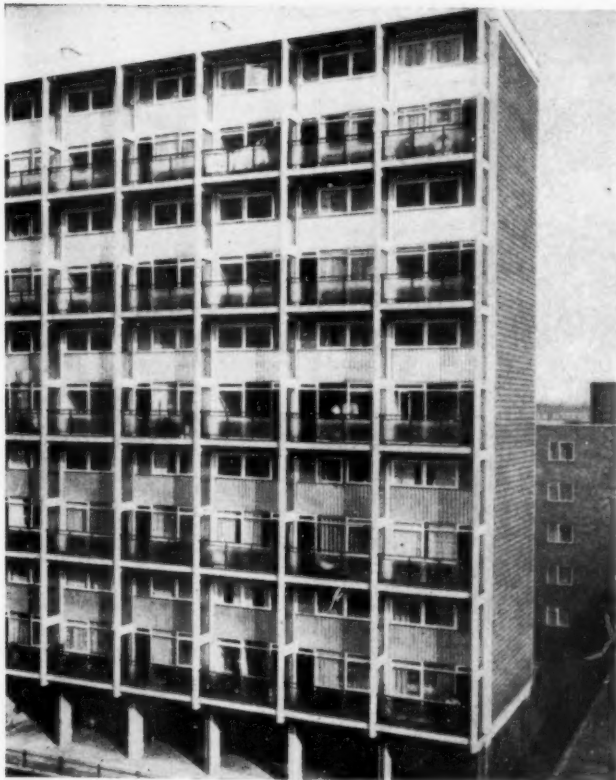
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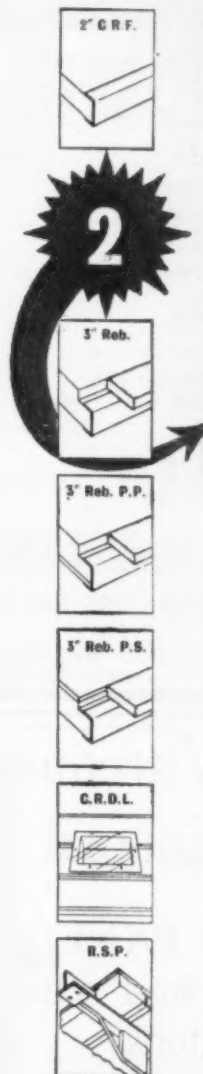
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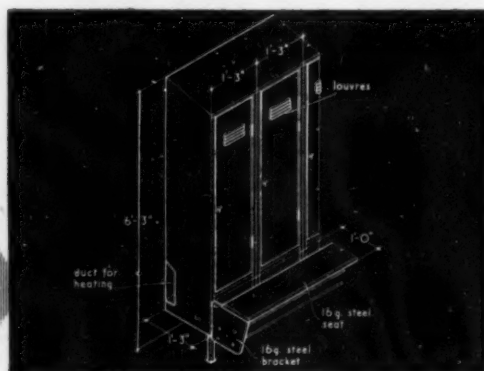
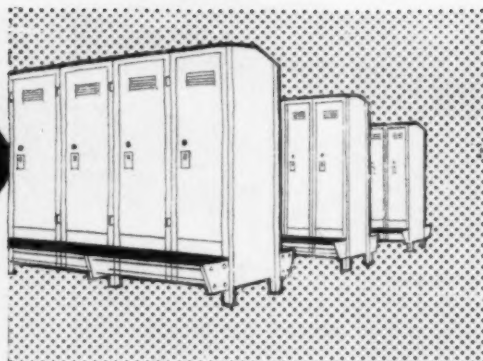
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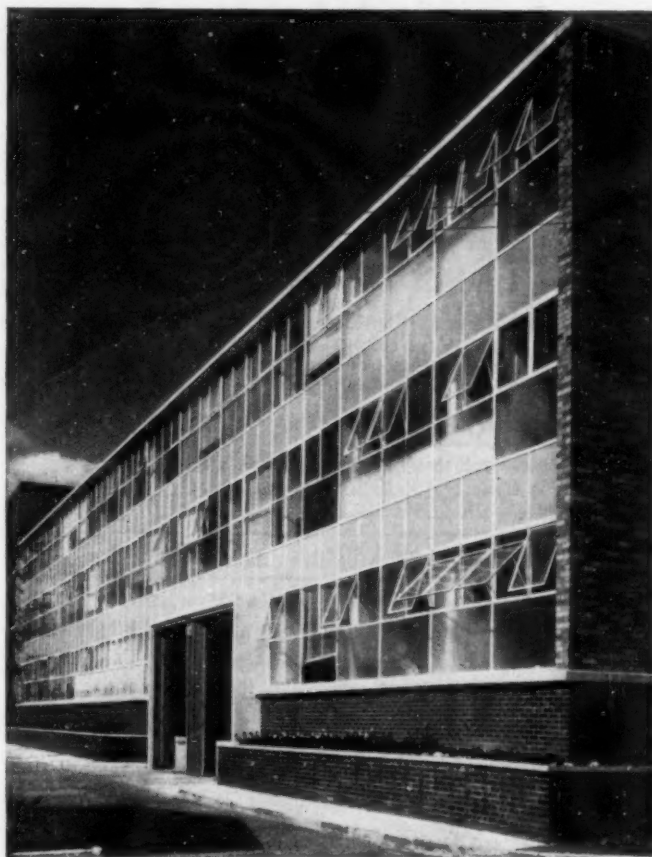
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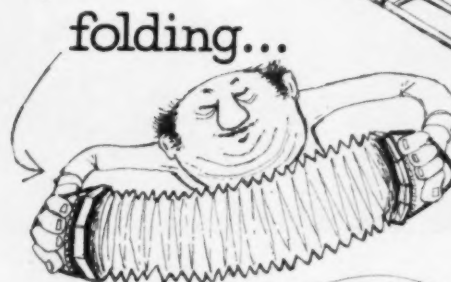
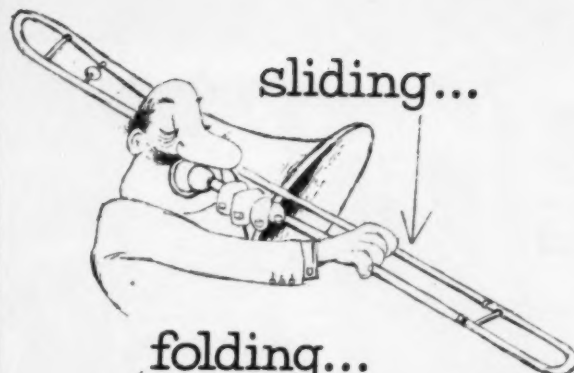
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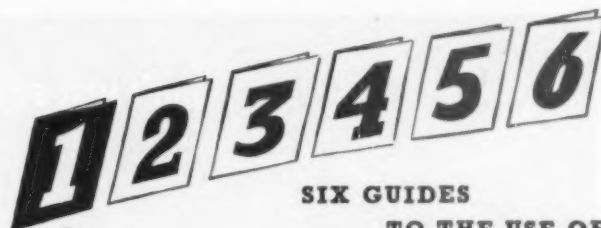
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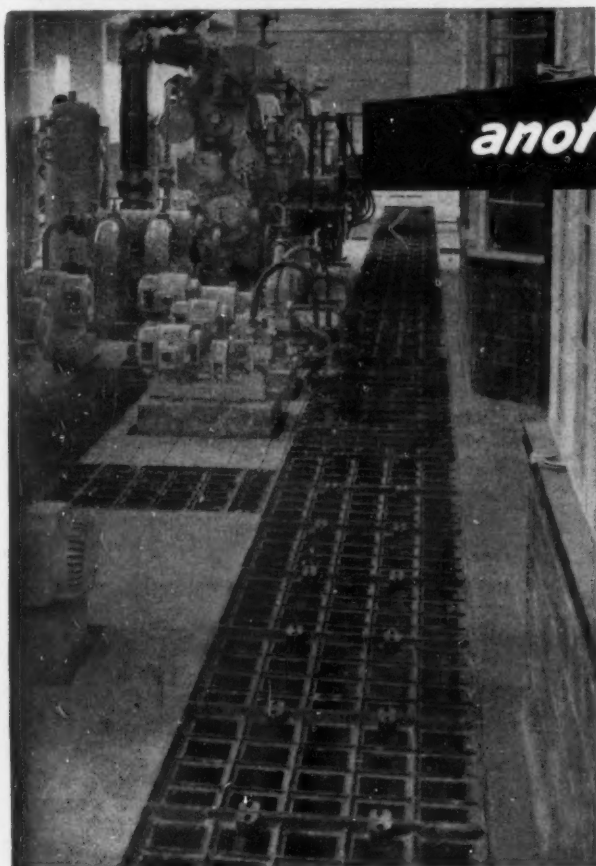
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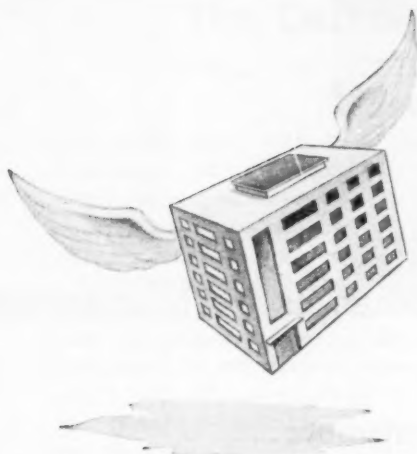
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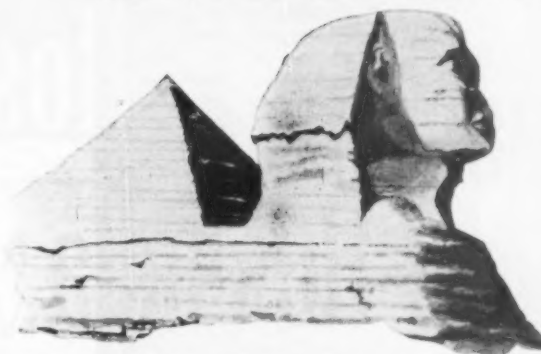
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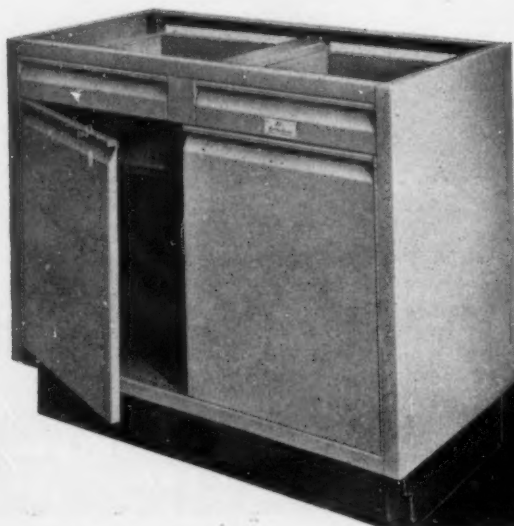
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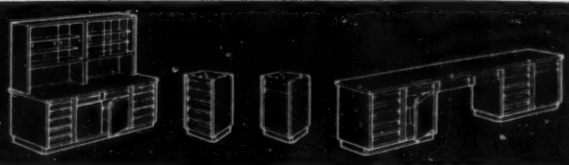
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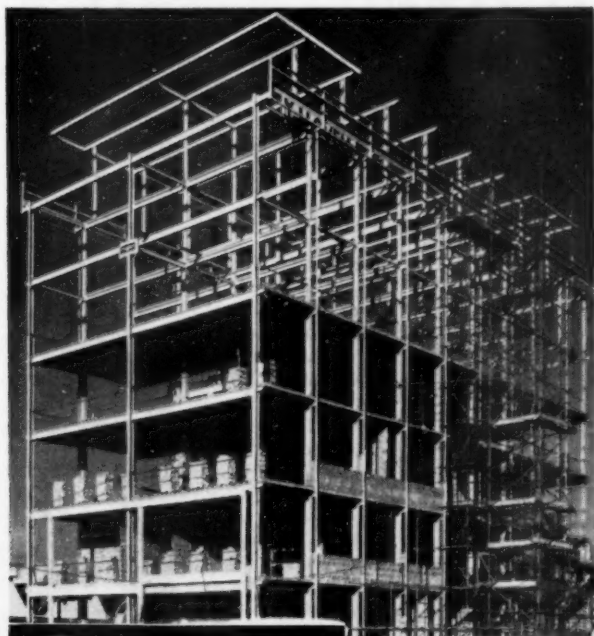
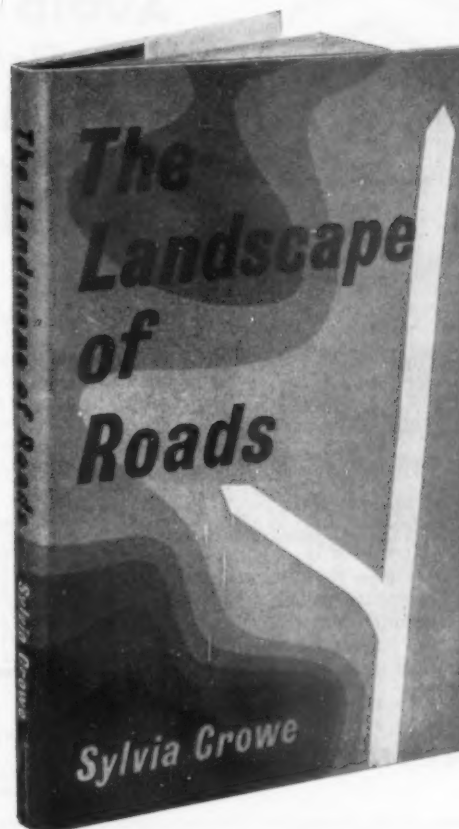
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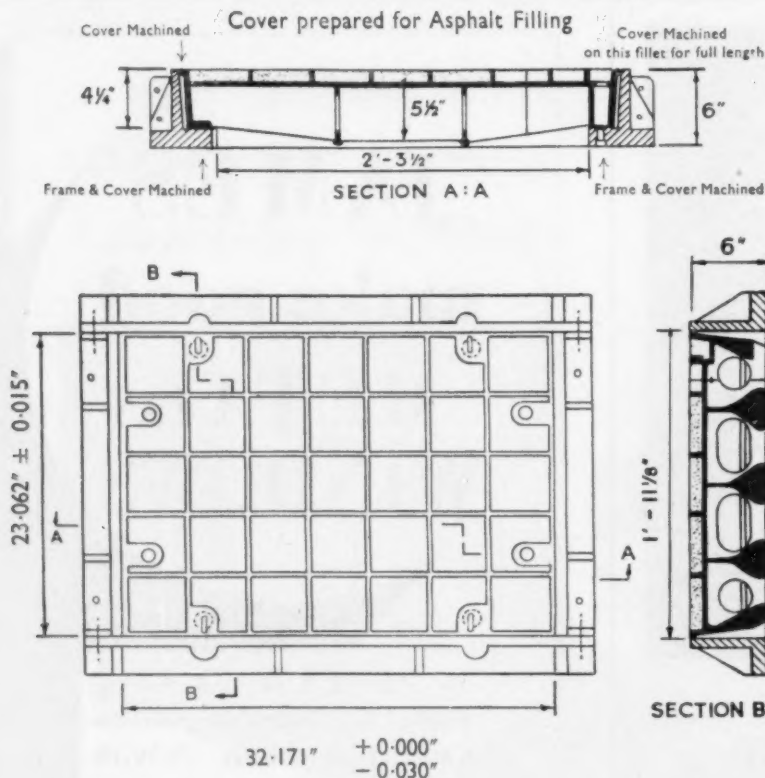
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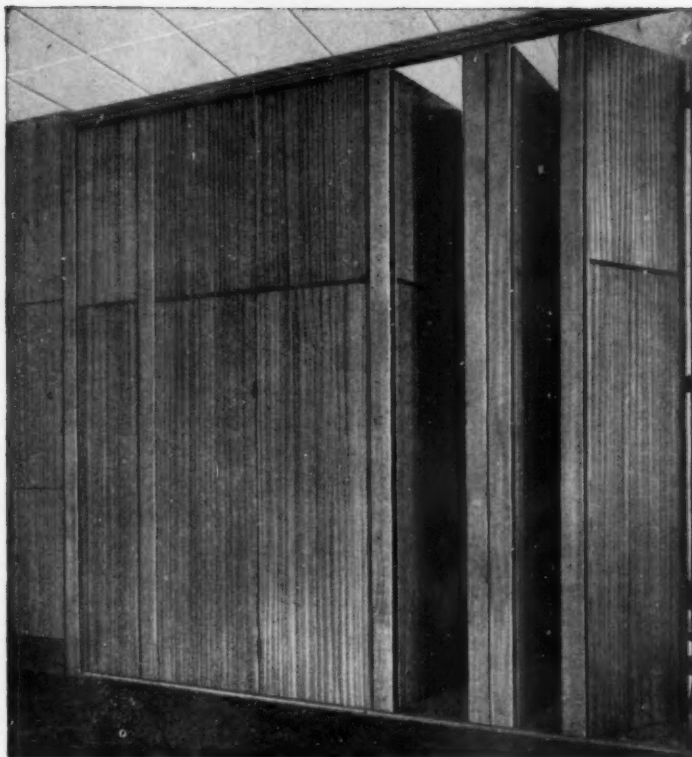
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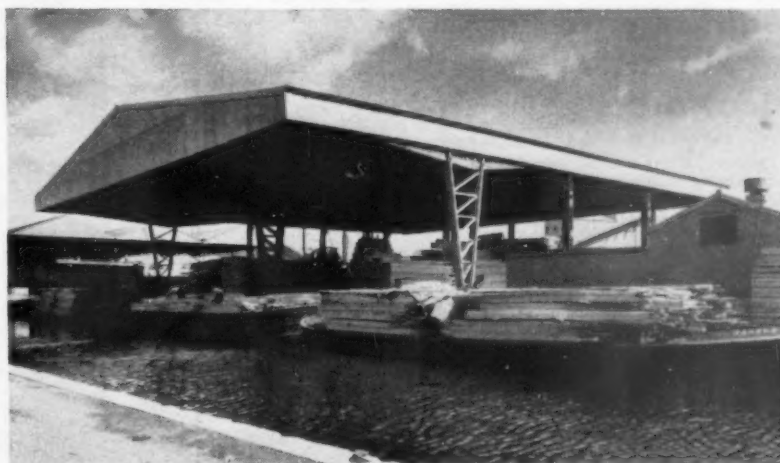
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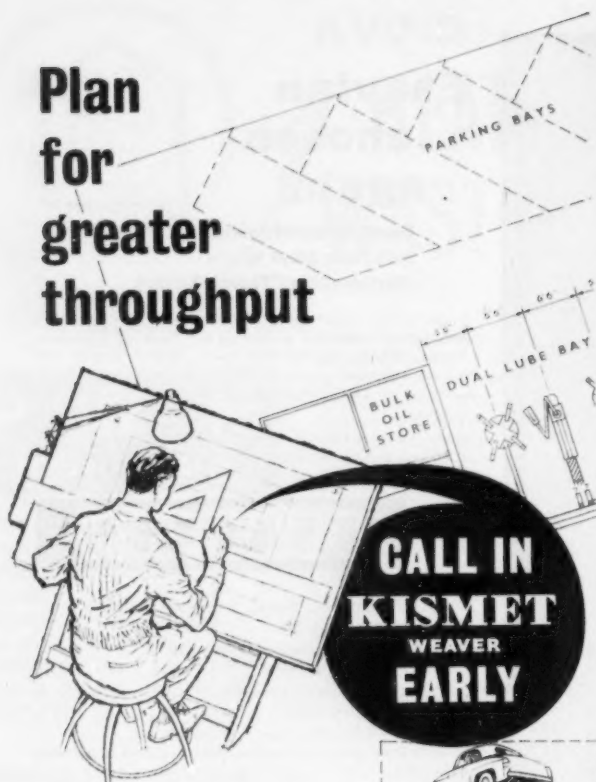
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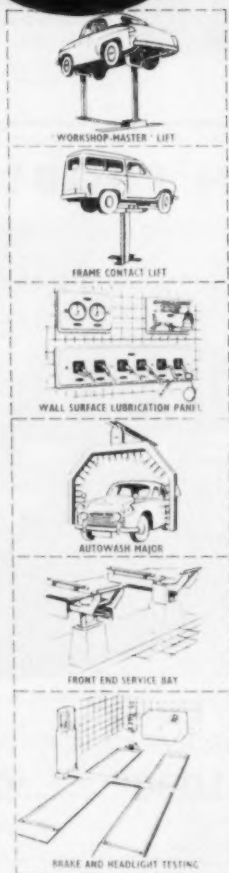
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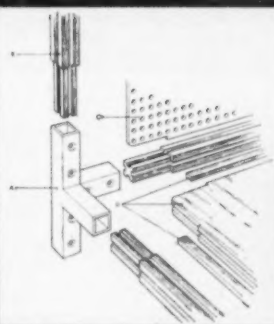
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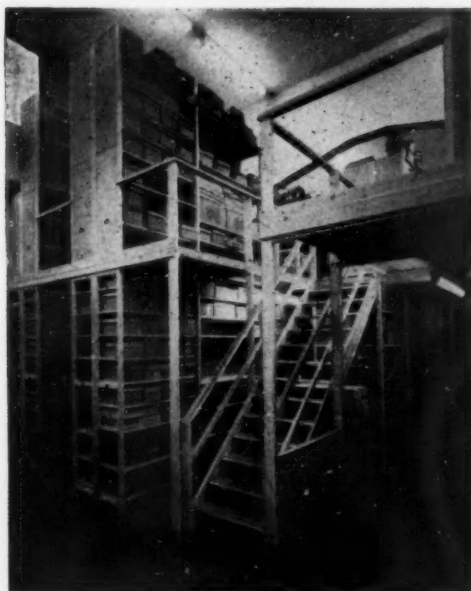


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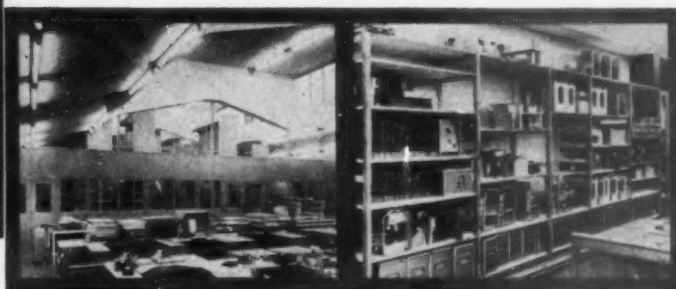
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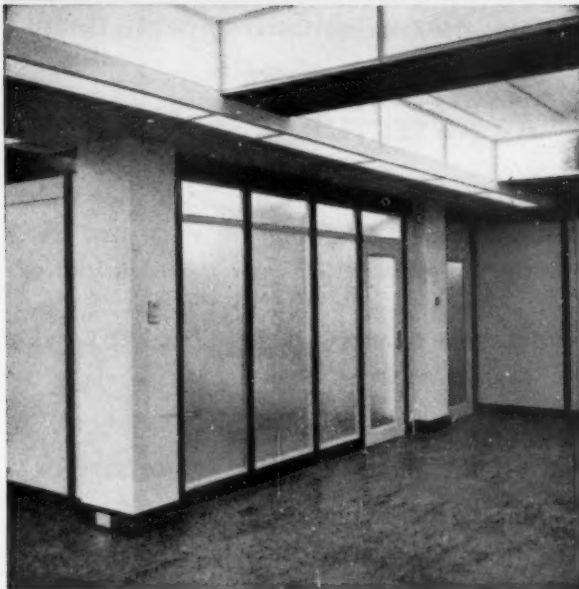
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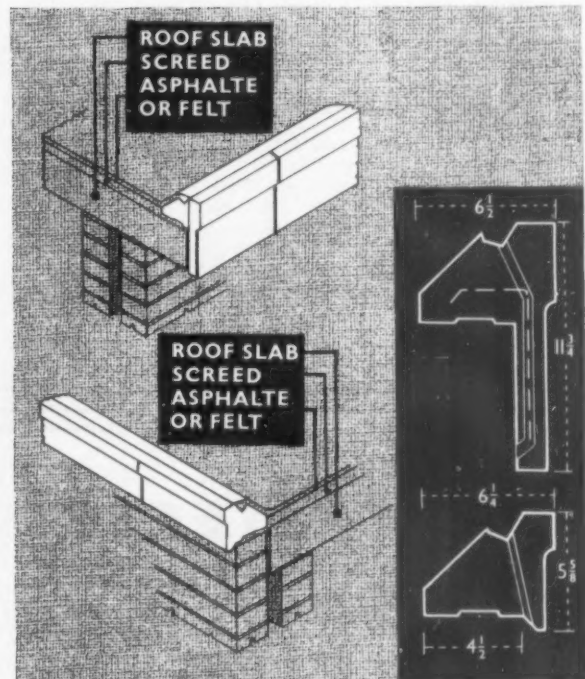
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- (v) DRAWING OFFICE ASSISTANT.
Applicants should have ability in building, civil engineering or other branch of draughtsmanship, at least an elementary knowledge of building construction theory and have previous experience associated with work of building or civil engineering. The salary grade will be in accordance with Miscellaneous Grade III (£555-£625), IV (£625-£685) or V (£685-£760) according to age and experience.

Corby is a rapidly expanding town and the Council's building programme is substantial and varied, with opportunities for good experience. The provisions of the Local Government Superannuation Acts, 1937-53 will apply to this appointment.

Housing accommodation will be made available to the successful candidates, if married.

Forms of application may be obtained from the undersigned to whom they should be returned not later than the first post on Friday, 3rd March, 1961. Testimonials will be required only from applicants selected for interview.

G. B. BLACKALL,
Clerk of the Council.

Council Offices,
Corby,
Northants.
9th February, 1961. 5881

CUMBERLAND COUNTY COUNCIL

SENIOR ASSISTANT COUNTY ARCHITECT

J.N.C. SCALE "C." £1,560-£1,825
Applications are invited for the above appointment in the County Architect's Department. The post requires a well qualified and experienced Architect with outstanding design ability and capable of leading a design team engaged on a large programme of educational and other county work. Salary within grade according to experience and qualifications. Housing accommodation may be available.

Further particulars and forms of application from the County Architect, 15, Portland Square, Carlisle, to whom applications should be returned not later than 8th March, 1961.

G. N. C. SWIFT,

The Courts,
Carlisle.
8th February, 1961. 5869
Clerk of the County Council.

NEWCASTLE REGIONAL HOSPITAL BOARD

ARCHITECTURAL DEPARTMENT

P. H. KNIGHTON, M.B.E., A.R.I.B.A.,
Regional Architect

H. GOUGH, F.R.I.C.S.,
Chief Quantity Surveyor

QUANTITY SURVEYING STAFF

The Board has decided to establish a Quantity Surveying section within the Regional Architect's Department and under the supervision of its Chief Quantity Surveyor.

The posts offer excellent opportunities for taking part in a wide, varied and interesting field of Hospital Building. Cost Planning will be carried out within the Department, and will enable the Quantity Surveyors to take an active and personal part in implementing the Region's hospital expansion programme.

Applications are invited for the following (superannuable) posts, for which a car mileage allowance will be paid.

1. SENIOR ASSISTANT QUANTITY SURVEYORS (2) Scale—£1,300-£1,600.

Applicants must be Corporate Members of the Royal Institution of Chartered Surveyors. Assistance with removal expenses will be given if the appointee is at present in a lower-graded Health Service Post.

2. QUANTITY SURVEYING ASSISTANT (1)

Scale £625-£900.

Applicants must have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors.

Increments can be given above the bottom of the grade in accordance with age and relevant practical experience.

3. TRAINEE QUANTITY SURVEYOR (1).

The commencing salary will be in accordance with age, i.e., £250 per annum at age 16 years, £275 at age 17 years, £320 at age 18 years. Training will be given with a view to the appointee taking the examinations of the Royal Institution of Chartered Surveyors.

Applicants must hold a G.C.E. with passes in five subjects, which must include Mathematics and English Language. Three of the passes must have been obtained simultaneously.

Details of training, qualifications, experience, present salary, etc., with the names of three referees, should reach the Secretary to the Board, Bedford Road, Newcastle upon Tyne 6, not later than 3rd March, 1961. Canvassing will disqualify.

5892

CITY OF CANTERBURY

SENIOR ASSISTANT ARCHITECTS

A.P.T. III/IV (£960-£1,310)

Applications are invited for the above appointments in the Department of the City Architect and Planning Officer. Commencing salary according to ability and experience.

The successful candidates will be engaged on one of the following:—

Housing, General Works, Public Buildings, Education.
Housing accommodation will be made available if required.

Applications, with names of two referees, to the City Architect and Planning Officer, J. I. Berbiers, F.R.I.B.A., A.M.T.P.I., by Saturday, 4th March, 1961.

Canvassing will disqualify.

J. BOYLE,
Town Clerk.

Municipal Buildings,
Canterbury. 5891

MONMOUTHSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

APPOINTMENT OF ARCHITECTURAL STAFF

Applications are invited for the appointments of Architects on the following grades and salaries:—

(a) Salary in accordance with Grade A.P.T. V (£1,310 to £1,480 per annum).

(b) Salary in accordance with Grade A.P.T. IV (£1,140 to £1,310 per annum).

Successful candidates will be placed on the respective grades according to merit.

The posts will be subject to the provisions of the Local Government Superannuation Act.

Forms of Applications and Particulars of Posts and Conditions of Service can be obtained from S. Leyshon, A.R.I.B.A., County Architect, Queen's Hill, Newport, Mon., to whom the applications, together with the names of at least two referees, must be returned not later than Monday, 13th March, 1961.

VERNON LAWRENCE,

Clerk of the Council.
County Hall,
Newport,
Mon. 5893

METROPOLITAN POLICE

RECEIVER'S OFFICE

Applications are invited for the following positions in connection with the design and erection of Police Housing, Police Stations, Single Men's Hostels, Cadets' Residential Training Centres and Magistrates' Courts within the Metropolitan Police District.

ASSISTANT ARCHITECTS

Salary: £991 p.a. rising annually to £1,490 p.a. (Maximum salary on entry £1,315 p.a.)

Qualifications: Must be registered Architects.

LEADING ARCHITECTURAL ASSISTANTS

Salary: £1,048 p.a. rising annually to £1,220 p.a.

Qualifications: Intermediate R.I.B.A., H.N.C. or equivalent.

ARCHITECTURAL ASSISTANTS

Salary: £658 p.a. at age 21 rising annually to £1,048 p.a. Maximum salary on entry £960 p.a. at age 28 or over.

Qualifications: O.N.C. Intermediate R.I.B.A., or equivalent.

TECHNICAL ASSISTANTS III

Salary: £752 p.a. at age 21 rising annually to £1,043 p.a. (Maximum salary on entry £939 p.a. at age 28 or over.)

Qualifications: Intermediate R.I.B.A./R.I.C.S. (Building) or equivalent.

J. INNES ELLIOTT,

B.Arch., F.R.I.B.A.,
Chief Architect & Surveyor.

Apply to: Chief Clerk, Architect & Surveyor's Department, New Scotland Yard, S.W.1. 5833

BUCKS COUNTY COUNCIL

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

ASSISTANT COUNTY ARCHITECT, J.N.C. Scale "D." £1,710-£1,975 p.a.

ASSISTANT ARCHITECT, J.N.C. Scale "C." £1,560-£1,825 p.a.

TWO ASSISTANT ARCHITECTS, J.N.C. Scale "B." £1,445-£1,670 p.a.

These appointments are superannuable and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by the 6th March, 1961.

F. B. POOLEY,

County Architect.

County Offices,
Aylesbury,
Bucks. 5863

COUNTY BOROUGH OF SOUTHAMPTON

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the following appointment:—

SENIOR ASSISTANT ARCHITECT, Grade A.P.T. V (£1,310-£1,480), for duties in connection with an extensive and varied programme of housing development including multi-storey flats.

Applicants must hold the qualification A.R.I.B.A. with wide experience in the design and administration of major building works.

The appointment is subject to N.J.C. conditions of service.

Housing accommodation available in approved cases and approved removal expenses reimbursable up to a maximum of £50.

Apply on application forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, returnable by Monday, 6th March, 1961. 5868

METROPOLITAN BOROUGH OF ISLINGTON

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited from persons not more than 50 years of age for the following appointments on the permanent staff:—

(a) TWO SENIOR ARCHITECTURAL ASSISTANTS—Grade A.P.T. V, £1,310/£1,480 p.a.

(b) TWO ARCHITECTURAL ASSISTANTS—Grade A.P.T. III, £960-£1,140 p.a.

All plus appropriate London weighting.

Applicants for:—

(a) Should be Associate Members of the R.I.B.A. with considerable experience including the design and construction of multi-storey housing.

(b) Should have passed the Intermediate Examination of the R.I.B.A. and be suitably experienced.

Application forms, returnable by first post on Tuesday, 7th March, 1961, obtainable from the Borough Engineer and Surveyor, Town Hall, Upper Street, N.1.

H. DIXON CLARK,
Town Clerk.

5820

HAMPSHIRE COUNTY COUNCIL

ASSISTANT STRUCTURAL/CIVIL ENGINEER, A.P.T. IV/V (£1,140-£1,480) required for pensionable post in office of County Architect (H. Benson Ansell, A.R.I.B.A.). Candidates must be A.M.I.Struct.E. and/or A.M.I.C.E. and have had considerable experience in the design of structures in steel, concrete, and timber, and civil engineering works associated with schools and other public buildings. The successful candidate will be expected to spend a considerable time on the drawing board and undertake the full scope of individual jobs he handles, which will be varied and interesting. Assistance with removal and other expenses. Five-day week. Canteen facilities.

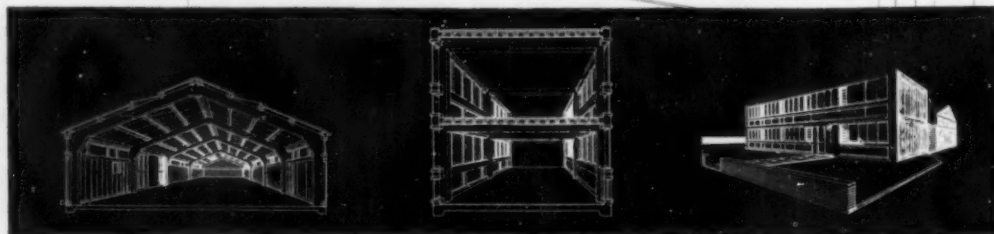
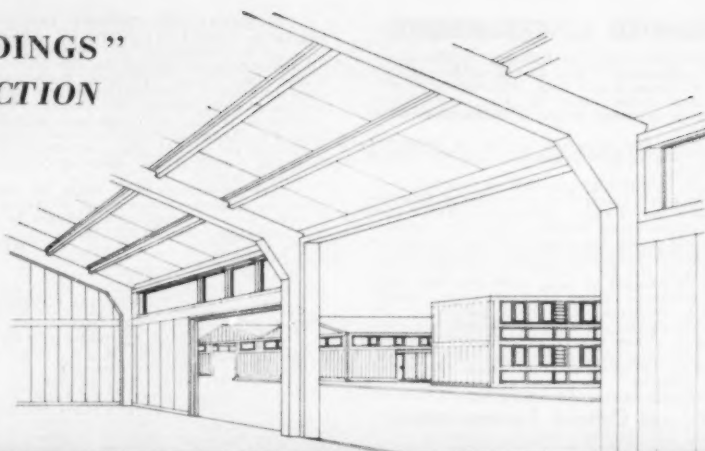
Application forms, returnable by 3rd March from the Clerk of the County Council, The Castle, Winchester. 6021

"PREFABRICATED BUILDINGS" FOR FAST ON-SITE ERECTION

The range of new "Alborough" prefabricated concrete portal frame factory buildings and two storey office blocks are available in a wide range of structures, adaptable to meet individual requirements.

These buildings are provided complete with cladding to include windows and doors. They are attractive, economic, robust and fast in erection.

Frames and Floors for blocks of multi-storey flats, maisonettes etc., designed to Architects' requirements, supplied and erected.



Alborough

Full service available to include design, supply and erection. Consult our team of specialists or write for our illustrated technical brochure.

A.B.C.D. (Raynes Park) LTD.

34-35 Alpha Road, Surbiton, Surrey. ELMbridge 6591

Liverpool Regional Hospital Board

ASSISTANT REGIONAL ARCHITECT

Salary £1,825 x £75(2) x £100(2)—£2,175

Graduate of a recognised School of Architecture preferred. High status in design essential. Will be expected to provide executive design leadership under the Regional Architect in a Department having an establishment of four Principal Assistants—each responsible for a section of work which includes major projects—these being assisted by a number of Senior and Assistant Architects.

The post is superannuable; car mileage and subsistence allowances payable. The Department is in pleasant modern offices in a central position in the city.

Applications to reach me within ten days, stating age, education, qualifications, experience, present and previous posts and names and addresses of three referees (two technical).

VINCENT COLLINGE,

55, Castle Street,
Liverpool, 2.

Secretary to the Board.

ARCHITECT

A major engineering company in the Midlands wishes to appoint a young qualified architect as an assistant to their Chief Architect. The company is one of an extensive industrial group and the architect's department is called upon from time to time to act in an advisory capacity to other companies within the group. Candidates must be able to provide evidence of imaginative work and good artistic draughtsmanship. The successful candidate will be required to assume responsibility for his own projects under the overall direction of the Chief Architect, and the appointment will provide excellent opportunities of gaining interesting and varied experience in the industrial field. The initial salary will be in the region of £1,500 per annum. There are excellent pension and life assurance schemes in operation.

Reference Number 163

Please apply in confidence, quoting reference number to:—

C Robert Clive (Consultants) Limited

Appointments Consultants

27, ALBEMARLE STREET, LONDON, W.1

BOROUGH OF COLCHESTER

BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments in this newly-established Department, which has a considerable programme of work of varied interest including housing, Municipal offices and the maintenance of a wide range of Corporate properties.

ASSISTANT ARCHITECTS (TWO). Grade A.P.T. IV (£1,140-£1,310). Applicants must be Associate Members of the Royal Institute of British Architects.

CHIEF QUANTITY SURVEYOR. Grade A.P.T. V (£1,510-£1,480). Applicants must be Associate Members of the Royal Institution of Chartered Surveyors and be capable of taking charge of this section of the Department.

The successful candidates will be required to pass a medical examination. Five-day week in operation. The Council will be prepared to assist in the provision of housing accommodation, if required, and to contribute towards the cost of removal expenses.

Applications, stating age, qualifications, experience, together with the names of two referees, should be submitted to the Borough Architect, Vinton Hall, A.R.I.B.A., A.M.T.P.I., 64, West Stockwell Street, Colchester, by Friday, 3rd March, 1961.

NORMAN CATCHPOLE

Town Clerk.

February, 1961.

5850

COUNTY BOROUGH OF DONCASTER

Consequent upon the large building programme to be undertaken by the County Borough of Doncaster, the Borough Architect is able to offer vacancies in a number of senior and other posts. These vacancies call for assistants of imagination and ability to work on an immediate programme of projects totalling some £2,000,000 including a Civic Centre Development (Town Hall, Police H.Q. and Courts, Health Clinic, Library, etc.), schools and high density flats. The vacancies are for—

- (a) Four ASSISTANT ARCHITECTS, A.P.T. IV, Two ASSISTANT ARCHITECTS, A.P.T. III/IV.
- (b) One ARCHITECTURAL ASSISTANT, A.P.T. II/III.
- (c) One ARCHITECTURAL ASSISTANT, A.P.T. II.
- (d) Four ARCHITECTURAL ASSISTANTS, A.P.T. I.
- (e) One QUANTITY SURVEYING ASSISTANT, A.P.T. II.
- (f) Two QUANTITY SURVEYING ASSISTANTS, A.P.T. I.

Applicants for (a) above must have passed parts 1 and 2 of the R.I.B.A. Final or Special Final examination, for (b), (c) and (d) the R.I.B.A. Intermediate examination, for (e) and (f) the R.I.C.S. Intermediate examination or equivalent. The appointments will be subject to one month's notice on either side and will be supernumerary subject to the successful applicants passing a medical examination.

Application forms obtainable from the Borough Architect, 15 South Parade, Doncaster, to whom they must be returned by the 6th March, 1961. Canvassing will disqualify.

H. R. WORMALD,

Town Clerk.

5961

CITY OF OXFORD
CITY ARCHITECT AND PLANNING
OFFICER'S DEPARTMENT
PLANNING ASSISTANT

Applications are invited for the following post: Planning Assistant, A.P.T. IV (£1,140-£1,310). Candidates must be qualified members of the Town Planning Institute.

General work, mainly on Development Planning, including large redevelopment areas, new shopping centre, industrial estates and quinquennial review.

The appointment will be subject to the National Conditions of Service and the successful candidate will be required to pass a medical examination.

Housing accommodation, if required, will be provided. Application forms to be obtained from the City Architect and Planning Officer, Town Hall, Oxford. Closing date 8th March, 1961.

HARRY PLOWMAN,

Town Clerk.

5960

BERMONDSEY BOROUGH COUNCIL
ASSISTANT-ARCHITECT'S SECTION

Temporary Assistant required for Architect's Section. Applicants must be under 51 years of age and have passed Intermediate Examination of R.I.B.A. or R.I.C.S., and should have experience in surveying old housing properties and preparing conversion and improvement schemes. Commencing salary at a point in A.P.T. III (£960-£1,140) or IV (£1,140-£1,310) plus London weighting, according to experience. Apply giving details of experience, etc., to Borough Engineer, Municipal Offices, Spa Road, S.E.16. 5799

CORPORATION OF LONDON

Applications invited for temporary appointment of ASSISTANT ARCHITECT in City Engineer's Office. Salary £1,195 p.a. Approximate duration two years.

Candidates should have had good general experience in preparation of working details and have passed the Intermediate R.I.B.A.

Applications, stating age, appointments held and experience, with names of two referees, to The City Engineer, Guildhall, E.C.2. 5847

CITY OF STOKE-ON-TRENT

CITY ARCHITECT'S DEPARTMENT

(a) ASSISTANT ARCHITECTS

Grade A.P.T. IV (£1,140-£1,310).

(b) ARCHITECTURAL ASSISTANTS

Grade A.P.T. II (£815-£960).

Grade A.P.T. I (£645-£815).

(c) ASSISTANT QUANTITY SURVEYOR

Grade A.P.T. IV (£1,140-£1,310).

(d) Q.S. ASSISTANT

Grade A.P.T. I (£645-£815).

(e) JUNIOR DRAUGHTSMAN

General Division (£220-£630).

Commencing salaries within the grade according to qualifications and experience.

Applications to J. R. Pigott, T.D., F.R.I.B.A.,

City Architect, Kingsway, Stoke-on-Trent, by Monday, 6th March, 1961.

HARRY TAYLOR,

Town Clerk.

5959

CHISLEHURST & SIDCUP URBAN DISTRICT

COUNCIL

APPOINTMENT OF ARCHITECTURAL

ASSISTANTS

Two Architectural Assistants required. Salary A.P.T. II plus London weighting. Preference given to Candidates with Intermediate R.I.B.A. Housing accommodation available.

Applications giving age, training, qualifications and experience and the names of two referees to the Clerk, Council Offices, Sidcup Place, Sidcup, Kent, by 6th March, 1961. 5958

COUNTY BOROUGH OF OLDHAM

APPOINTMENT OF BOROUGH ARCHITECT

Applications are invited from persons who must be Registered Architects and either Fellows or Associates of the Royal Institute of British Architects, for the appointment of Borough Architect to the Council, at a salary scale within the range prescribed by the Joint Negotiating Committee for Chief Officers of Local Authorities, which has been fixed by the Council at £2,850 rising by five annual increments of £75 to £3,225 per annum.

Particulars of the appointment and form of application are obtainable from the Town Clerk.

Applications endorsed "Borough Architect" must reach the Town Clerk not later than 13th March, 1961.

EDWARD HAINES,

Town Clerk.

5957

CITY OF LONDON

PLANNING STAFF

The City Planning Office of the Corporation of London has interesting planning projects on hand and others in active preparation. For example, large scale development is now proceeding in the Barbican commercial zone where separated pedestrian walkways are planned for a large area.

There are occasional vacancies in the Civic Design Section of the Office and as it is essential to keep up the strength of the Department applications are invited for the following qualified architectural or planning assistants to join a group working on the present important phase of rebuilding in the City. Opportunities for advancement should occur from time to time.

Salaries offered are in the range £990-£1,310 and £630-£1,095.

A post is now available for a planning or surveying assistant with experience in the preparation of development plans and the allied research work in the higher scale above.

Apply to The City Planning Officer, Guildhall, E.C.2. 5951

REGISTERED ARCHITECT required at Building

Research Station, Watford, Herts, for development work on building materials and techniques, offering exceptional opportunity to become knowledgeable in this important field. Research-minded architect will find much to think about. Work done in association with architects and scientists inside the Station, and in liaison with outside projects.

Salary: according to age, from £911 at age 25, rising to £1,390. Forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1, quoting J78/1A. 5950

LONDON COUNTY COUNCIL

BRIXTON SCHOOL OF BUILDING

Ferndale Road, S.W.4.

Required as soon as possible. LECTURER in SURVEYING to teach LEGAL SUBJECTS and VALUATIONS.

Candidates should be corporate members of R.I.C.S. with experience of professional practice; teaching experience a recommendation.

Salary Scale—£1,408 x 35—£1,601. Application forms (foolscap s.a.e.) from Secretary, returnable within two weeks. Please quote (FESa/A/464/2). 6013

BOROUGH OF BASINGSTOKE

BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the position of CLERK OF WORKS in this office, where there is a variety of interesting work. Preference will be given to applicants with good housing experience.

Salary range within Miscellaneous VI, N.J.C. Conditions. Superannuation scheme. Assistance with housing and removal expenses where appropriate.

Details giving qualifications, age, training, experience, etc., with names and addresses of two referees, to be sent to the Borough Architect, Eric Almond, Dip.Arch., A.R.I.B.A., Municipal Buildings, Basingstoke, Hants., by first post on Tuesday, 14th March, 1961. 6010

SURREY COUNTY COUNCIL

Applications are invited for the following appointments:—

GRADE IV. (£1,140-£1,310 p.a. plus £45 p.a. London Allowance).

Approved removal expenses will be paid to successful candidates in this Grade.

ARCHITECTS. Must be A.R.I.B.A. and have had experience in preparation of drawings and specifications, and be capable of assuming responsibility for medium to large scale contracts.

GRADE II (£815-£960 p.a. plus up to £40 p.a. London Allowance).

ARCHITECTURAL ASSISTANTS. Must be of good general training, preference given those who have passed Inter. R.I.B.A.

Candidates will be appointed at the appropriate point within the scale according to age and ability.

Full details, present salary and three copy testimonials, preferably one from present employer, to County Architect, County Hall, Kingston, as soon as possible. 6022

CITY OF CARDIFF

CITY ARCHITECT'S DEPARTMENT

CHIEF ASSISTANT ARCHITECT (HOUSING)

A.P.T. GRADE V

Applications are invited from qualified architects for the appointment of Chief Assistant Architect (Housing), A.P.T. Grade V, £1,510-£1,480 per annum, plus a Motor Car Allowance in accordance with the Corporation Scale.

Applicants should have had a wide experience of all types of housing including multi storey development.

General Conditions of Appointment may be obtained from the Undersigned.

Applications stating age, qualifications and details of experience, together with the names of two persons to whom reference can be made, should be delivered to me not later than the 13th March, 1961.

S. TAPPER-JONES,

Town Clerk.

City Hall,

Cardiff.

February, 1961.

6017

CITY AND COUNTY OF LICHFIELD

CITY ENGINEER & SURVEYOR'S

DEPARTMENT

APPOINTMENT OF ARCHITECTURAL

ASSISTANT, A.P.T. GRADE II (£815-£960 p.a.)

Applications are invited for the above Appointment in the City Engineer & Surveyor's Department. The appointment which is permanent offers an opportunity to participate in interesting architectural work in connection with large Housing Estates together with ancillary buildings and Redevelopment Schemes.

Applicants should have had suitable training and experience and be appropriately qualified. Housing accommodation will be offered to the successful applicant.

The Appointment will be subject to the Scheme of Conditions of Service and the provision of the Local Government Superannuation Acts.

Further particulars may be obtained from Mr. D. Oglesby, M.I.Mun.E., City Engineer & Surveyor, Meredith House, 62, Wade Street, Lichfield.

Applications stating previous appointments, qualifications and details of experience, together with the names and addresses of two referees, must be received by the Undersigned in a plain sealed envelope endorsed "Architectural Assistant" not later than noon on Friday, 3rd March, 1961.

HENRY J. CALLENDER,

Town Clerk.

Guildhall,

Lichfield.

13th February, 1961.

6006

STAFFORDSHIRE COUNTY COUNCIL

COUNTY PLANNING AND DEVELOPMENT

DEPARTMENT

Applications are invited for the appointment in the Eastern Area Planning Office at Lichfield of a JUNIOR PLANNING ASSISTANT on A.P.T. Grade II (£815-£960 per annum) or A.P.T. Grade III (£960-£1,140 per annum). The commencing salary and grading will depend on qualifications and experience.

Applicants should be Corporate Members of the Town Planning Institute or other recognised bodies for appointment on A.P.T. Grade III and should either have a university degree in geography or have had professional training in an Architect's, Surveyor's or Planning Office for appointment on A.P.T. Grade II.

Facilities will be provided including financial assistance to enable the person appointed to undertake further studies in accordance with the Council's Post Entry Training Scheme.

The Council are prepared to grant lodging allowances of 35% per week for a period of six months and second class railway travel home every two months during the initial six months to married applicants maintaining a home outside the geographical county. Consideration will also be given to the granting of financial assistance in appropriate cases towards removal expenses.

Applications giving details of age, education, qualifications, present and previous appointments, experience and the names of two persons to whom reference may be made should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than the 8th March, 1961.

Relationship to any member or senior officer of the County Council must be disclosed. Canvassing will disqualify.

T. H. EVANS,

Clerk of the County Council

6028

METROPOLITAN BOROUGH OF WOOLWICH
SENIOR ASSISTANT ARCHITECT

Applications are invited for the above permanent appointment in the Borough Engineer's Department. Salary within Grade A.P.T. V (£1,510-£1,480) plus London weighting. Superannuation scheme.

Candidates must have passed the final examination of the R.I.B.A.

The Council has an extensive and interesting programme of works.

Applications, stating experience, qualifications and age, and giving names of two referees to Town Clerk, Woolwich, S.E.18, by 14th March, 1961. 5990

LANCASHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
SENIOR ASSISTANT ARCHITECTS (N.J.C. Scale "B" £1,506-£1,670)

Applications are invited from experienced Registered Architects, required on the permanent staff of the County Architect, to deal with a wide variety of major projects, including large Technical Colleges, Magistrates Courts, Police Training Schools, etc.

Application forms and details of appointment obtainable from the County Architect, P.O. Box 26, County Hall, Preston, returnable by 10th of March, 1961. 6004

COUNTY BOROUGH OF ROCHDALE
SENIOR ASSISTANT ARCHITECTS

Applications are invited for the following permanent appointments in the Borough Engineer and Surveyor's department:

- (a) QUANTITY SURVEYOR—grade APT III/IV.
- (b) ASSISTANT ARCHITECT—grade APT III/IV.
- (c) HEATING AND VENTILATING ASSISTANT—grade APT III/IV.

The commencing salary will be in accordance with experience and qualifications.

Applications stating age, qualifications, present and previous appointments and experience together with the names of two referees to Borough Engineer and Surveyor by 10th March.

Canvassing will disqualify relationship to any member or senior official of the Council must be disclosed. Appointments subject to medical examinations.

K. B. MOORE,
Town Clerk.

Town Hall,
Rochdale.
14.2.61. 5967

BOROUGH OF MACCLESFIELD
SENIOR ASSISTANT ARCHITECTS

Applications are invited for the following posts in the Department of the Borough Architect and Planning Officer, Mr. E. Allan Heppenstall, which is being re-organised to deal with the following programme of work. The reception of Overspill from Manchester, Slum Clearance and Redevelopment, Central Area Redevelopment, New Municipal Offices and Factory Development, etc.

DEPUTY BOROUGH ARCHITECT.
Grade V (£1,310-£1,480).

2 ASSISTANT ARCHITECTS.
Grade IV (Final R.I.B.A.) (£1,140-£1,310).

2 ARCHITECTURAL ASSISTANTS.
Grade II (Inter. R.I.B.A.) (£815-£960).

These appointments will be superannuable subject to the National Conditions of Service and to a Medical Examination.

Five day week. Housing may be provided if required.

Applications stating age, education and training, qualifications, appointments (with dates and salaries), experience and the names of three persons to whom reference may be made should reach me not later than 7th March, 1961.

WALTER ISAAC,
Town Clerk.

Town Hall,
Macclesfield. 5969

H.M. PRISON COMMISSION
London vacancies for Leading and Basic Grade ARCHITECTURAL ASSISTANTS

&
ENGINEERING DRAUGHTSMEN
AN INTERESTING AND ESSENTIAL JOB

SALARIES*

Leading Grades £1048 to £1220

Basic Grades £658 to £1048

Starting pay according to age. 5 day week of 42 hours. Generous annual leave with full pay.

Appointments unestablished in the first instance, with prospects of establishment. For full particulars and application form write:—The Establishment Officer (JB 417), Horseferry House, Dean Eyle St., London, S.W.1. Closing date 5.3.61.

* Salaries include London Weighting and are for posts in the Head Office of Prison Commission, London, S.W.1. 6026

SOUTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited for the permanent appointment on the permanent staff of the Board's Regional Architect generally in accordance with Whitley Council conditions of service. Candidates must be corporate members of the Royal Institute of Chartered Surveyors.

BUILDING SURVEYORS. Commencing salary within the scale £945 x £25 (1) x £45 (6) x £45 (5) x 50 (2) = £1,350/55 (1) p.a.

Applicants are asked to give full particulars of their age, qualifications, experience and present salary. These together with the names of two referees should be sent to the undersigned at 40, Eastbourne Terrace, London, W.2 by 9th March, 1961.

E. G. BRAITHWAITE, Secretary.
7th February, 1961. 6037

LEEDS REGIONAL HOSPITAL BOARD
ARCHITECT'S DEPARTMENT

Applications are invited for the following:—
ASSISTANT ARCHITECTS

Applicants must be Registered Architects, Associate Members of the R.I.B.A., and have had experience in modern design and methods of construction.

(Qualified architects awaiting registration may be appointed as Architectural Assistants at a salary of £865 per annum.)

Salary—£905 x £35 (1) x £45 (6) x £50 (2) = £1,310.

LAND SURVEYING ASSISTANT

Applicants must have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors or an examination giving exemption therefrom.

Salary—£625 x £30 (8) x £35 (1) = £900.

New entrants to the National Health Service will commence at the minimum of the salary scale, but dependent on previous experience the Board has discretion to fix the commencing salary at an incremental point above the minimum, provided that the number of increments does not exceed the number of years by which the candidate's age exceeds 23 in the case of Assistant Architects and 21 for Land Surveying Assistants.

Applications, stating age, qualifications, and details of present and previous appointments, together with the names of two referees, to the Secretary, Park Parade, Harrogate, by 7th March, 1961. 5974

COUNTY BOROUGH OF SWANSEA
BOROUGH ARCHITECT'S DEPARTMENT
ASSISTANT QUANTITY SURVEYORS

Applications are invited for the following posts:—

- (a) One—Salary Grade APT.III. (£960 to £1,140 p.a.)
- (b) One—Salary Grade APT.II. (£815 to £960 p.a.)

Applicants for Post (a) must have passed the Final Stage of the R.I.C.S. (Quantities) and for Post (b) the Intermediate Stage. Commencing salary will be within the grades according to ability and experience.

Candidates must be under 45 years of age unless in Local Government Service.

The appointments will be subject to the provisions of the Local Government Superannuation Acts and may be terminated by one month's notice on either side. The successful applicants will be required to pass a medical examination.

Forms of Application may be obtained from the Borough Architect, The Guildhall, Swansea, to whom they must be returned not later than 4th March, 1961.

Canvassing disqualifies.

IORWERTH J. WATKINS,
Town Clerk.

Guildhall,
Swansea.
14th February, 1961. 5975

EAST SUSSEX COUNTY COUNCIL
COUNTY PLANNING OFFICE

Applications are invited for the following permanent appointments on the Headquarters Staff at Lewes for duties in connection with surveys for and the preparation of, Town Maps:—

- (a) PLANNING ASSISTANT at a salary within N.J.C. Scale A.P.T. III (£960 to £1,140 per annum).
- (b) DRAUGHTSMEN (Two) at a salary within N.J.C. Miscellaneous Grade V (£685 to £760 per annum).

Further particulars and application forms from County Planning Officer, County Hall, Lewes, Sussex, to whom applications should be sent not later than the 13th March, 1961. 5978

BOROUGH OF WOOD GREEN
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment on the permanent establishment of the Borough Engineer's Department in A.P.T. Grade III (£960-£1,140) plus the appropriate London Weighting Allowance.

Applicants must be fully qualified architects and have had experience in the preparation of plans, drawings and other details associated with local authority housing schemes and other works.

The Council may make housing accommodation available to the successful applicant, if desired.

The appointment is subject to the Local Government Superannuation Acts and to medical examination.

Applications stating age, qualifications, experience, and names and addresses of two referees must reach the undersigned by the 11th March, 1961.

G. W. PLATER,
Town Clerk.

Town Hall,
Wood Green, N.22.
23rd February, 1961. 6025

BRACKNELL DEVELOPMENT CORPORATION

Applications are invited for the following post in the Quantity Surveyors section:—

JUNIOR QUANTITY SURVEYOR

A.P.T. Grade I, salary range £645-£815. Applicants should have passed the R.I.C.S. Intermediate examination (Quantities) or be up to that standard. Duties embrace Housing, Town Centre and Industrial buildings. Superannuation schemes, medical examination. Housing available. Apply by 13th March, 1961, stating age, education and qualifications, experience and appointments held (with dates and salaries), and names of two referees, to General Manager (Q.S.), Bracknell Development Corporation, Farley Hall, Bracknell, Berks. 5971

CAMBRIDGESHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for appointment as Architectural Assistants on salaries in Grade I of the A.P.T. Scale (£645-£815).

Applicants should have reached or be near Intermediate standard of the R.I.B.A., and should be keen to progress further.

The appointment is subject to the Local Government Superannuation Acts, 1937 to 1958, the National Scheme of Conditions of Service, a satisfactory medical examination and terminable at one month's notice on either side.

Commencing salary will be in accordance with experience.

Applications, stating age, present salary, present and previous appointments, and details of training and experience, together with the names of two referees, should be submitted to the undersigned not later than Monday, 13th March, 1961.

CHARLES PHYTHIAN,
Clerk of the County Council.

Shire Hall,
Cambridge.
15th February, 1961. 5968

BOROUGH OF MAIDENHEAD
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT
ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of an Architectural Assistant on Grade A.P.T. III/IV, of the National Scales (£960-£1,310), commencing salary according to qualifications and experience. Preference will be given to applicants holding a recognised qualification.

Housing accommodation is provided and contributions made towards removal expenses in approved cases. The Council is operating a five-day week.

The appointment will be subject to the National Scheme of Conditions of Service, the Local Government Superannuation Acts, the satisfactory passing of a medical examination and termination by one month's notice on either side.

Applications stating age, qualifications, experience, and accompanied by the names of two referees, must be sent to C. T. Read, M.B.E., M.I.C.E., F.R.I.C.S., M.I.Mun.E., 14, Craufurd Rise, Maidenhead, as soon as possible but not later than Thursday, 9th March, 1961.

Canvassing will be a disqualification and candidates must disclose whether to their knowledge they are related to any member or senior official of the Council.

STANLEY PLATT,
Town Clerk.

Guildhall,
MAIDENHEAD.
February, 1961. 5976

WILTSHIRE COUNTY COUNCIL

Applications are invited for the following appointments:—

- 1. ASSISTANT ARCHITECT SCALE B: £1,450 to £1,670 per annum.
- 2. ASSISTANT ARCHITECTS APT V: £1,310 to £1,480 per annum.
- 3. ASSISTANT ARCHITECT APT IV: £1,140 to £1,310 per annum.
- 4. ARCHITECTURAL ASSISTANTS APT II: £815 to £960 per annum.
- 5. ARCHITECTURAL ASSISTANTS MISC IV: £625 to £685 per annum.
- 6. ARCHITECTURAL TRAINEES, General Division: £220 to £530 per annum.
- 7. ENGINEERS APT III: £960 to £1,140 per annum.

Previous Local Government experience is not essential.

The Council have a varied and interesting building programme on hand, including new Schools, Police Buildings, Old People's Homes and Clinics.

The appointments will be subject to the National Scheme of Conditions of Service; to the Local Government Superannuation Acts and to termination by one month's notice in writing by either party.

Applications should be submitted on forms to be obtained from the County Architect. Completed forms, accompanied with the names and addresses of three referees, should be returned to the Clerk of the County Council, County Hall, Trowbridge, within 14 days after the appearance of this advertisement. 6001

CITY OF WORCESTER
APPOINTMENT OF ARCHITECTURAL STAFF

Applications are invited to fill new appointments in the Architectural Section of the City Engineer & Surveyor's Department.

SENIOR ASSISTANT ARCHITECT—A.P.T. Grade IV (Salary £1,140-£1,310).

Applicants must hold the A.R.I.B.A. qualification.

TWO ARCHITECTURAL ASSISTANTS—A.P.T. Grade I (Salary £645-£815).

The appointments are superannuable and subject to medical examination.

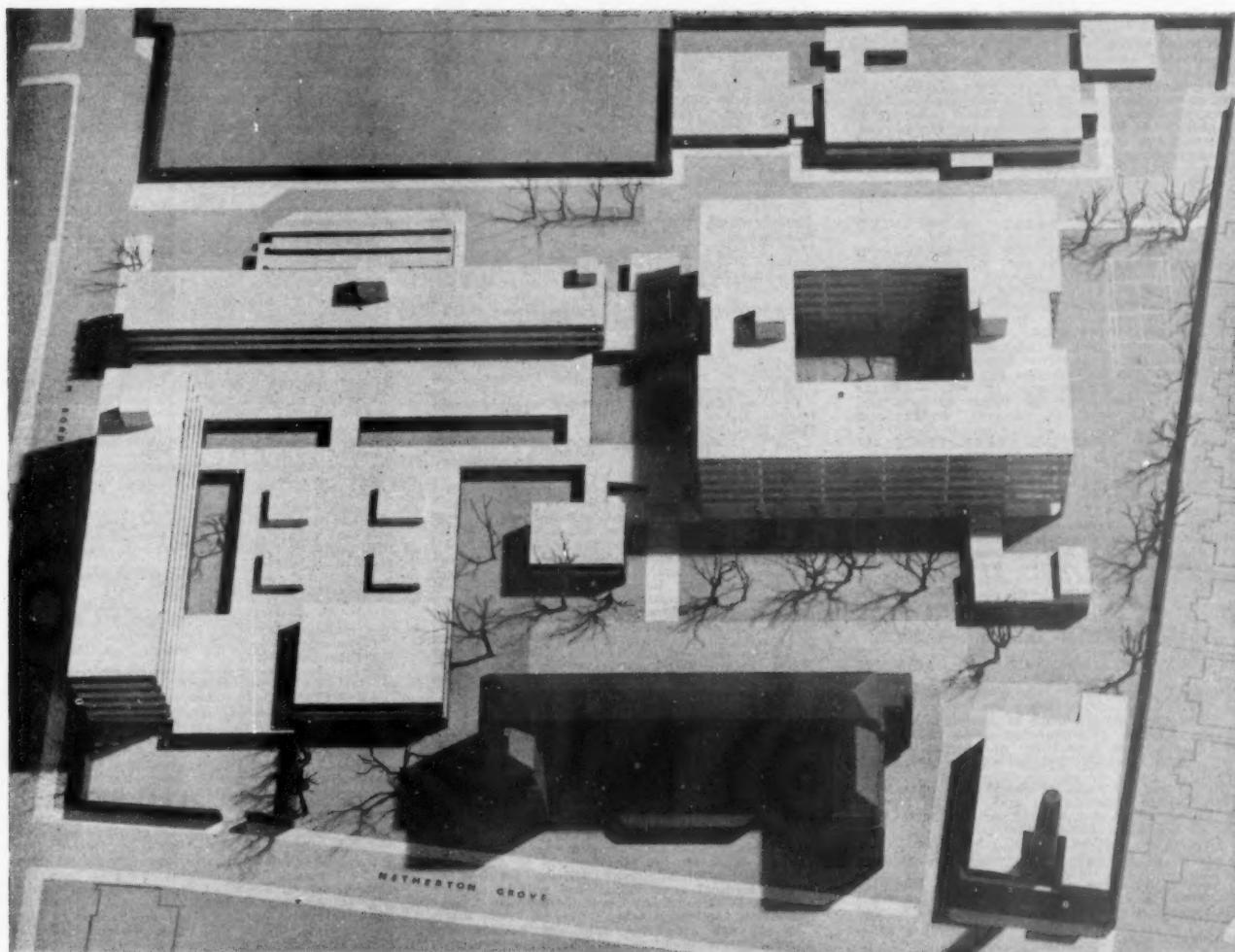
Housing accommodation will be offered, if necessary, and the Corporation are prepared to make a contribution towards removal expenses.

Casual Users' Car Allowances will be applicable. Applications stating age, present and previous appointments and experience, together with the names of two referees, are to be sent to the City Engineer & Surveyor, 22 Bridge Street, Worcester, by 6th March, 1961.

BERTRAM WEBSTER,
Town Clerk.

Guildhall,
Worcester. 5963

With the considerable expansion of hospital building, architects of ability are to be selected for fundamental design work on projects due for completion in the next ten years. The programme for the Board, which covers one of the largest regions in the country, embraces not only whole hospitals, but a range of smaller associated residential, recreational and similar buildings.



SOUTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD

Suitably qualified architects are invited to apply for the following vacancies:

Principal Assistant Architect II
Salary £1,715-£2,085

Senior Architects
Salary £1,350-£1,650

Assistant Architects
Salary £945-£1,360

Hospital experience, while advantageous, is not essential.

Applications with full details and names of two referees to be made by 9th March, 1961, to:

The Secretary, South West Metropolitan Regional Hospital Board,
40, Eastbourne Terrace, W.2.

CHELMSFORD CORPORATION

The following vacancy exists in a progressive and rapidly growing county town. The capital estimates for the year include schemes which will cost some £3 million and staff are encouraged to accept responsibility.

ASSISTANT ARCHITECT APT.III-IV £935-£1,310.

Half approved removal expenses and housing accommodation offered; commencing salary will depend upon qualifications and experience.

For further particulars write to Borough Engineer, Municipal Offices, Cow Lane, Chelmsford. Closing date 13th March, 1961.

B. A. FRANCIS,
Town Clerk.
5986

NORTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

40 EASTBOURNE TERRACE, LONDON, W.2
W. G. PLANT, DIP. ARCH. (LPOOL), F.R.I.B.A.,
REGIONAL ARCHITECT.

SENIOR ASSISTANT ARCHITECTS required for the Board's expanding Architectural Department in London.

The Board are undertaking a considerable programme of Hospital Building, offering scope for research, imaginative design and progressive thinking, and excellent opportunities for gaining experience in a wide, varied and interesting field of Architecture. Major schemes on which the Board's Staff are at present engaged include:

NEW HOSPITAL AT BASILDON

COMPLETE REDEVELOPMENT OF ORSETT HOSPITAL

MAJOR DEVELOPMENT OF BARKING HOSPITAL

MAJOR DEVELOPMENT OF SOUTHEAST GENERAL HOSPITAL

MAJOR DEVELOPMENTS AT NORTH MIDDLESEX HOSPITAL

SALARY: £1,350-£1,650

Applicants must be Registered Architects

having passed the requisite examinations. Those

appointed will either be allocated jobs of their

own and be responsible, under very limited

supervision, for the schemes from sketch design

to completion of contract, or will work, as

members of teams, on the larger projects and

share in the work of research, design, and

detailed drawings.

PREVIOUS HOSPITAL EXPERIENCE IS

NOT ESSENTIAL.

LEAVE—20 days rising to 23 after 10 years.

Posts permanent and pensionable. 5 day week.

Mileage allowance paid for use of car on

business.

Applications giving age, details of education,

professional training, qualifications, experience

and past and present appointments, present salary

and other relevant details, together with the

names and addresses of two referees, should be

sent to The Secretary, North East Metropolitan

Regional Hospital Board, 40 Eastbourne Terrace,

London, W.2, within 14 days. 5999

BOROUGH OF NEWCASTLE-UNDER-LYME

requires

(a) ASSISTANT ARCHITECT—Grades A.P.T. III

to IV (£960-£1,480 p.a.).

(b) ARCHITECTURAL ASSISTANTS Grades

A.P.T. II (£815-£960 p.a.).

Applicants for (a) should be Associate Members

of the R.I.B.A. Commencing salary will be in

accordance with experience and capability. A

car allowance will be granted on the casual user

scale.

Applicants for posts (b) should have passed the

Intermediate Examination and will be allowed

to attend a one day a week school course leading

to the Final Examination.

Favourable consideration will be given to the

provision of housing accommodation in suitable

cases.

Application forms may be obtained from the

Borough Engineer and Surveyor, Lancaster

Buildings, High Street, Newcastle, Staffs, and

should be returned to him not later than Monday,

6th March, 1961. C. J. MORTON, Town Clerk. 5993

CORPORATION OF LONDON ARCHITECTURAL ASSISTANT

Salary up to £1,095

Candidates should either be studying for or

have passed Inter. R.I.B.A., possess sound know-

ledge of Building Construction and ability to

prepare details and 1/4 in. scale drawings. Apply

within Seven Days to the City Surveyor, Guild-

hall, E.C.2. 6009

ASSISTANT REGIONAL ARCHITECT

SALARY £1,775 to £2,075 p.a.

The design of Hospitals is now a complex problem embracing many of the principles of Town Planning and, apart from research, calls for clear thinking, a sense of aesthetic environment and logical planning.

An Assistant Regional Architect is required in Oxford to produce development plans for several of the major hospital groups in the Board's area. Previous hospital experience is not necessary. Further particulars may be obtained from W. J. Johnson, E.R.D., F.R.I.B.A., Regional Architect.

Applications to be received not later than 13th March, 1961, by the Secretary, Oxford Regional Hospital Board, 43, Banbury Road, Oxford. 5972

CITY OF NOTTINGHAM

APPOINTMENT OF CITY ARCHITECT

The Corporation invites applications from suitably qualified persons for the post of City Architect. The person appointed will be responsible for the Corporation's Architectural and Building work.

The salary for this post will be £3,750 rising by three annual increments of £125 to £4,135 per annum, and the person appointed will be required to contribute to the Corporation's Superannuation Scheme and to pass a medical examination.

Applications accompanied by the names of three persons to whom reference can be made must be delivered to me not later than the last post on Wednesday, the 29th March, 1961, in an envelope endorsed "City Architect."

T. J. OWEN,
Town Clerk.

The Guildhall,
Nottingham. 5979

COUNTY BOROUGH OF EAST HAM

HOUSING DEPARTMENT

APPOINTMENT OF ARCHITECTURAL

ASSISTANT

Applications are invited. Salary Grade A.P.T. II (£815 to £960 (4) × £25 (1)–£960) plus London weighting.

Applicants should be experienced in the pre-

paration of working drawings, details for con-

struction of new dwellings and conversion of

existing properties.

Further details and application form (returnable

by 15th March, 1961) from the Town Clerk, Town

Hall, East Ham, E.6. 5948

CITY OF ST. ALBANS

CITY ENGINEER AND SURVEYOR'S

DEPARTMENT

APPOINTMENT OF TOWN PLANNING

ASSISTANT, GRADE A.P.T. V (£1,310-£1,480)

Applications are invited for the above per-

manent superannuated post. Candidates must be

corporate members of the Town Planning Insti-

tute. Considerable experience of development

control is essential—experience in preparing

Town Maps will be an advantage. Housing

accommodation available. Applications, with the

names of two referees should be submitted to

me by not later than 10th March, 1961.

B. V. ENTWISTLE,
Town Clerk. 5973

38, St. Peter's Street,
St. Albans.

ROYAL BURGH OF ARBROATH

BURGH ARCHITECTS' DEPARTMENT

APPOINTMENT OF QUANTITY SURVEYOR

Applications are invited from suitably qualified

persons for the appointment of Quantity Surveyor

in the above department at a salary of £1,030–

£1,150 per annum with placing in accordance with

qualification and experience.

Applicants should be fully conversant with the

preparation of Schedules of Quantities, Specifica-

tions, Estimates and Settlement of Final Accounts

in connection with general building work under the

Scottish Mode for the Measurement of Buildings.

The successful applicant will be required to

pass a medical examination and will be subject

to the provisions of the Local Government Super-

annuation (Scotland) Acts.

Should the successful applicant be married,

housing accommodation will be made available

by the Council.

Applications together with copies of two recent

testimonials should be lodged with W. R. Samson,

A.R.I.B.A., Burgh Architect, 32 Hill Street,

Arbroath, not later than Tuesday, 28th February,

1961. WILLIAM D. SMITH, 5943

Town House,
Arbroath,
Angus.

SALOP COUNTY ARCHITECTS' DEPARTMENT

SENIOR ARCHITECTS required. Salary up to maximum of A.P.T. IV (£1,310 p.a.). N.J.C. Conditions. Five-day week. A disturbance allowance or weekly separation allowance will be paid to a married man taking up an appointment. Conditions of service and application forms obtainable from Ralph Crowe, A.A.Dipl., A.R.I.B.A., A.M.T.P.I., County Architect, Column House, London Road, Shrewsbury. Closing date 11th March, 1961. 5995

ROYAL WEST OF ENGLAND ACADEMY

SCHOOL OF ARCHITECTURE

Applications are invited for appointments on the teaching staff of the School for the Session commencing September next. Preference will be given to those who are members of the R.I.B.A. with some years of professional experience and who hold the Degree or Diploma of a recognised School of Architecture.

Applications, stating age, qualifications and experience, should be sent to arrive not later than Monday, the 6th March, 1961, to the Principal, R.W.A. School of Architecture, 25, Great George Street, Bristol, 1. 5980

FAREHAM URBAN DISTRICT COUNCIL

The Council invite applications from qualified Architects for the post of CHIEF ARCHITECTURAL ASSISTANT.

Salary A.P.T. IV (£1,140 + £55-£1,310). Essential Car User. Superannuation. Medical examination. National Conditions of Service. Housing accommodation considered.

Apply for further details from the Engineer and Surveyor, Westbury Manor, Fareham, Hants.

Applications, including names and addresses of three referees, returnable to me by 11th March, 1961.

B. W. RANDS,
Clerk to the Council.

"Merton",
5, Grove Road,
Fareham,
Hants. 5934

CITY OF PLYMOUTH

APPOINTMENT OF PLANNING ASSISTANT

Vacancy in Development Plan Urban Renewal Section offering interesting work upon the Quinquennial Review and redevelopment schemes.

Appropriate grade will be offered within the range of A.P.T. I, II or III (£645-£1,140) according to qualifications and experience.

Age limit 40 (or 45 if serving with another

Authority).

Appointment is superannuable and subject to

medical examination; in suitable cases considera-

tion may be given to making housing accommoda-

tion available and the Council will contribute to

removal expenses.

Applications, on forms from the undersigned, to

be returned by the 14th March, 1961.

J. ACKROYD,
City Engineer and Surveyor.

The Guildhall,
Plymouth,
8th February, 1961. 5944

HAMPSTEAD BOROUGH COUNCIL

ARCHITECTS are wanted to form a New Group in the Housing Architect's Department of Hampstead Borough Council.

The Housing Architect's Office is in a house in

Haverstock Hill, close to tube, buses and the

Heath. The office has recently been reorganised

on a group basis and currently has £1½ million

of work in hand including high blocks of flats

and a multi-storey garage. A new group on the

permanent staff is to be set up to handle a

larger redevelopment area of housing and civic

building, with members of the group also having

individual responsibility for other smaller schemes.

The future projects present problems in urban

design on both large and small scales that require

a fresh approach by imaginative and able minds.

Architects who are interested are invited to tele-

phone C. E. Jacob, A.R.I.B.A. (Hampstead 7171

Extension 205) for fuller details of the oppor-

tunities.

The Council is prepared to consider advances

for house purchase up to 100 per cent. of valuation

in suitable cases.

The Group Leader will be appointed within

A.P.T. Grade V (maximum £1,525) and the Assis-

stants within A.P.T. Grade IV (maximum £1,355)

(including London weighting).

Applications including the names of two referees

to the Town Clerk (Adj.) Town Hall, Hampstead,

N.W.3, by 10th March, 1961. 5919

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PERTH COUNTY COUNCIL

Applications are invited for vacancies in the County Architect's Department, Perth, on salary scale £1,000-£1,300. Applicants must be fully qualified A.R.I.B.A. Placing on the scale may be given according to experience. Particulars and forms of application from The County Clerk, P.O. Box 15, County Offices, York Place, Perth. Applications to be lodged by 11th March, 1961. 5910

BOROUGH OF OLDBURY

Applications are invited for the following appointment on the staff of the Borough Surveyor's Department.

ARCHITECTURAL ASSISTANT

Salary Grade A.P.T.III (£960-£1,140).

Candidates should be well trained and experienced in the design and preparation of schemes and supervising contracts in connection with general housing including multi-storey flats, public buildings, school buildings, and minor improvements and maintenance works.

The appointment will be supernumerary subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications giving particulars of age, qualifications, experience, and the names of two referees, should be delivered to the undersigned not later than the 10th March, 1961.

KENNETH PEARCE,
Town Clerk.

Municipal Buildings,

Oldbury.

February, 1961.

6038

LANCASHIRE COUNTY COUNCIL

COUNTY LAND AGENT'S DEPARTMENT
BUILDING ASSISTANT, Salary Grade A.P.T. V (£1,310-£1,480).

The applicant must be experienced in preparing estimates, plans, working drawings and specifications for the erection of farmhouses and farm buildings and also adaptations, improvements and repairs to existing buildings, including drainage, water supply and electrical works.

The post is supernumerary and subject to a certificate of fitness. A car allowance on the National Scale will be paid and a car loan is available.

Application forms and particulars from the County Land Agent, 8 Fishergate Hill, Preston, who will accept applications up to 17th March, 1961. 5996

TECHNICAL ASSISTANT (ESTATE) required in Surveying Department of London office. Applicants must be members of a recognised professional institute and have experience of management of a large number of scattered properties of all types, but mainly industrial. Sound knowledge of property law, leases, dilapidations, valuations for purchase and rent, rating and office administration is required, with ability to initiate action in such matters and to handle them with limited supervision. Salary range £1,225-£1,340. Applications giving age, experience and qualifications to Divisional Manager (SV.109), British Road Services Limited, 238 City Road, London, E.C.1. 5907

L.C.C. BRITTON SCHOOL OF BUILDING

Ferndale Road, S.W.4

Required to commence 10th April, 1961. **LECTURER** in Architecture. Candidates should be corporate members of R.I.B.A. and have appropriate professional and teaching experience. The appointment carries responsibility for the teaching of construction within the department and the development of studies in structure and services; special experience or interest in this field will be a recommendation. The school offers full-time, part-time and evening courses, the full-time course being recognised by R.I.B.A. Salary £1,370 - £35-£1,550 plus £38 or £51 London allowance.

Application forms from Secretary, returnable within two weeks. Please quote (FE.3a/J.272/2). 5899

NOTTINGHAMSHIRE COUNTY COUNCIL
APPOINTMENT OF ASSISTANT ARCHITECTS
AND ARCHITECTURAL ASSISTANTS

A.P.T. GRADES III/IV and IV/V

Applications are invited from:-

- Architects
 - Students who have passed the Final examination of the R.I.B.A. or the Diploma Examination of a recognised school
- to work on the County Council's Major Building Programmes. Consideration will be given to Students who expect to complete their Courses in July next.

The Programmes are handled by four groups of approximately eight Architects per group, and a Group Leader. All the Architects in the group carry out in turn the design, organisation and supervision of projects as Job Architects through all stages of the job from sketch plan to completion. As part of carrying out the County Council's building programme, the office has a policy of continuous development in planning and construction, which all Architects take part from time to time.

The salary of the A.P.T. III/IV scale ranges from £960 to £1,310 p.a. and that of A.P.T. IV/V scale from £1,140 to £1,480 p.a. The commencing salary to be offered in each case will be in accordance with ability and experience. Starting dates by agreement.

Forms of application may be obtained from the County Architect, County Hall, West Bridgford, Nottingham, to whom they should be returned as soon as possible.

A. R. DAVIS,
Clerk of the County Council.

5929

LAGOS EXECUTIVE DEVELOPMENT BOARD
Reclamation Road, P.O. Box 907, Lagos, Nigeria

Applications are invited for the post of

QUANTITY SURVEYOR with the Lagos Executive Development Board, Lagos, Nigeria.

- Salary: According to experience and qualifications within the Grade £1,608 rising, subject to satisfactory service, by annual increments of £50, to £1,908, together with £300 per annum inducement allowance for Expatriate Officers.
- Duties: Preparation of Bills of Quantities, Contract supervision and Payments, Preparation of final accounts and all normal Quantity Surveying duties.
- Qualifications: Candidates must be Associate Members of the Royal Institute of Chartered Surveyors (Quantity Surveying Section), with wide experience in large-scale housing.

The appointment will be on Contract for tours of approximately 18 months, renewable by mutual agreement and the secondment of Officers by their present Employers in the United Kingdom will be favourably considered. Leave will be granted at the end of each tour on the basis of one week for each complete month of residential service. The Board will provide basically furnished accommodation at a low rate. Officers appointed will be required to contribute 10 per cent. of their basic salary to the Board's Provident Fund and to this the Board will themselves contribute at 15 per cent. Free passages are provided for Officers, together with their wives and children and facilities exist for children to visit parents during school holidays. Special children's allowances are, in addition, payable at the rate of £75 per year whilst the children are maintained in the United Kingdom.

Application forms may be obtained from: Lagos Executive Development Board Representative, Nigeria High Commission, Nigeria House, 9, Northumberland Avenue, London, W.C.2.

Applications are to be completed in duplicate and despatched as follows: One copy to Mr. O. Ajose-Adegun, Lagos Executive Development Board, P.O. Box 907, Lagos, Nigeria; and one copy to the Lagos Executive Development Board's Representative in London. 5902

URBAN DISTRICT OF STANLEY

ENGINEER & SURVEYOR'S DEPARTMENT

Applications are invited for the appointment of **BUILDING INSPECTOR, A.P.T. II (£815-£960).**

Commencing salary according to experience. Candidates should possess previous local government experience in similar capacity, have good knowledge of building construction, application and administration of building bye-laws, and procedure in dealing with development applications under the Town and Country Planning Acts. Possession of the Building Inspectors' Certificate of Institution of Municipal Engineers or equivalent qualification would be of advantage. Fixed car allowance of £96 per annum. Housing (at rental) available. Appointment subject to one month's notice on either side, to Local Government Superannuation Act, 1953, and the passing of a medical examination, and the National Scheme of Conditions of Service of the National Joint Council for Local Authorities (A.P.T. and C. Services). Applications, stating age, qualifications and experience, with names and addresses of two referees, to be received by the undersigned not later than Monday, the 6th March, 1961.

J. J. SHIPSTON,

Clerk of the Council.

Council Offices,

Stanley,

Co. Durham.

10th February, 1961.

5903

HUYTON-WITH-ROBY URBAN DISTRICT

COUNCIL

DEPUTY ARCHITECT AND HOUSING

DIRECTOR

Applications are invited for the above appointment, salary £1,646 rising to £1,846 by four annual increments of £40.

Applicants must be A.R.I.B.A. with at least ten years' post qualification experience, preferably in Local Government service. Knowledge of housing management, whilst not essential, would be deemed to be an advantage.

The Department is responsible for all the Council's Architectural work which includes houses, flats, offices and public halls, the maintenance of all Council owned buildings and schools and for the management of the Council's housing estates.

Applications giving full particulars of age, qualifications, experience, present appointment with salary, previous appointments with dates, and the names and addresses of three referees should be received by R. T. Chappelle, A.R.I.B.A., Architect and Housing Director, "Grasscroft," Archway Road, Huyton, not later than 10 a.m., Friday, 3rd March, 1961.

D. WILLGOOSE,

Clerk to the Council.

Council Offices,

Derby Road,

Huyton.

5932

COUNTY BOROUGH OF STOCKPORT

BOROUGH ARCHITECTS' DEPARTMENT

JUNIOR ASSISTANT ARCHITECT required. Salary A.P.T. I (£645-£815 p.a.). Commencing salary according to qualifications and experience. Post pensionable, subject to medical examination.

Full particulars, age, qualifications, experience, two referees, and if related to any member/senior officer of Council, to Borough Architect, Town Hall, Stockport, by 23rd February, 1961. Canvassing disqualifies. 5931

SOUTH-WEST ESSEX TECHNICAL COLLEGE

AND SCHOOL OF ART

Forest Road, Walthamstow, E.17

ASSISTANT Grade B required as soon as possible to teach second and third year full-time and part-time day students in the School of ARCHITECTURE. The school is acknowledged by the Board of Architectural Education of the Royal Institute of British Architects, for architectural training.

Salary within scale £700-£1,150 per annum, plus London Allowance of £38 or £51 per annum. Additions to scale for approved training and graduate qualifications if in accordance with the Burnham Further Education Report, 1959. In fixing the commencing salary increments above the scale minimum will be allowed in respect of war national service and relevant industrial experience.

Apply by letter only (no forms) giving details of qualifications, training and experience, together with three recent testimonials or the names and addresses of three referees to the Clerk to the Governors. 5930

URBAN DISTRICT OF FELTHAM

ASSISTANT ARCHITECT. An Assistant is required in the Office of Mr. L. J. Grimshaw, Chartered Architect in the service of the above Authority, giving an opportunity to produce and carry out schemes for flats, houses and general Municipal Buildings.

The post is within Grades A.P.T. III/IV (£960-£1,310 per annum) plus London weighting, and the commencing salary will be according to qualifications and experience.

Forms of application, obtainable from the undersigned, must be returned, giving the names and addresses of two referees, not later than 6th March, 1961.

Canvassing in any form will disqualify, and applicants must disclose in writing whether to their knowledge they are related to any member of, or the holder of, any senior office under the Council.

M. W. COUPE,

Clerk of the Council.

Council Offices

Feltham,

Middx.

5924

Applications are invited for the position of **ASSISTANT SURVEYOR** to the Royal Agricultural Society of England to undertake interesting work in connection with the Society's annual Royal Show. Knowledge of building construction essential and experience in an architect's office would be a distinct advantage. The person appointed will be required to accept responsibility and act on his own initiative. As a senior appointment, a four-figure salary is envisaged.

Intending applicants should in the first instance apply to the Secretary, Royal Agricultural Society of England, 35, Belgrave Square, London, S.W.1, for full particulars. 5906

UNIVERSITY OF ST. ANDREWS

CLERK OF WORKS required for university building contracts in St. Andrews (e.g. halls of residence, major science laboratories etc.). Staff appointment, salary £850, pension scheme. Applications should state age, trade, training, qualifications, experience and posts held, with dates; and should be lodged with the Buildings Officer, College Gate, St. Andrews, Fife, by 7th March, 1961. 5939

AIR MINISTRY Works Designs Branch requires in LONDON and PROVINCES, **ARCHITECTURAL ASSISTANTS** with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 days' paid leave per year initially. Overseas tours for which special allowances granted.

Salary: In London ranges from £836 (age 25)-£1020 p.a., somewhat lower in Provinces. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write (quoting Kings Cross O.N. 897) to Air Ministry, W.G.4, Lecon House, Theobalds Road, London, W.C.1, or to any Employment Exchange giving age, details of training, qualifications, full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed. 5634

City and County of **KINGSTON UPON HULL**, City Architect's Department. Applications are invited for the following posts:-

- ASSISTANT ARCHITECTS, Grade A.P.T. IV (£1,140-£1,310).
- ASSISTANT ARCHITECTS, Grade A.P.T. III/IV (£960-£1,140).
- ARCHITECTURAL ASSISTANTS, Grade A.P.T. I or II (£645-£815).
- ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. III/IV (£960-£1,310).
- QUANTITY SURVEYING ASSISTANTS, Grade A.P.T. I or II (£645-£815).

There is an interesting and varied programme of work in the department. Housing accommodation may be provided for the successful married applicants if they are not already resident in the city. The point of entry to the scale will be determined by experience.

Application forms may be obtained from G. R. H. Wright, A.R.I.B.A., Deputy City Architect, Guildhall, Kingston upon Hull, and should be returned completed on or before 6th March, 1961. 5921

ASSISTANT ARCHITECTS

Applications are invited from fully qualified architects who are interested in producing good architecture.

The successful applicants will join a team of architects responsible for a wide and varied range of design projects, including industrial and commercial building, estate development and multi-storey construction.

The Architects' Department, which is situated at our Head Office in York, has at its disposal all the resources of a well-organised and progressive building concern.

A non-contributory pension scheme is in operation and assistance with removal expenses and housing will be available if required.

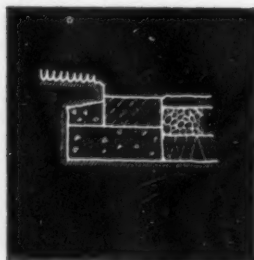
Applications stating age, full details of education and experience should be addressed to:

D. W. Shepherd — Technical Director

F. SHEPHERD & SON LTD.

Building and Civil Engineering Contractors,
Blue Bridge Lane, York.

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An invaluable handbook has just been published by the Architectural Press. It covers, among many other subjects

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Price 42s. It is called

Design and detail of the space between buildings
by Elisabeth Beazley

LIVERPOOL REGIONAL HOSPITAL BOARD

require

ARCHITECTS

SENIOR ASSISTANT ARCHITECTS .. £1,300-1,600

ASSISTANT ARCHITECTS £905-1,310

ARCHITECTURAL ASSISTANTS .. £625- 900

ARCHITECTURAL DRAUGHTSMEN .. £475- 685

and

SURVEYORS

SENIOR ASST. QUANTITY SURVEYOR £1,300-1,600

ASSISTANT QUANTITY SURVEYOR .. £905-1,310

ASSISTANT BUILDING SURVEYORS .. £905-1,310

BUILDING SURVEYING ASSISTANTS .. £625- 900

to assist the Regional Architect, T. Noel Mitchell, B.Arch., F.R.I.B.A., to carry out the expanding Hospital Building Programme. Interesting new building is projected including new General and Specialised Hospitals and the complete replanning of a large number of older Hospitals covering a wide variety of building types.

All posts are superannuable and mileage allowances will be paid to approved car users. Applications to reach me within ten days stating post applied for, age, education, qualifications, experience, present and previous posts and names and addresses of three referees (two technical).

VINCENT COLLINGE,
Secretary to the Board

55, Castle Street,
Liverpool, 2

BRITISH COUNCIL requires INTERIOR DESIGN officer, London. Principal duties, to advise on decoration and furnishing of Council premises in United Kingdom and overseas. Candidates must have substantial practical professional experience, including costing and preparation of specifications. Relevant training and qualifications desirable.

Present salary scale: £1,358-£1,570. Super-annuation scheme.

Write, quoting D.3.AJ(61) and enclosing stamped, addressed foolscap envelope, to Director, Recruitment Department, British Council, 65 Davies Street, London, W.1, for further particulars and application form. Closing date 21st March. 5898

LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT

ARCHITECT/PLANNERS required for new Group dealing with redevelopment projects in Central London. Great opportunity for able, creative and enthusiastic architect/planners to work on schemes for such areas as Soho, Covent Garden and areas associated with Piccadilly Circus.

Salaries up to £1,500 subject to experience and quality.

Application form and particulars obtainable from Hubert Bennett, F.R.I.B.A. (EKA/424/2), Architect to the Council, the County Hall, S.E.1. 5905

Architectural Appointments Vacant

3s. per line, minimum 12s. Box Number, including forwarding replies, 2s. extra.

HOWARD V. LOBB & PARTNERS require ASSISTANT ARCHITECTS. Salaries would be between £750 and £1,250 per year. Please write to 20, Gower Street, London, W.C.1. 3640

RONALD WARD AND PARTNERS invite applications from ARCHITECTS, Senior and Junior. Long-term prospects. Scope for initiative and responsibility in interesting commercial, industrial and civic projects in British Isles, West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension and Life Insurance schemes. Five-day week. Pleasant offices. Apply 29, Chesham Place, Belgrave Square, London, S.W.1. Tel.: BELGRAVIA 3361. 2960

ASSISTANT ARCHITECTS required for staff-ing a new office opening in Southampton for work on interesting projects including University, War Department and Ecclesiastical programmes. Juniors also required. Apply stating age, qualifications, experience and salary required to Robert Potter, F.R.I.B.A., & Richard Hare, B.Arch., A.R.I.B.A., De Vaux House, Salisbury. 3167

BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to J. Fitzroy Square, W.1. stating experience and salary required. 9824

£1,000 (£2,000 p.a. will be paid to ARCHITECTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box 9360.

SENIOR ASSISTANTS required immediately. Salary by arrangement. Theo. H. Birks, 39, Portland Place, London, W.1. LAN 7236. 1486

BOOTH, LEDEBOER AND PINKHEARD require ASSISTANTS in the salary range £750-£1,250. Apply 17-20, Mason's Yard, Duke Street, St. James's, S.W.1. Tel.: TRAFALGAR 1866. 3119

INTERMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks, 39, Portland Place, London, W.1. LAN. 7236. 9739

EXPERIENCED ARCHITECTURAL ASSISTANT required for busy West End office. General practice but mainly office and commercial projects. Bernard Gold & Partners, 4/6, Savile Row, W.1. REGENT 7551. 3742

C. H. ELSOM & PARTNERS need experienced ARCHITECTS for a wide range of public and commercial projects. VICTORIA 4304, 10, Lower Grosvenor Place, W.1. 4271

SENIOR ASSISTANT ARCHITECTS required immediately for a wide variety of interesting work. Applicants should be experienced in all aspects of modern building design and construction. Attractive remuneration to right men capable of working on own initiative under ideal conditions for self expression. Preference given to men over 45 years of age although all applications will be considered on merit irrespective of age. Applications should be made in writing to Kenneth F. Masson, Esq., A.R.I.B.A., Chief Architect, S.C.W.S. Ltd., Architectural Division, 76, Morrison Street, Glasgow, C.5. 4152

LEICESTER. SENIOR ARCHITECTS AND ASSISTANTS required for general practice. Appropriate salary paid. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 18, Friar Lane, Leicester. Tel. 56476. 5307

A VACANCY occurs in the West End Branch of large provincial Architectural Practice. for an ASSISTANT at Intermediate standard. The post offers considerable scope on varied projects. Five-day week. Luncheon Vouchers. Write giving particulars of age, experience and salary required to Box 4135.

A QUALIFIED ARCHITECTURAL ASSISTANT required immediately in Home Counties office. Successful applicant will have the opportunity of working on widely varying industrial, commercial and housing schemes. Five-day week. Write full particulars to Box 4136.

INTERMEDIATE to FINAL STANDARD.

Expanding practice engaged large scale commercial projects requires ARCHITECTURAL ASSISTANTS with design and supervision initiative. Good salaries according capabilities. Five-day week. L.V.S. Raymond Spratley & Partners, 9, Hertford Street, Park Lane, W.1. GRO 1532. 4306

SOUTHAMPTON—ASSISTANT of Intermediate standard required for interesting contracts in the Southern Counties. Apply with details of any previous office experience and required salary to E. M. Galloway & Partners, F.R.I.B.A., 10, Portland Street, Southampton. 4865

ERNO GOLDFINGER requires several qualified field ASSISTANTS with at least 2 years' experience to take part in a growing programme of interesting work which includes large office buildings, central developments, Local Authority housing, schools and private houses. Good salaries and scope for men with sound knowledge of construction. Phone HYDE Park 5657. 5084

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon office. Would have full charge of branch office. Box 5019.

ARCHITECTS in Watford and London require capable ASSISTANTS with at least three years' office experience for work on interesting commercial and industrial projects. Salary range £800-£1,200 per annum. Non-contributory pension scheme. Apply Box 5148.

BLACKPOOL Pleasure Beach: ARCHITECTURAL ASSISTANT required to work at Blackpool under general direction of Howard V. Lobb & Partners, London. Minimum two years' office experience. Salary about £800 depending on experience. Interesting design and practical experience, with long-term appointment. 5199

ARCHITECTURAL ASSISTANTS required for interesting work, including schools and hospitals, in Croydon office. Commencing salaries offered: £900-£1,150 for Associates, £600-£850 for students, according to age and experience. Five-day week and annual bonus. Write to George Lowe & Partner, 79, George Street, Croydon. 5197

THERE is more to it than drawing, you know!! Are you kept pinned to the Drawing Board day in, day out? If so, we can offer you much greater scope in gaining all-round experience and carrying through the varied duties of an ARCHITECTURAL ASSISTANT. Responsibility positively encouraged. Write telling us your experience with the usual particulars: it may well be to our mutual advantage (Box 5168) or telephone MAYfair 9554.

QUALIFIED ARCHITECTS looking for some really interesting new work should apply in writing to George, Trew and Dunn at their new offices, 50, Eastbourne Terrace, W.2. 5205

ASSISTANT required, at least Intermediate standard, to start early summer. L. H. Bond & R. W. Read, 44, Castlegate, Grantham, Lincs. 5130

NORTH & PARTNERS, Chartered Architects, Maidenhead, seek Two New ASSISTANTS:—

(1) Partner's Personal Assistant for general Architectural and administrative duties.

(2) Experienced Architectural Assistant/Architectural Draughtsman for main Drawing Office.

Five-day week. Pension Scheme, etc. State age, experience and salary required. 5492

ROBERT MATTHEW & JOHNSON-MARSHALL have vacancies in their London office for Architects at all levels of experience for a variety of interesting jobs. Apply to Robert Matthew & Johnson-Marshall, 24, Park Square East, N.W.1. 6491

ARCHITECT'S JUNIOR ASSISTANT required, a good draughtsman/drafter. Intermediate standard. Please write, stating age, experience and salary, to: R. Jelinek-Karl, F.R.I.B.A., 6, Buckingham Street, W.C.2. 5714

CROYDON, Varied and interesting experience offered in progressive and growing practice to experienced ASSISTANT and JUNIOR. Five-day week. Please write or telephone: L. A. Macintosh & Haines, A/R.I.B.A., 33-35, High Street, Croydon. CRO 5780/9992. 4894

£950-£1,500. ARCHITECTURAL ASSISTANTS with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingsway, W.C.2. HOLborn 4071. 4934

DEVON—SENIOR ARCHITECTURAL ASSISTANT required for varied and progressive practice. Write to Antony Lamb, A.R.I.B.A., A.M.T.P.I., Ottery St. Mary, Devon, 1. 5393

EXPERIENCED and confident ARCHITECTS required to fill positions of responsibility in a growing and varied practice with industrial and commercial work throughout the southern half of the country. Applicants must have initiative as well as architectural ability to carry through contracts up to £100,000, working directly with Principals but with minimum supervision. Apply in writing to Thomas Mitchell & Partners, 20, Bedford Square, London, W.C.1. 5418

TWO SENIOR ASSISTANTS required. Salary in accordance with experience. Please apply to F. G. Frizzell, A.R.I.B.A., 80, Portland Place, W.1. LANGHAM 1732. 4943

ASSISTANT required for small Office with interesting and varied work. Salary £1,000/£1,200.

Green, Lloyd & Son, 5, Pickering Place, St. James's Street, S.W.1. Telephone Whitehall 8926. 5706

PROGRESSIVE opportunities for ARCHITECTS ASSISTANTS are offered by Westminster Bank. Commencing salary £850 to £1,500 with good prospects. Modern London drawing office, favourable house mortgage rates, luncheon club, sports club and other social activities, pensions scheme, fare for interview refunded. Write, stating age, experience and salary required to: The Architect, Westminster Bank Limited, Post Office Court, 10, Lombard Street, E.C.3. 5708

LOUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON AND FRASER require experienced ASSISTANTS for work on a wide range of projects; good salaries will be offered to suitable applicants. Applications, giving details of age, training and experience, should be sent to 12, Baring Crescent, Exeter. 5688

QUALIFIED SENIOR ARCHITECTURAL ASSISTANT and JUNIOR required in one of the most delightful towns in the country. Applicants should be genuinely interested in a varied private practice, the work including Schools, Hospitals, Banks, Shops and Housing. Bonus and Pension Schemes in operation. Salary according to ability. Excellent prospects. Apply in confidence to Messrs. F. J. Leeson & Partners, A/R.I.B.A., 16, Broad Street, Stamford, Lincs. 5690

TOP grade ARCHITECTS and ASSISTANTS required urgently for Midland offices. Applicants must have a progressive outlook and be willing and able to accept responsibility. Salary range £700-£1,400. Further particulars on application. Box 5662.

GOUGH COOPER & COMPANY LIMITED require an ASSISTANT ARCHITECT

Experience in domestic design and estate layout an advantage. Excellent opportunity for a qualified man seeking a position of responsibility in an expanding office. Salary £1,150 p.a. rising to £1,250 after probation. Pension Scheme. Staff canteen. Apply in writing to: Chief Architect, Gough Cooper & Co. Ltd., Wilmington House, Wilmington, Dartford, Kent. 5731

ROBERT MATTHEW & JOHNSON-MARSHALL require ASSISTANTS at all levels to work in their Edinburgh and Dundee offices on major Hospital, University and Power Station projects. £700-£900 for recently qualified Assistants; £1,000-£1,500 for higher grades. Apply to 21 Regent Terrace, Edinburgh, 7. 5508

INTERMEDIATE standard, office-trained ASSISTANT required immediately for small expanding office. Very varied programme of work and congenial atmosphere. Ability to work on own initiative essential. Salary by arrangement. Apply: Raymond J. Cecil, Dip Arch, A.R.I.B.A., 3 Mill Street, Hanover Square, W.1. MAYfair 6574. 5619

LONDON Building Surveyors Architectural Department require JUNIOR for general duties. Age 17-18. Good prospects for advancement. Write Box 5632 or ring MET 8001 for appointment.

DEPUTY STAFF ARCHITECT required by City firm of Surveyors, age 30-40. Apply giving full particulars and salary required to Box 5566.

OPPORTUNITY FOR FRUSTRATED INTERMEDIATE ASSISTANT WITH INITIATIVE AND IMAGINATION, UNABLE TO FIND POST OFFERING FREEDOM IN DESIGN OR CHANCE TO TAKE CHARGE OF PROJECTS WRITE OR PHONE NICHOLSON AND RUSHTON, 2 NEW SQUARE, LINCOLN'S INN, W.C.2. HOLBORN 2095. 5610

SENIOR ASSISTANTS required for work on large Hospital programme, excellent opportunities for the right men, salary £1,000-£1,400, Luncheon Vouchers and five-day week. Write giving full particulars to W. H. Watkins, Gray and Partners, 57, Catherine Place, S.W.1. 5633

OLD ESTABLISHED London Architects require ASSISTANTS capable of carrying out substantial commercial or school projects with some supervision. Telephone Mr. Shail, Mayfair 2549 for appointment, or write Box 5615.

WOLVERHAMPTON. Norman & Dawbarn require an ASSISTANT in their Midlands Office. This position could afford useful experience of small and medium size jobs in a young but expanding office, with possibility of later transfer to London Office or overseas if desired. Minimum of two years' office experience required if qualified, four years if intermediate. Excellent working conditions, five-day week, three weeks' annual leave, lunch vouchers. Write or telephone 7, Portland Place, London, W.1 (LANGHAM 8011), or Heanton House, Salop Street, Wolverhampton (Wolverhampton 27387). 5628

ARCHITECTURAL STAFF:

(a) ARCHITECTS of considerable ability to join a team just about to commence the design of a new Broadcasting Headquarters in the Midlands. Also required—

(b) Experienced STAFF with ability in high quality detailing for project just starting in design stage for the new Headquarters for a Canadian Company in the Midlands. And:—

(c) Intermediate standard ARCHITECTS are invited to join staff for work on a most interesting project in detailing a newspaper building. Applications, endorsed "Appointment (a), (b) or (c)," to be sent to John H. D. Madin, 83/85, Hagley Road, Five Ways, Edgbaston, Birmingham, 16, as soon as possible. 5623

PLAYNE & LACEY require experienced and enthusiastic SENIOR ARCHITECTURAL ASSISTANT for work on University project. Salary range £1,200 to £1,500. Write 19 Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2552 for interview. 5617

ARCHITECTURAL ASSISTANTS required with practical experience. Varied practice including contemporary work. Salary £700-£1,100 (plus L.V.s), according to qualifications and experience. Please write, giving full particulars, to Sir Giles Scott, Son & Partner, 9 Gray's Inn Square, W.C.1. 5601

JUNIOR ARCHITECTURAL ASSISTANTS required. Salary range £750-£1,250 p.a. depending upon experience. Write with fullest details of experience. Box 5602. 5602

JUNIOR ASSISTANT required, minimum of one year's experience preferred. Varied and interesting work. Study time allowed. Colcutt & Hamp, 86, Prince Albert Road, Regent's Park, N.W.3. PRImrose 5157. 5671

LEWELLYN SMITH & WATERS require ASSISTANTS in the following categories: DESIGNERS to prepare and develop sketch designs for every type of work. Imaginative outlook and good sense of detail essential. £1,000-£1,250. JOB ORGANISERS to take charge of jobs: able to control drawing office and site work and deal with Consultants and Specialists. £1,000-£1,250. ASSISTANTS interested in working on a wide range of projects. Good opportunities for young men of ability. £700-£1,000. Salaries listed are commencing salaries and there is scope for advancement.

Vacancies in both London and Worcester offices. Write: 103 Old Brompton Road, S.W.7. (KEN 4477). 5777

ARCHITECTURAL ASSISTANTS of Final and Intermediate standard, required by J. Seymour Harris & Partners to form new design groups in their expanding London practice. New office block in Embankment Place immediately adjacent to Charing Cross Station. Five-day week. Private pension scheme. L.V.s. Carrara House, 20, Embankment Place, W.C.2. WHI 5921. 5659

LIVERPOOL £900-£1,200

Starting range. Reviewed annually or more frequently if willingness and ability shown. Five-day week. Interview and removal expenses paid and assistance in solving any accommodation problem. Write full particulars to G. de C. Fraser, Son and Gearey, 27, Dale Street, Liverpool, 2. 5660

ARCHITECTS and ASSISTANTS with enthusiasm and progressive approach required for an exciting programme covering a wide field. First class design and drawing ability and willingness to accept responsibility vital. Five-day week. Superannuation and profit share scheme. Generous motoring arrangements for senior staff. Telephone DERBY 49287 or write for appointment to Morrison and Partners, 103, Belper Road, Derby. 5661

£850 TO £1,150 offered to keen young ASSISTANTS with at least three years' office experience. Must be good draughtsman and have sound knowledge of construction. Hours 9.30 to 5.30. Five-day week. Apply in writing to William Ryder, 21, Braton Street, Berkeley Square, W.1. 5664

REQUIRED immediately, experienced ASSISTANTS about Intermediate or higher standard. Applicants actively working for qualification preferred and study time allowed. Varied work including multi-storey flat and redevelopment schemes. Colcutt & Hamp, 86, Prince Albert Road, Regent's Park, N.W.3. PRImrose 5157. 5670

INTERMEDIATE and FINAL ASSISTANTS required immediately, salary range £800 to £1,200. Experienced in planning of Flats and Commercial properties essential. Box 5713. 5713

EXCELLENT opportunities for experienced ASSISTANT ARCHITECTS and JUNIOR ASSISTANTS with design ability in extensive South Coast practice. Five-day week and good salaries according to experience. Apply with full particulars to Box 5673. 5673

ARCHITECTURAL ASSISTANT. Benskin's Watford Brewery Limited, a member of the Ind Coope Group, have a vacancy for a qualified ASSISTANT. Salary up to £1,250 depending upon experience and qualifications. Contributory Pension Scheme, offering considerable benefits before and after retirement. Five-day week. Canteen. If you are interested in "Pubs" both new and old, please apply giving full personal details to J. C. F. James, F.R.I.B.A., Benskin's Watford Brewery Ltd., P.O. Box 105, 194, High Street, Watford. 5674

ARCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 918, c/o 7, Coptic Street, W.C.1. 5647

GOOD salaries, congenial office conditions and interesting work offered to ASSISTANTS both Final and Intermediate standard in the office of Mr. J. Brian Cooper, F.R.I.B.A., 30, St. George Street, Hanover Square, London, W.1. Telephone GROSVENOR 6544. If you are interested, please write, telephone or call and see me. 5652

GOOD salaries, congenial office conditions and interesting work offered to ASSISTANTS both Final and Intermediate standard in the office of Mr. J. Brian Cooper, F.R.I.B.A., 38, Highfield Road, Edgbaston, Birmingham, 15. Telephone EDGBASTON 5161. If you are interested, please write, telephone or call and see me. 5653

ARCHITECTURAL ASSISTANT required for small busy practice in W.C.1 area. Good all round experience required. Surveys, sketch plans, working drawings, details, etc. Salary £700 to £800. Tel. CHIA 7611. 5665

ARCHITECTURAL ASSISTANTS required for Hospital and other work, 5-day week and pension scheme. Apply giving age, qualifications, experience and salary required to Adams, Holden & Pearson, 38, Gordon Square, W.C.1. 5732

GRENELL BAINES & HARGREAVES require one fully qualified ARCHITECT of first class design ability to work in their Manchester office on a large scale University Development project in the first instance. Salary between £1,000 and £1,500 per annum. Five-day week, salary reviewed annually, overtime paid in cash or additional leave. Please contact D. A. Cobb, Associate Partner, or S. B. Downs, 423, Oxford Road, Manchester, 13. Telephone: ARDWICK 1308-9. 5742

ARCHITECTS in Private Practice in the Home Counties will pay £1,000 to £1,500 per annum to competent ARCHITECTURAL ASSISTANTS. Will also pay up to £1,000 per annum for competent JUNIOR ARCHITECTURAL ASSISTANTS. Varied and interesting work in hand. Write stating age, experience and salary required to Box 5733. 5733

SENIOR ASSISTANT required by long established firm of architects at Chester. A suitable applicant would be offered a junior partnership after two years' satisfactory service. Experience in the design of large school projects would be an advantage. Box 5725. 5725

OPPORTUNITY for intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding practice in Croydon. Apply to Donald Rowwell & Partners, 11/11a, George Street, Croydon, or telephone CROYDON 4080. 5723

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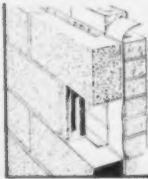
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Panther Ceilings, Ltd.....	76	1132
Permanite, Ltd.....	99	0458
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Pilkington Brothers, Ltd.....	37	0472
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Pyrene Co., Ltd.....	132	1256
Quickset Water Sealers, Ltd.....	125	0791
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Rustless Iron Co., Ltd.....	122	0525
Sanders & Forster, Ltd.....	12, 13	0533
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Solid Smokeless Fuels Fed.....	84	0575
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Tretol, Ltd.....	7	0638
Troughton & Young (Lighting), Ltd.....	90	0640
Tunnel Portland Cement Co., Ltd.	89	0647
Turners Asbestos Cement Co., Ltd.	4	0644
Ulster Chipboard Co., Ltd.....	63	1136
Venesta Plywood, Ltd.....	113	0810
Ward & Co. (Letters), Ltd.....	133	0676
Ward, Thos. W., Ltd.....	154	0677
Wardle Engineering Co., Ltd.....	30	0678
Weaver Manufacturing & Engi- neering Co., Ltd.....	132	0993
Williamson, Jas., & Son, Ltd.....	36	1129
Wright, John, & Sons, Ltd.....	118	1176
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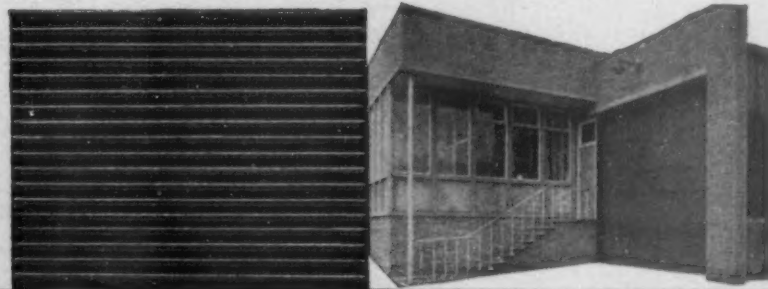
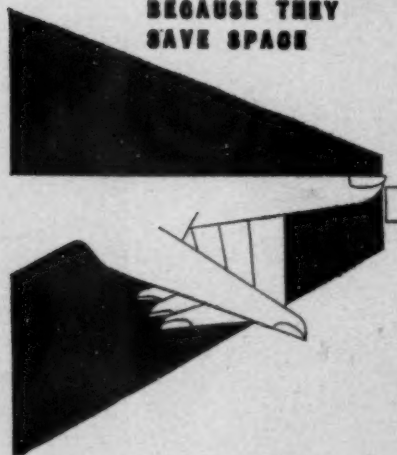
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Accrington Brick & Tile Co., Ltd.	134	0003	Furse, W. J., & Co., Ltd.....	150	0241	Panther Ceilings, Ltd.....	76	1132
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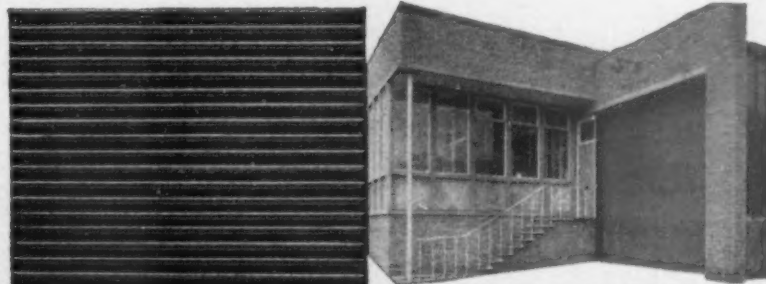
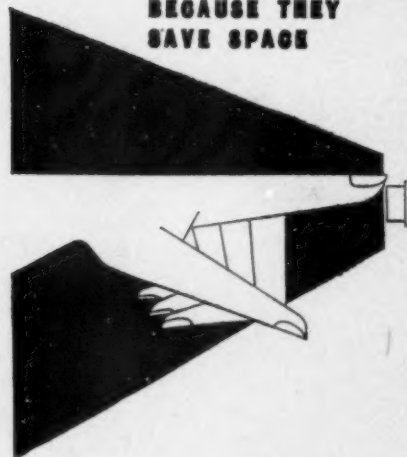
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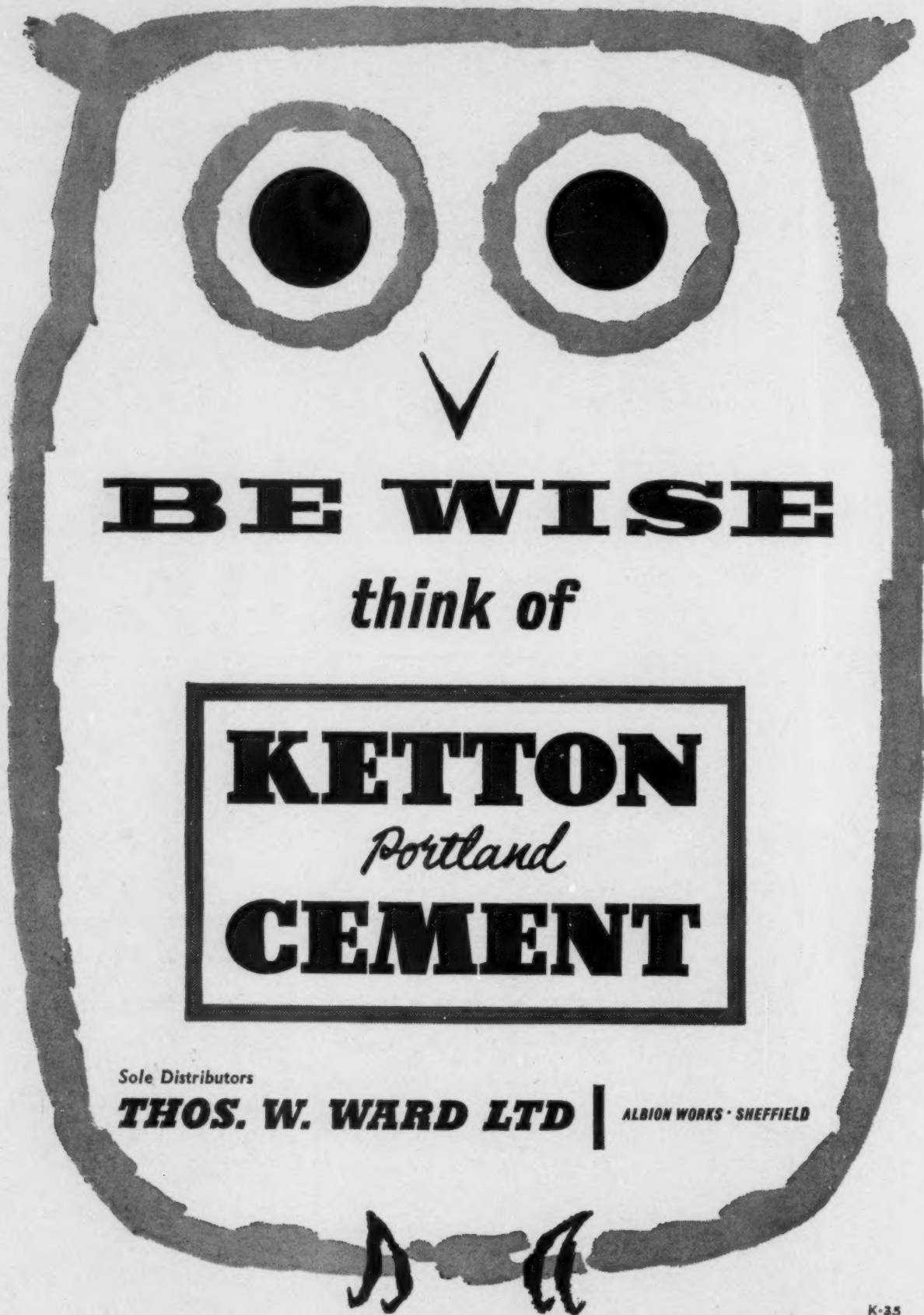
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