

# THE ARCHITECTS' JOURNAL



## standard contents

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

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*Wanted and Vacant*

No. 3423]

[Vol. 132

THE ARCHITECTURAL PRESS

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★ 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 H one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: J. H. Holden, College of Art, Cavendish Street, Manchester 15	Langham 5533
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Victoria 0447-8
ABT	Association of Building Technicians. 1, Ashley Place, S.W.1.	Whitehall 9737
ACGB	Arts Council of Great Britain. 4, St. James's Square, S.W.1.	Mayfair 7501/8
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Langham 5861
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 5721
BAE	Board of Architectural Education. 66, Portland Place, W.1.	W.C.1.
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.	Fromantle 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.	Glasgow Central 2891
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Chancery 7772
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Langham 2785
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Trafalgar 8855
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, S.W.1.	Garston 4040
BRS	Building Research Station. Bucknalls Lane, Watford.	Mayfair 0515
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 9000
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	C/o S. A. G. Cook, A.R.I.B.A., Borough
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 S. Vincent Goodman, F.R.I.B.A., Shire Hall, Bedford.	Bedford 67444
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
COID	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, 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.	Sloane 4554
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, 100, Park Street, Grosvenor Square, W.1.	Mayfair 7086

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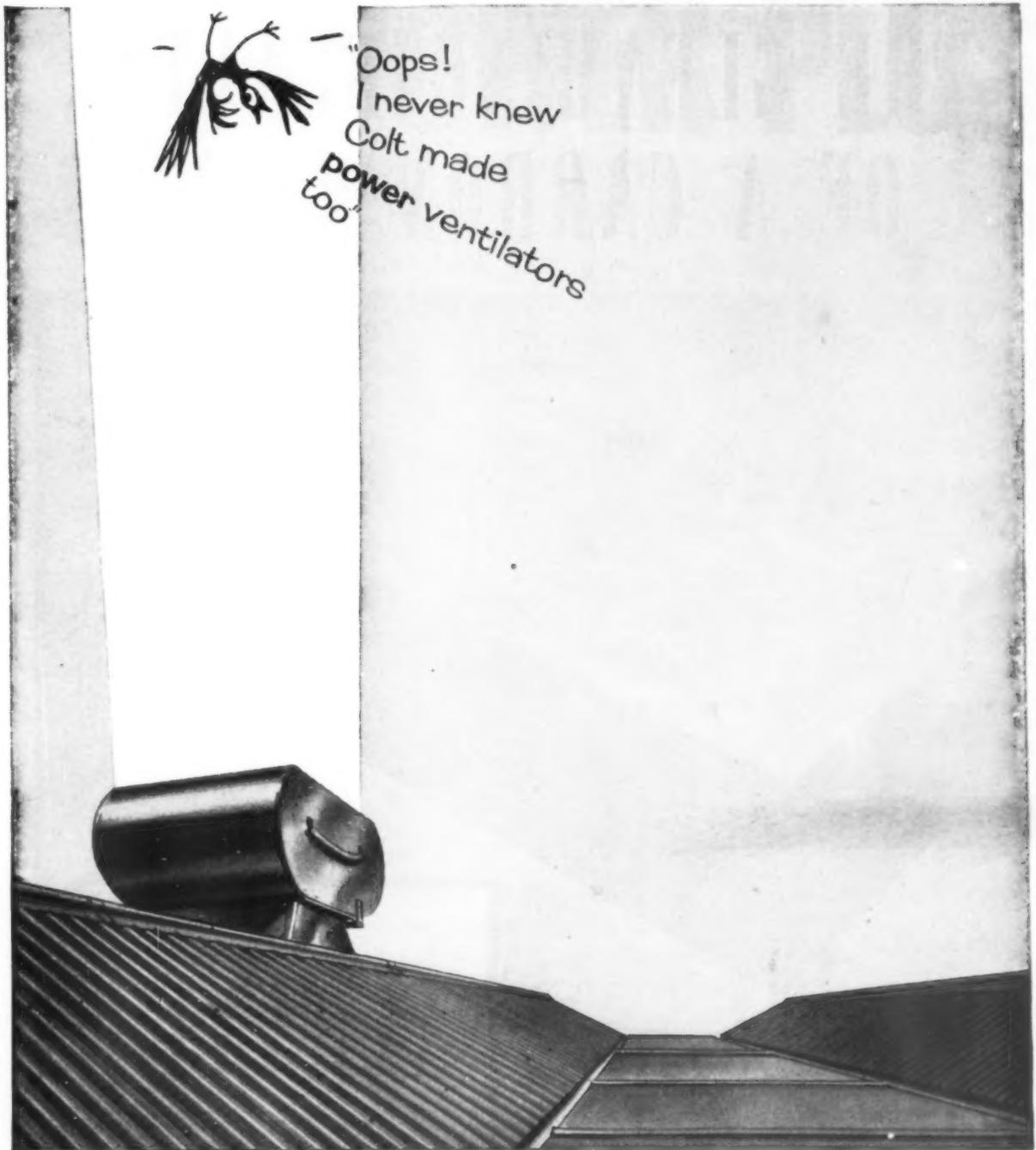
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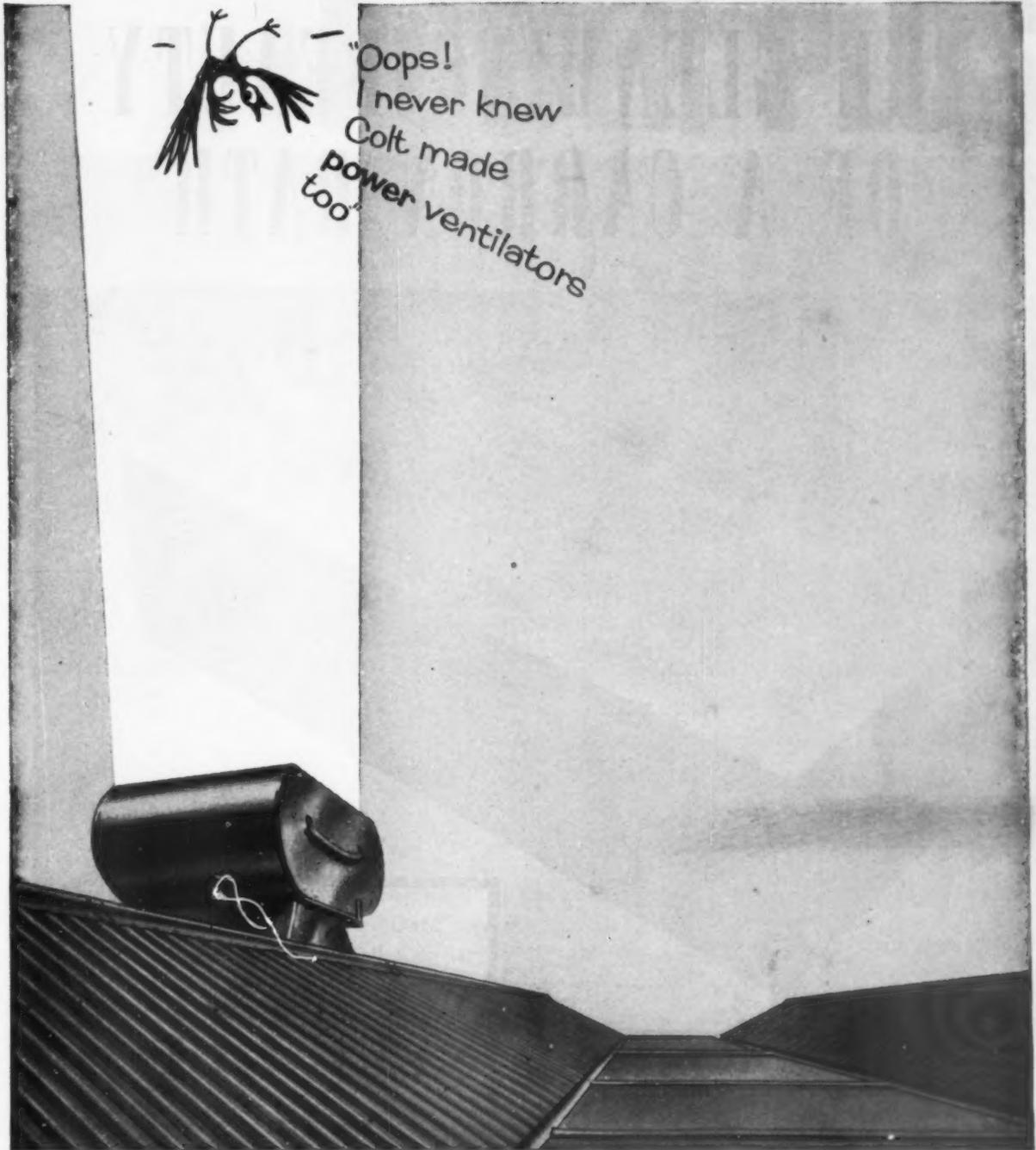
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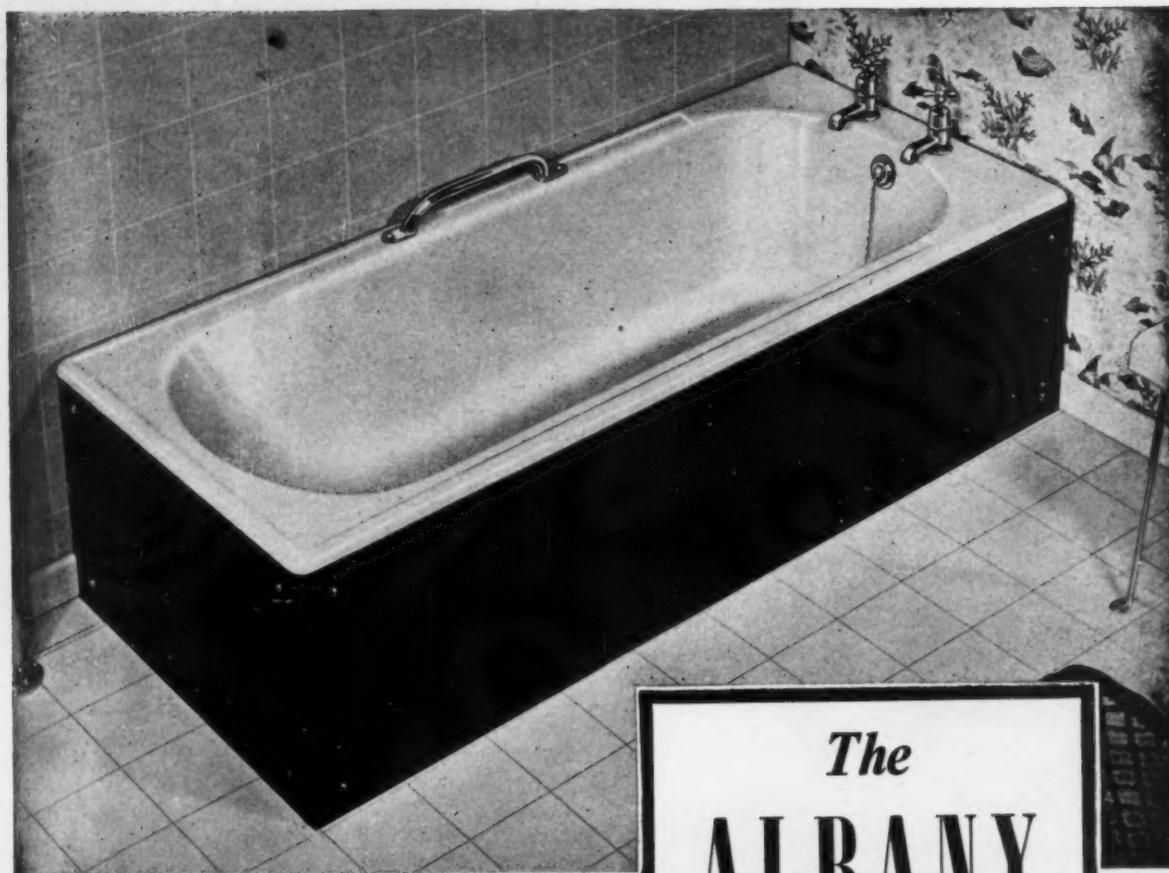


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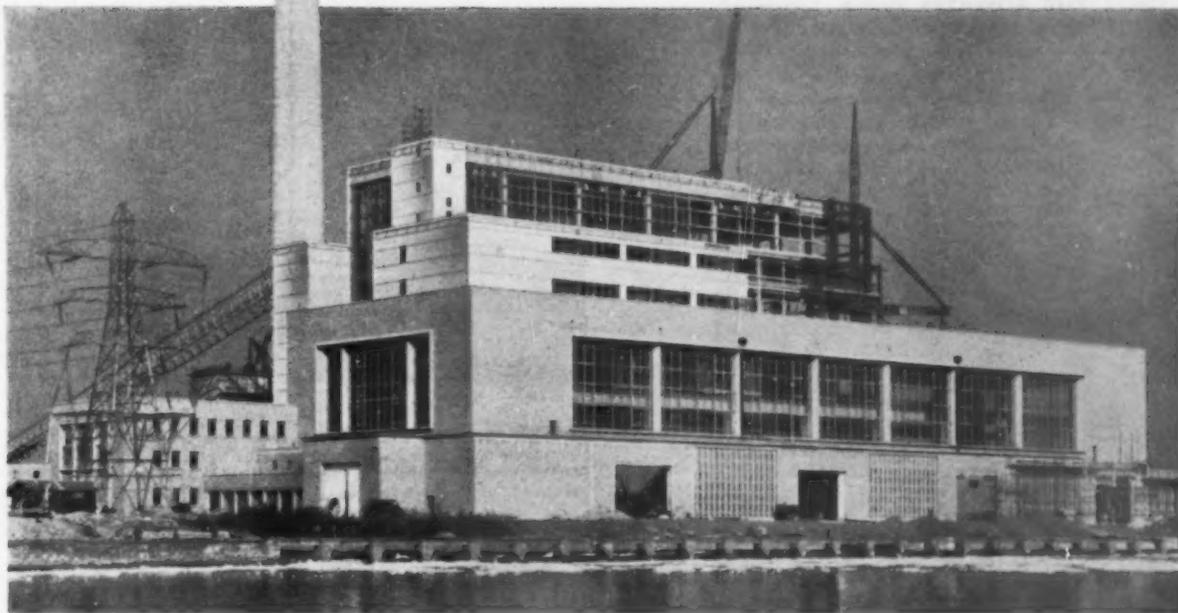
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Consulting Engineers & Contractors  
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Acknowledgements to  
Chief Project Engineer,  
Mr. R. R. Maddock, B. Eng., A.M.I.E.E., A.M.I.  
[Mech. E.,  
C. E. G. B. Midland Project Group.

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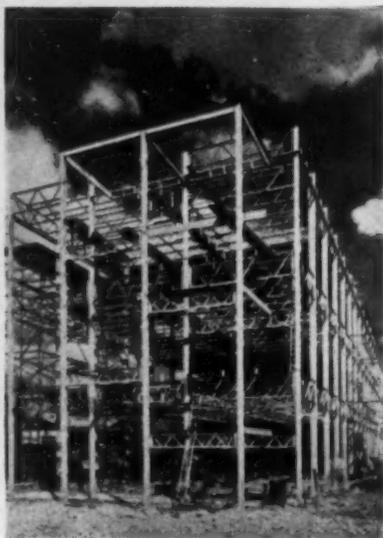
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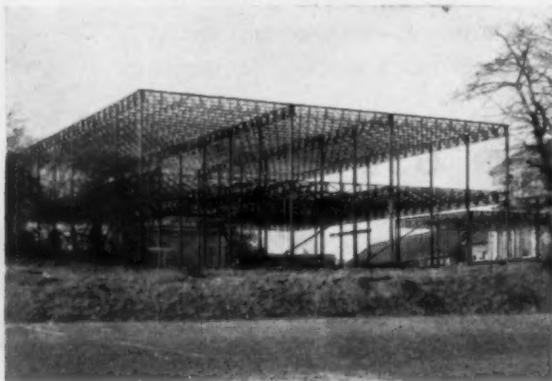
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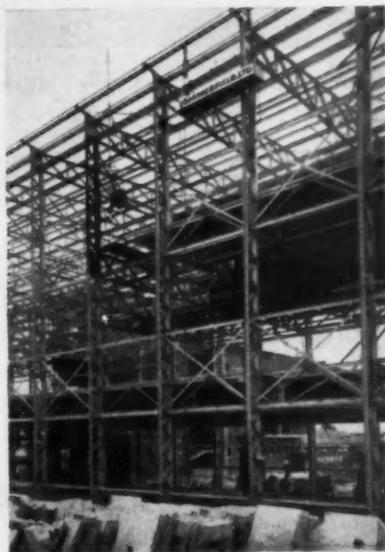
**YORK.** For the City of York a Grammar School, Sommerfelds designed the Steelwork on a 3 ft. 4 in. modular grid allowing complete freedom for the Architect to use curtain walling and internal arrangements.

Architect: E. Firth, F.R.I.B.A., A.M.T.P.I., City Architect.



**B.E.A.** For this B.E.A. Building, speed was the essence of the Contract. Sommerfelds designed the Steelwork and from unloading the first lorry on site to the completion of a 250 ton steelwork erection took three weeks.

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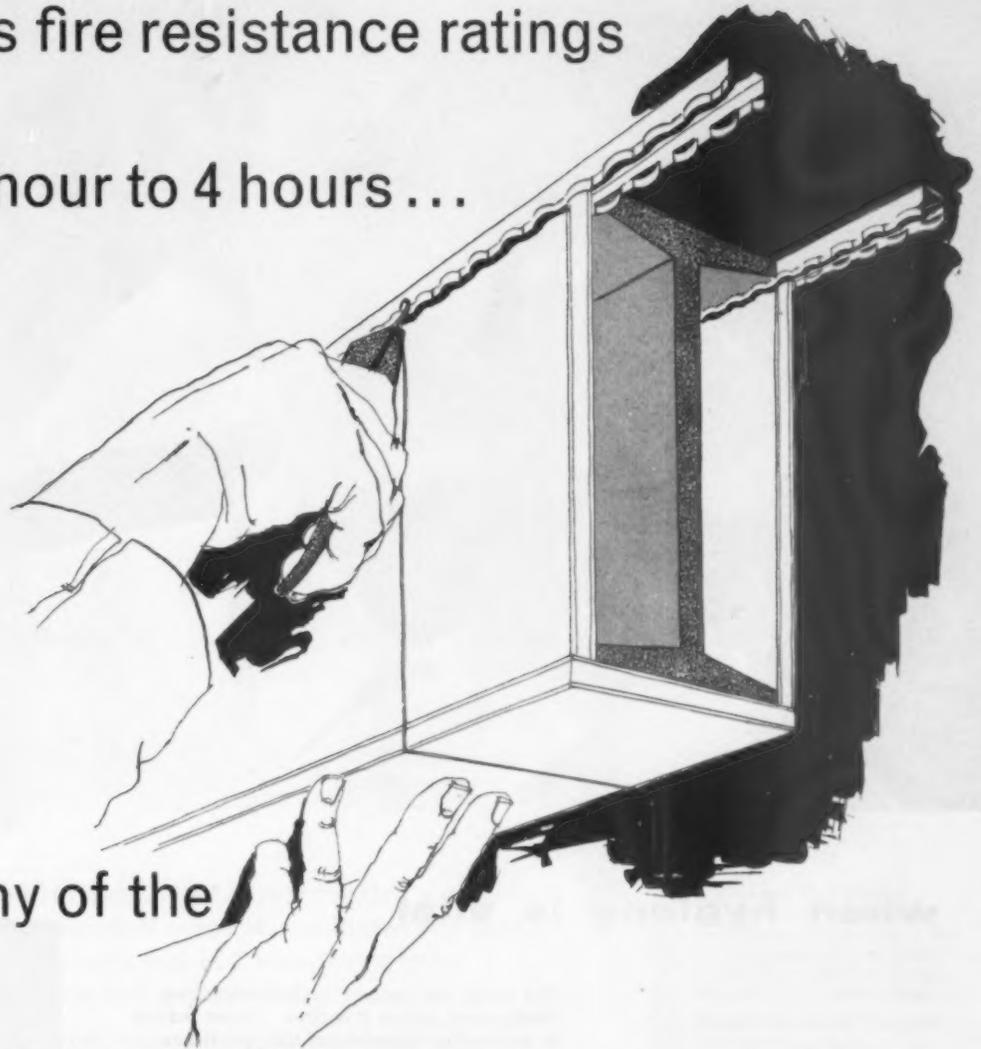
**I.C.I.** For I.C.I. a Laboratory Block. A multi-storey building with a height to eaves of 44 ft. and uninterrupted spans of 50 ft. on each floor. Deep Lattice Beams and light stanchions were used with considerable saving in steel requirements. Architects: Messrs. J. Douglass Matthews & Partners.

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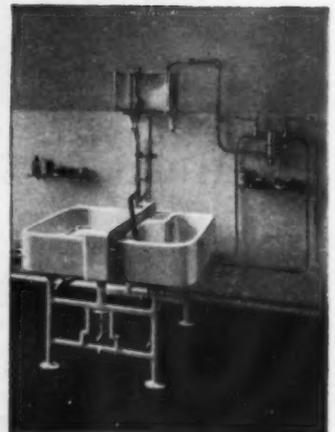


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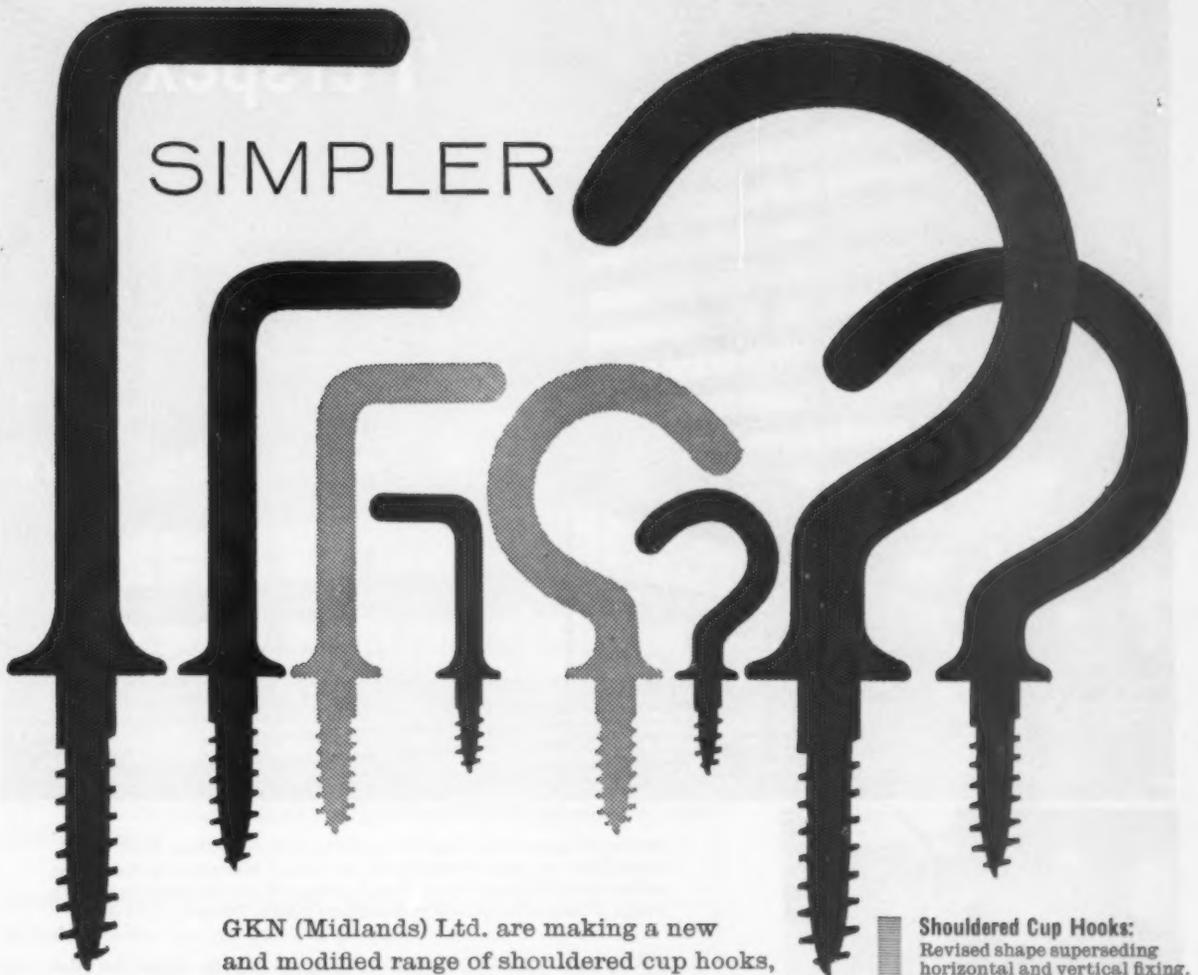


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S/C.H/2954

# Castrol House well-lit through 'Perspex'



Architects: Gollins, Melvin, Ward & Partners Con. Engs.: Edward A. Pearce & Partners

Exterior of Castrol House built for Castrol Limited, Marylebone Road, N.W.1, showing the very large installations of cold cathode fluorescent lighting fittings made by Ionlite Limited, Scrubs Lane, London, N.W.10. The continuous trough fittings all have diffusers made from diamond pattern 'Perspex' acrylic sheet.



The Vista Lounge on the top floor of Castrol House showing small ceiling lighting fittings moulded from 'Perspex' acrylic sheet by Frederick Thomas & Co., Stanhope St., London, N.W.1.



The DAEMPA ceilings throughout Castrol House are fitted with continuous trough cold cathode lighting with diffusers made from diamond pattern 'Perspex' acrylic sheet by Ionlite Limited, Scrubs Lane, London, N.W.10.

**I**ONLITE LIMITED chose 'Perspex' acrylic sheet for the diffusers on the cold cathode lighting fittings recently installed in the 'Daempa' aluminium suspended ceilings in Castrol House. The covers are shaped from patterned 'Perspex' acrylic sheet, to diffuse the light and to secure a smooth integrated appearance throughout the installation. By using 'Perspex', Ionlite Limited were able to select, from the wide range of colours and finishes now available, the material best suited to the different types of fitting necessary in this installation. The use of 'Perspex' made it possible to produce these specially designed covers economically without high tool costs.

For the specially designed ceiling fittings made by Frederick Thomas & Co. for the Vista Lounge, 'Perspex' was specified for the diffusers.

The advantages of 'Perspex' illustrated in this very large installation are equally applicable to your own lighting problems.

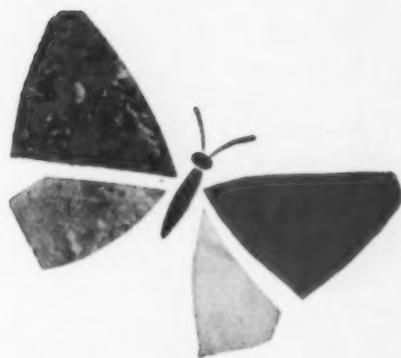
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AP 29

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(Right) Basket grate in fireplace of rough-hewn local stone burns coke.

(Left) Pump and calorifier are compactly installed in the airing cupboard next to the boiler.

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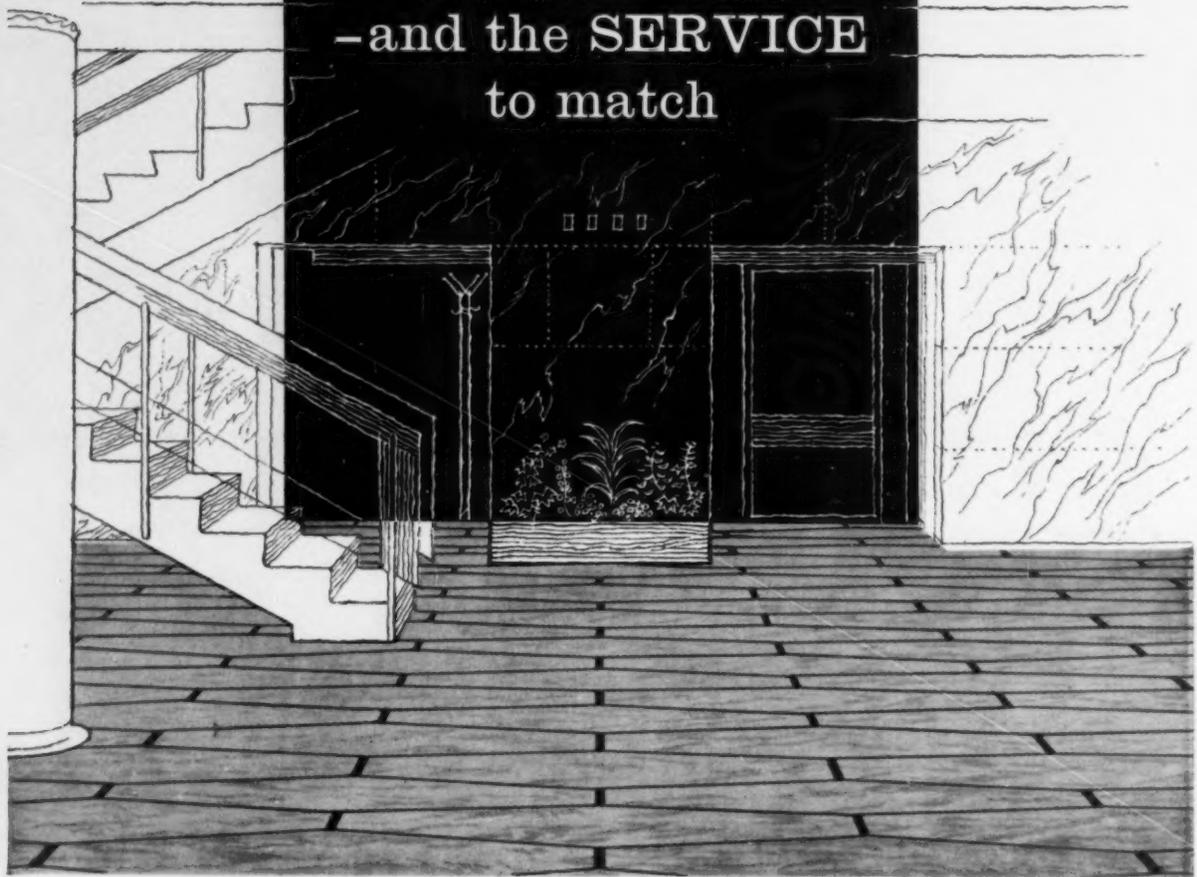
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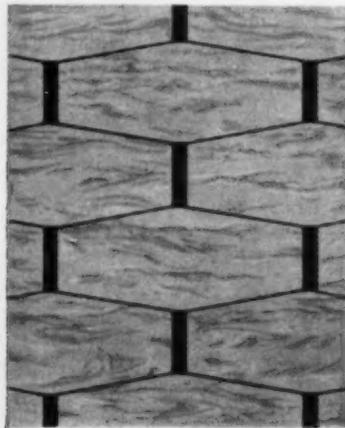
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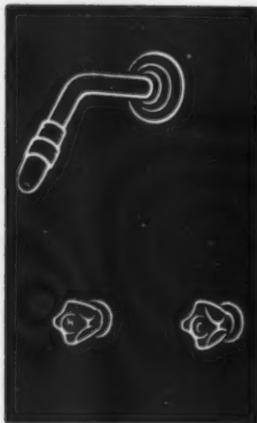
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Here are two compact electronic machines that between them can handle all your correspondence, record client conferences, make verbatim notes on site or take down both sides of a telephone conversation. It is a complete system that will operate either inside the office or out of it.

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**Both use the same  
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**LOOK INTO IT.** Write to the Advertising Manager at the address below for the fully illustrated brochure 'Time in Hand'.

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(Battery Operated) *Including basic accessories*

**Stenorette** Price **61½** gns.  
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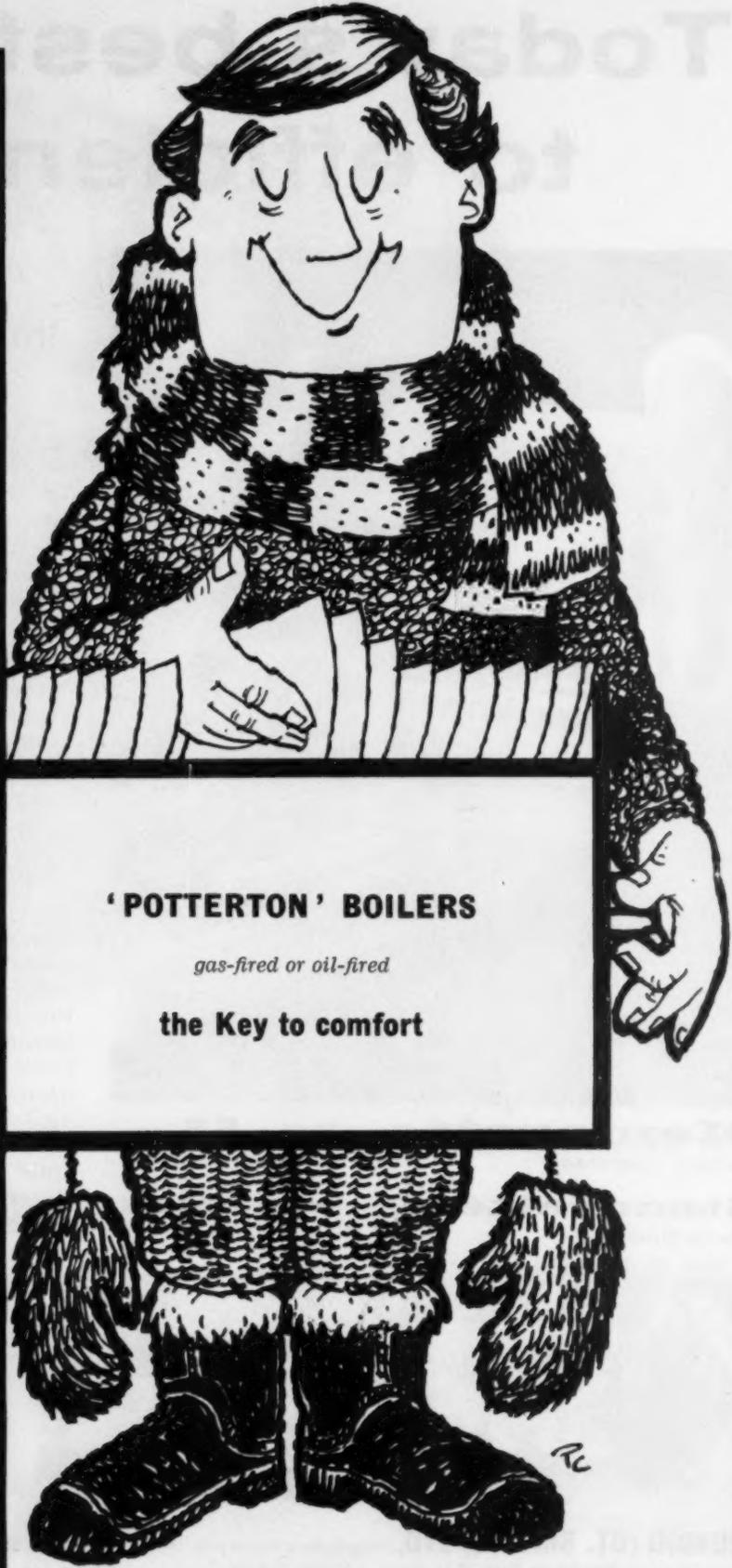


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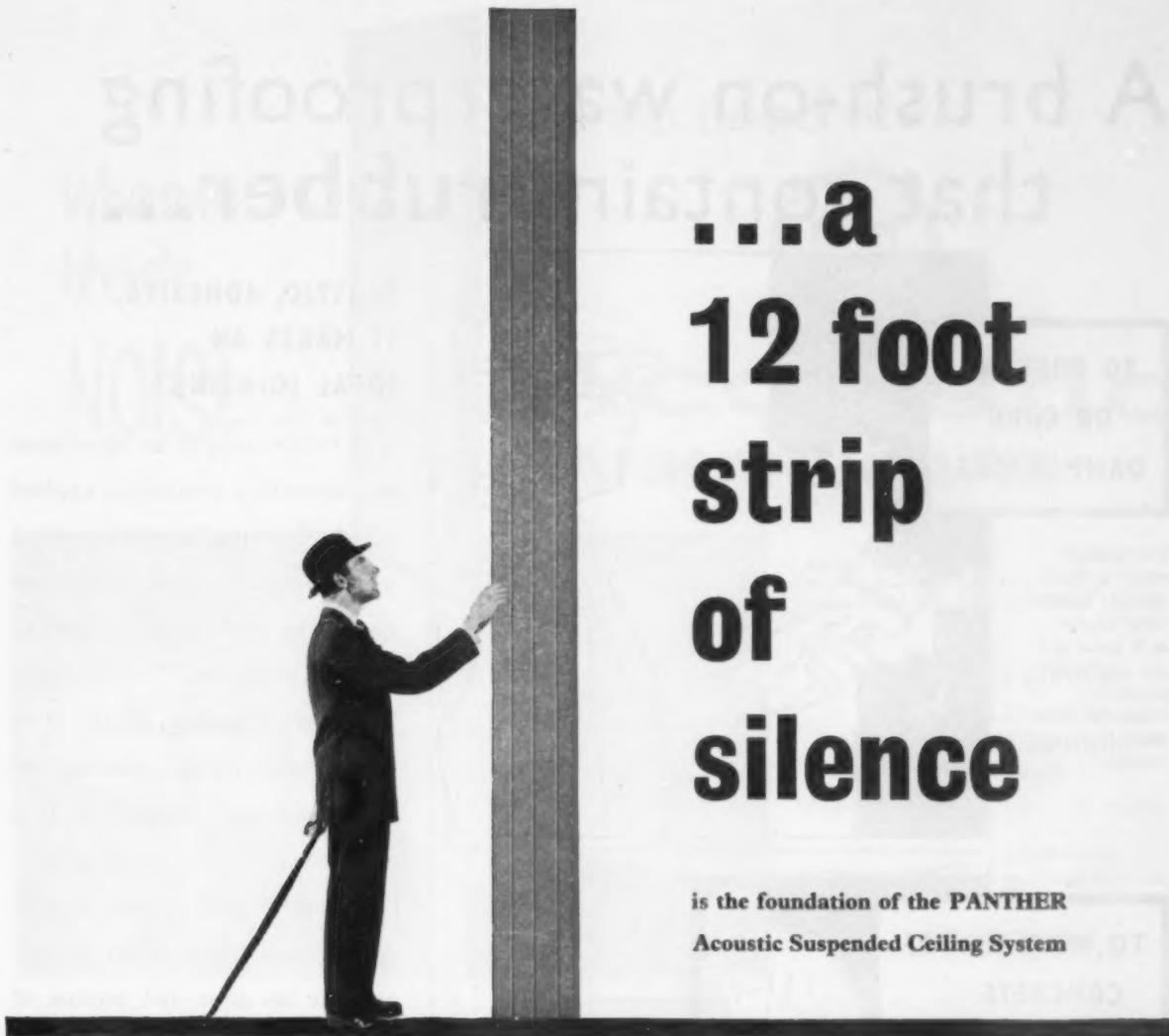
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is the foundation of the **PANTHER**  
Acoustic Suspended Ceiling System

- Lengths up to 12 feet by 12 inches wide.
- Three ribs forming four 3-inch strips.
- Panel sides bevelled to match ribs.
- In stove-enamelled steel or aluminium in any B.S.S. colour—or plastic-coated steel.
- Mineral wool blanket for efficient sound and heat insulation.
- Can be used with heating elements.
- Light fittings easily incorporated.

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IRVINE AYRSHIRE SCOTLAND. Tel: Irvine 2271  
London: Grand Buildings, Trafalgar Square, W.C.2. Tel: TRAFALGAR 6651  
Birmingham: Union Chambers, 62 Temple Row. Tel: MIDLAND 1993  
Subsidiary Company of AYRSHIRE DOCKYARD CO. LTD.

# A brush-on waterproofing that contains rubber...

## TO PREVENT OR CURE DAMP WALLS

*Synthaprufe makes a highly efficient vertical damp course both inside and out, and is an excellent treatment when damp is already present.*



## TO WATERPROOF CONCRETE SUB-FLOORS

*Synthaprufe is the ideal sandwich layer in concrete sub-floors. It is also the ideal fixative for linoleum and wood-blocks.*



## ELASTIC, ADHESIVE, IT MAKES AN IDEAL JOINTING

SYNTHAPRUFÉ is an all-purpose waterproofing compound applied cold by brushing. Its rubber content makes it strongly adhesive, and it sets quickly to form a strong, elastic, moisture-proof film.

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Synthaprufe, a by-product of British coal, is obtainable in drums and cans.

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\* "Synthaprufe" is a Registered Trade Mark

MANUFACTURED BY THE **National Coal Board**

BY-PRODUCTS, DOCKS, CARDIFF

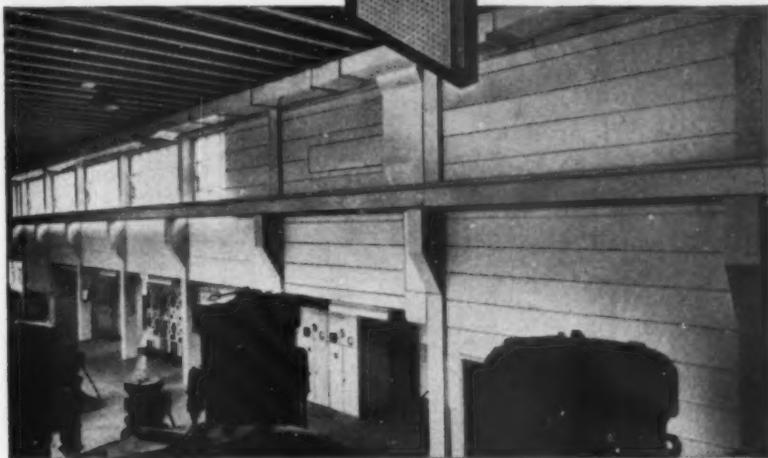
Wherever  
there's

NOISE...

there's need for



# Acoustic ANKARBOARD



#### PUMP ROOM

Acoustic Board Installation by:  
DAWBER, TOWNSLEY & CO. LTD. HULL

#### NEW PUMPING STATION for City and County of KINGSTON-UPON-HULL WATER DEPT.

*Tophill Low · Watton · E. Yorks*

T. H. JONES M.I.C.E., M.I.W.E.,  
CHARTERED CIVIL ENGINEER, WATER ENGINEER  
AND MANAGER

Main Contractors  
A. E. FARR LTD. WESTBURY, WILTSHIRE

Acoustic Ankarboard is available as boards or tiles in either  $\frac{1}{2}$ " or  $\frac{3}{4}$ " thickness and there is a choice of regular or random perforations. Regular perforations are 4 m/m holes at 15 m/m centres and random perforations are 4 m/m and 7 m/m holes. In both patterns holes are of the necessary depth to provide maximum acoustic correction. Corner holes of tiles are bored to half thickness for fixing, ensuring an excellent grip for nails or screws.

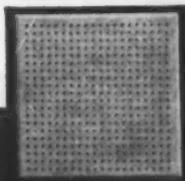
#### ACOUSTIC TILES

Are bevelled on all four edges and are available in five sizes 12"x12": 12"x24": 24"x24": 16"x16" and 16"x32" ( $\frac{1}{2}$ " thickness only).

#### ACOUSTIC BOARDS

Are supplied with shiplot joints on two long edges or if required on all four edges and are available in 12" or 16" widths by lengths of up to 16'.

All acoustics are supplied surfaced with white washable paint and can also be obtained surfaced with fire retardant paint to Class 1 BSS 476/53.



#### ENTRANCE HALL

Ceilings by:  
DAWBER, TOWNSLEY & CO. LTD. HULL



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# "That new Power Station

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John Smith Crane!"



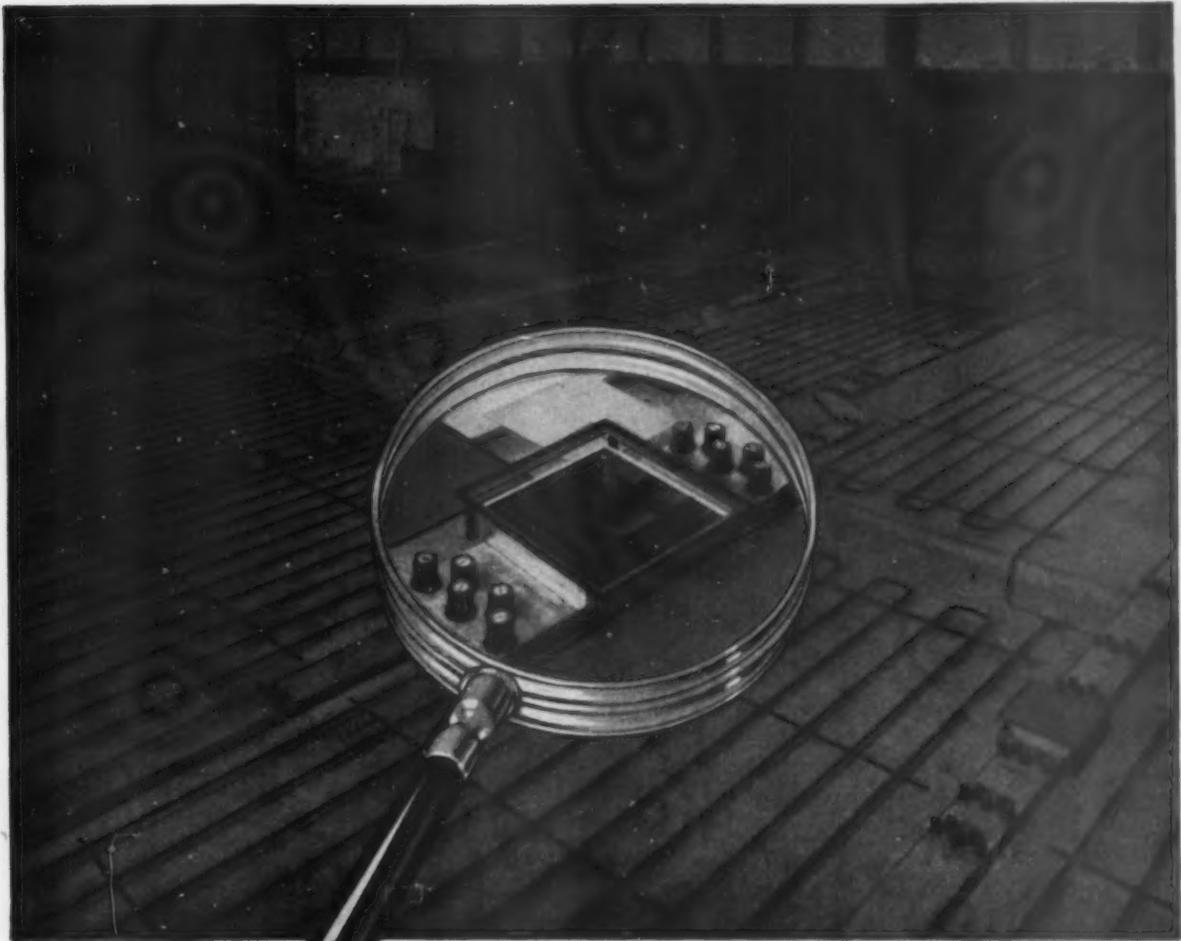
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London Office: Buckingham House, 19/21 Palace St, Westminster, London SW1. Southern Counties Office: Brettenham House, Lancaster Place, London WC2

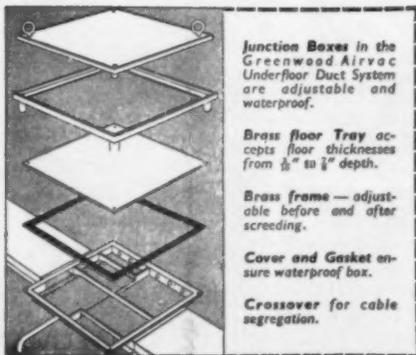


**LEVER BROTHERS  
CHOOSE**

Engineers: Engineers Dept., Lever Brothers, Port Sunlight, Ltd. Electrical Contractors: Troughton & Young Ltd.

## Greenwood Airvac Underfloor Duct System

FOR THEIR NEW UNILEVER EXPORT LTD OFFICE BLOCK AT PORT SUNLIGHT



The Greenwood Airvac Underfloor Duct System provides for flexibility in office and factory layout. Every feature is planned to meet the requirements of the Architect and Electrical Engineer.

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- ★ Waterproof Junction Box.
- ★ Ducting fitted with adjustable outlets.
- ★ Multi-way Crossover to segregate three or more cable services.
- ★ Universal pedestal unit suitable for Post Office or internal telephones, power and lighting.

In the new Unilever building the Greenwood Airvac Underfloor Ducting was laid in conjunction with an underfloor heating system.

Please write for further details and information about Greenwood Airvac Underfloor and Skirting Duct Systems or call to see the demonstration layouts in the Carlisle House Showroom.

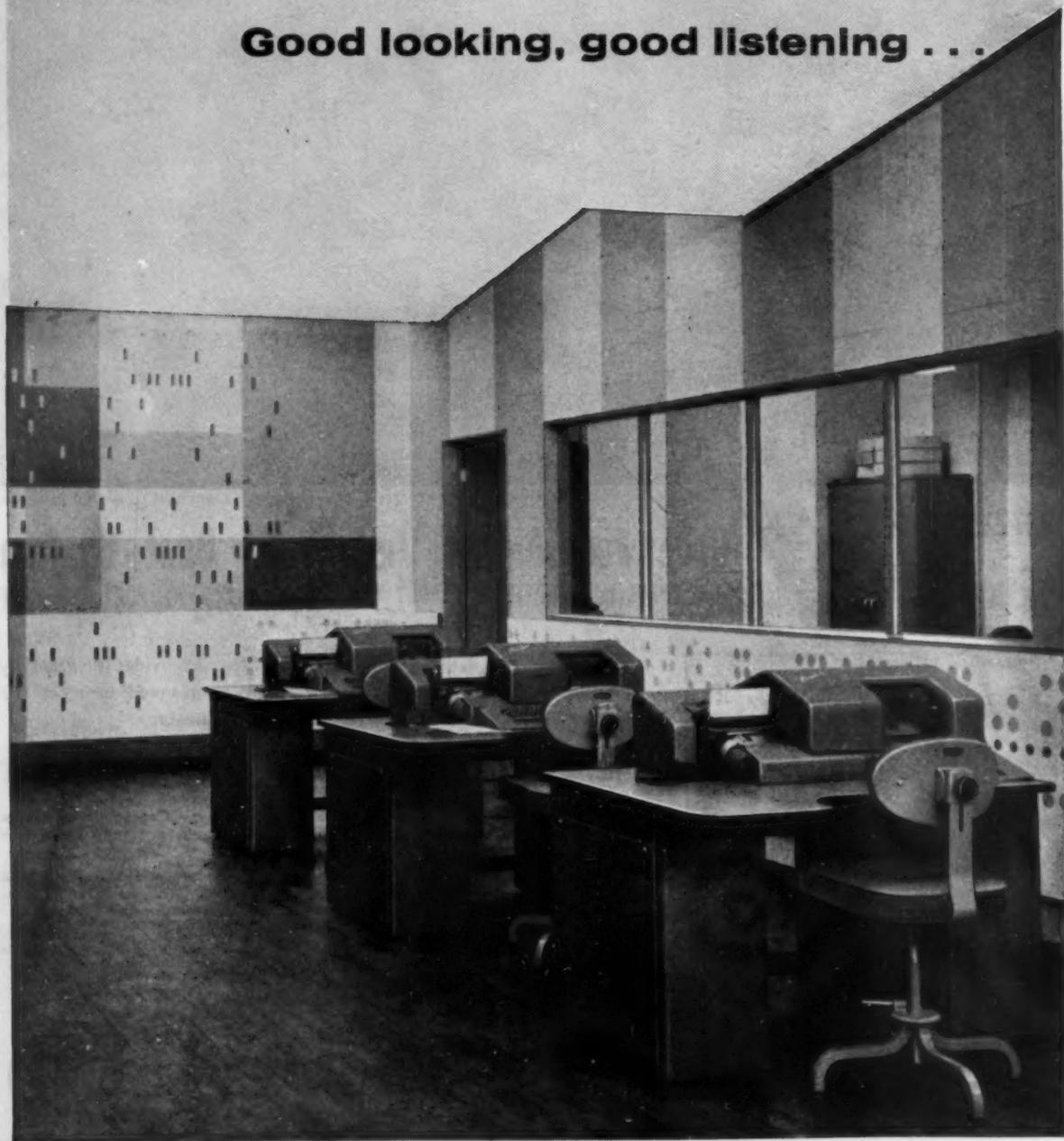
# Greenwood Airvac Conduits Ltd

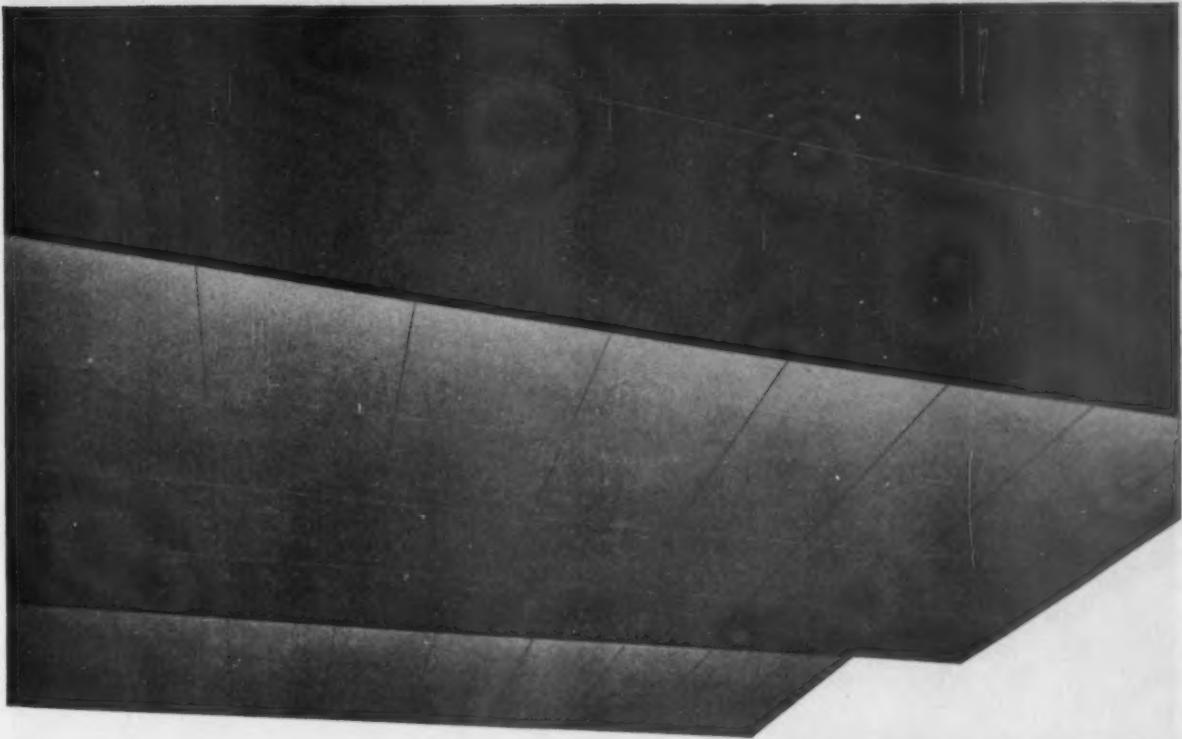
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**Armstrong**  
CORP COMPANY LTD.

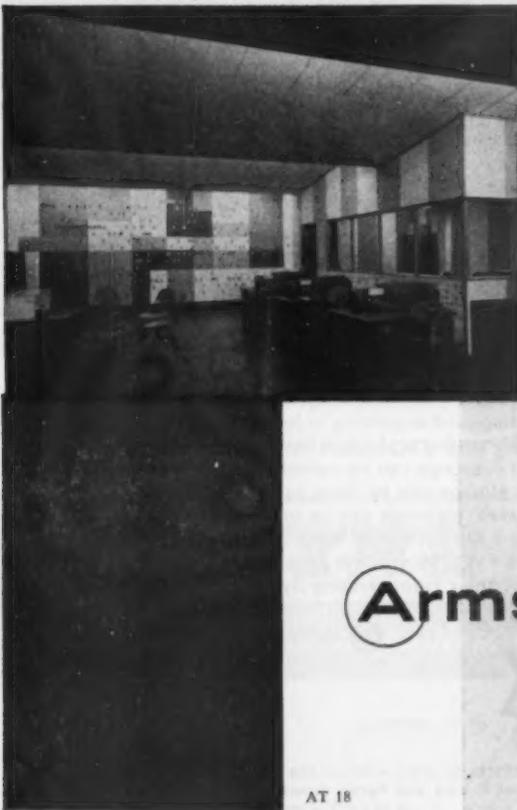
**Good looking, good listening . . .**





## only an **Armstrong** ceiling away

*De La Rue Bull Machine Co. Ltd. Showrooms, London, W.C.1  
Acoustic Contractors: Anderson Construction Co. Ltd.  
Surveyors: Messrs Whitely, Ferris and Puckridge.*



A noise-stricken age is beginning to react. Acoustic ceilings are in demand. And to ensure decorative harmony, good looks as well as efficient sound absorption are needed. Shown here is an acoustic ceiling of Armstrong Cushiontone tiles. Pine wood fibres compressed to a special density give these tiles a high sound-absorption coefficient. Their appearance is attractive—four designs are available—and several different methods of installation are possible, including the use of Armstrong's specially designed metal suspension system. Also available are Travertone (mineral wool) and Corkoustic (cork) tiles.

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ARMSTRONG CORK COMPANY LIMITED  
Acoustics Dept. 11a Carlisle Road, Colindale, London, N.W.9  
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\* Trademark owned by Armstrong Cork Company U.S.A. for a wood fibre acoustical material manufactured in U.S.A.

AT 18



This is St. Swithin's, a new church in Liverpool where the congregation will always be comfortable in the coldest weather

On the right are the men laying cables planned to last the lifetime of the building and to give real comfort conditions.

The architect, heating engineer, electrician, fitter and storekeeper all join in praising the new Simplex colour coding system. Floorwarming elements are now coloured and catalogued according to loading, e.g. Cat. No. BLU/20 simply means blue cable 2kW. Simplicity itself, yet it means that drawings can be colour-keyed to make laying foolproof; storage can be done by colour thereby eliminating mistakes; elements can be ordered and deliveries checked without risk of error. Send for the free brochure FW.2194 which is packed with information on Simplex Floorwarming Systems.

# Simplex

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W3.

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Photograph by courtesy of Appleby-Frodingham Steel Company (Branch of the United Steel Companies Limited)

Paints for Structural Steelwork in Industry must be tough —  
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**EVODYNE**

CHLORINATED RUBBER PAINTS

OVER

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THE PATENTED  
RED LEAD PRIMER

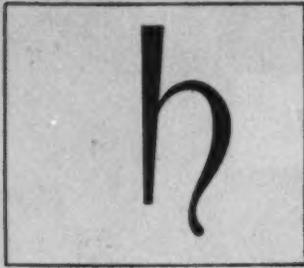
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\* **SEND FOR LITERATURE** EVODE LTD., (PAINTS DIVISION) STAFFORD. Telephone: 2241 (5 lines)  
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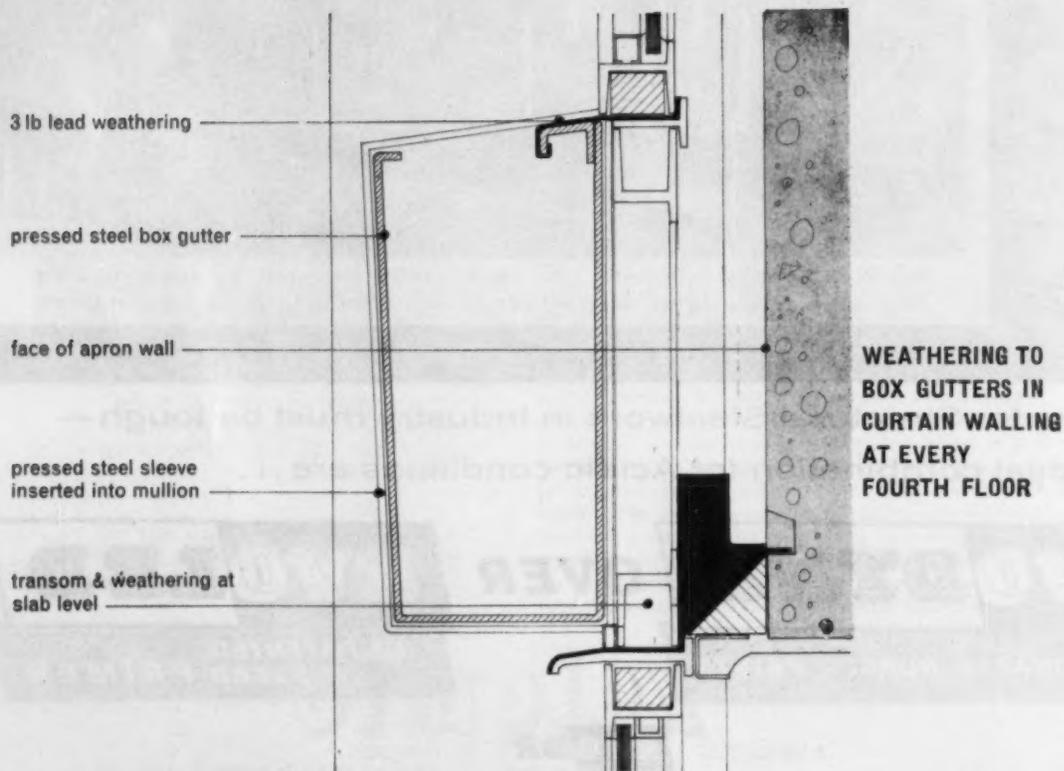


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TODAY AS YESTERDAY: TOMORROW AS TODAY—

## **LEAD** flashings protect for the centuries to come

Whenever detailing problems arise in applications of lead, such as those illustrated here, the Lead Sheet & Pipe Technical Information Bureau is available to give individual assistance. A series of Information Sheets which deal with most uses of lead sheet and pipe in building work is available for inclusion in office information files.



LEAD DEVELOPMENT ASSOCIATION

18 ADAM STREET

# use LEAD

## Some leadwork details in Moor House, London E.C.2

*Architects:*  
Lewis Solomon, Kaye & Partners, s.j.a.s.l.s.a

*Main Contractors:*  
Token Construction Co. Ltd.

*Cladding:*  
Aygee Ltd.



### WEATHERING TO TRANSOMS IN CURTAIN WALLING AT EACH FLOOR LEVEL

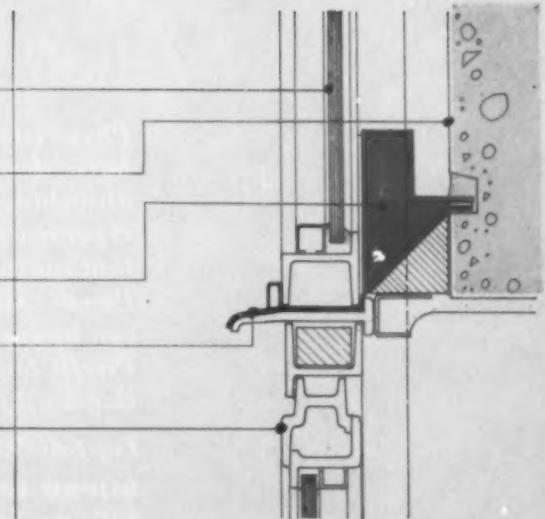
glass facing to apron wall

reinforced concrete floor slab

3 lb lead gutter dressed  
round back of mullion

3 lb lead weathering to transom

metal window



LONDON WC2

Telegrams: Leadevep, Rand, London

Telephone: WHItehall 4175

The logo features the word "PIRELLI" in a bold, sans-serif font, with a stylized horizontal bar above it that has a slight curve and a small gap. Below "PIRELLI" is the word "SAGA" in a similar bold, sans-serif font.

**PIRELLI**  
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*Physicists of the world famous Pirelli organisation have designed an entirely new aluminium sound absorbing acoustic panel. This Pirelli Saga panel represents highest all-round efficiency in the important matter of noise control.*

*Pirelli Saga panels are very simple to fit, and they can be easily removed and replaced.*

*Pirelli Saga panels are attractively made. Standard size 2 x 2 ft. They are not at all expensive.*

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- Pitch fibre pipes are light, non-brittle and precision made to BS 2760.
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AJ4



**PFPA**



Some of the 555 flats and maisonettes, incorporating Weatherfoil heating at the London County Council housing project, Brandon Estate, Southwark. Architect to the Council, Hubert Bennett, F.R.I.B.A.

## **WEATHERFOIL** for the Architect

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- *Low cost installation*
- *Economical running*
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- *Tenant pays by meter*

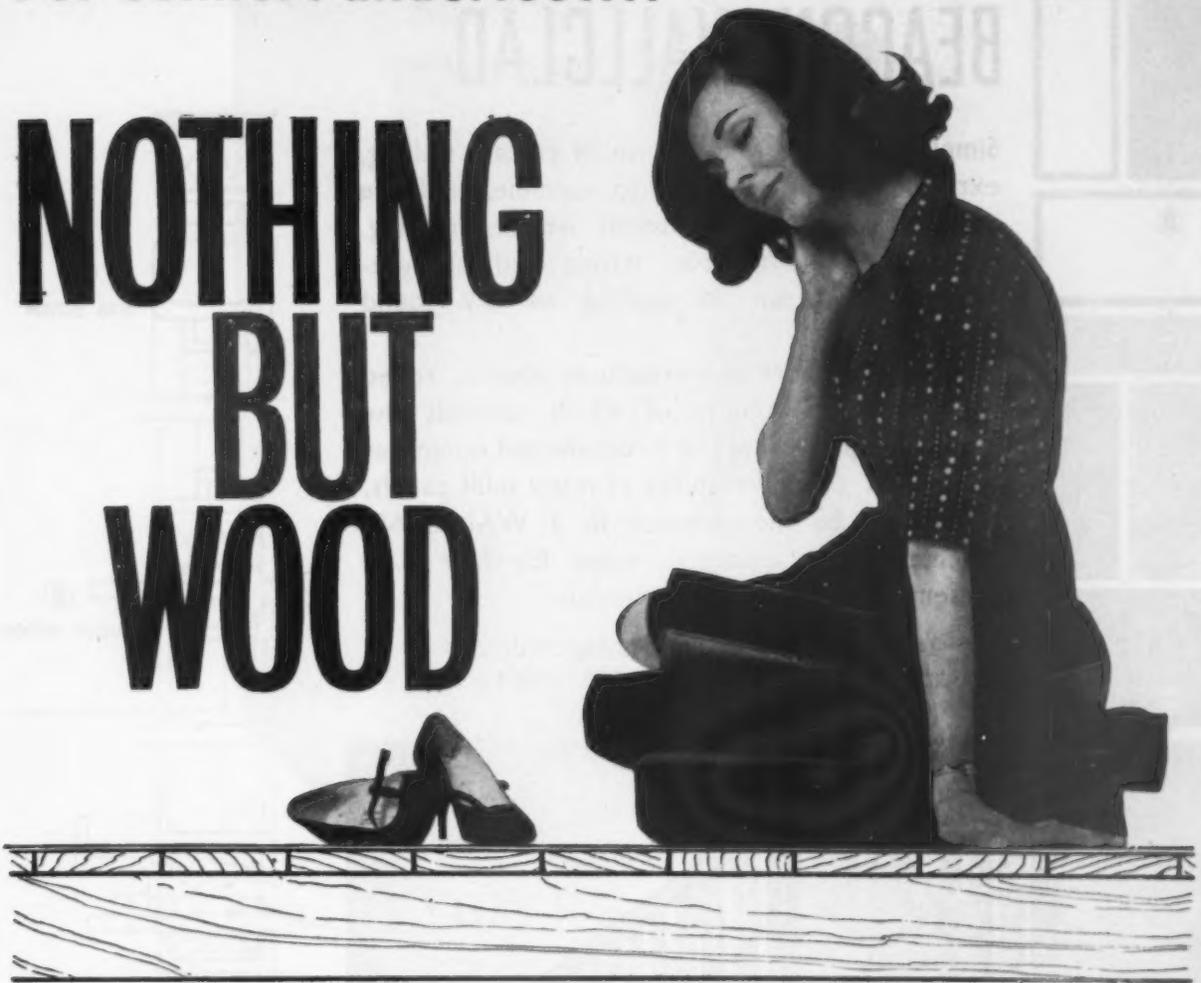
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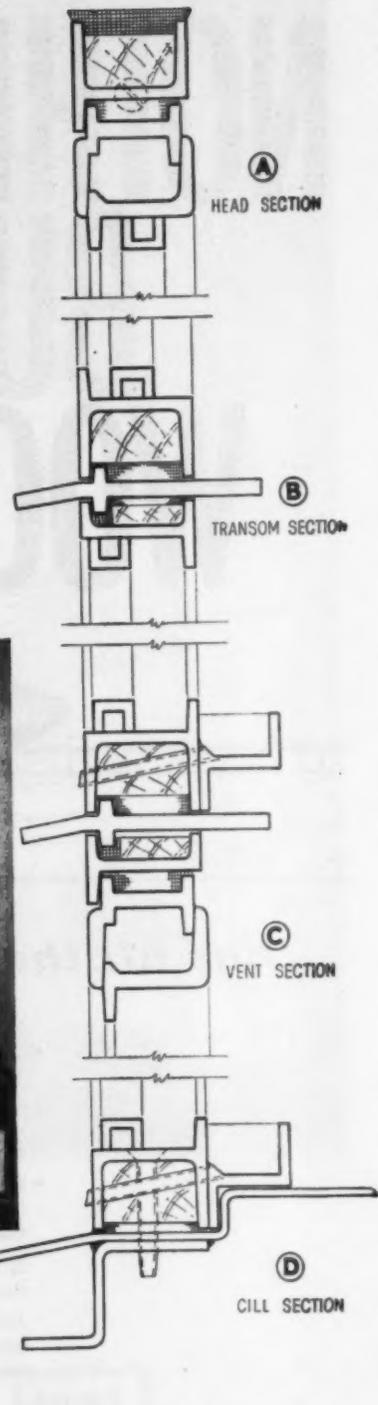
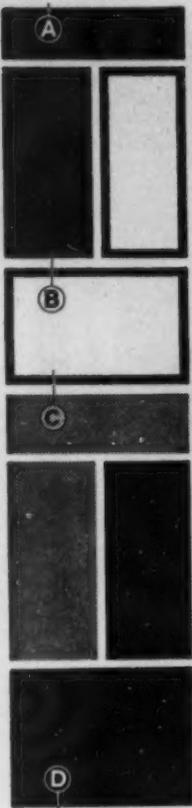
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*Simple yet versatile*, this form of curtain walling, extreme in application, easy to assemble, fulfils the rigorous conditions of exterior weatherproofing. WALLCLAD is flexible, strong and straightforward, and can be applied to any sound structure.

The main support is a cruciform section, rolled steel bar, the rigidity of which controls the uniform expansion of the structure and minimises distortion. The availability of many infill panels, which can be incorporated in a WALLCLAD scheme, allows extensive scope for first class presentation in building technique.

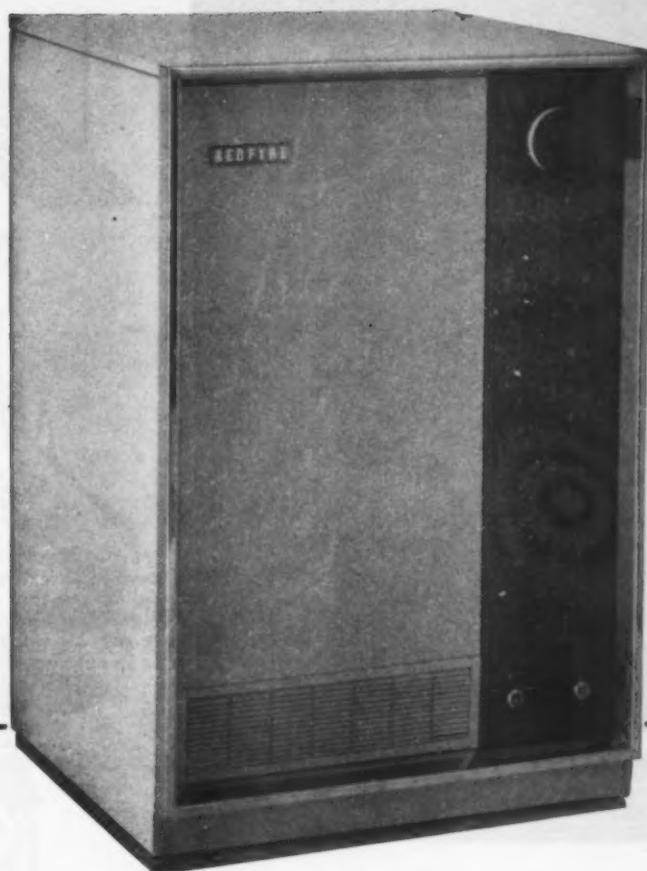
WE HAVE A COMPREHENSIVE CATALOGUE ON WALLCLAD — WHY NOT SEND FOR ONE ?



Wolverhampton Postmen's Office,  
P.D.O. and Garage, Horseley Fields,  
Wolverhampton.  
Contractor: A.F.R. Godfrey & Co. Ltd.

**BEACON** WALL CLADDING SYSTEM

JOHN THOMPSON BEACON WINDOWS LIMITED, WOLVERHAMPTON.



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The Centramatic 50 is designed to fit perfectly into a modern kitchen. It has the right dimensions (36" high x 21" deep) and an attractive variety of 3-tone colour schemes. It is fully insulated, and does not rely on

chimney draught for efficient combustion (although it needs a chimney flue in which to exhaust).

The Centramatic 50 comes as a packaged unit. It requires no specialised installation techniques. And, of course, being totally enclosed, permanently installed and fed with oil from outside the house, it is always perfectly safe.

The Redfyre Centramatic 50 is suitable for heating systems requiring up to 50,000 B.T.U.'s per hour and costs £128 retail. There is also a larger version, the Redfyre Centramatic 80, which has an hourly output of 80,000 B.T.U.'s and costs £149 retail.

*Full technical specifications of the  
Redfyre Centramatic oil-fired boilers are available. Please write to*

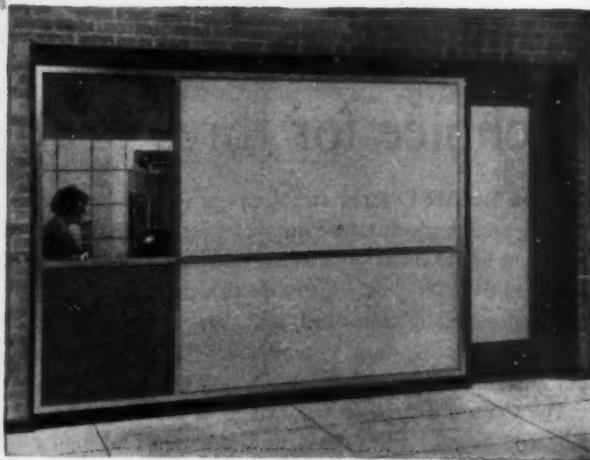
**NEWTON CHAMBERS & CO. LTD., REDFYRE PRODUCTS, THORNCLIFFE, SHEFFIELD**



*'PLYGLASS' Clear, Diffusing, and Lettered Double-Glazing Units have been used throughout the new office block for the Cambridge Instrument Company Ltd. Architects Edward D. Mills & Partners. Illustrations reproduced by permission of 'Architect & Building News'.*

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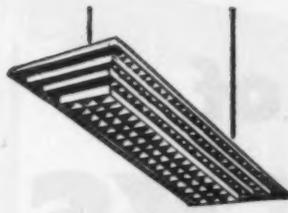


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UNITS AND VITROSLAB INFILL PANELS**

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L.E.F. builds maintenance into your lighting system, without spoiling the appearance of the architecture. You can see L.E.F. installations in beautiful buildings all over the country—but only at maintenance times!

*Call in L.E.F. at the planning stage and save your clients a lot of trouble.*

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*Lights being serviced at the Natural History Museum by means of L.E.F. Raising and Lowering Gear.*



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Now you can specify higher security... at much lower cost! The new, complete range of Yale 3-lever mortice locks includes both horizontal and upright locks, two deadlocks, and a sliding door locking latch — covering every need for a mortice lock.

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- Deadlocks have bolts reinforced with hardened steel pins

### Master Keying

The locks can be master keyed in suites to include sub-masters, sub-grand masters and grand masters.

### Contemporary Design

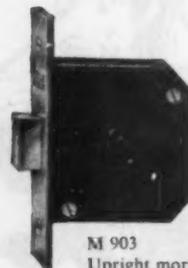
*The complete range of Yale 3-lever mortice locks, together with the key, have been accepted by the Council of Industrial Design for 'Design Index'.*

### The Yale Reversible Rebated Forend Set

This set enables Yale 3-lever Mortice Locks and all other standard Yale plain forend mortice locks to be converted into fully rebated locks. The set is completely reversible for left or right hand, inward or outward opening doors.



Key—nickel plated, with black nylon covered shank for durability and self-lubrication at point of contact with lock (to BS 2088)



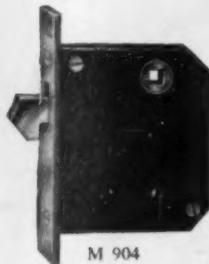
M 903 Upright mortice (deadlocks) 2½" and 3"



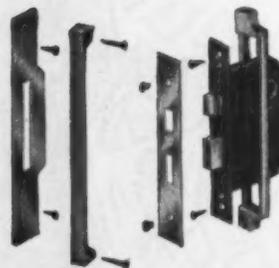
M 902 Horizontal mortice locks 5" and 6"



M 901 Upright mortice locks 2½" and 3"



M 904 Sliding door locking latch



The Reversible Rebated Forend Set

**Where there's a door — there's a need for**



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### - Gypsum Plasterboard



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Muffins, the conversation of friends, and tea kept hot by its gay woollen cosy - a heartwarming prospect. And houses can be like tea-cosies, holding a blanket of insulation to keep warmth in and make cold an unwanted "outsider". In these days of rising costs there is no more economical and effective lining material than Insulating Plasterboard, which provides both thermal insulation and fire protection. In building construction, Insulating Plasterboard, when properly applied, yields a structural 'U' value comparable with that provided by any other building board, and its cost rarely exceeds 4d. a square foot.



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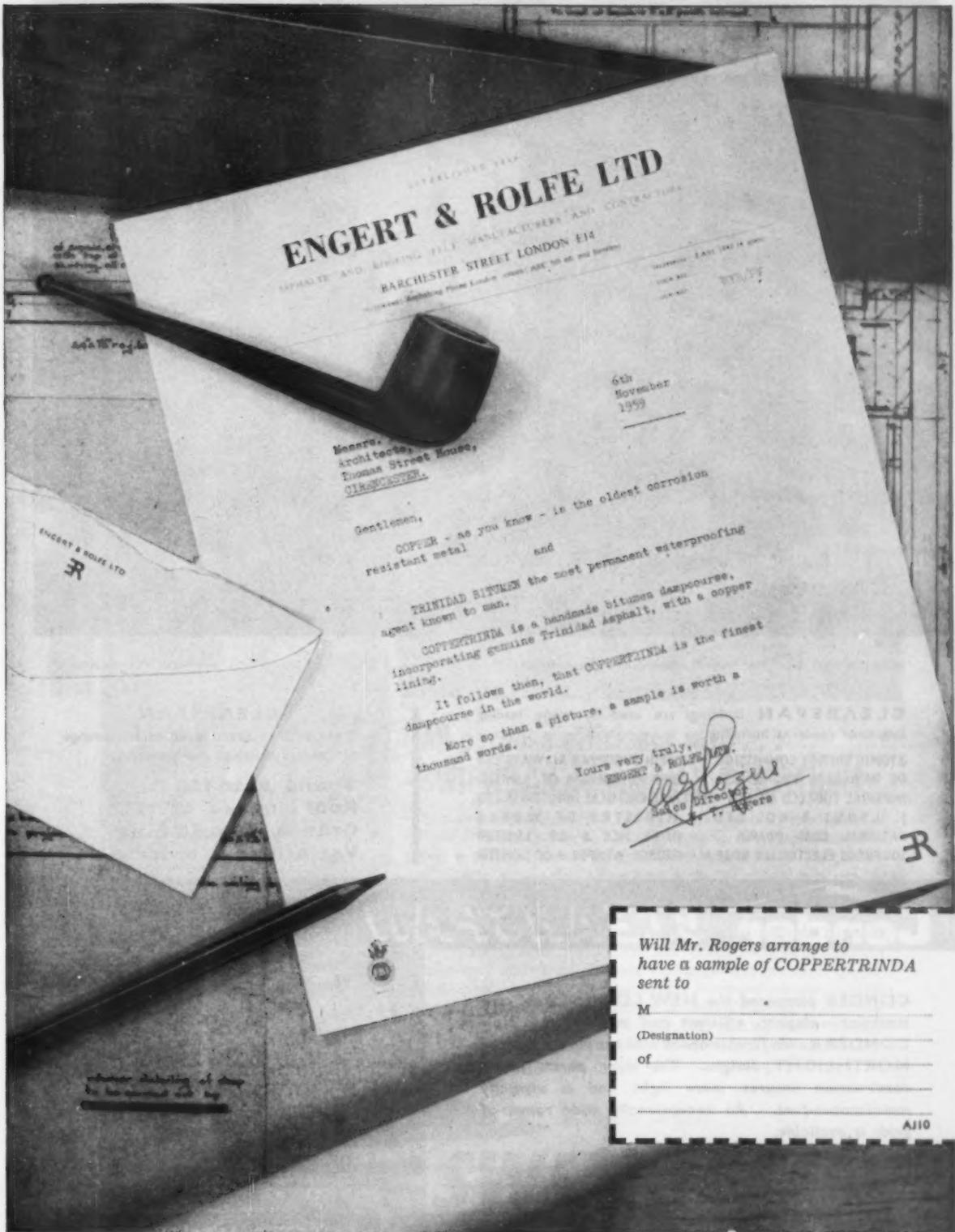
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**has successfully withstood  
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' . . . if you made a start by whizzing round with those papers at five miles an hour.'

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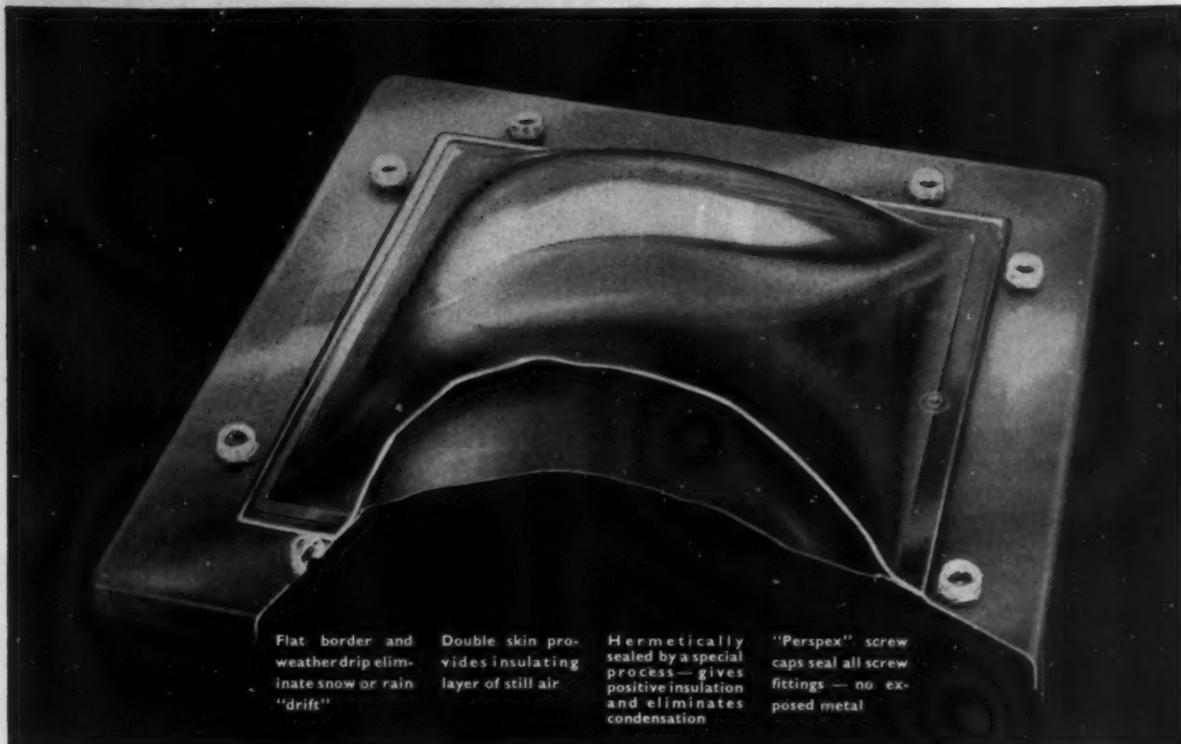


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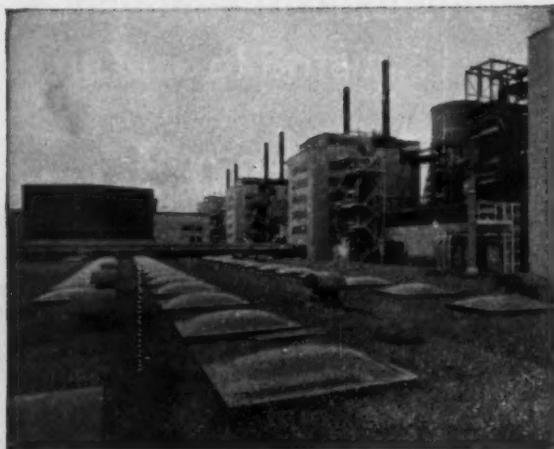
A wide range of sizes, circular, square, rectangular.

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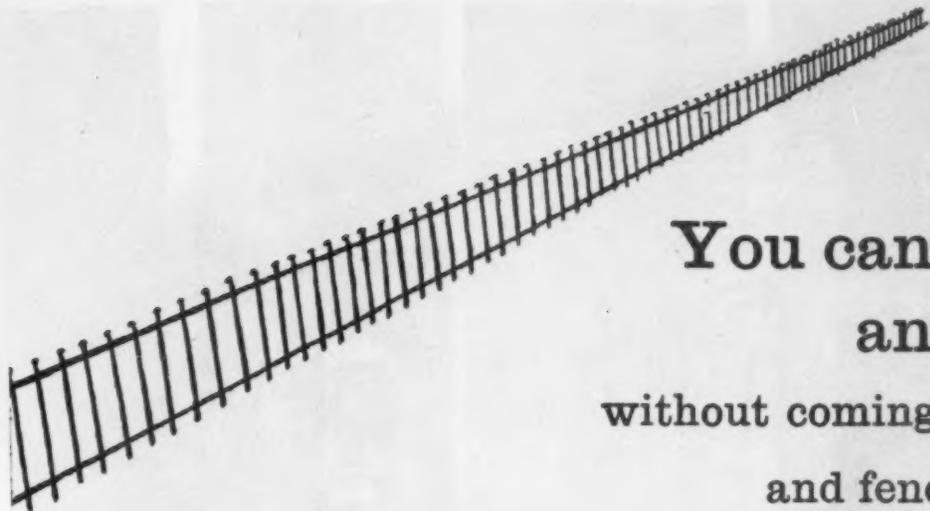
Architects: Messrs. L. J. Couves & Partners, F.F./A.A.R.L.B.A., Newcastle upon Tyne.



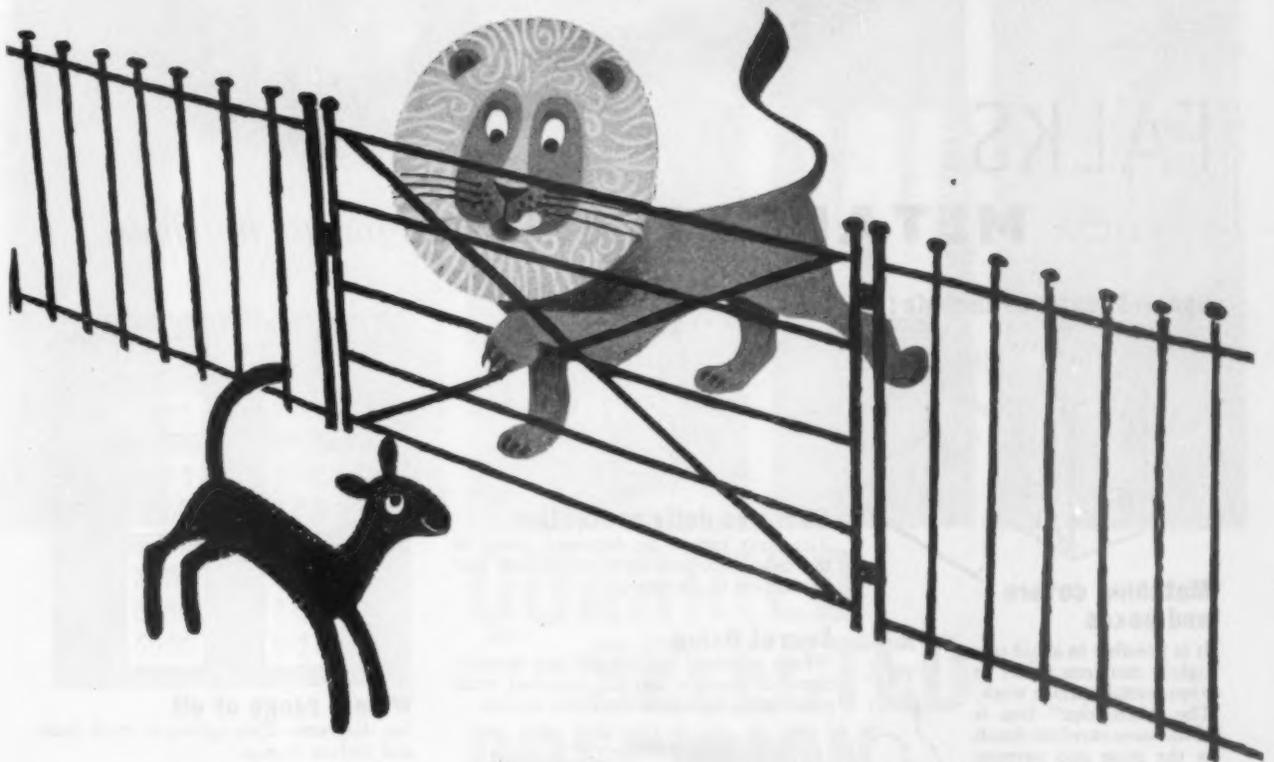
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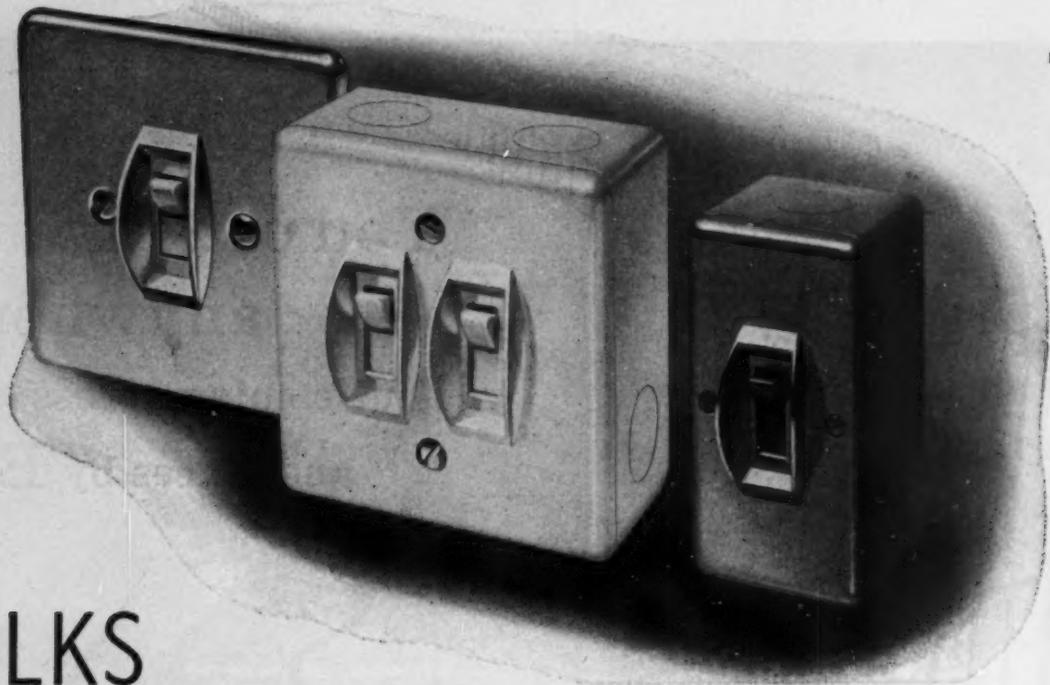
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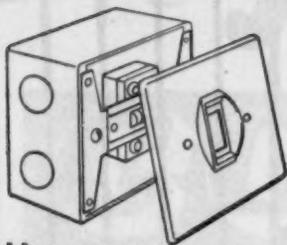
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new **METALCAST** switches *for use in offices, hospitals, schools, etc.*

**Special features include:**



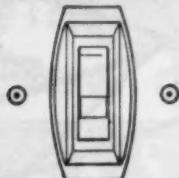
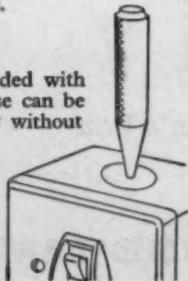
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Boxes are provided with knockouts. These can be removed cleanly without spoiling the finish. They thus obviate difficult drilling or bench work on site.

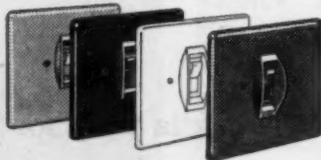


### Effective dolly protection

The dolly cannot be damaged owing to the raised side protectors which also add distinction to the design.

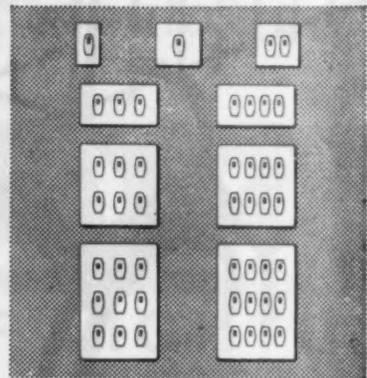
### Secret fixing

Where required for schools and institutions all models can be supplied with plate fixing by miniature Allen screws.



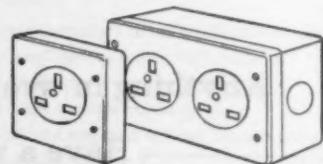
### Choice of finishes

The complete Metalcast range is available in Florentine Bronze Plated Finish, Bronze Enamel, Silvercote Enamel or White Enamel. The enamels are based on an epikote resin to give great surface hardness and a resistance to acids and alkalis.



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# FALKS



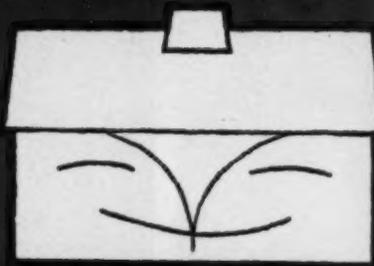
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this sign sells houses

You can offer decay and insect proofed 'Tanalised' timber as an optional extra in your houses. Being vacuum pressure impregnated it promises your customers life-long freedom from maintenance costs due to Dry Rot, Woodworm, etc. in joists, flooring and roof timbers. 'Tanalised' timber is ideal for house building, being clean, non-oily and odourless. Join the builders who already . . .



**'Tanalised' Timber**

In this house will not be attacked by ROT or INSECTS

As an optional extra the joints, flooring and roofing timbers in these houses can be vacuum/pressure impregnated with 'Tanalised' C preservative before installation. The treatment is clean and odourless and gives full protection against fungal decay (dry and wet rot) and damage by insect grubs (woodworm, longhorn, etc.)



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sell more houses with **'Tanalised' Timber**

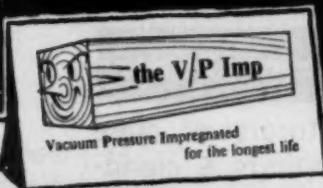
May we quote the small extra cost of using 'Tanalised' timber in your houses? Treatment plants are situated at 38 strategic points and most of them are in timber merchants' yards.

**HICKSON'S TIMBER IMPREGNATION CO. (G.B.) LTD.**

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# THIS BUILDING MATERIAL

*actually halts*

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**HERE'S EVIDENCE!**

This Implement store at Eastbourne was decked throughout with Stramit building slabs. One day a can of petrol was knocked over and ignited by an electric fire. Within seconds, flames were leaping high. Soon the temperature reached 800° F. Concrete splintered and brick walls were fractured. Timber door-frames and eaves were severely damaged. But, although the paper liners covering the roof-decking were charred away, the Stramit slabs themselves resisted the fire and remained intact. And the fire was confined to the store, thereby saving the main building. This is only one of several case histories which prove that Stramit slabs can actually halt the passage of fire.

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# STRAMIT

**CLASS I SLABS**

*A new development in the Lightweight Concrete field*

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**Precast Concrete Blocks**

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**Refractory Concrete**

Lyttag provides Resistance to weather,  
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Lyttag is a lightweight aggregate produced from pulverised fuel ash by a carefully controlled sintering process. Spherical in shape, it has a slightly roughened surface so providing an excellent key for the adhesion of cement.

It has been the subject of close scientific scrutiny throughout its development.

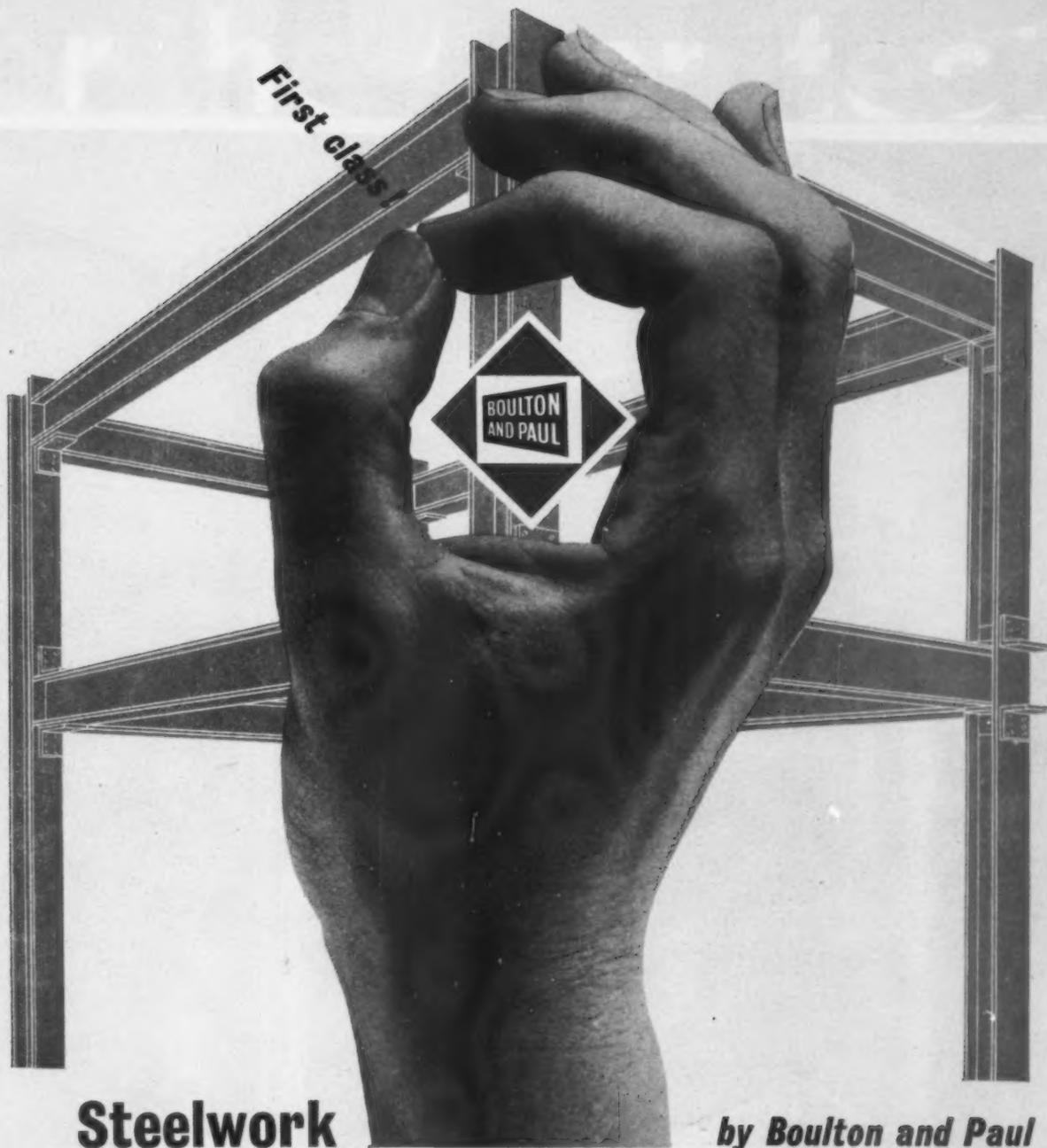
A number of technical papers on the different uses of Lyttag are available and will be forwarded upon request.

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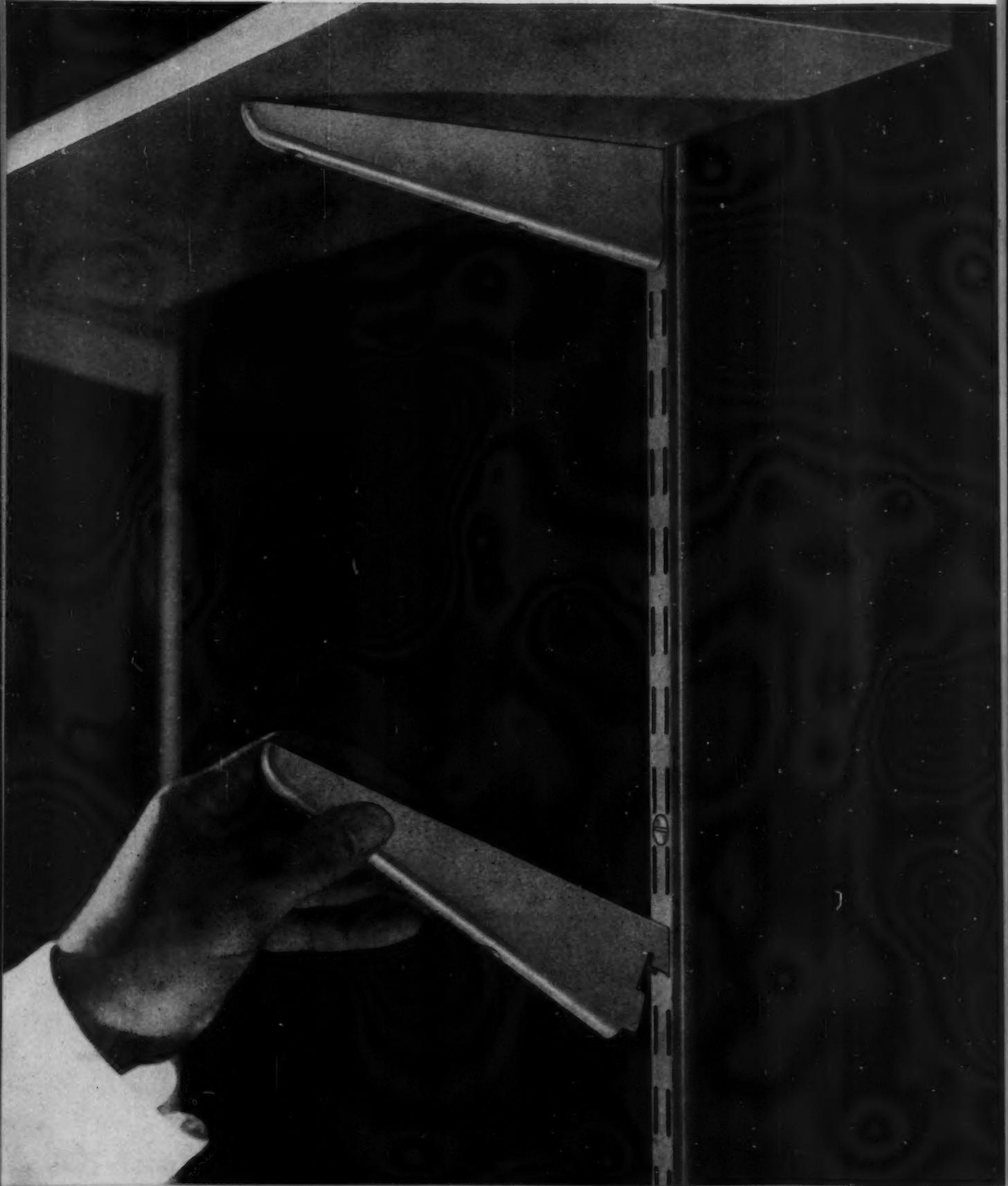
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CE43

THE ARCHITECTS JOURNAL (Supplement II) NO. NUMBER 24 1960

# SPUTR



# for the Architect

## **SIMPLICITY**

*Spur shelving system can be erected easily without skilled labour.*

## **ADAPTABILITY**

*The position of Spur shelf brackets can be easily and rapidly changed as layout and shelving requirements alter. The shelf brackets are simply moved to other slots.*

## **ATTRACTIVE**

*Spur shelving looks good and is made in attractive colours.*

## **STRENGTH**

*Spur is scientifically built for the job and will take heavy loads.*

## **ECONOMY**

*Spur saves erection costs and enables maximum use to be made of space.*

**SPUR** to new ideas. Spur to better shelving. Spur to progress in design through this most modern and versatile shelving system!

Have you considered Spur? It is full of new possibilities for the architect—not only for shelving but for many other problems of support such as tables, desks and counter tops.

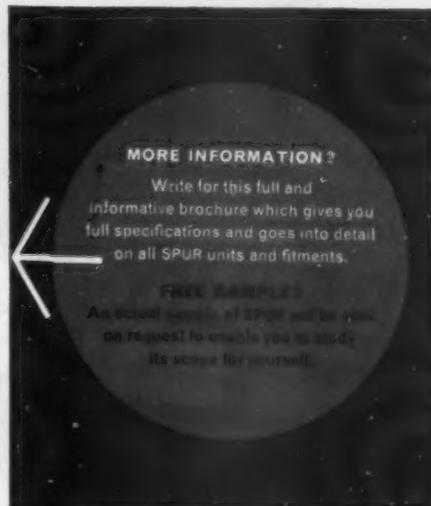
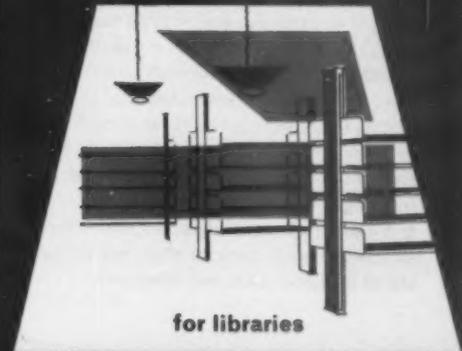
### **How SPUR shelving works**

Spur relies on simple, detachable cantilever brackets. These are clipped into slotted 14 gauge steel uprights of U-Channel section. When shelving requirements alter — the brackets are simply moved to new positions—hence the countless applications for Spur in shops, stores, warehouses, libraries, laboratories, workshops and the home.

### **How SPUR helps design**

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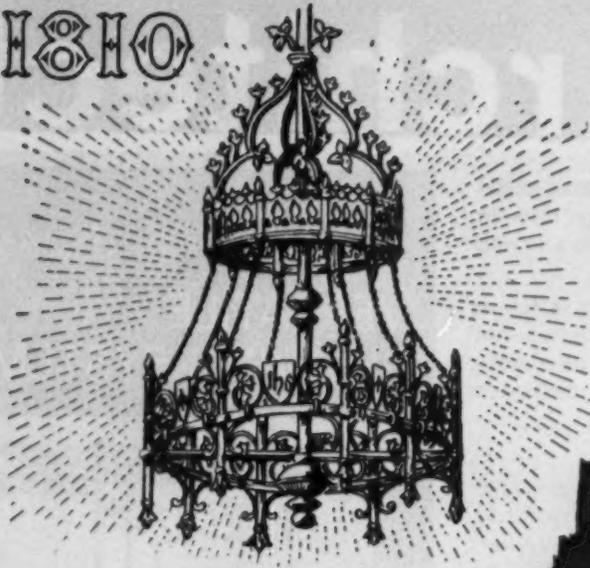
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Specify the **SPUR** system for shelving

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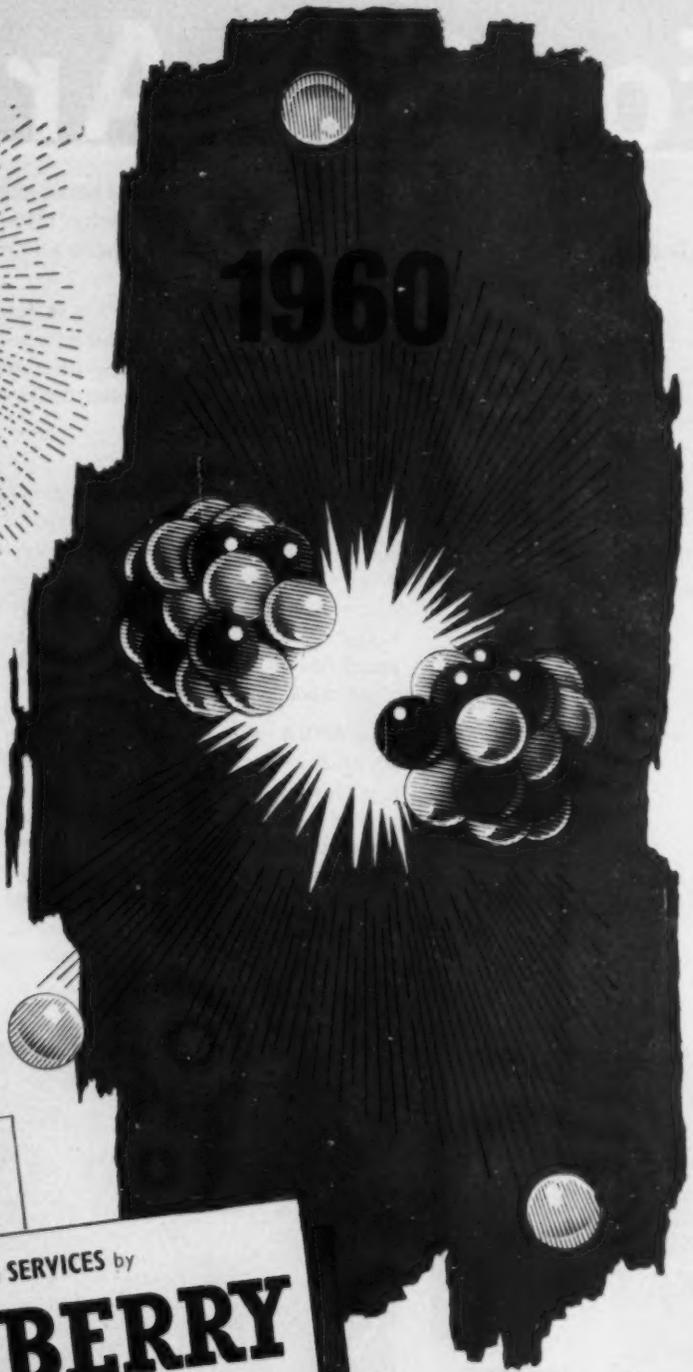
1810



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It is also a reminder that nothing is new for long; that progress demands constant effort and an unrelenting search for newer ideas and techniques.



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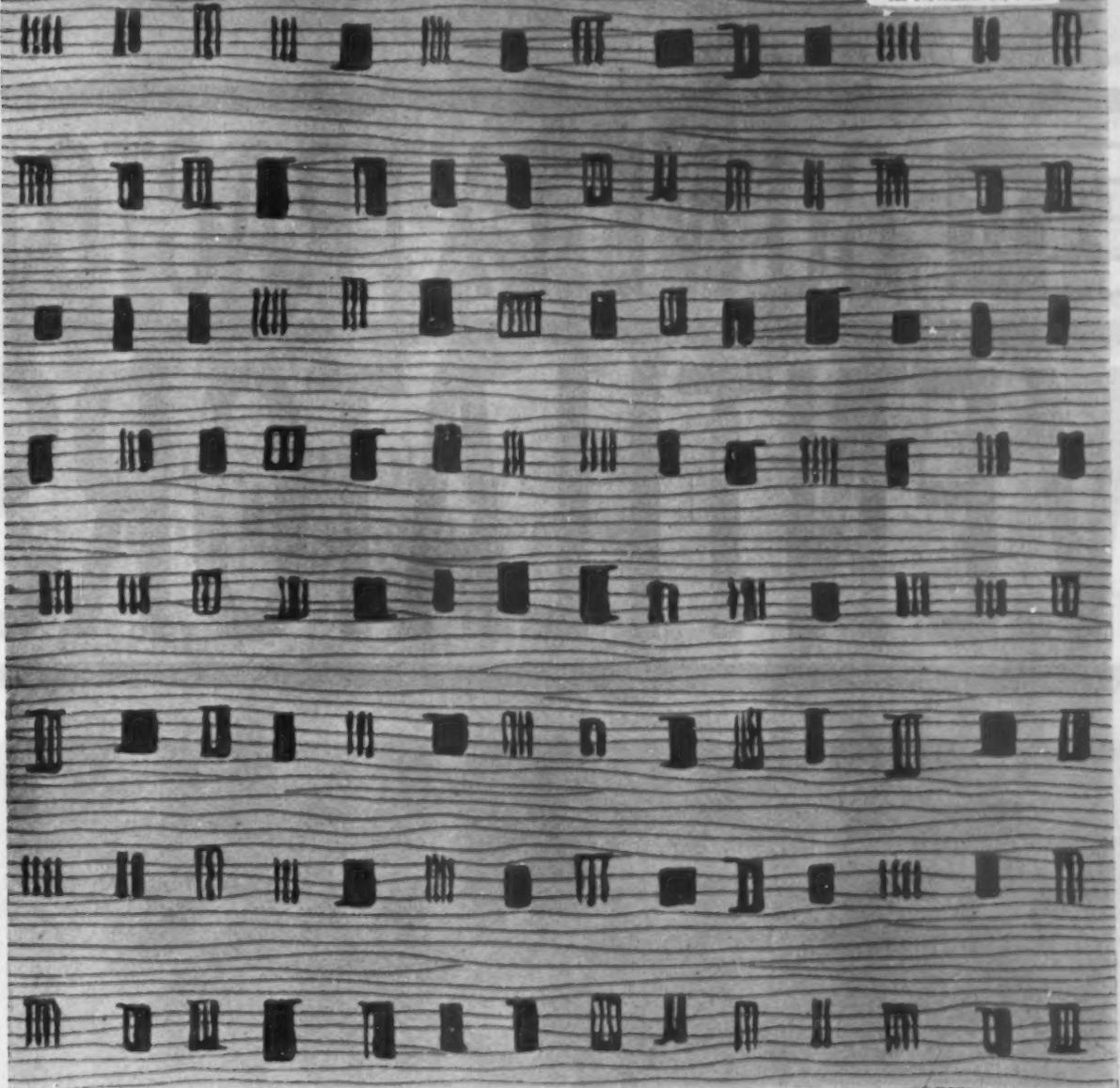


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"Serif" designed by Lucienne Day. M 1033 shown at reduced scale.

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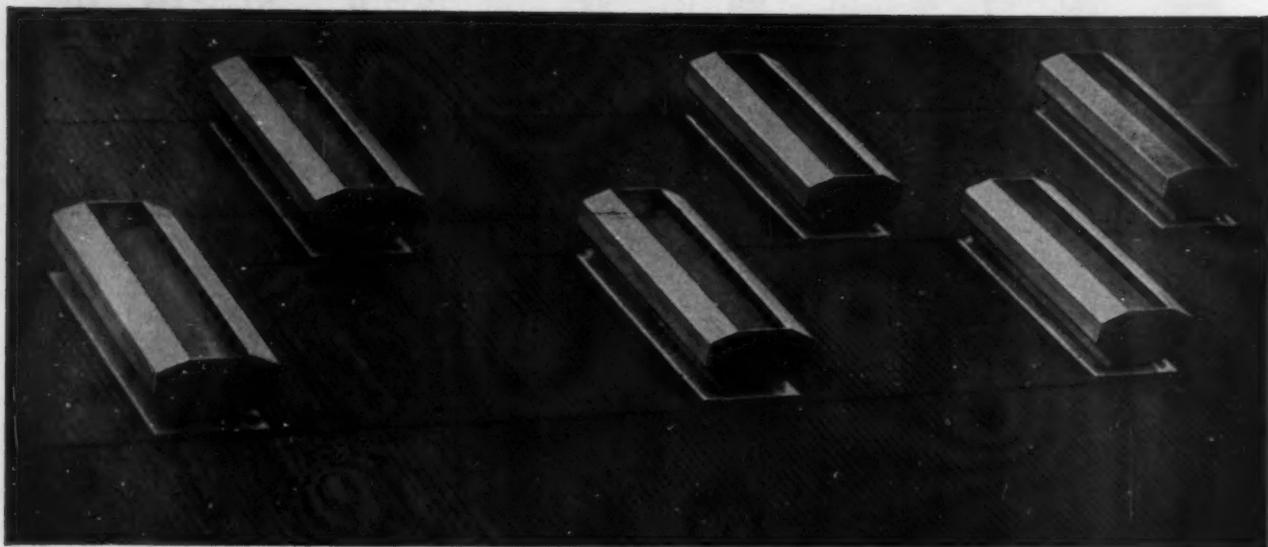
# MODUS

19/21 MORTIMER STREET LONDON W1



# COWL EXTRACTOR

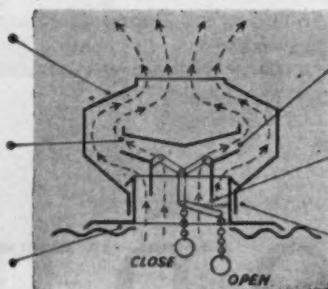
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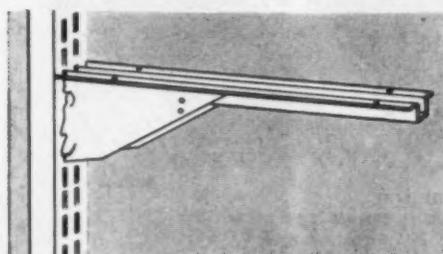
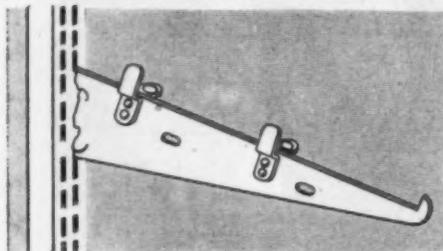
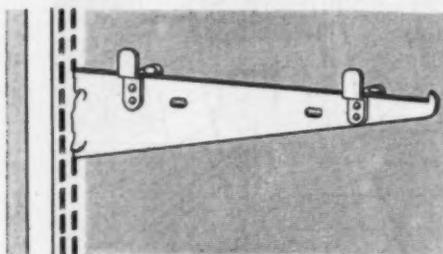
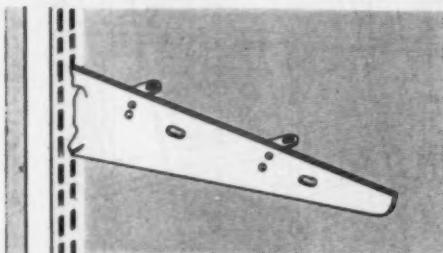
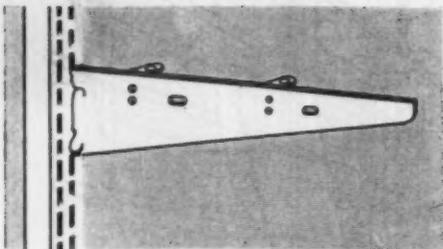
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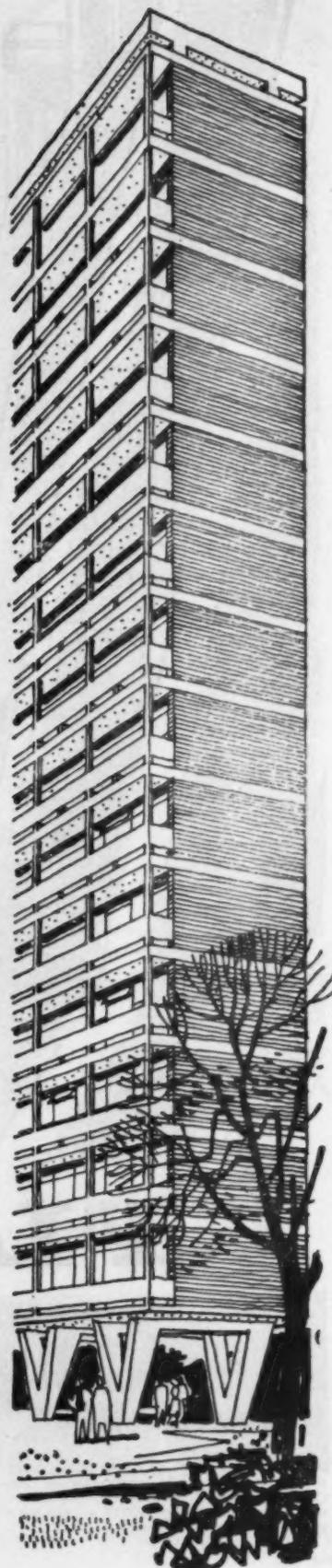
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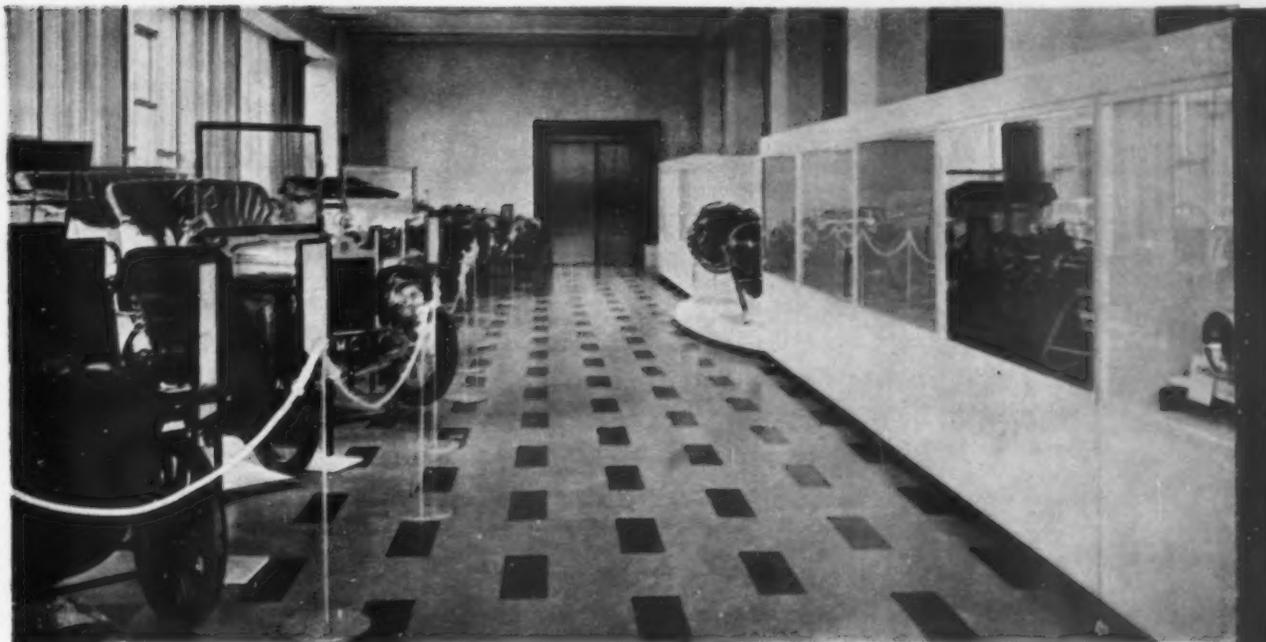
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contractor listen  
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proposals**



**The architect,  
the contractor and  
the specialist agree  
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The Architects' Journal

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NOT QUITE ARCHITECTURE

*From the Notebooks of  
Edwin Dreadnought*

The surest proof that a house is *not* a machine for living in, is that not one would ever pass the Ten-year test at a reasonably honest garage.

People are notoriously vague about which Cromwell it was that knocked our ruins "abaht," but folk-history seems to have taken a turn for the completely chaotic when the guides at the Abbey have to explain that the tombs there were *not* desecrated during the last war by American soldiers! It is a knock against the profession of guide, though, when visitors to St. Paul's come away firmly convinced, on the evidence of what the guides say, that Wren's choir screen was split and the chancel opened up "during the Reformation."

I have read somewhere that a motorcyclist, riding across Paris at three o'clock in the morning, disturbs the sleep of over a million *citoyens*. This seems the most convincing argument against Paris that has been advanced to date.

Though no expert in linguistics, it seems to me certain that no twelve apes, however long they sat at typewriters, could ever accidentally compose the RIBA Kalendar. I doubt if twelve professional humorists could do it, either.

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### *Undermining Oxfordshire*

Contrasted Oxfordshire skylines, brought into the news by the recent Inquiry on the application by Richard Thomas & Baldwins to mine acres for ironstone. Top, the kind of scenery which the new applications will break up, near Hook Norton. Bottom, the kind of ancillary equipment inseparable from the workings, photographed at one of the existing Oxfordshire ironstone quarries north of Banbury. Local opinion, private and public, has been unanimously opposed

to the application, and the issue—in view of the veiled big-stick arguments presented by the applicants with their unhealthy air of having previous, covert Governmental backing—is going to be a crucial test of the morality of Whitehall. Atomic power stations and the teed-up balls of Fylingdales can just be represented as being “in the national interest”: this application cannot. The problem is reported more fully on pages 746 and 747.

Speaking of architectural humour, I wonder how old is the earliest version of the joke about the architect who, when asked for a pencil to use in a tourniquet to save the life of a man in danger of bleeding to death, asked in his turn "Will a 2B do?" In Callicrates' day I suppose it was one of those little strips of wood they used to separate courses of stone and stop the damp rising, and he asked "Fir or Olive?" In any case, the joke is a profoundly sinister one against our tendency to think of everything purely in terms of "shop," and two or three times a year I find myself laughing at it with an uneasy conscience when it turns up, attributed now to Lutyens, now to Hugh Casson, now to Viollet-le-Duc (in a fifth-form French they never speak in France) in some infernal after-dinner speech.

Young Grisbie, coming in with some drawings for our Hall of Residence, and the evening papers, observed "One thing about this Lady Chatterley lark—frighten a dozen good men and true into thinking they'll be squares if they don't, and they'll pass anything." After I'd got him to translate it, I fell to wondering just why the Hall of Residence has rough-shuttered beton brut on the outside and a pyramid on top. I'm too old, personally, to care who thinks what of me, but I have younger partners who lunch in Bedford Square.

If ever a man deserved to be captain of the design team, it is the clerk of works. Required to mediate between the inattention of architects and the sloth of operatives, and make good the inaccuracies of both, he is thanked by nobody, not even the client, and blamed for every fault of the finished building. Yet without him it never would be finished. Mr. Hammarskjöld has a soft job by comparison.

I'm sorry, in a way, that the so-called back-door entries to professional status are disappearing—there are a number of up and coming architects I would like to see described as "Brutal and Licentiate."

A smart-alec of a sales representative (patent-glazing, of course) came in the other day and asked to see Uncle Isaac, knowing full well that he has been dead for eight years now. When Miss Bracebiv picked him up on this, he pointed out that our brass plate still says "A E and I O U Dreadnought, Partners and Nephew," and added, pointing at me rudely through the partition, "They're all dead, by George, except nephew, and he looks a bit wobbly!" Miss B, who has been with us for nearly twenty years and was devoted to Dad and Uncle, promptly burst into tears. I realise that she was upset, but she could have pointed out that it was reeded glass in the partition.

## The Editors

### MAKING THE CHOICE EASIER

THE Building Centre's Forum on Consumer Protection\* would have been better described as "Consumer Information," for the number of occasions when the architect is led to choose a good-for-nothing product must be much fewer than those when he chooses something which is merely unsuitable for his particular purpose. Although it is not unknown, it is unusual for a manufacturer to state something about his product which is false: it is very common, and an accepted convention, that he should suppress facts which are true and which might set limits to the use of what he has to sell. In the days when building was still a craft this *suppressio veri* did no one any harm, because the true facts about the relatively small number of products offered for sale were either well known or easily found out by a cursory inspection. Today, when products are far too numerous and diverse for architects to keep track of them and when deficiencies are not readily discoverable, this convention does much harm. Building, in changing from a craft to an industry, requires a change in the method of information handling and perhaps also of sales promotion. For the architect this means the acquisition of a method (a methodology, the scientists would call it) for making a choice in respect of each class of product or service. For the manufacturer it means the inclusion in sales literature of basic information in a standard form which will enable the architect to make this choice. This might mean the publication of a British Standard for the trade literature of each class of product, which would specify, not the performance which each product must attain, but the data about it which must be listed. An alternative approach might be to set up an independent testing organisation, similar to the Consumers' Association. At first sight this second course seems preferable: but, if impartiality can most evidently be got this way, it can only be got at the expense of timeliness. Products are developing fast. If the onus for testing and publishing results rests with an independent body, there could easily be a time lag of three years between the publication of consecutive lists for the same group of products; and in the meanwhile those who had improved their product would be at a disadvantage. If the onus for testing and publishing were left with the industry—perhaps with trade associations where these exist—notification of change would be instantaneous. In this matter, speed and up-to-dateness are more important than the glorious chance of unmasking a delinquent producer.

\* See page 744.



## ORIENT LINE

ASTRAGAL has just had a quick look at the Design Research Unit's work on the P. & O. Orient liner, *Oriana*. The tourist public rooms are the best because they look more ship-like than the first class accommodation. Although deck heights have been kept low (ceilings are something like 6 ft. 9 in. in places), the interiors are none the worse for it. The ship sits high out of the water with a dignified outline because the use of a partly-aluminium super-structure has saved a lot of weight and enabled the designers to add an extra deck. Look out for the AJ's illustrated appraisal.

## ORIENTAL LINE

The Yerbury Foundation did a very good job by getting Minoru Yamasaki to come and speak at the RIBA. Unlike many visiting architects he really can speak, and I gather this is something Mrs. Bryan Westwood—the efficient organiser of the visit—took the trouble to find out in advance. His philosophy is as interesting as the architecture it produces, as you will find if you read the report on page 743. Briefly, he feels that we need serenity in our buildings (of the kind found in Japanese traditional architecture) rather than monumentality (of the kind found equally in Sir Howard Robertson or Le Corbusier!). He believes

that the qualities of serenity and delight can be injected into buildings not as ornament but as part of the structure. Hence his preference for precast concrete, instead of standardised curtain walling elements. But he is an exceedingly optimistic man and feels sure that although manufacturers of building components are now "dictating the shape of a lot of architecture," they will not have their way for long. The following is his comment on this point, together with extracts from other statements he made in an interview with one of my colleagues.

*Doctors are stronger than pharmacists, and once architects become inspired (and they will) they too will take charge. . . . I am optimistic about this because of my own small success. Firms who make wall cladding have been getting worried because I make so much use of concrete, and have asked me to say if I would like their materials in smaller elements, so they could be handled to give more variety.*

*America has done too little to fill the emotional side of life. Saarinen, Kahn and I are trying to do something about it in our buildings.*

*I do a lot of my initial designing while driving a car or travelling in a plane. It was in a plane that I had the idea I shall use in future construction. Instead of beam-to-post connections I shall use structures like fingers intersecting at right-angles, leaving an overhang.*

*I don't see how any architect can work without a lot of models. All my designing is done with them. When I did the Michigan Gas Company's building for Detroit I made thirty block models to get the right shape for the site; then another thirty to find the right skin. Finally a number of large-scale models, including one of part of the building made to quarter full size.*

*The greatest influence in my life has been Mies van der Rohe.*

*Frank Lloyd Wright was a great man, but his conception of "surprise" between and within buildings was not as advanced as that in traditional Japanese architecture.*

To many of the young architects who filled the hall at the RIBA last week Mr. Yamasaki's optimism must have been a little irritating. (It's not easy,

when you're fighting to keep down the cost of a small abattoir or a row of houses, to listen good-temperedly to an immensely successful man who employs three full-time model makers.) But a lot of the inevitable, envy-prompted criticisms bubbling about in the audience were controlled by Mr. Yamasaki's humour and his self-mocking modesty. It was disconcerting to hear buildings like the St. Louis airport and the US Consulate-General in Japan torn apart by their creator. It was even more disconcerting to see at a glance how right he was in his self-criticism.

## HEAVENLY MANSION

Incidentally, it was good of Sir John Summerson to allow the priceless Soane Museum to be used for Mr. Yamasaki's welcome party. We couldn't have had a better setting than this rich, fascinating and argument-arousing place. ASTRAGAL wonders how many of the design traits of some American architects spring from the influence of Soane, whose museum promises to become a Mecca to the discriminating few.

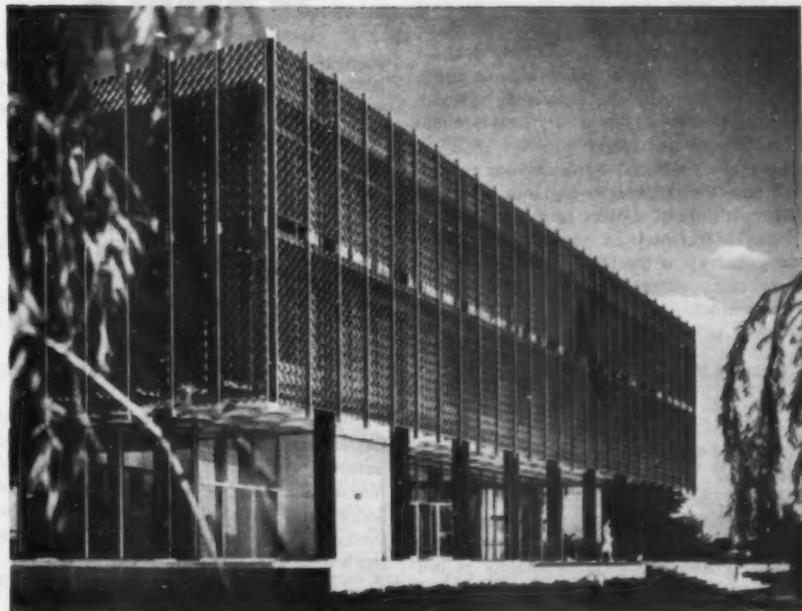
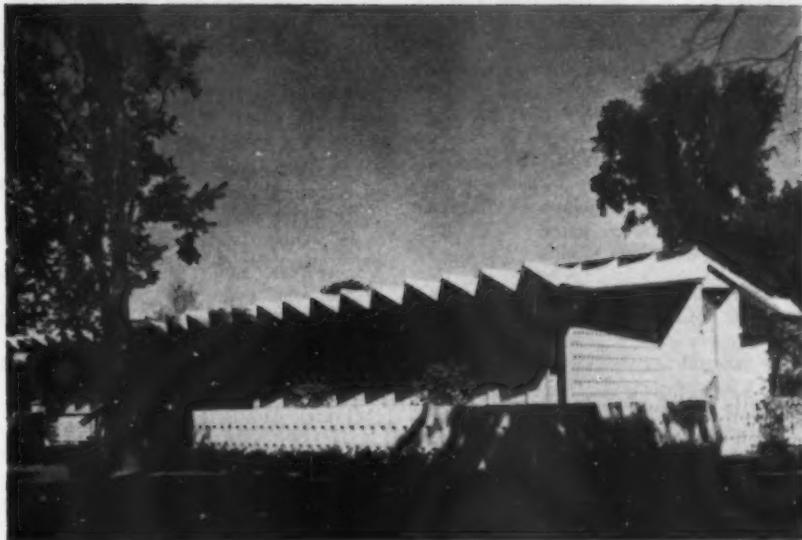
## A QUANTITY OF SURVEYORS

While some of us were listening to our American visitor at the RIBA, the quantity surveyors were having their annual dinner (which reminds me of the point made here the other week that the profession needs a master-diary of building events). A colleague reports that the dinner guests heard the Minister of Works, Lord John Hope, warning of increasing costs, prophesying an even busier time in 1961, welcoming the interest that quantity surveyors were showing in education and asking if the bill of quantities was not capable of "some simplification." He also thanked surveyors for supplying the Government with information to be used in forecasting building activity. This came as a surprise. Isn't the work already being done by Mrs. Joan Milne at the RIBA?

Talking of surveyors; let me wish a long, comfortable life to surveyor G. H. A. Hughes, retiring director of the LMBA, whose sixteen years of work were rewarded last week at the Carpenters' Hall (his own Livery Company) with gifts and praise from—and hon. membership of—the Association.



Minoru Yamasaki and his wife, and two of his buildings: the American Concrete Institute (centre) and the Reynolds Aluminium Co., Detroit.



#### EGG-HEADS AND TEE-SQUARES

J. M. Richards, the man who often strikes strangers as being shy, was not only completely relaxed in his first appearance on the TV Brains Trust, he also slipped in and fielded a rare dropped catch by Dr. Bronowski, who was answering a question about international boundaries in architecture. As Mr. Richards quickly pointed out, it was the English—not the Indians—who called in Lutyens in India.

The presence of an architectural critic on the panel provoked questions containing the hoariest anti-modern prejudices, and these were dealt with capably not only by the expert but also by the others on the Trust, including Alan Bullock, the principal-designate of St. Catherine's, Oxford—a man who has cause to know quite a lot about nationalism in architecture, which was the subject of one of the questions. The expert responded by coping enthusiastically with questions outside his professional province—about interracial marriage, do-gooders and the nature of intelligence.

It was interesting to see the Trust giving a unanimous pasting to John Betjeman when answering a question about the "inhumanity" of tall buildings. Perhaps Mr. Betjeman's sweeping criticisms are sometimes misunderstood. I was present not so long ago when he spoke with equal respect for a Comper Church in the Baker Street area and the Castrol block round the corner. He said last week, in a slightly superficial article in the *Daily Telegraph*: "it is not a matter of stopping high buildings in the right place that is important." What is even more important, of course, is that the high buildings shall be good buildings, wherever they happen to be.

ASTRAGAL

# LETTERS

**C. T. Kyte, A.R.I.C.**

*Director, Gallwey Pest Control Ltd.*

**H. Hubbard Ford, F.R.I.B.A.**

**Robin Mudie**

**N. W. Lovelock, A.R.I.B.A.**

**Robert Barbour**

*Barbour Index Ltd.*

## After-flood Care

SIR: In order to avoid the secondary effects of dampness in buildings due to the recent flooding, i.e., dry rot, certain simple precautions must be taken by the householder:

1. All impervious floor coverings, i.e., linoleum, rubber backed carpets, tiles on floorboards, etc., must be taken up.
  2. Lift the floorboards (having numbered them), and remove skirtings and other affected joinery timbers and set aside.
  3. Remove all debris, silt, etc., from the oversite.
  4. Lower the soil level around the house to at least 6 in. below the D.P.C. or plate level.
  5. Ensure that the subfloor through ventilation is not obstructed. Insert 9 in. x 6 in. metal vents below wall plate level in external walls, and honeycomb sleeper walls to ensure through ventilation.
  6. Treat floor timbers and oversite with an aqueous fungicidal solution. (Oil- or spirit-based preservatives should not be used whilst the timber is wet.)
  7. There are sticks of solid fungicide on the market which can be inserted adjacent to timber bearing in damp brickwork to further increase the chemical barrier.
  8. The floorboards may then be replaced.
  9. Refix skirtings and other joinery timber having treated the backs thereof with a preservative, inserting a layer of fungicidal damp proofing material between the timber and the damp wall.
  10. Approach the public health authority and ask them to test the moisture content of the floor timbers before the floor coverings are replaced. The moisture content should be below 16 per cent before this is done. This may take three to six months.
- If local authorities and householders do not take these elementary precautions, the present cost of the flood damage is likely to pale into insignificance when compared with the cost of future dry rot repairs in the houses which have suffered in the recent flooding.

C. T. KYTE

Marlow, Bucks.

## Closed Shop

SIR: I have just sent the following letter to the Federation of Master Builders: Can you tell me how I can safeguard my

contracts against the type of emergency which I outline below?

A large contract for an office building in Croydon, being undertaken by a firm of nation-wide repute as general contractors. Tenders for specialist materials were invited by me. The metal window tender included "supply and fix," and the successful tenderer was nominated. He provides excellent delivery service, all his materials are delivered, the job is waiting for him. The fixers arrive on the site and at that moment a union official happens to visit the site and he asks who these men are and says that they are not a members of the appropriate union.

The union official then declares that they shall not be employed on the site and the general contractor has no alternative but to ask them to withdraw.

This is having a most prejudicial effect on the progress of the contract and I now have to ask myself whether in inviting tenders for specialist work, I have to specify that the men shall belong to the appropriate union.

Alternatively, is it the responsibility of the general contractor, on receipt of my instructions that he is to accept a certain tender, to ascertain that the men employed will be union men?

You will appreciate that even the latter method may lead to delays, in that the answer may be in the negative and that fresh consideration of the tenders will have to be given, and a higher tender accepted simply because of the union.

How can I avoid this problem?

H. HUBBARD FORD

London, W.C.1

## Crash, Bang, Sorry!

SIR: If any of your readers care to obtain a copy of the current DIA Year Book they will find the words ascribed to me by ASTRAGAL in your issue for November 10. They will find, too, the rest of the sentence and the context from which the words were torn. On reading the Year Book they may come to the conclusion that ASTRAGAL'S comments on it were tendentious and they may disagree with his expressed opinion that the feature on the dressing-table ought to be taken too seriously.

I sincerely hope that some of your readers will take the trouble to find out what the DIA is all about. Copies of the Year Book (price 2s. 6d.) may be obtained from Mrs. Mary Harvey at the DIA, whose address is given every other week on the cover of your journal.

ROBIN MUDIE

London, S.W.1.

## Wanted Men

SIR: Mr. Clark of Wrexham undoubtedly has justification for his complaint about assistants who do not keep their word. However, this failing unfortunately is not solely to be found in assistants: employers

only too frequently make promises which they do not fulfil.

An assistant is not paid what he is worth because it is, I suppose, almost impossible to determine a precise figure for his or her services. No, an assistant is paid what he can get.

If employers would pay sufficient to keep their staffs, then perhaps the assistants would move around less.

Surely we are forced to change jobs more than any other salaried group?

N. W. LOVELOCK

Birkenhead, Cheshire

## SfB Classification

SIR: Just over a year ago you published details of the SfB Classification System. At the time you mentioned that practical trials were to be conducted in architectural schools and architects' offices in order to test and report on the effectiveness of this method of filing.

So far I have not seen any results. There must be many who await them with keen interest and I hope some information will shortly be forthcoming. Apparently a building file manual is to be published soon and an ounce or two of experience would be a valuable complement to it. Can you help?

ROBERT BARBOUR

London, W.1.

No, we regret not. The publication of the manual and index has been taken over by the RIBA, who hope to publish in January. For the rest we wait for final articles and reports from AJ research fellow Dargan Bullivant. THE EDS.

# DIARY

*Federal Highway and The Problem Below* (soil mechanics in building): two films by Richard Costain Ltd. 12.45 p.m., at the Building Centre.

NOVEMBER 23

*Second Industrial Photographic and Television Exhibition*, Royal Albert Hall.

NOVEMBER 21—25

*You and the Silicones*, film by Midland Silicones Ltd., 12.45 p.m., at The Building Centre.

NOVEMBER 30

Christmas Holiday Lectures for Boys and Girls at the RIBA. Two informal illustrated lectures by Eric Lyons, *Neighbourly Houses*. Tickets free on application to the Secretary, RIBA. Envelopes should be marked "Christmas Holiday Lectures" in top left-hand corner.

DECEMBER 28 AND 29

# NEWS

## YERBURY FOUNDATION

### *Yamasaki Lecture*

The RIBA was packed last week for a discourse by Minoru Yamasaki on what he described as the philosophy of humanism in architecture. The occasion marked the abrupt end of a hitherto dismal procession of indifferent lecturers brought to this country by the Yerbury Foundation over the past couple of years. Nobody could argue that the audience was not enthusiastic or that the paper was not absorbing. We were treated to a series of superb colour slides of Mr. Yamasaki's work in America, Japan, India and Saudi Arabia, for though he is an American and has his office in Detroit, his practice extends round the world.

So conscious were the organisers of the shortcomings of previous lecturers that they arranged for Mr. Yamasaki, after his paper and slides, to be questioned about his work and philosophy by a panel of distinguished architects, a sort of Portland Place "Frankly Speaking." The panel comprised Sir Hugh Casson ("How do you clean the roof-lights?"), Peter Shephard, Percy Johnson-Marshall and Bryan Westwood. But they need not have worried for he proved himself an engagingly articulate speaker.

The humanist approach to architecture, according to Mr. Yamasaki, means producing buildings which aim (1) to enhance the enjoyment of life through beauty and delight, (2) to be uplifting in order to reflect the nobility to which man aspires, (3) to give order, and through order a background of serenity for the complex activity of modern life, (4) to be truthful (it is essential to have intrinsic clarity of structure which is natural and inevitable for the purpose it fulfils), (5) to have full understanding of and fidelity to technological processes (6) to be in scale with man.

Mr. Yamasaki's own work is undoubtedly the product of a rich imagination and a superb sense of detail. The McGregor Conference Building at Wayne State University and the headquarters of the American Concrete Institute with its folded precast concrete roof are two recent examples of the exquisite quality of his work. Indeed he is never more at home than when working in precast concrete and probably cannot be equalled in the range of expression he is able to give this material. He has the admirable quality of being self-critical. He did not hesitate when showing his slides to indicate where mistakes had been made or how, another time, he would do a detail differently. With a few exceptions this virtue of self-criticism is wholly lacking in architects in this country. Mr. Yamasaki's humility could well be emulated.

Yet in listening to him and then seeing the pictures it is hard to know whether his buildings are a faithful interpretation of a well-formulated personal design philosophy or whether in fact the buildings came first and, in the course of time, a philosophy

has been evolved to justify or explain them. Whichever is true the closeness with which one reflects the other is at times open to doubt. "Deep in the heart of every architect," says Mr. Yamasaki, "and I am no exception, is the ambition to erect a Chartres, a San Pietro for his own time." Such feelings must be suppressed. He deplores architectural "muscle-flexing." He rightly condemns monumentalism in buildings. Yet his own work comes dangerously close to filling this despised definition. It is difficult to see how it can fail to when so much of his practice is devoted to prestige buildings, monuments to the giant patrons of a commercial and industrial society.

Mr. Yamasaki practises in a land where really good architecture is still reserved for the wealthy and the result of this is the ghastly subtopia of so many American cities. There, the best architects are not interested in town design or the wider implications of planning and Mr. Yamasaki is not alone in turning his back on the street and concerning himself solely with the architectural problem confined within his client's site.

## PUBLIC WORKS AND MUNICIPAL SERVICES CONGRESS

### *Coping with the Car*

This year's Congress was almost entirely devoted to various aspects of the traffic problem, and at the first session, under the auspices of the City and Borough Architects' Society, J. L. Womersley and Leonard C. Howitt, Sheffield and Manchester city architects, spoke on "Coping with the car," inside the housing estate, and beyond.

Mr. Womersley started from the "basic needs of man as a pedestrian," and described various ways in which pedestrian and wheeled traffic could be segregated from each other, with illustrations from his own widely varied experience in designing Sheffield's post-war housing estates.

Three principles, he said, were now established: pedestrian routes should be as direct as possible—otherwise, walkers will always use short-cuts; vehicular routes may be longer, and speed can be reduced "by judicious use of right-angled junctions and road surfaces," and since there is "an inevitable conflict" between pedestrian and vehicular traffic, routes should be so designed that they come together only at a limited number of points.

He concluded with some sound advice on car parking, which could disfigure the landscape. "The key word to the parking of vehicles should be orderliness," he said. "Cars when parked should be regarded almost as architectural elements, not to become dominant but to be suppressed." Means of suppression, he suggested, were—in low density housing—to provide an apron in front of the garages, both as a

washing down area, and a space for doubling up permanent parking if necessary; planting suitable trees, which provide both cover and shade; allowing for cars to park in a row against a building or retaining wall—a system which would be improved by sinking the parking space two or three feet below pavement level, with a retaining wall, grass or planted bank, or low hedge. "The clear demarcation of parking space is of great importance," said Mr. Womersley. "It is better to define it by surface texture, such as setts, and street furniture such as bollards rather than by signs. . . . Be orderly, tuck them well in, and be generous with vegetation."

Mr. Howitt concentrated on the problem of parking space in built up areas of cities, pointing out that efforts to prevent the all-day parker from strangling traffic movement in city centres was a matter of enlightened self-interest to all the commercial interests working there.

He went on to describe a variety of parking garages, underground and multi-storey, designed for parking by attendants, by customers and by both, with copious quotations on the economics of building and operating various types of multi-storey garage from the research of the American Eugene A. Barton.

"Motorway Landscaping" was the subject of an interesting paper by L. E. Morgan, Horticultural Adviser to the Ministry of Transport, who concentrated on the need to integrate the motor roads with the landscape, by skilful siting, and by planting in harmony with the natural landscape, encouraging natural regeneration of embankments, avoiding continuous hedgelines which over-emphasise the linear character of the motorway and segregate it from its environment.

"The road user should be presented with varying prospects in which distance, space and foreground engage both the subconscious and conscious mind, ensuring alertness which absence of interest dulls," said Mr. Morgan.

"Only trees of considerable size, boldly grouped, can achieve the marriage of the dominant artificial structure, the motorway, with large scale natural surroundings. Scale, related to the proportions of the motorway, to the landscape and to the speed of traffic must always be the first precept." (One recalled those sad little flowering trees which line the Bath Road in full country beyond Reading, and look to the motorist whizzing past like blobs of pink blancmange).

Mr. Morgan went on to recommend simplicity in the layout round service stations, with grass areas "not cut up with beds of flowering shrubs."

He concluded with the hope that artificial lighting if it becomes necessary along motor ways will be by some other method than light standards. "A single lighting standard may well satisfy the Council of Industrial Design and the Fine Arts Commission even in the context of its surroundings," he said, "but a multiplication of standards, all within view, would produce quite a different impression."

## PUBLIC HEALTH BILL

### *Replacement of Byelaws*

Local building by-laws throughout England and Wales, outside the County of London, will be replaced by building regulations made by the Minister of Housing and Local Government under the Public Health Bill, published on November 11.

At present the by-laws are made by 1,400 borough, urban and rural district councils, to the inconvenience of architects and contractors. The MOHLG is setting up a Building Regulations Advisory Committee to make the building regulations which will now replace the by-laws, which the local authorities will still have responsibility to enforce.

At the same time the Bill will amend the law on relaxing building requirements in particular cases: Local authorities will no longer need the Minister's consent for every relaxation they grant, though the developer will have right of appeal to the Minister where a local authority refuses a relaxation. The Bill will also amend the Public Health (Drainage of Trade Premises) Act of 1937, so that local authorities can make a charge (subject to right of appeal to the Minister) for the reception of trade effluents into the public sewerage system. And it will contain a number of clauses dealing with a wide range of public health matters, from sewers and drains to infectious diseases and parks and open spaces.

## BUILDING CENTRE

### *Consumer Protection in the Building Industry*

On Wednesday, November 16, the Building Centre held perhaps the most successful of all their Forums, on Consumer Protection in the Building Industry. Thomas Mitchell, the first of the two main speakers, began by pointing out that during the craft period the question of consumer protection hardly arose because the characteristics of the few materials used in building (he put the number at 24) were well known, being handed on by word of mouth. Now that there are so many more materials and that the number of different products made from them is greater still (1,000 new ones every four years), it is no longer possible to gain adequate information by hearsay and some form of protection against a wrong choice is necessary. At one time (he said) the RIBA had considered publishing architects' experiences of named products, but this had been thought dangerous. Government agencies, such as BRS, can go some way towards solving the problem, but they too must stop short of naming products and it is this which the architect wants. The new agencies which have been set up to examine consumer goods, the Consumers' Advisory Council of B.S.I. and the independent "Which," can mention products by name, but Tom Mitchell questioned whether they had the resources to carry out

the more elaborate tests required to prove building products. Peter Trench, the second main speaker, began by expressing relief at finding that the object of the discussion was not to protect the architect and client against the builder. He pointed out that the Sale of Goods Act of 1893 offered a fair measure of protection, but that its measures are too often evaded by the manufacturer offering a guarantee. In these cases the effect of a guarantee is usually to limit the manufacturer's liability to the product itself and to exclude liability for any incidental damage its failure may cause and the cost of reinstating it. He asked that too much protection should not be given, but that the man who wanted to buy a relatively cheap and inferior product—say a flush door at 30s.—should be allowed to do so. What was wanted, he said, was that pressure should be brought to bear on advertisers to standardise the language of their advertisements so that builders and architects could discover exactly what they were offering.

At this point it became clear that the object of the Forum was not "protection," but "information." Mr. Brook, one of the directors of "Which," taking up this point, said that the chief value of organisations such as his own was to provide the buyer with a methodology for choosing. At the end of the meeting Roger Walters, Chairman of the Science Committee of the RIBA, said that his committee had considered and welcomed the suggestion that the proprietors of "Which" should publish a "Which for Building."

British Standards were also discussed. Mr. Bevan of BRS asked how many architects do, in fact, specify British Standards. There was some discussion about whether Standards were set high enough to be worth using. On this Mr. Cutbush of BSI said that, where there was no demand, either from architects or from manufacturers for a higher Standard, there was no point in making one; and that, in general, those standards which are most used are set at a level of "good service."

## BIRMINGHAM

### *New Building Centre*



Birmingham is to have a Building Centre. This was announced at a Press Conference recently by A. G. Sheppard Fidler, Birmingham City Architect, and A. G. Banks, President of the Birmingham Engineering Centre. Mr. Sheppard Fidler is

chairman of a committee comprising architects, builders and associated professions in the Midlands, formed some months ago with the object of establishing a Building Centre. They have joined forces with the Engineering Centre, which next year celebrates its centenary and has been finding its present premises in Stephenson Place inadequate, in leasing the former Masonic Hall opposite the City centre from Jack Cotton and Partners. The new Engineering and Building Centre, established on funds from the Engineering Centre, is expected to open in autumn 1961.

## TALL BUILDINGS

### *Discussions at Brixton*

The Brixton School of Building is holding a series of talks at the school, followed by discussion on the problem of tall buildings, at which the speakers are the architects, planners, engineers, and contractors directly concerned with a live project; in this case the Vickers building at Millbank.

Discussion was opened by T. J. Widdaker, group planning officer at the LCC, and G. D. Wimbourne of Ronald Ward and Partners, architects for the project.

There has been much criticism from time to time of the apparent lack of policy evident in the LCC's handling of the tall buildings issue. It would be interesting to know if Mr. Widdaker speaks for the LCC when he says that the impossibility of wholesale comprehensive redevelopment may be a blessing in disguise because it ensures that no predetermined pattern of tall buildings cannot be imposed on London. In reply to a question seeking a definition of a tall building, the speaker explained that it depends where it is sited. Within central London anything over 100 ft. (the former general height limit) would qualify. In the suburbs, where two- and three-storey housing predominated, a seven-storey structure clearly would be a tall building. Mr. Widdaker said that the LCC asks itself a series of questions before coming to a decision on an application. Will the proposed building disrupt the pattern or obtrude itself in an area of special character? Will it have a positive visual or civic significance to the town as a whole? Is the site large enough to permit lower buildings or open space as well?—and so on.

In contrast to the meat of the planner's contribution, the architect's was all bone and gristle. Mr. Wimbourne dealt far too much in generalities.

One point which emerged during the subsequent discussion was that despite the care taken in deciding where a new tall building will appear on the skyline, unpleasant surprises often result. We all know about the Shell building and the view from the bridge in St. James's Park. The remarks made by one member of the audience at this stage are pertinent. He suggested that we might emulate a recent case in Italy in which scaffolding was erected on the site for the full height of the proposed

building and its impact on the skyline carefully studied before approving the project. Where did the money come from to erect the scaffolding? It came from the advertisements permitted to be fixed to it during its brief existence.

## IUA CONGRESS

### *AA Hospitality*

The Architectural Association has sent out a leaflet to its members, inviting them to take part in the entertainment of the many foreign architects who will be in London for the I.U.A. Congress next summer, from July 3 to 7.

The RIBA's Organising Committee for the Congress has suggested that there should be widespread entertainment of foreign delegates in private homes on the first evening, and the Council of the AA has undertaken to organise this. The leaflet says:

"There will be well over a thousand foreign architects in London: we should like members to invite groups of five or more delegates to their homes (or else to their offices) for an informal party with, say, buffet-supper and some drinks. "Many of us on trips abroad spent some hours in a private home and such occasions are remembered with pleasure; this time we shall be the hosts. There will of course be some difficulties of language, but we think members and their friends will overcome these."

The leaflet is completed by a well-devised form of application for a given number of foreign delegates—including preferred nationalities—for would-be party-givers to fill in. The AA makes it clear its members have no monopoly of party giving, but will be very glad to hear from anyone prepared to join in the July 3 Hospitality Drive.

## LCC

### *Road Improvements Committee*

This week's meeting of the LCC General Purposes Committee considered a proposal to set up a new Committee of the Council to deal solely with the programme of road improvements.

Hitherto this has been part of the work of the Town Planning Committee, but the decision of the Minister of Transport to authorise a £10,000,000 a year road improvements programme for London led to this reorganisation, proposed by the chairmen of the General Purposes, the Town Planning and the Finance Committees, with the Leader of the Council, Sir Isaac Hayward.

## BRITISH ROAD FEDERATION

### *Roads for the Future*

If Britain is on the point of making a real start on urban road improvements, says the B.R.F., the roads must be designed to cope with traffic demands 20 years hence: at present, the Federation claims that hundreds

of miles of roads now being planned will be out of date in a few years. The Federation estimates a traffic increase of 7 per cent a year (the rate of increase from 1951-58) would mean that there will be over 17 million vehicles on the roads in 10 years' time.

It has circulated all local authorities to re-examine their road schemes in the light of this, and begin to think in "three-dimensional" terms, incorporating flyovers instead of roundabouts and limited-access wherever possible.

## YORK ACADEMIC TRUST

### *Institute of Advanced Architectural Studies*

York Academic Trust, who are unable at present to appoint to the vacant Directorship of the Institute of Advanced Architectural Studies until the status of the Institute in relation to the University of York has been decided, announce that they have been able to arrange for W. A. Allen, A.R.I.B.A., Superintending Architect of the Building Research Station, to act in an advisory capacity until a permanent appointment can be made.

## RIBA

### *Prize Competitions*

Intending competitors for the *Tite Prize*, a certificate and £100 for the study of architecture of the Italian Renaissance, are reminded that the closing date for submitting forms of application is January 13, 1961.

The *Tite Prize* is confined to probationers and elected students of the RIBA and elected students of Dominion Allied Societies who have passed the RIBA Intermediate or equivalent examination, or produce certificates from members of the RIBA to the effect that they have reached the required standard. Students who have passed the RIBA Final or equivalent examination at the time of the *en loge* competition are not eligible to compete. Only one *en loge* competition will be held, on Tuesday, March 14, 1961, in London, and at non-Metropolitan centres.

The *en loge* competition for *Soane Medalion* and £120 will be held on the same day, and the closing date for submission of application forms is also January 13, 1961. This competition is confined to members of the RIBA and of allied societies overseas, and elected students of the RIBA and of allied societies overseas who have passed the RIBA Final or equivalent examination or who have produced certificates from members of the RIBA to the effect that they have reached the required standard. Students need not have passed the Professional Practice Examination to be taken after 12 months practical experience.

Application forms for admission to these competitions are available at the RIBA, 66 Portland Place, W.1.

## BRISTOL AND SOMERSET SOCIETY OF ARCHITECTS

### *Gane Trust Award*

The Gane Trust has generously offered the Society an award of £50 annually for three years, to assist an architect aged 25 to 33, who must be a member of the Society, to travel in Europe and study modern architecture. The Society will supplement the award for 1961 with an addition of £50. Conditions for the award are available from the Hon. Sec., BSSA, 25 Great George Street, Bristol 1.

## AIA

### *RS Reynolds Memorial Award*

The AIA invites nominations for the fifth annual 25,000 dollar R. S. Reynolds Memorial Award, the largest in architecture, which is conferred each year on an architect who has designed "a significant work of architecture using aluminium creatively."

Eligible buildings should have been completed between January 1, 1958, and January 1, 1961, although the AIA Jury may consider earlier work. Prime consideration is given to the creative value of the architect's contribution to the use of aluminium and its potential value on the architecture of our time.

Nominations, which may be made by the architect himself, or his firm, or by the editor of a newspaper, magazine or radio programme should be sent to The Reynolds Award, AIA, 1735 New York Avenue, N.W., Washington 6, D.C. and will be accepted until December 12, 1960.

## COMPETITION

### *Illuminated Signs*

The fourth illuminated sign design competition has been announced by the Electrical Sign Manufacturers' Association. The object of these biennial competitions is to encourage continual improvement in the design of illuminated signs.

Nine prizes will be given for the best designs for illuminated sign displays on a modern, architect-designed shop in the main shopping centre of a large provincial town. First prize is £150; second prize, £75; third, £40. There are five consolation prizes of £10 each and £20 for the best entry from a competitor under 21 years old.

Judges in this year's competition are: the Rt. Hon. Lord Mancroft, representing advertising; Sir Basil Spence, representing architecture, and R. Nicholas, president of the Town Planning Institute, representing town planning, together with the chairman and vice-chairman of the Association.

Final date for entries is January 31, 1961, and full details with copies of the rules may be obtained from the Electrical Sign Manufacturers' Association, 13 Bedford Row, London, W.C.1.



1

## Ironstone in Oxfordshire

2



Aspects of existing ironstone workings (1 and 2) contrasted groups in the landscape. Above, Balscott, a typical Oxfordshire village, its agricultural buildings are part of the landscape. Below, typical ironstone mining ancillary buildings at Wroxton, a blight on the landscape. The village centres are not affected by the mining: it is in the open country that the damage is done. However small the acreage under excavation, the sheds, railways roads and diggings will remain throughout the operation.

"Mr. Cusack, for the Oxfordshire County Council: You are confident you would get this ironstone?"

Mr. Hacking, director of research, Richard Thomas & Baldwin: Yes.

Mr. C.: In your opinion, then, this inquiry serves no purpose?

Mr. H.: I realise it does."

That is the crux, in two questions and answers. If Mr. Hacking's assertion is true then the whole business is rigged and these words, or any other words, are useless.

Assuming this is not so—which I have to do because otherwise we are on a level with East Germany or the Louisiana School Board—the position is roughly this: ironstone has been mined north of Banbury since before the war. The results are shown in the photographs and are almost inevitable: i.e., any similar workings must produce the same results.

The present applications involve 4,700 acres in four areas south of Banbury. This part of Oxfordshire is completely untouched by large scale industrial operations and is also very prosperous farmland—there has been no sign of local agitation for more employment or spending power, which is rather remarkable.

Two of the sites, near Adderbury and Bloxham, are in country similar to the present workings, that is, a sweeping plateau which can absorb the overall workings (though not the details) fairly easily; but the other two, around Hook Norton, forming at least 75 per cent of the total acreage, are in hilly and very beautiful countryside which will be completely destroyed by any kind of extraction. It is, in fact, one of the best parts of the Cotswolds.

The planning authority says, quite simply, keep ironstone workings where they are, north-west of Banbury; and prevent any intrusion into a self-contained and astonishingly unspoilt rural area. Local opinion is absolutely behind them and so is every precept of good planning. There are plenty of foreign sources of iron ore available, the existing workings are operating below capacity and would in fact be able to supply an extra million tons a year. If the issue were being decided fairly and squarely on its own merits, the application would surely be dismissed.

The worrying thing that covert forces may or nearly have decided the matter out of hand. The feeling becomes almost a certainty when passages like that at the head of this note are studied. Richard Thomas & Baldwin have spent £119 million on a new strip mill at Newport, a considerable part of which, they say, has been expended on "equipment specifically to receive Oxfordshire ironstone. If we do not get it, the machinery would become redundant."

As Mr. Cusack, q.c., was quick to point out, this is simply holding a pistol at the country's head. And surely a company (even a semi-nationalised one) would not do this so blatantly unless they were pretty sure that they would get what they wanted. We shall see; something even more important than the fate of one of the best bits of rural England is at stake here.

IAN NAIRN



3



5

The main agent of extraction is quite simple, 3, a huge trench with a railway line in the bottom of it. Again, although the actual area under excavation may be small, the trench and railway have to remain as far back as the rail-head. Odds and ends of the existing workings, 4. These could be absorbed into the countryside, but there has not been one shred of evidence produced by Richard Thomas & Baldwin that they are prepared to do this.

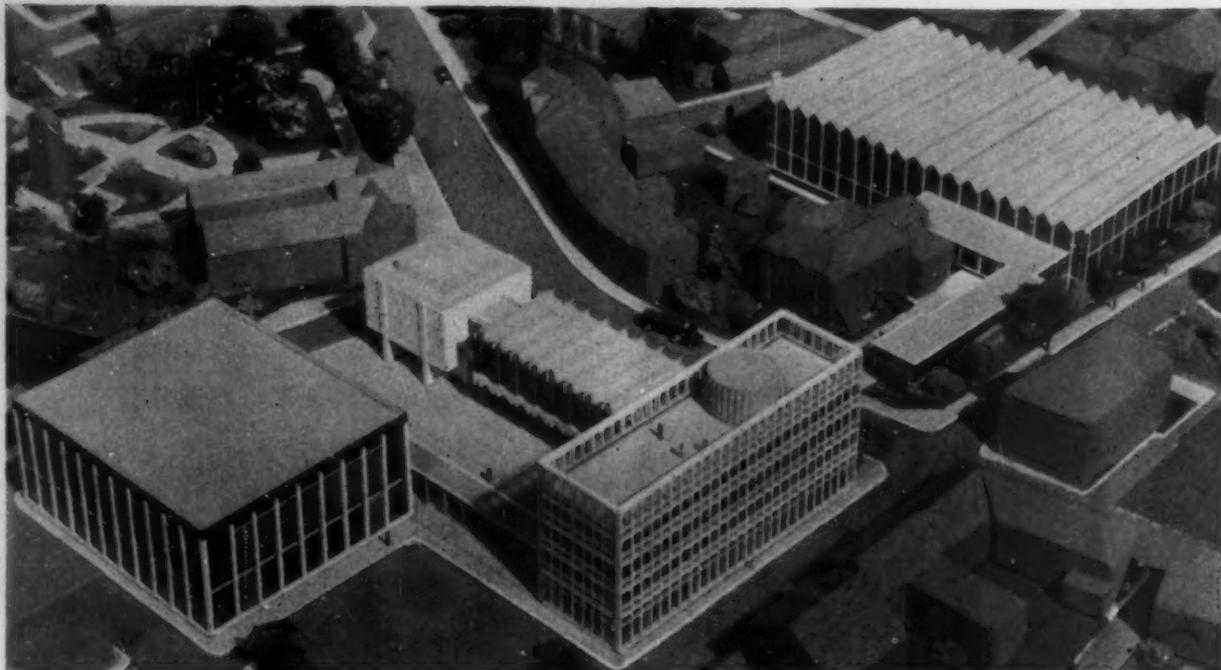
Two side effects of excavation. 5 shows the appearance of any object left at the old ground level and the scrappy patternless effect of the new pasture land; 6 is a wry illustration of the point that the excavations disturb the drainage system. It should have been a restituted field; a rainy November decided otherwise.

4



6





Model of the scheme from the south-east

## Heywood Civic Centre

The Borough of Heywood, a Lancashire town with a population of about 24,000, has recently placed its scheme for a new civic centre before MOHLG for loan sanction. The complete layout, design by Charles B. Pearson & Son, will include assembly rooms, swimming baths, municipal offices and a council suite. At present it is proposed to begin with the assembly rooms and swimming baths, starting on the site in 1963.

The swimming baths consist of two pools: the larger, 110 ft. by 48 ft., designed to the Amateur Swimming Association's national standard; the smaller, 90 ft. by 30 ft., intended for club use and instruction. To the right of the pedestrian approach from Church Street is a single-storey wing for slipper baths. The entrance into the building is so placed that spectators can have direct access on to the bridge which overlooks the two pools (one on either side), while swimmers reach the changing rooms below by staircase. The structure of this building is intended to be a reinforced concrete frame with a folded slab roof.

The assembly rooms are intended to provide for a wide variety of functions. For meetings the large hall will seat 675, or it can be divided into smaller halls seating 450 and 200. Dances and banquets are catered for, and there will be demountable stage equipment for theatrical productions. Placing the main hall on the first floor has left the ground floor free for the entrance hall, cloakrooms and a number of smaller rooms for meetings. Structure is intended to be a combination of steel and concrete.

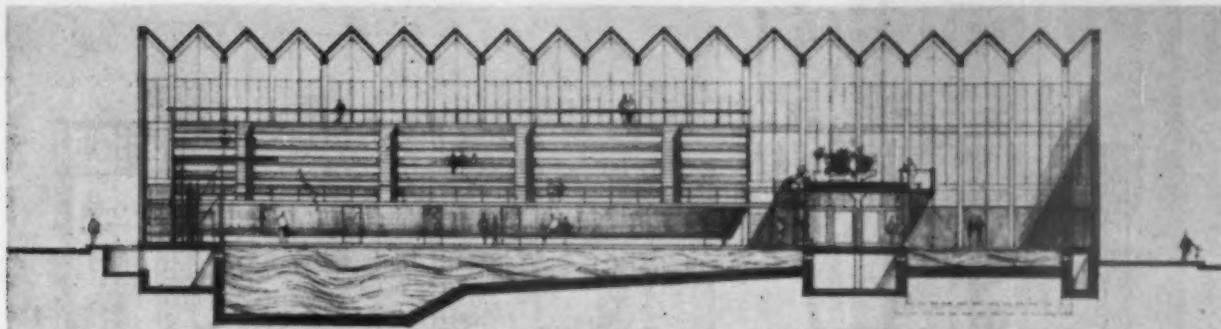
The assembly rooms are sited so as to form the south side of what will become a pedestrian town square with the taller block of municipal offices on the east side. The council suite on the east is raised above ground floor level so that there can be a visual link from the square to the swimming baths. This interplay will undoubtedly succeed within the limited scope of the scheme. It seems evident from the whole layout, however, that the architects have been forced to work within a very awkward context, and there is a desperate need for the council to consider the centre in a much more comprehensive way. Between the two main areas there is, for instance, an unrelated group of existing buildings, and to the north a municipal garden (complete with war memorial)



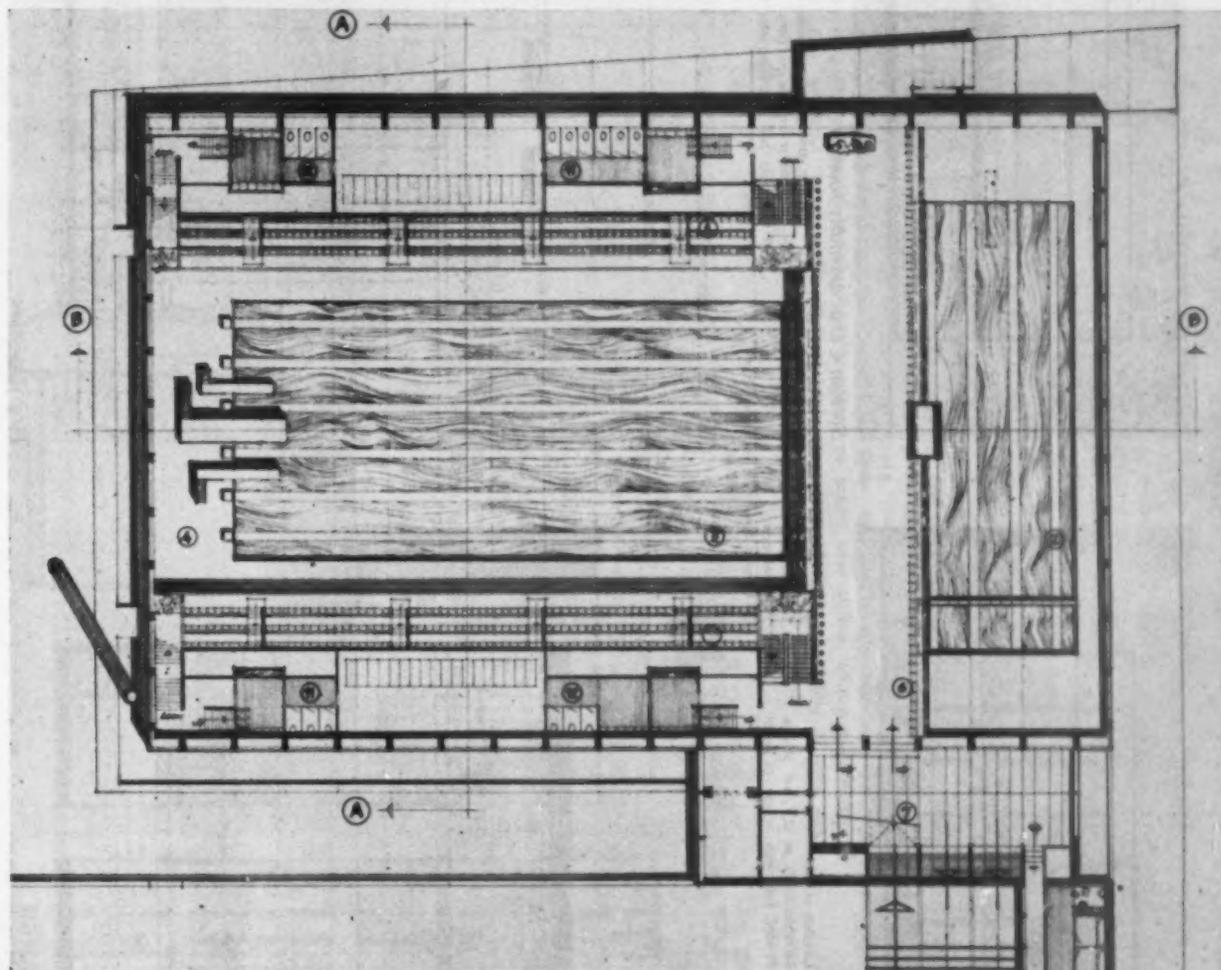
Proposed development of Heywood Town Centre

- |                          |                      |
|--------------------------|----------------------|
| A. Public swimming baths | E. Council chamber   |
| B. Public slipper baths  | F. Committee rooms   |
| C. Assembly hall         | G. Municipal offices |
| D. Piazza                | H. Car parking       |

and a church with fairly generous open space around it. Here is a classic case for comprehensive redevelopment. If other types of accommodation, such as shops and offices, could be included, the local authority would have the benefit of rents to help to pay for the proposed buildings, and the resulting diversity of activity would make the centre a much livelier and more interesting place. And something very much more radical could be done about the motor-car.



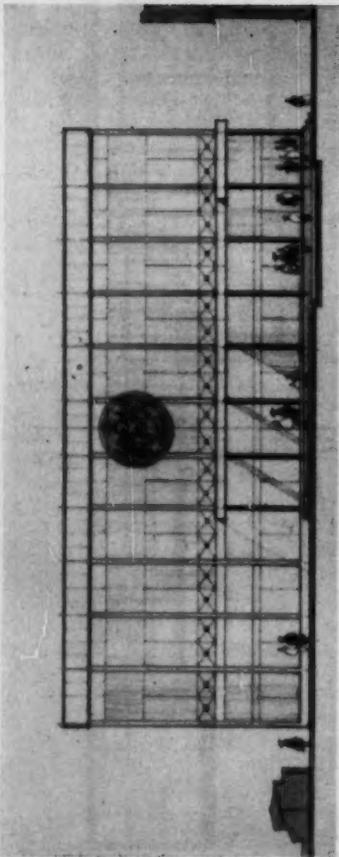
Section through baths showing promenade deck between large and small pools



Plan of baths at entrance level

- 1. Spectators seating
- 2. Smaller pool
- 3. Larger pool
- 4. Diving boards
- 6. Promenade deck and servery
- 7. Main entrance and administration
- 9. Women's and men's slipper baths
- 11. Spectators' w.c.s. (women)
- 12. Spectators' w.c.s. (men)

Heywood Civic Centre (continued)

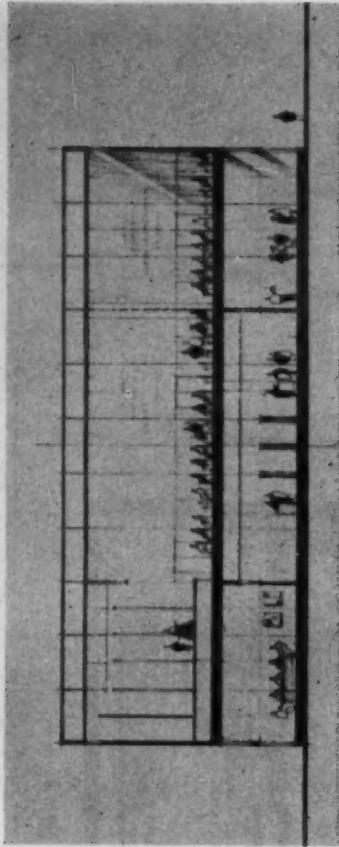


North elevation of assembly rooms

- 20. Canopy from street
- 21. Main entrance and lower foyer
- 22. Administration—pay box telephone booths—managers and general office

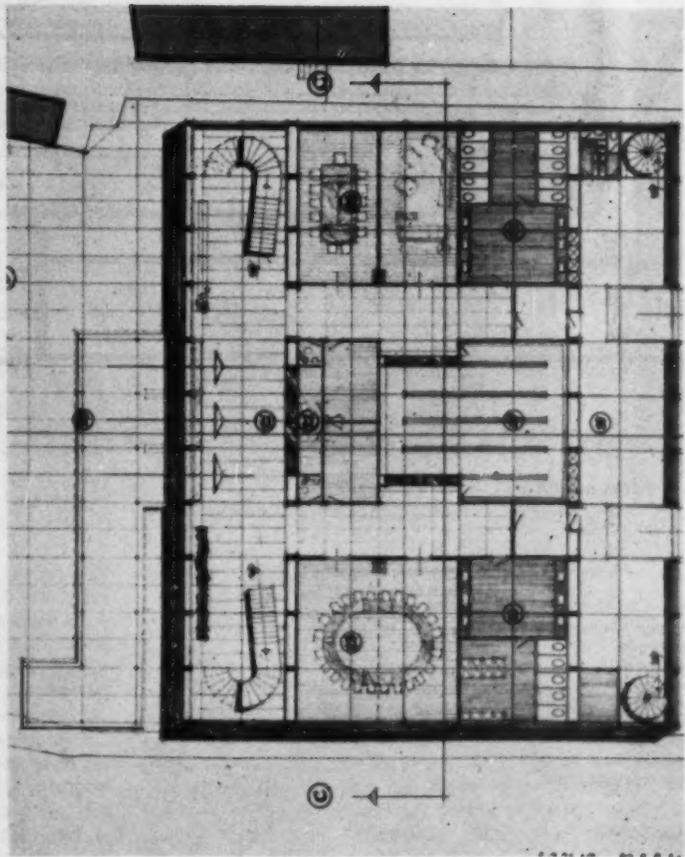
- 23. Lettable room
- 24. Lettable room as 23 but shown divided into two rooms of equal

- 25. Men's w.c.s.
- 26. Women's w.c.s.
- 27. Cloakroom
- 28. Service area—lifts to upper floors.

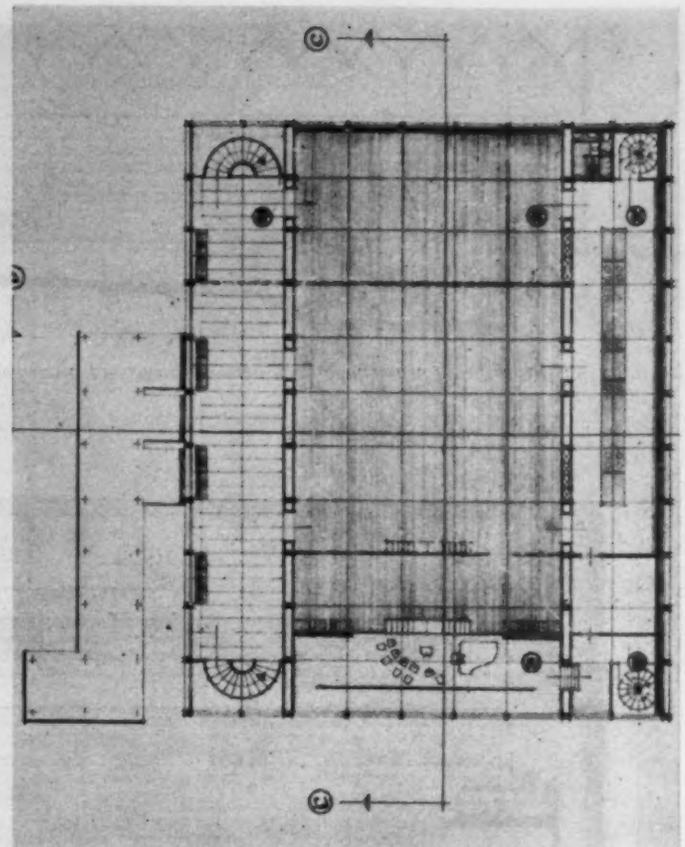


Section CC of assembly rooms

- 29. Upper foyer divisible into two parts
- 30. Assembly hall divisible into two parts
- 31. 15 ft. 0 in. deep stage extendible to 30 ft. 0 in. deep
- 32. Servery, storage and wash-up areas
- 33. Chair and table storage

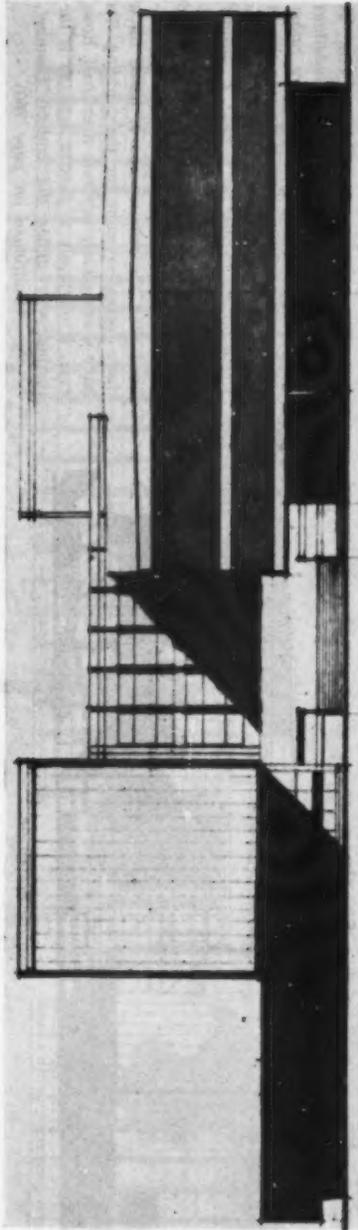


Assembly rooms: plan at ground floor level



First floor plan

First premiated design  
by Kenneth R. Hathaway



North elevation of winning design

# Competition for Neath Civic Centre

As we announced in last week's issue, the first premium of £1,000 has been awarded to Kenneth R. Hathaway. The second of £500 has been awarded to Barrie Dewhurst, and the third of £300 to the design submitted jointly by Ceri Jones and Roy Gammon. The assessor Sir Percy Thomas, F.P.R.I.B.A., M.T.P.I., also commended the designs by D. C. W. Vane and G. D. Baker; Nicol, Nicol and Thomas; Harvey Freeman and Sam Bradley; Alex Gordon; and G. E. Grey and F. Hamer Crossley.

The town of Neath in Glamorganshire is a Municipal Borough, which also serves as the administrative centre for the quite separate Neath Rural District Council. This is a familiar situation in the structure of local authorities in this country, and it often results in a certain amount of rivalry between the councils concerned. In this case, however, the two authorities have adopted the unusual and sensible policy of combining forces for new administrative buildings so that they can share certain facilities, chiefly a hall for concerts and banquets and a council chamber, whilst having separate self-contained offices. The key problem in

this competition was to translate this separate and combined accommodation into a workable planning solution.

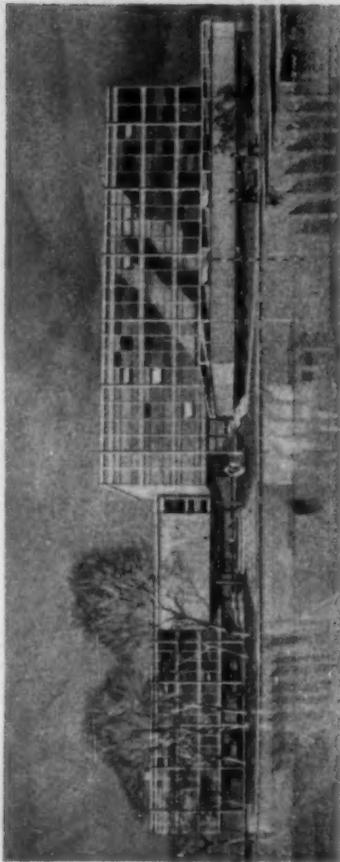
The difficulties are emphasised by the nature of the site which, although flat, is somewhat restricted for the size of the project, and the probability that the proposed new road along the curving eastern boundary will become a source of considerable traffic noise. Although not stated in the conditions, these problems made it clear that a compact layout would probably be necessary so as to leave sufficient open space for landscaping, and to keep the offices well set back from the road frontage. But,

as the assessor says in his report, a fault common to many competitors was their adoption of unnecessarily complicated planning, covering practically the whole of the site with buildings.

In the winning design by Kenneth Hathaway these problems have obviously been considered. Compact planning has been achieved by a vertical separation, the pedestrian entrances being at ground floor level with car park and service entrances below; the first floor includes all major prestige areas: the council chamber, committee rooms, members' retiring-rooms and the main hall. Office accommodation and com-

First premiated design (Kenneth R. Hathaway)

## First premiated design (continued)



mittee rooms for each authority have been treated separately, so that there are two roughly identical blocks with the council chamber between, the latter having a completely open area underneath at pedestrian level. This arrangement enables each authority to have its own separate entrance. Many of the other forty-odd entrants attempted to combine the two sets of offices into one block. In many cases this idea led to a series of entrances into the building which would be confusing to the general public, as well as causing loss of identity for each authority.

The winner's arrangement of the important spaces on the first floor has also allowed, in the layout of the main hall, for a generous public concourse on the ground floor opening off the bar, cloakrooms and other facilities. The design also enables the hall to be used by both authorities, either separately or together, in conjunction with the council suites, by use of a direct link from the ante-rooms. This very workable arrangement was not specifically called for in the conditions; an answer to a question merely suggested a covered route to the main hall from each office block. But for banquets, public meetings or other important functions, it is obvious that by these means councillors may still make full use of the ante-rooms, retiring-rooms and ancillaries.

The design allows the layout to include a broad pedestrian walk right across the site and passing directly under the council chamber. At this point the walk is raised to form a podium the purpose of which is not immediately apparent; it was made necessary because the car park underneath could not be sunk any lower for reasons of surface water drainage.

The structure for the building is in situ concrete, with applied white chipping finish where exposed externally. External cladding is generally aluminium windows and precast concrete panels with an exposed aggregate

of light grey granite chipping. The stair-chairs at 12 ft. centres are brought forward externally to offer a clear interior for partitions and for service runs under window-sills. For planning purposes a 6 ft. module has been adopted for the offices.

The drawings suggest that the council chamber may be underlit. With traffic noise in mind, the designer proposes that the chamber should be mainly top-lit by a cluster of roof lights over the chairman's desk. For the same reason top lighting is also proposed for the ground floor blocks.

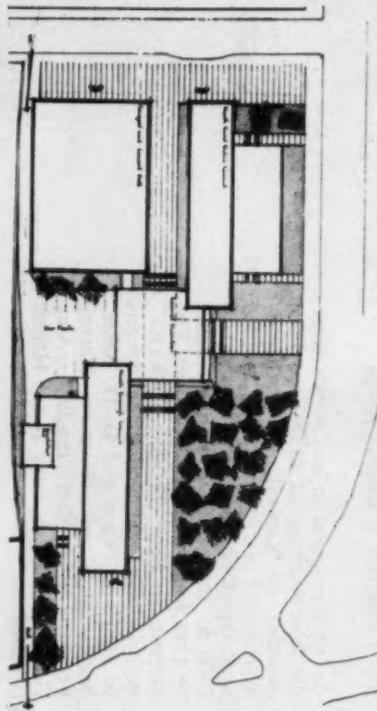
The general massing of the design has grown directly out of the requirements, and in the planning the main problems of circulation have been overcome. In particular, a clear separation has been achieved between public access areas and council suites. The main hall is basically well arranged, although its detailed design, bearing in mind the various functional requirements, is obviously capable of further development.

In his report the assessor does no more than comment marginally upon the virtues of the design as a compact and workable plan. He commends, however, the fact that the elevations are contemporary in design, with a contrast in design between the Council suite block and the offices. On costs he has obviously studied the scheme with care. The author estimates his cost as £420,844. I have had his calculations checked, and the cubic contents are rather lower than those calculated. Bearing this in mind, and also the high standard of finishes which the author has set himself, I consider that this design would cost nearer £450,000.

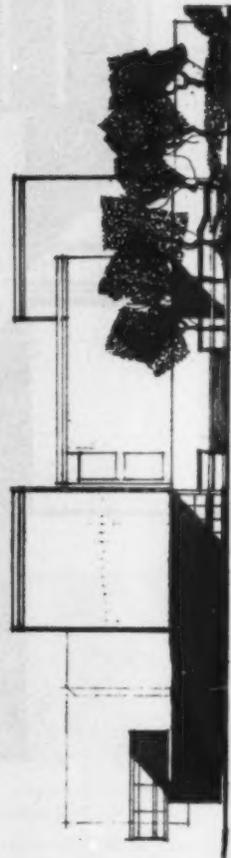
The design by Barrie Dewhurst, placed second, is in detail more developed and refined than the winner, and is based on a more formal concept for the building. To have a completely separate main hall, however, is obviously a disadvantage, as is the carriage-way under the council chamber.

(Continued on page 760)

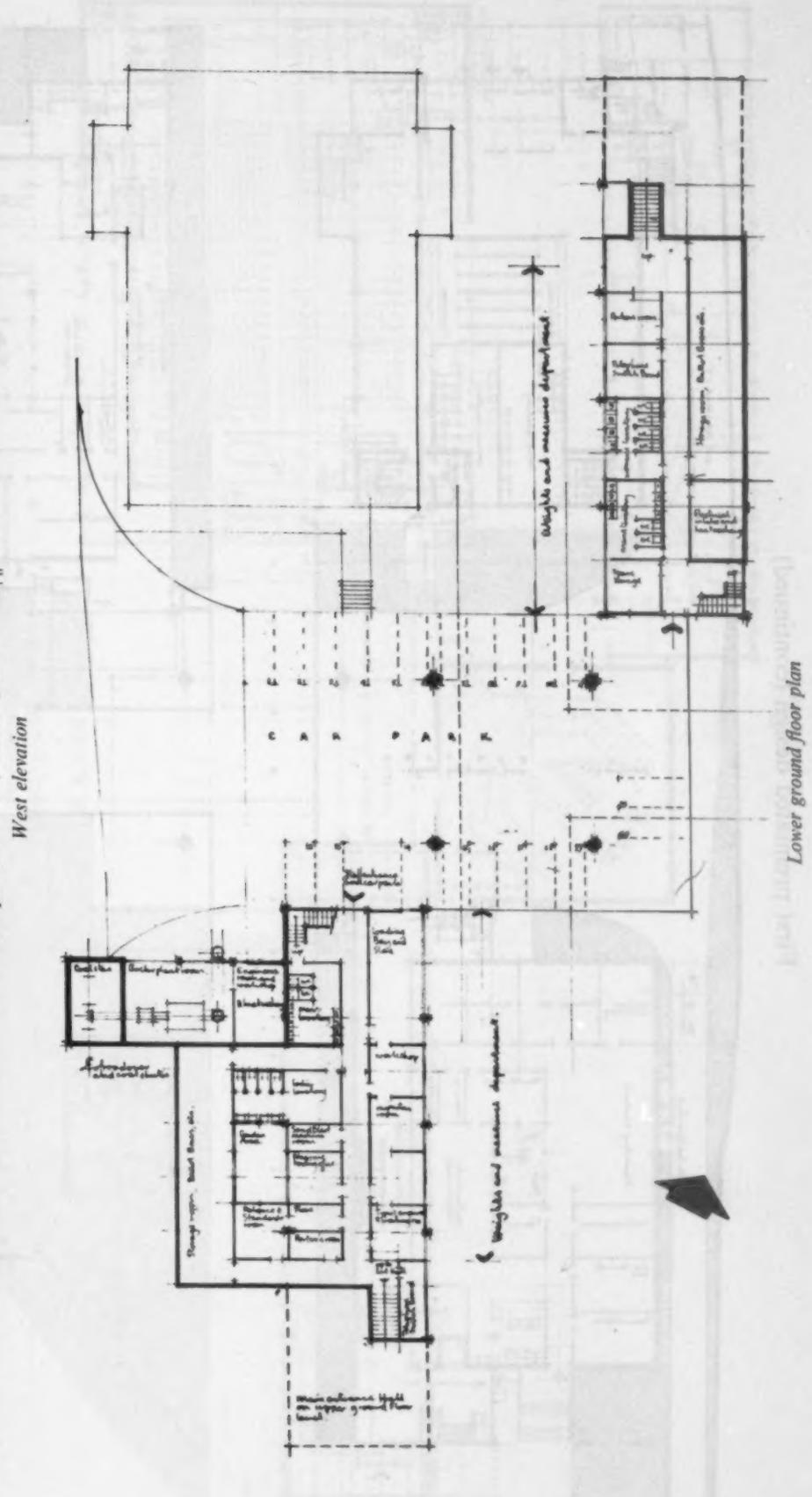
General view from the east



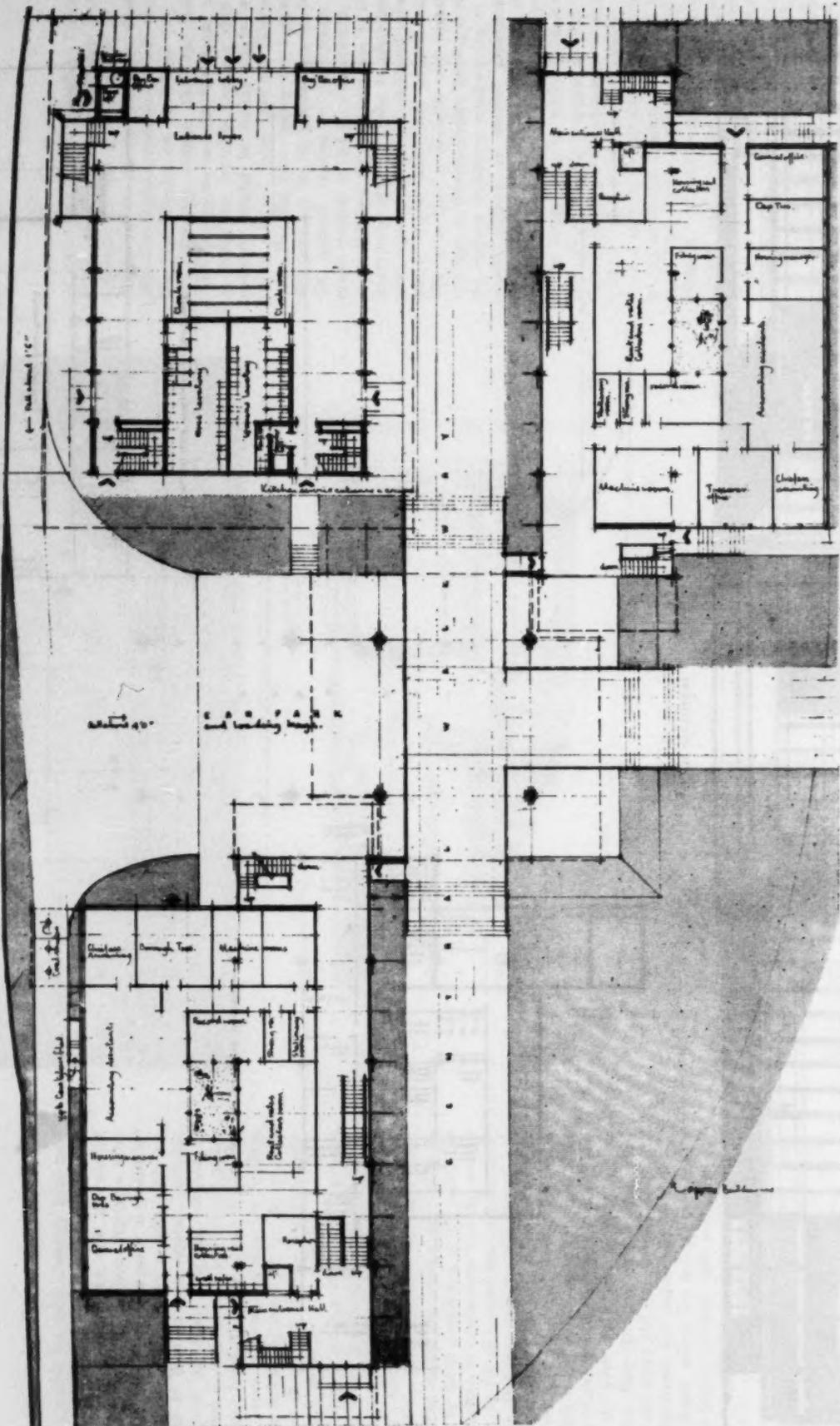
Site plan



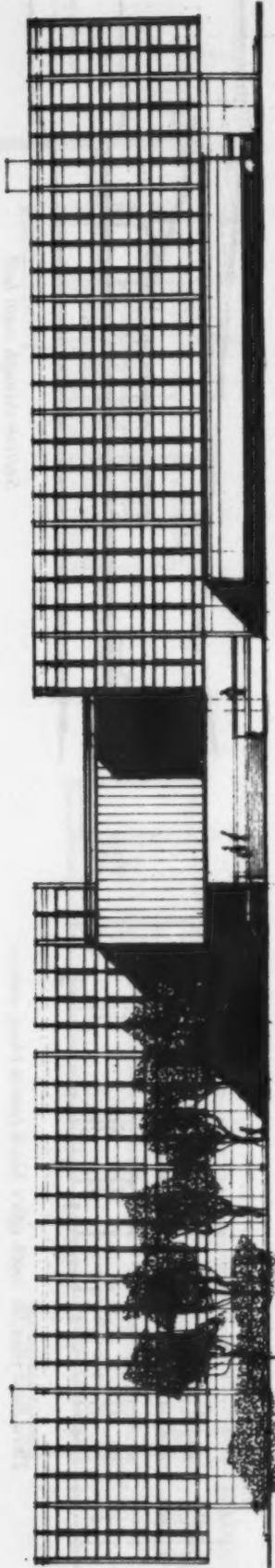
South elevation



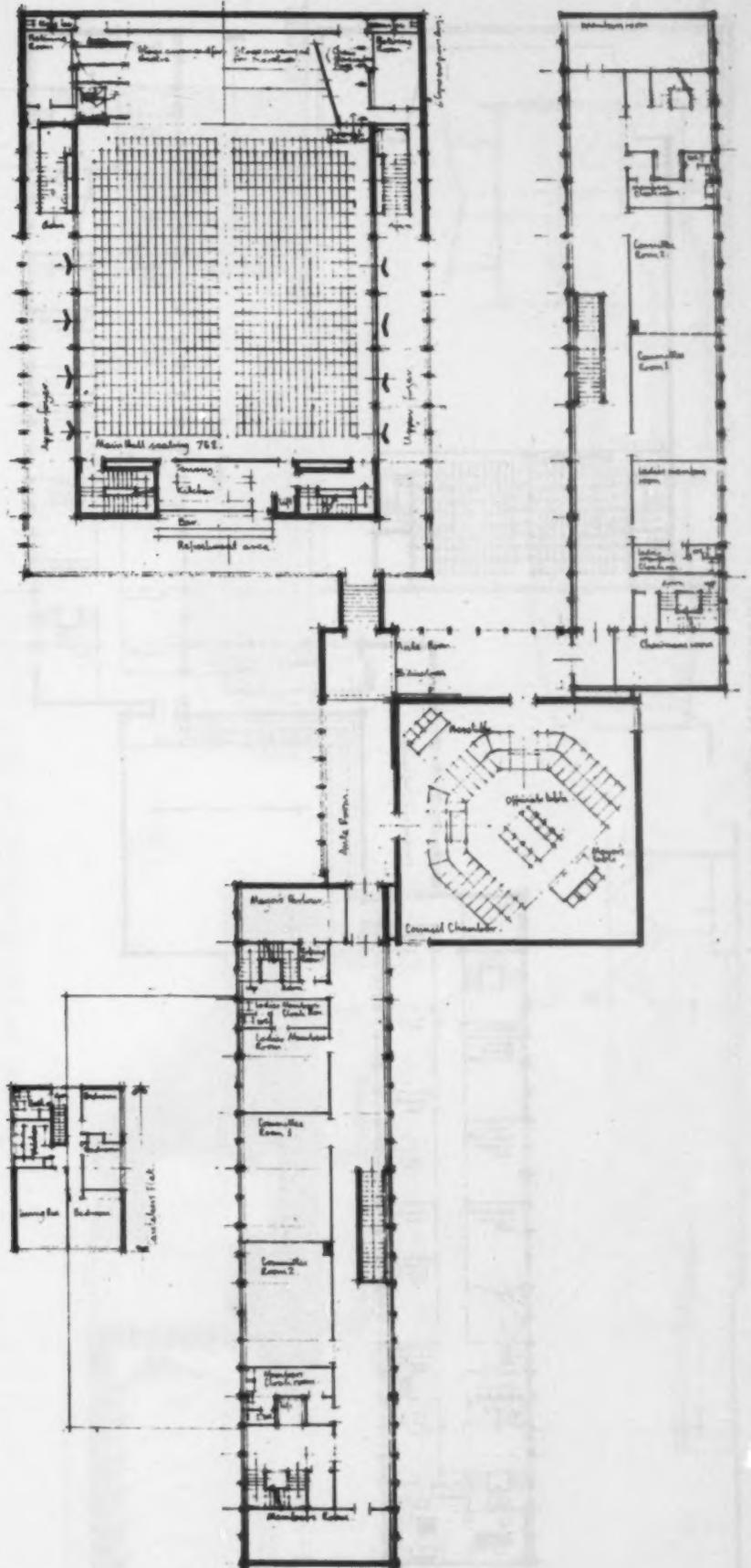
First premediated design (continued)



Ground floor plan

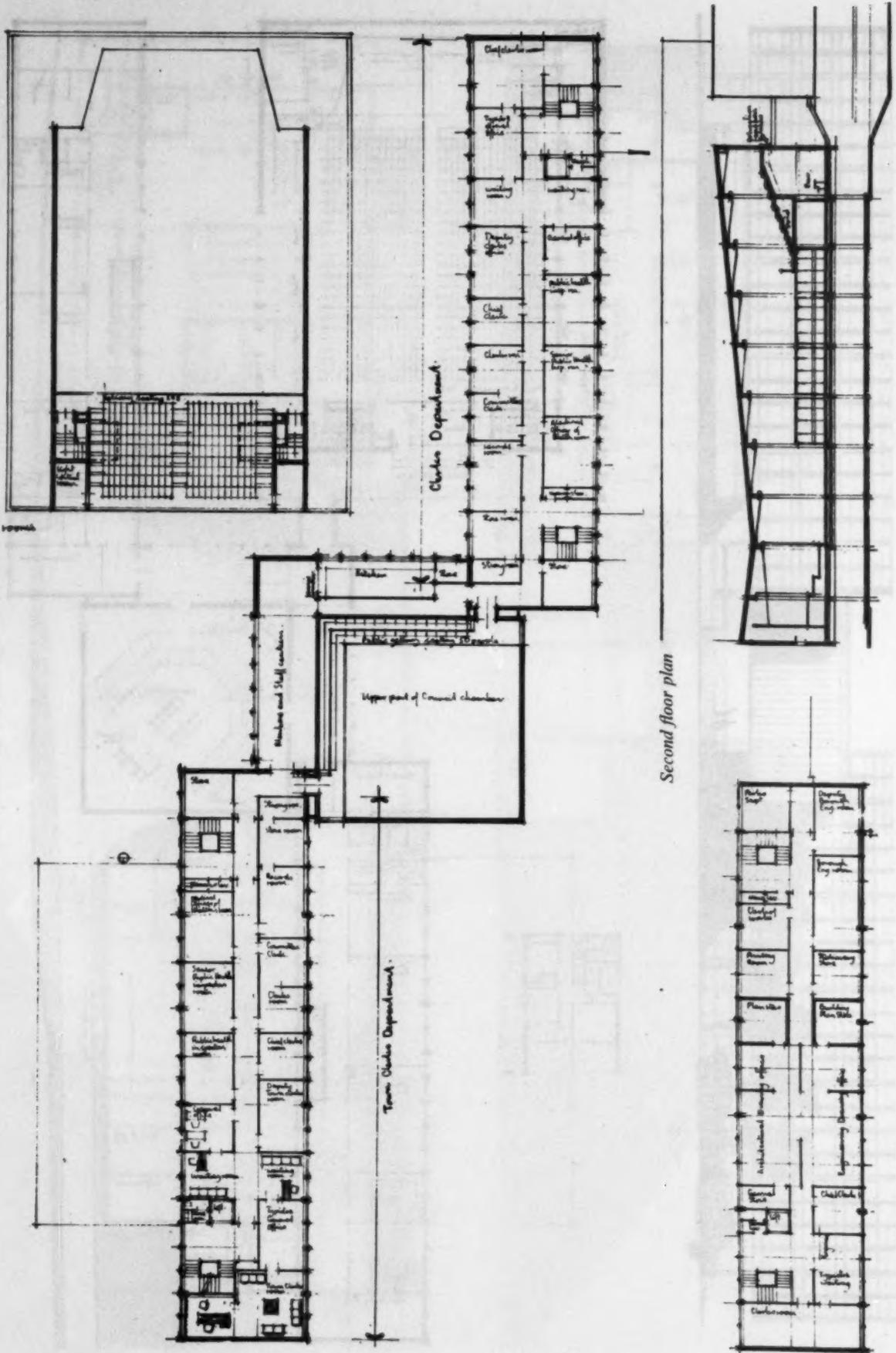


East elevation



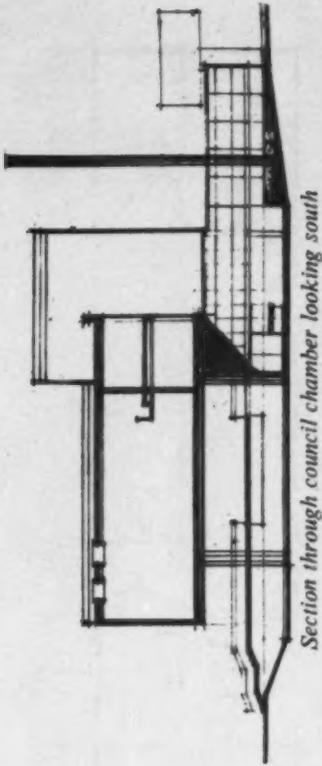
First floor plan

First preiated design (continued)

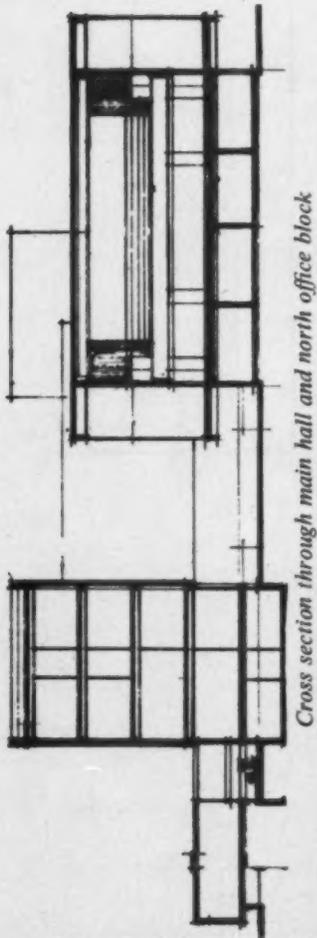


Section through main hall

Third floor plan for south office block (north block similar)

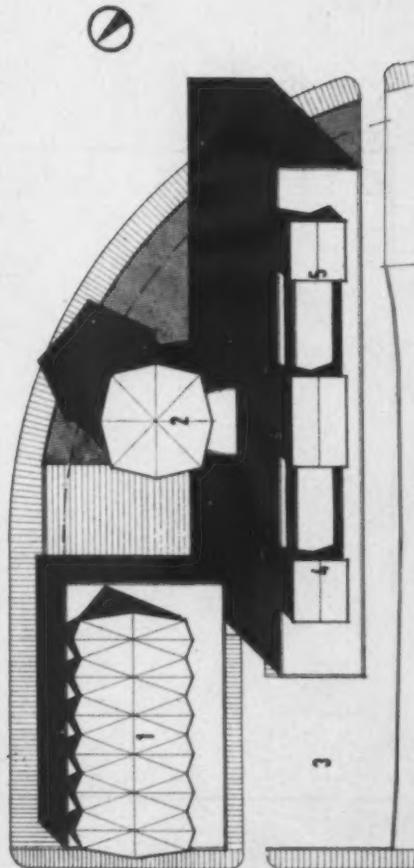


Section through council chamber looking south

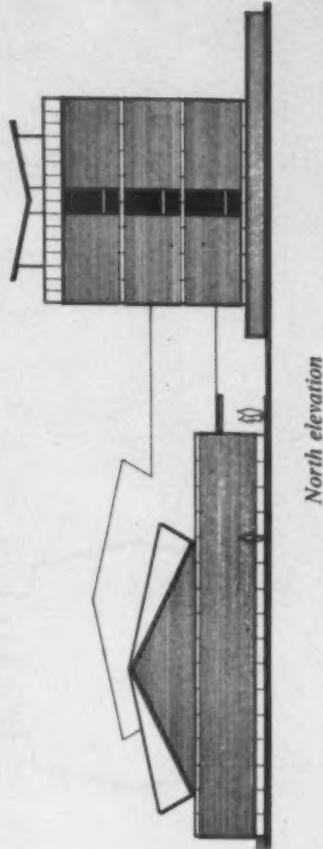


Cross section through main hall and north office block

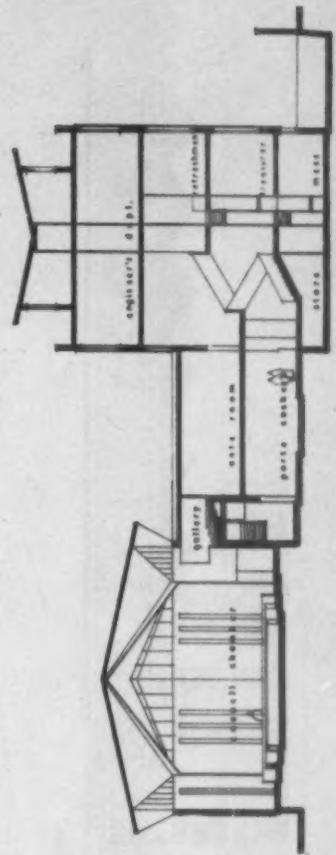
Second premiated design by Barrie Dewhurst



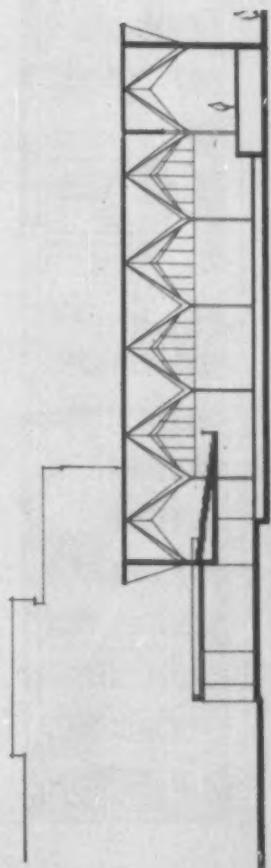
Site plan



North elevation



Section through council chamber and office block



Section through main hall





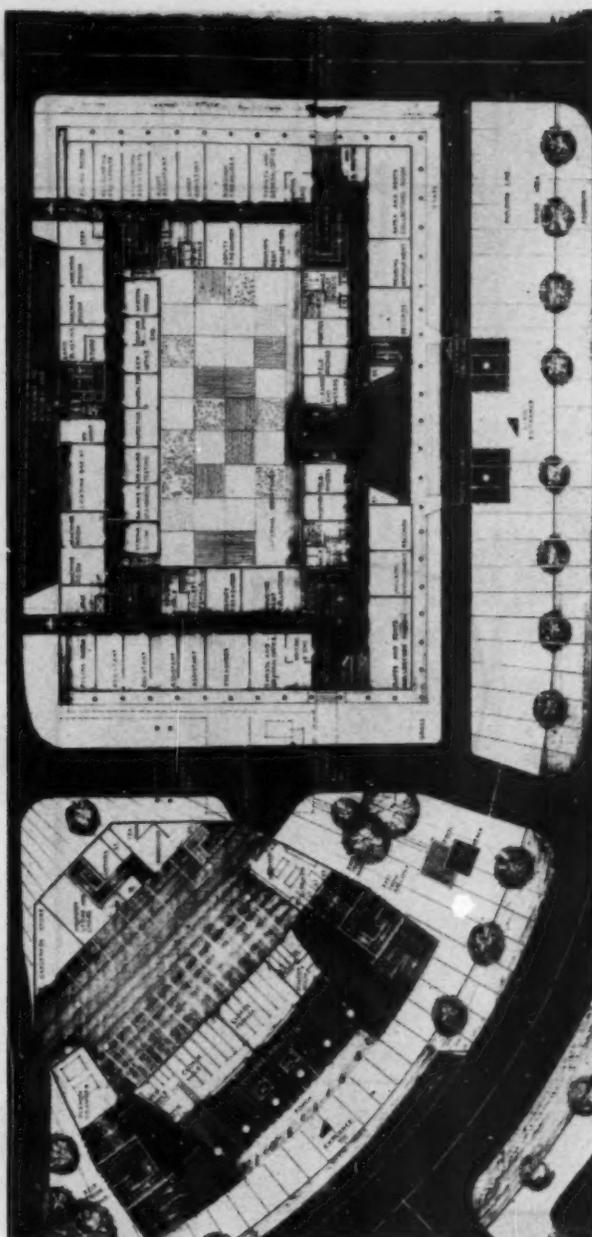
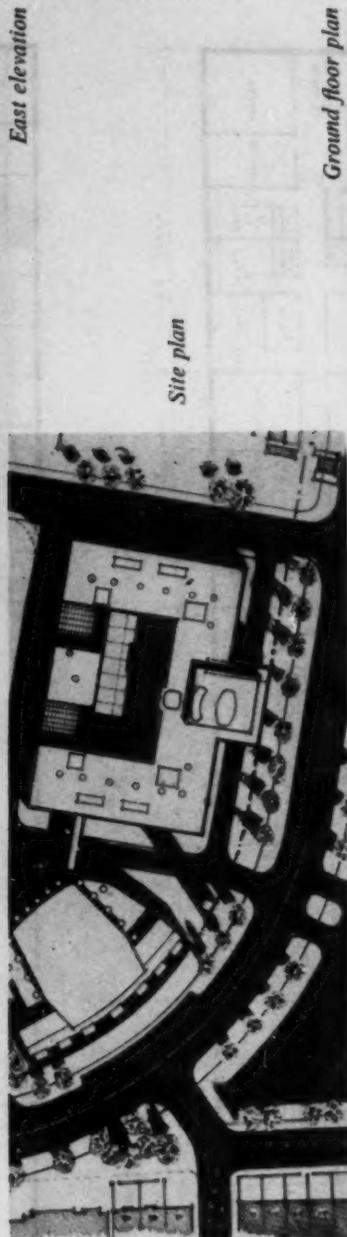
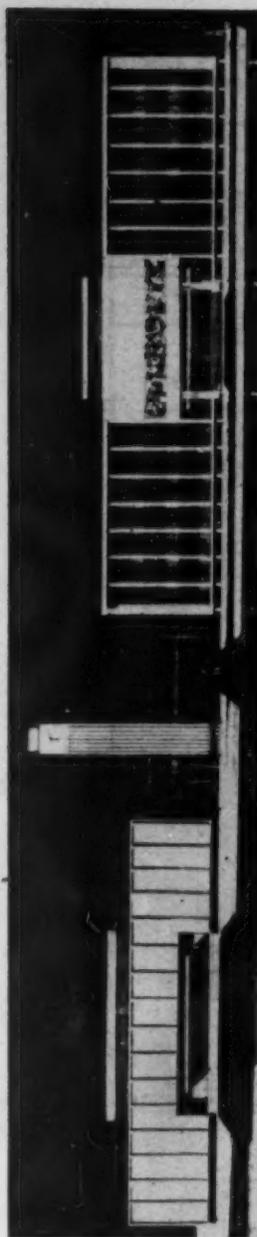
Third premiated design by Ceri Jones and Roy Gammon

Continued from page 752

which tends to cut the site in two. The assessor says that the elevations are simple and restrained, but with an interest given to the whole by the treatment of the roofs of the Assembly Hall and Council Chamber. He is critical of the hall block, however: there is very inadequate cloakroom accommodation for the public. He regards the estimated cost of £484,103 as reasonable.

The design by Ceri Jones and Roy Gammon, placed third, is a curious affair with a courtyard block of offices, a separate main hall block, and the boiler flue between developed as a vertical feature. The whole layout tends to eat up the site, and the elevational treatment seems to have been developed to please what the designers imagined to be the personal idiosyncracies of the assessor. Indeed, in his report the assessor says that the elevations are bold and imaginative. He finds the estimated cost of £469,677 too low, however, and puts it at about £493,000.

The conditions for this competition are very clearly written but minimal. They offer little advice as to detailed points of accommodation and planning which exist in the normal architect-client relationship at the end of the briefing stage. Nevertheless, the winning design is undoubtedly a most workable planning solution both in broad principle and in detailed circulation, which will give the sponsors a building with which they should be well satisfied. Although the winner has no noticeable contribution to offer to the general problem of office planning, this was not called for by the conditions. And this design has been chosen despite its very simple, quick and minimal presentation—a fact which seems to confirm that at last sanity in this respect has been achieved by assessors.



East elevation

Site plan

Ground floor plan



## Furniture Showroom

Any background for elegant and well-designed furniture must be itself elegant and well designed, yet neither competitive nor distracting. Finn Juhl, in association with Trevor Dannatt, has managed just this in the new London showrooms for France & Son, Denmark's largest manufacturers of furniture.

The designers kept the number of materials to a minimum and either left them in their natural state—wood, glass, chrome, and so on—or painted them in neutral grey, white, or black, thus allowing the furniture's upholstery and rich teak to provide interest of colour and shape. They limited themselves to only two main architectural features: a staircase on the lower floor and a timber ceiling on the upper;

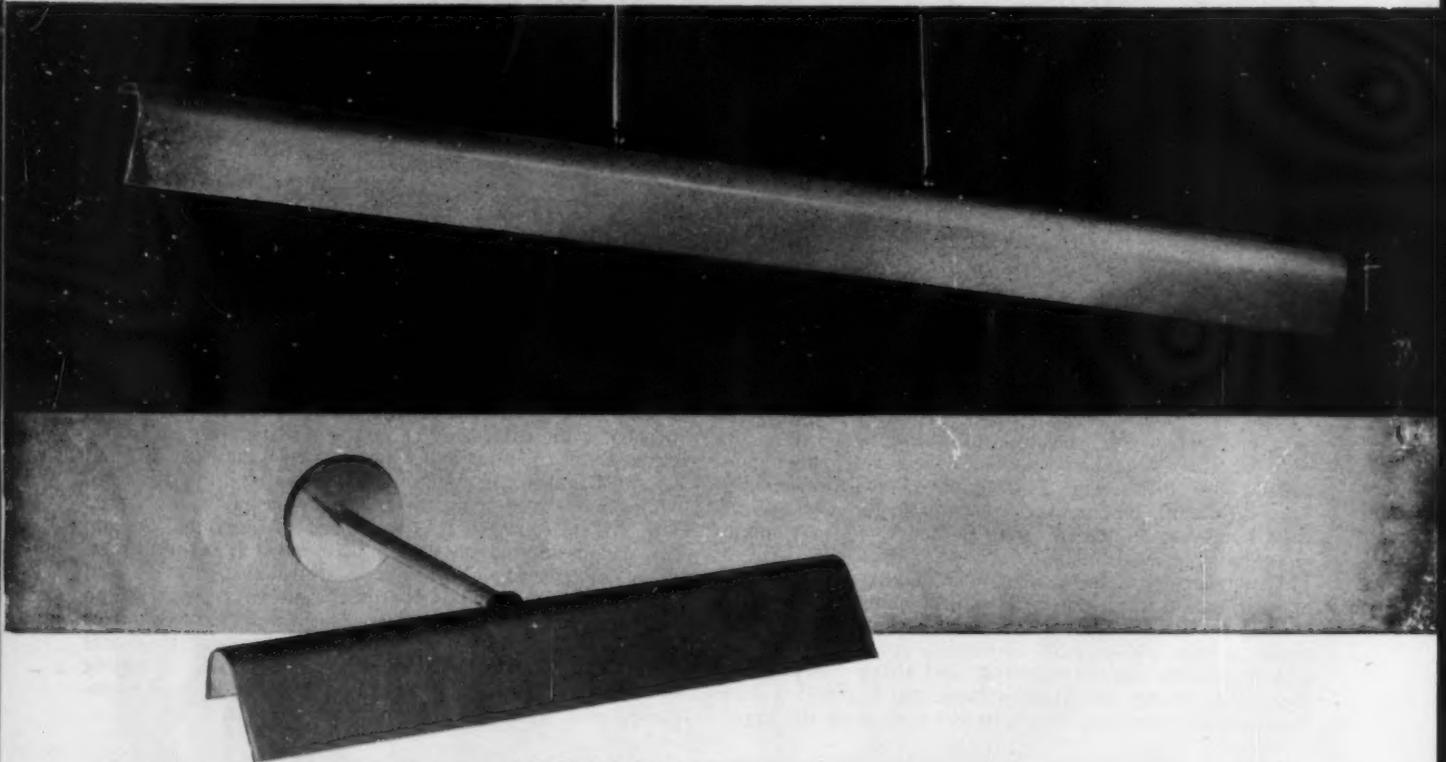
both are extremely successful designs.

One reaches the stairs through a simple glass front, over a pegged floor of oak planks that stops at the first oak tread to become the same grey carpeting which covers the entire upper floor. The stair materials are steel, glass, chrome and wood set against a grey granite wall running up two storeys. Almost the whole of the upper showroom has been covered with a hung ceiling-grid, 3 ft. square, of unpainted Oregon pine beams slotted on top to take movable light fittings. The existing ceiling above, like most of the walls, is painted white. The timber ceiling continues right over the 7 ft.-high partitions of three small offices. This simple-looking device has not only given a large space the domestic scale and warmth necessary for imagining furniture in a home setting but also provides pools of light that define individual room-groupings of furniture.



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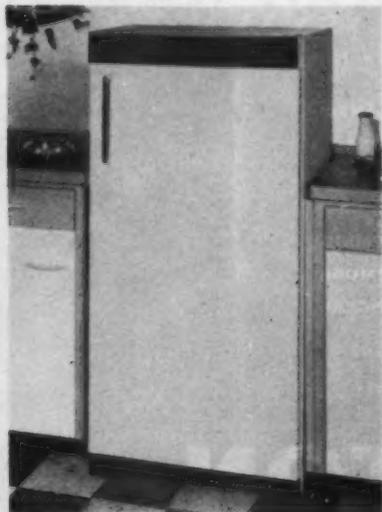
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London Showrooms: 43, Portland Road, London, W.11. PARK 1223

## THE INDUSTRY

*This week Brian Grant describes two new refrigerators, a specification for vitreous enamelled panels, an oil-fired boiler, a pamphlet on timber roofing and a bulkhead fluorescent fitting.*

**New Refrigerators**

Most readers will remember the Prestcold Packaway refrigerator, about which the Council of Industrial Design made quite a fuss in the middle of last year. The original Packaway was a 3 cu. ft. model, and the range has now been extended by two further models with capacities of 5.2 and 8.1 cu. ft. selling at £69 6s. and £93 9s. In each type the doors can be right or left handed and they open within the width of the cabinet, also having the usual egg racks and shelves for bottles. The existing small model is still made for wall mount-



Prestcold Packaway Refrigerator

ing, freestanding, or for building in. (*The Pressed Steel Co. Ltd., Cowley, Oxford.*)

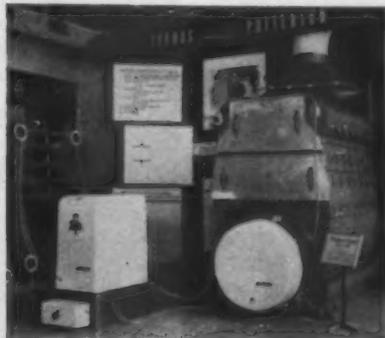
**Vitreous Enamelling**

The Vitreous Enamelling Development Council has produced a tentative commercial specification for vitreous enamelled aluminium to be used for architectural purposes. The main use of the material so far is for partitions and curtain wall infill panels, but it has the advantage that it can be drilled or cut, and also curved to a certain extent without the enamel flaking off. (*The Vitreous Enamelling Development Council, 28, Welbeck Street, London, W.1.*)

**Oil-fired Boilers**

The new GOA series of Potterton oil-fired boilers is available this month in a range of five sizes with outputs from 1 to 2 million B.Th.U. per hour, and at prices, complete with burner, from £850 to £1,400. The new series is an extension of the existing range, and covers outputs where most boilers have been conversions from solid fuel types rather than specially designed for oil fuel.

The new models are built up from cast iron sections bolted together with rings and ties to form a combustion chamber with water-cooled sides and base, plus finned water tubes to give a large secondary heating surface, the design being similar to the smaller Potterton BOA series. There is an automatic damper at the boiler flue outlet, so as to avoid the cooling of the stack which may occur with a draught stabiliser. (*Thomas Potterton Ltd., Cavendish Works, Buckhold Road, Wandsworth, London, S.W.18.*)



Potterton GOA boiler

**Timber Roofing**

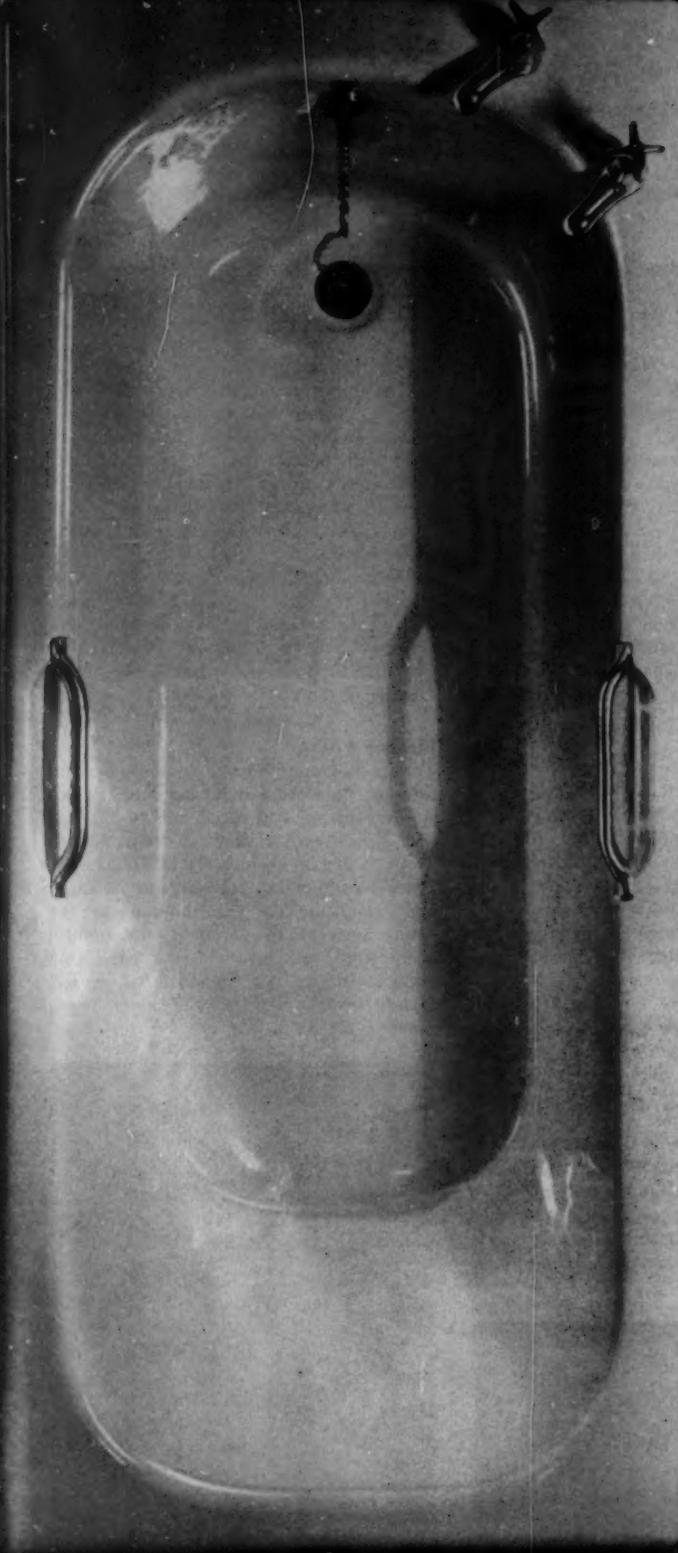
The TDA has published a set of notes and drawings setting out various designs produced by them to solve the problem of cross wall roofing. The folder contains five alternative solutions, all suitable for semi-detached or terrace housing, or for blocks of flats within the limitations of span and depth shown on the drawings. A table shows a comparison of the various types in terms of span, depth, roof pitch, quantities of timber and plywood and approximate costs of the structures. (*The Timber Development Association Ltd., College Hill, London, E.C.A.*)

**Lighting Fitting**

The photograph below shows a Siemens Ediswan fluorescent bulkhead fitting which is weatherproof and which can be supplied with one, two or three 8 watt 12-inch lamps having an average life of 5,000 hours. The Perspex diffuser and its frame are easily removable, and the reflector can then be swung away to give access to the control gear behind it. Price of the two lamp fitting illustrated is £5 2s. (*A.E.I. Lamps & Lighting Dept., 38, Upper Thames Street, London, E.C.A.*)



Siemens Ediswan fluorescent fitting



For design,

finish...

choice of sizes

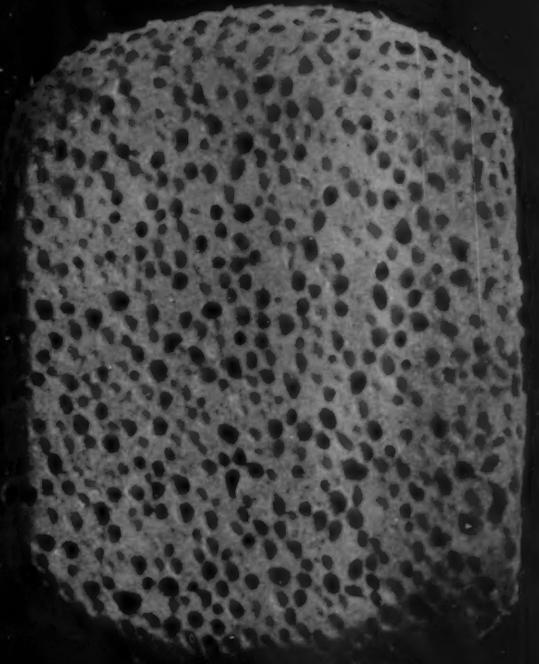
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## INFORMATION CENTRE

*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.*

Reichow ends with the reminder that the world population is rising by a large town each day. To stress the need for efficient road and path planning from that point of view is novel. Normally we threaten with the increase of motor cars alone.

(93)

725-3

10.195 design: building types

### PARKING GARAGES

*The Parking Problem—A Survey of Parking Garages*, by Nigel Seymer. International Road Safety and Traffic Review Vol. VIII, No. 4. Published by World Touring and Automobile Organisation, 32, Chesham Place, London, S.W.1.

This is probably the most up-to-date survey available of current parking garages in Europe and America. The author draws much of his material from the two standard American works on this subject (Recker's *Traffic Design of Parking Garages*, 1957, and Baker and Funaro's *Parking*, 1958), but performs the useful service of scaling down their design data to the smaller size of the European car. He produces evidence to show that we in this country tend to be over lavish in the total area we allow per car on ramp garages. This, he calculates, should be 250 sq. ft.; but recent garages planned for Leicester, Cardiff, Bath and Bristol show figures of from 365 to 448 sq. ft. He suggests that there is a strong case for designing clear spans over each parking "bin" (two rows plus aisle between) so that parking widths can be varied as car dimensions change. The article also describes exactly how some 40 different proprietary systems for mechanical parking operate. The point is made that the speed with which cars can be delivered must be calculated on the speed with which they will be asked for (there is no point in having so rapid a delivery for a hotel as for a theatre); also that it is vital to have a reserve of space where cars can queue up to go in without jamming the streets. Sites for mechanical garages will be very much smaller than for ramp type garages, but not so small that they cannot provide room for a moderate queue of waiting cars. This article is a useful reference.

A

711-7

4.89 planning: urban and rural

### THE ROAD PATTERN

*Die Autogerechte Stadt*, Hans Bernhard Reichow. Otto Maier Verlag, Ravensburg, 1959. DM 15.

We still have no book in English dealing with the facts and ideas for planning in the motor age. Reichow's personal statement, touching most aspects of this vast field, has so many pictures that the book is useful even to those who do not read German. Thoroughness is not the characteristic of this book. It stimulates and informs through a rich mixture of 170 illustrations and simple direct text on its mere 90 pages. The status quo, and the inefficient remedies of it, are criticised at length at the outset. The right-angled junctions of Chandigarh's roads, the universal forests of street signs with their mere intellectual impact and the mechanical rhythms of traffic lights come under heavy fire. The author recommends smooth curves, adjusted to various traffic speeds, as junctions, street design which directly, and without signs, indicates the rules of the road. A large spiral diagram relates degrees of curvature with desirable speeds.

Starting from the Radburn idea, with its ring road, Reichow's contribution is the "organic principle of branching of roads," literally, as in a tree. It seems that although motor traffic would flow smoothly and safely in this arrangement, the separate footpaths, leading to the meeting places of all sorts, in the same direction as the roads, are round-about routes. This is to be avoided. It seems practicable that the footpaths might lead into the opposite direction from the motor road and that this might solve the problem in some schemes. Reichow's contention that much road is saved if a site is served from within, as compared with the Radburn ring road, does not seem to hold water if several such rings adjoin. That case is illustrated in his own book in the new town for Cologne, now under construction.

environmental considerations. Its purpose is to present to the architect the scope of the rehabilitation problem and some of the solutions.

Plans and drawings are presented in a manner intended to minimise the possibility of misapplication by duplication. They are completely diagrammatic. Comprehensive dimensioning is reserved for the many three dimensional drawings of fixed and movable equipment, which accompany the very succinct text. Basic information concerning wheel chair turning circles and ramp inclines is also given. Although emphasis is placed upon comprehensive multiple disability centres, the principles involved are applicable to many other situations encountered when building for the physically handicapped.

The component parts of a centre are presented together with a brief discussion of the kinds of activities which occur in each part. Flow charts have been used to show the inter-relationships of these areas of activity.

The material in this book is the result of a study of 28 rehabilitation centres in the States and Canada, and also contains the ideas and opinions of the project's Advisory Panel.

Its layout and contents will be of enormous help to architects who are concerned with this specialised field.

There is a very large bibliography.

(94)

725-52

10.197 design: building types

### PSYCHIATRIC SERVICES

*Psychiatric Services and Architecture*. A. Baker, R. Llewelyn Davies and P. Sivadon. WHO Publication, 3s. 6d.

In recent years the attitude of the public towards the mentally ill has altered considerably. This is largely the result of improved medical knowledge which in turn has led to a critical reappraisal of the more traditional methods of treatment. This booklet outlines the latest developments in the broad field of mental health. It is international in its approach, for although a Western bias is evident, the information it contains is not related to any particular society or culture. Man's perception of space and the influence of his surroundings on his feelings, attitude and behaviour are questions of fundamental interest to both psychiatry and architecture. The text flows easily, contains no medical terminology and should provide fascinating reading to most architects. It is divided into three sections.

The first lays emphasis upon methods of treatment and staffing. The central concept of treatment is one of "development." "Development from the single to the complex, from no differentiation to differentiation, from the infant to the adult." To feel an individual yet part of a family is the aim, but to provide the interpersonal relationship necessary to achieve this, the highest

(94)

725-51

10.196 design: building types

### REHABILITATION CENTRES

*Rehabilitation Centre Planning 1958*. F. C. and C. F. Salmon. A./A.A. Pub., The Pennsylvania State University Press, price approx. £2 2s.

This architectural guide to rehabilitation centre planning describes some of the major areas of activity within a rehabilitation centre. It also describes rehabilitation programming, planning principles and en-

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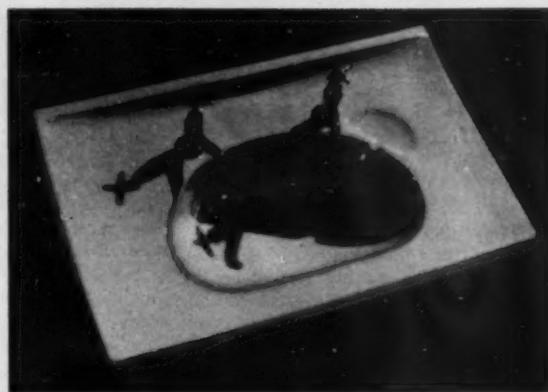
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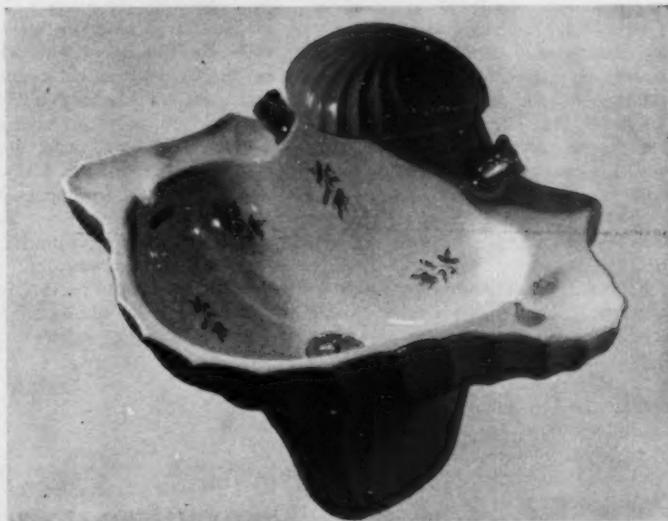
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technical section

grade of staff is essential. A psychiatric team should be multidisciplinary and be one in which (to quote Lewin's definition) "any individual in the group can influence the whole, and the whole will influence all the individuals."

The second section considers in detail each element or building type necessary in a community of psychiatric service. These elements are listed, and the theories governing the organisation of each are outlined. The ideal number, size and type of spaces required, and the particular problems of siting in relation to transport facilities and the rest of the community, are noted. A sub-section on hospitals is further subdivided and each specialised unit that forms the present-day "village," or "precinct" concept of a mental hospital is discussed. The patient must be able to orientate himself in time and space, and to demonstrate the latter, carefully drawn plans and diagrams accompany the text.

The final section headed "Design Principles" is concerned with the architectural problems posed by a mental hospital, and attempts to describe the ideal atmosphere such a community should possess. The siting of departments, their relationship one to another, and the spaces between them are vitally important to the mental patient. An attitude towards flexibility of planning and staff supervision, is given together with notes and drawings of fittings and furniture arrangements. The stages of conversion entailed in modernising an old hospital (the Vauclaire Hospital) in France are described. Finally the physical environment, i.e., heating, lighting, acoustics, etc., is discussed, together with a very brief note on the particular problems encountered in tropical countries.

There is no bibliography.

(97)

727-2 V

## 10.197 design: building types

### DEVELOPMENT PROJECTS

*Secondary school, Arnold. M.O.E. Building Bulletin No. 17. H.M.S.O. 5s. 6d.*

No matter what his field of work any architect worth the name should be able to draw inspiration and pleasure from MOE building bulletins. For the schools' architect they are quite essential. The latest edition, No. 17, describes the development group's latest finished job, a secondary school at Arnold near Nottingham. This is a grammar school and the bulletin, carefully organised as ever, is divided into three parts—planning, structure, and cost. From joint studies with educationists of existing schools the architects draw certain conclusions which form the basis of their subsequent brief. There are two main emergent trends. The first is the inevitable drift towards specialisation from 13 years onwards; this takes widely diverse forms and calls for a greater number of smaller

class sizes and, obviously, spaces. The second trend is the increasing number of sixth formers who are staying on to complete a full seven-year course. At Arnold these are considered more as students than schoolchildren, "learning has become for them a serious personal obligation and they are also ready to shoulder a substantial measure of individual and group responsibility."

Here in the delicate balance between these two trends, whether conscious or otherwise, lies the fascination and the main contribution which Arnold has to offer. The end product of education, classically defined, is the development of a faculty to make judgment in the light of knowledge; this is an intellectual attainment. Yet the trend is towards the accumulation of particular skills, particular knowledge of narrower and narrower subjects. The Brave New World type logic is of the school producing suitable graded technicians ready for the workbench, the executive office, the university laboratory, the typewriter. Arnold is organised in an attempt to balance out this trend by requiring individual and group responsibility, i.e. by making choice (judgment) necessary as the child matures. Whether Arnold will succeed cannot be foreseen. But it is this second part which is the vital balance; it is the leavening in the dough, the star in the sky, even the writing on the wall. One fears it will be ignored through incomprehension or sheer cynicism. (From an Establishment point of view a "useful citizen" is a specialised moron, titivated by the telly, influenced by the ad-man, an apathetic mug, a consumer.)

As to the detail of the school: the 30-strong form base disappears as an organisational unit. The child's development through the school has three phases. The first two transitional years are spent in Lower School; a home base of eight ordinary classrooms with ancillary accommodation in an almost independent block with a separate entrance. Middle School sees the beginning of three years' specialisation and here the children are organised on a basis of six houses, each house relatively self-contained with a 700 sq. ft. houseroom, a 360 sq. ft. group room, entrance hall, etc. The sixth formers although still administered from their house are based on their own 850 sq. ft. common room, four small study rooms and a private study library. Spaces common to all three groups, the hall, the library, gymnasium, music rooms and science block, are all minutely considered. The hall and the library are strategically placed to gain the maximum unconscious use; there will be no sacred groves, depeopled and awesome. The internal gym is smaller than usual, designed to take gymnastics only, games take place in an adjoining 8,430 sq. ft. open shed. (Incidentally rumour has it that this shed is largely useless because driving rain penetrates far inside and because the floor is continually being covered with a thin

surface of slimy mud from stormwater pouring down the hillside. Such criticism does not invalidate this splendid idea.)

The structure is of pre-cast concrete components, some pre-tensioned some post-tensioned. It is on a planning grid of 3 ft. 4 in. with 10 in. vertical increments. The system was developed with the intention of achieving a 20 per cent saving over anything similar.

The job was of course carefully cost planned, in fact three times at different stages of development. Before working drawings started each element was roughed out and cost checked against the cost plan to ensure strict compliance. If an element could not be got down to cost plan level then the cost plan was revised. Final cost of the job was 71/1.45d. per sq. ft. or £256 6s. 3d. per place which is £7 13s. 9d. below the Ministry normal ceiling for secondary schools.

The bulletin is carefully and plentifully illustrated with sketches and diagrams. There are some gloomy Victorian-catalogue-type photographs of internal furniture and fittings, but no photographs of the finished job except the front cover, a curious omission.

A

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## 18.218 construction: theory

### STEELWORK DESIGN

*Examples of structural steel design to conform with the requirements of B.S. 449, 1959. BCSA, 1960. Free.*

BCSA publication No. 13 now replaces Nos. 1, 2 and 4 on account of the 1959 revision to B.S. 449.

The new publication deals with the original problem of a 3-bay 150-ft.-square single-storey factory building clad in asbestos sheeting and glazing, the three old booklets being issued as a single one, being in itself a considerable improvement. The problems are investigated in a precisely similar manner, account being taken of the heavier roof loading laid down in C.P.3 Chapter V (1952) and the slightly different design formulae and increased allowable stresses of B.S. 449, 1959. In the case of the roof truss and purlins these give a reasonable balance and the small sections employed result in exactly the same member sizes being chosen. In the case of the stanchions the use of universal sections provides a new slant and also indicates the saving which these members can provide. Again the external stanchion is chosen in joist section while the internal stanchion is built up from channels. As in the previous booklets the figures on battened stanchions do not agree with those issued in another BCSA booklet devoted to this type of member.

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technical section

## 6. PLANNING: SOCIAL AND RECREATIONAL

### radburn planning: a reassessment, 3— footpath or road access? a social enquiry, 2

In this article Paul Ritter comments on the data brought to light by the social survey of which samples were published last week. In particular he notes the better social contact elicited by footpath access. The second part of the article is devoted to an "observation only" report of one of the most recent footpath access estates at Cumbernauld New Town.

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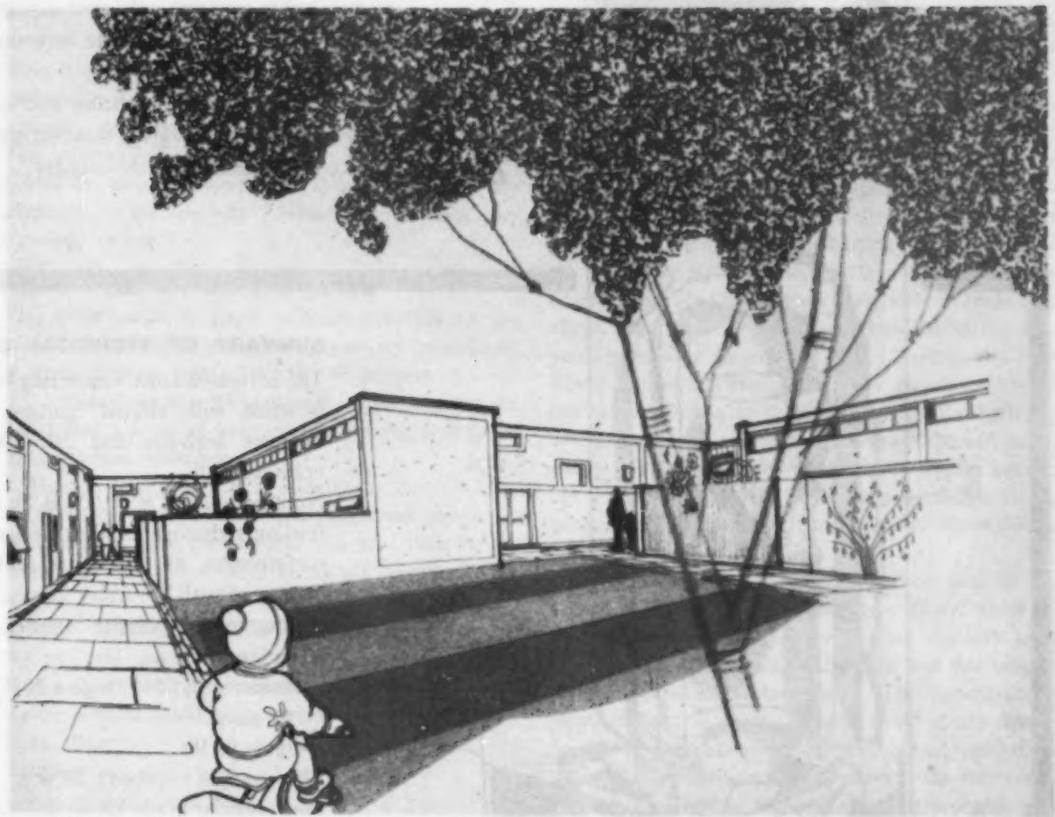


Fig. 1. Cumbernauld, Carbrain: drawing from an unpublished report by the Architectural Department of the Development Corporation

The general statistical conclusions of the data published last week are as follows:

1. The total number of contacts (help with essentials in minor emergency, through taking in parcels and in illness) is significantly greater in the path areas.
2. The number of contacts per house is likewise significantly greater.
3. The total greater extent of contact is not only due to greater extent of contact across the path but also along each terrace, separately.
4. The greatest difference is found in contact through help in illness, the most intimate of the three main types of contact measured.
5. The extent of "all-round contact" with everyone in the group, as compared with pure next-door-neigh-

bour-only contact, is also instructive: "next-door-neighbour-only" contact is found in roughly a third of the households along paths, but in half the households along roads. "All-round" contact on the other hand occurred almost exactly twice as often in paths as in roads.

6. Roughly 40 per cent of path households spent some leisure time with others in the sample compared with 30 per cent in the roads.
7. Sixty-two per cent of path people thought the area friendly, only 42 per cent of street households expressed this opinion.
8. Fifty-two per cent of path households with children can ask for help with them but only 37 per cent of road dwellers are in that position.

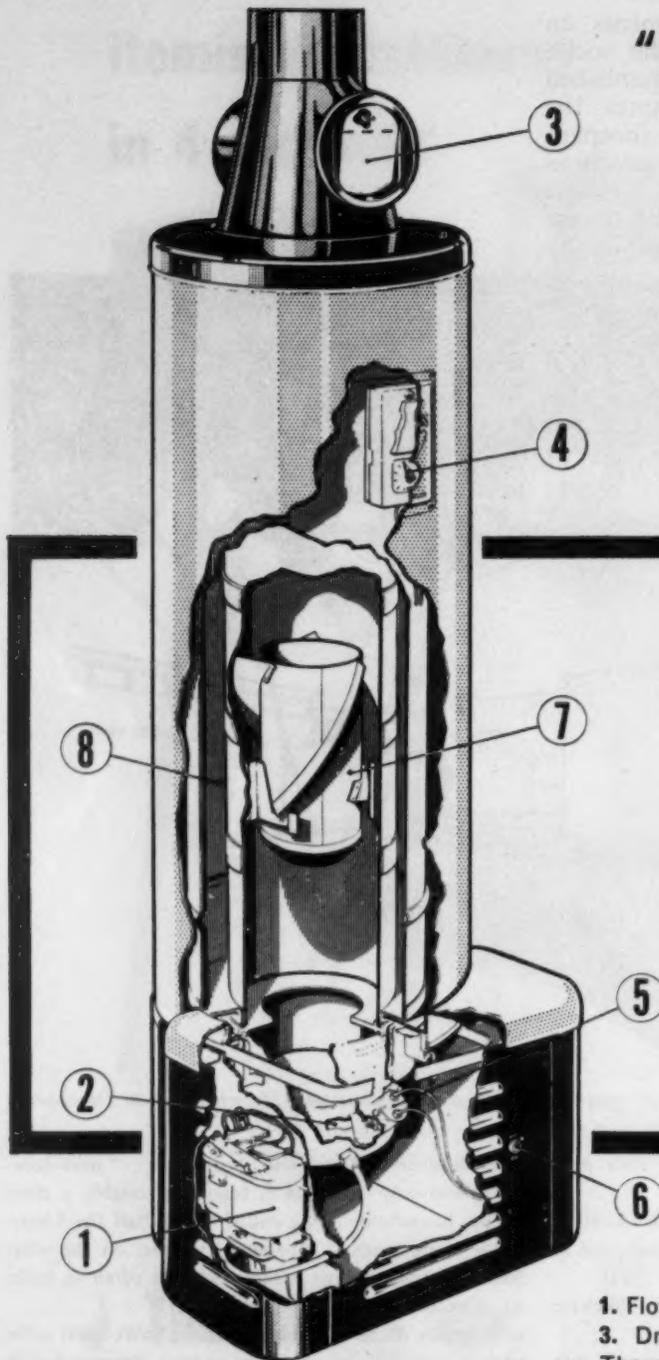
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**technical section**

9. Twice as many households with children are found in those path areas in existence over 25 years, where free choice has been operative for long enough to make this extremely significant. Knowingly or unknowingly people have preferred such areas for children it seems.

10. The percentage of households without any contact, in asking to borrow essentials and to take in parcels, is similar in path and street. The differentiation is found in the total number of contacts found in each group, the extent of all-round-contact households and the extent of contact in help during illness, which is a more intimate relationship.

11. Taking, then, help in illness, we find that 11 per cent of households in paths could not ask anyone for help. In the roads this disturbingly high number soars to 17 per cent, one in every six households.

Thus it is clear that the statistics indicate to planner and architect that households along paths gain, sociologically speaking, to an extent that is quite decisive. The information is directly relevant design data required for housing layout, and to go contrary to the evidence, unless specially justified, is obviously perniciously wrong.

**Data Relevant to Housing in General**

This information is given as a contribution to the picture of housing in general which is very incomplete. It tends to show that taking the 30 samples of some 500 houses there is some statistical justification for the belief that a sense of belonging is missing and social disintegration widespread.

1. Help in emergencies with essentials:

Fourteen per cent of households cannot ask anyone. Over a third have contact with the next door neighbour only and just a third could ask anyone in the sample.

2. Help in taking in parcels:

Six per cent cannot ask anyone. Half can ask next door neighbours only. Again, a third could ask anyone.

3. In illness:

Fourteen per cent could not ask anyone. Forty per cent could ask next door only. Thirty per cent could ask anyone.

4. Putting it another way, one can say that approximately half the households cannot go farther than next door for any help, if, indeed, they can ask anyone at all.

5. Length of residence has no statistical correlation with extent of contact, neither in the whole sample nor in individual households. The greater amount of contact in the inter-war and post-war samples is most likely due to the greater homogeneity of the population than in the privately owned Victorian samples. Taking the ten samples in each group together as a whole, we have a maximum extent of contact in the inter-war housing where 99 per cent felt they could ask a neighbour to take in a parcel. The minimum is found in the Victorian group where only 30 per cent could ask anyone for help in illness.

**General Conclusions**

*Paths*

A great deal of evidence suggests that more friendliness and a greater and more widespread sense of belonging are found in path areas. This manifests itself in many subtle ways which corroborate and go beyond the statistically recorded greater readiness to ask for help from those living around. Gestures and words denote that the path areas were frequently recognised as entities to which the speaker belonged or from which the speaker clearly excluded himself. The identification was seen in such words as "we" and "they." The exclusion of those living outside, "I would not ask anybody living outside" was often heard. The relative rapidity with which most newcomers were integrated into the pattern of the path seemed to contrast with the isolation experienced over long periods in many of the roads.

The space between the fronts of the houses and the back access was treated in a variety of ways. In many samples, the front gardens took up all the space except for a narrow path in the middle and perhaps a tiny place at the end, say 10 ft. in diameter with, in one case only, a lamp post accentuating it. In some cases the area was entirely hard surface from terrace to opposing terrace. At the back there were in some cases alleys, in others tunnels or passages led to the back yard, private or communal, or the garden.

The distances between the fronts varied greatly. In the widest spacing at Wrexham, in the Radburn layout, the distance helped to keep people apart. In the closest samples, with just under 25 ft. of space between the terraces, there were no objections to this in particular. Prof. Rasmussen made parallel discoveries to both the above in Denmark.

Lighting was found to be an essential part of successful paths. Those, and there were many, which did not have any lighting, suffered from the lack of it. Darkness was disliked and the path was not used by children as it might have been. The importance of pleasant light is great. Discoloration of the human face is a grave disadvantage in sodium and similar lighting. The lamp-post itself, even in the daytime, is a place of gathering. Functionally, and probably symbolically, it emphasises a place of interest.

The nuisance created by children in such areas is not owing to one simple cause. There is a variety of patterns. Usually, however, where noise nuisance is found, it is owing to one or both of the following in the main. First, the areas are unusually attractive and rare. They attract children from far afield and so too great a number. Second, the hard surface on the floor, and on both sides, reflects and aggravates all the noise which is made and enjoyed (by those who make it). A lack of a garden barrier between the path and the house, in a number of cases, makes things worse.

There is an occasional appreciation of the advantages, in terms of safety, of the separate footpath. There is appreciation or desire for a gate or some sign where a path leads into a road. That those who live in safe areas are really the only group who can appreciate

technical section

their safety is borne out by a pilot survey in Coventry. To ask those who have not known such an alternative whether it is a good thing, is expecting too much of the imagination of most people met in random interviews.

The most persistent criticisms of path areas by those who lived in them was that they lacked life. This applied of course mainly in path culs-de-sac. And it should be borne in mind that this objection need not apply to the Radburn system.

The question of privacy is a complicated one. The paths in themselves often had a privacy about them that is not found in roads even if there are culs-de-sac. This is perhaps best illustrated by the woman who said she had not been up a certain path very near her house, leading to the fronts of some 20 houses, although she had lived there 26 years!

However, throughout the survey, it was noted that "reasonable privacy" was quite a variable, and even the word "private" described quite different things to different people. That those who want privacy can have it through curtains was one view met with. The corollary implied was that those who grumble about lack of privacy in their houses are not rational. One is reminded of the lady who objected that her neighbours thought *she* was watching *them*, objecting to a lack of privacy on those grounds.

Thus, although many outside the path areas said vehemently they would not move into the paths because "they are not private," others said they liked them because "they were private." Those outside the paths who explained that it was "hemmed in" in the paths, "no air," were contradicting the facts. For many, the sweet scent of flowers was a

delight in many such areas, whereas the critic was standing in a motor-exhaust-infested road. In those terraces which align macadamised areas, the relief to the barrenness by a tree or a window-box was appreciated.

Streets

Visually enclosed sections of roads had, it seemed, greater social contact than the straight portions, but the evidence is insufficient. The measured lack of friendliness and contact was corroborated by the absence of a sense of belonging, in the great majority of people. The block of the terrace of four was the only entity mentioned, not the road or any section of it.

The danger of the roads for children was taken for granted almost as frequently as the noise nuisance of motors, something one had to bear in any case. The children were confined to the back in many cases unlike many of the path areas. Severally, children played on the road as if there was no danger. Particularly in culs-de-sac the road was used as if it was a pedestrian-only area. In such cases it was expected of drivers to go slowly. But, as one mother put it, "There is always some mad Alec."

There were a considerable number of parents who would have moved into the safer pedestrian areas and who recognised their virtues. This reinforces the statistical findings that the advantages of the path areas for children have led to their greater frequency in such areas. Some people specifically mentioned that the road made it too difficult and dangerous to look after their neighbour's child.

The journey to school, in the samples of the survey,

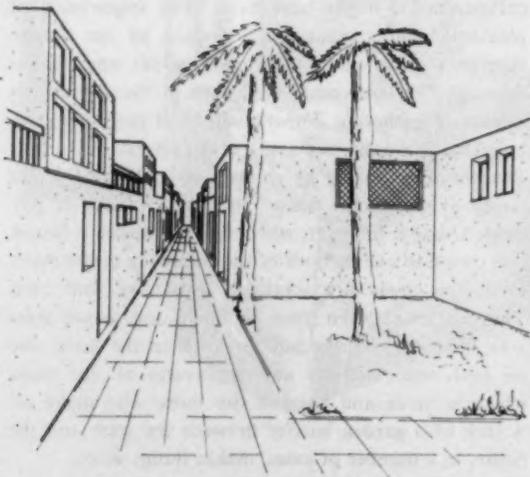


Fig. 2. Housing project for Baghdad: drawing from a booklet published by the Government of Iraq, produced by Doxiadis Associates, 1957

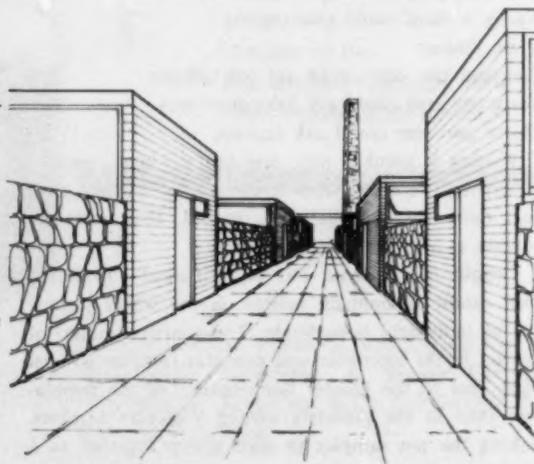


Fig. 3. Housing project by Professor Rainer for Vienna

was in all cases along motor roads and there is no opportunity for comparison. Since then, in Coventry, the safe journey to school, through a Radburn Scheme, has been appreciated. The study of the walk to school in the Victorian area was useful.

1. The child tends to rush out of school as a reaction to sitting in the classroom.
2. Very many mothers, up to 35 in this small infant junior school, went to fetch their children. They chat and make valuable social contact but this takes place under adverse conditions. The child has to endure the conflict of wishing to rush and, in fact, having to hang onto his mother's hand or pram-handle—and the further conflict of wanting his mother's attention while she is talking to her friends. The result is, as prolonged observation has shown, a lack of enjoyment by the mother. For some child or other, at this school, it means a beating in public because he has run into the road, let go of the pram handle, or has kept interrupting. Often the viciousness of the beating reflects the rational and real fear of accidents as well as the mother's guilt at indulging in concentrated gossip contact with other mothers, instead of looking after her child, ostensibly the reason for having come out.

These periodic shrieks, merciless (it seems) beatings, howls and sobbing, tense fierce commands and other symptoms are part of the social scene, experienced inside and outside during that part of the morning and afternoon, day after day. The contrast of a recently visited area at Cumbernauld, to be described, was quite vivid, particularly as the density and the character were as urban in the latter case as in the Victorian area.

**Sample Survey of Terrace Housing at Kildrum, Cumbernauld New Town**

This area is of great interest. It is the first completed section of this kind of housing at Cumbernauld. The footpath system consists of narrow paved areas only, excluding areas of grass. The path strips are ten foot in width, and lie between the front of a terrace and the garden wall, or high fence, opposite. The area illustrated in the photographs consists of a major pedestrian way (leading to the corner shop and the main pedestrian way), into which lead the access paths, 10 ft. wide, between the high fencing of the back gardens and the fronts of the next row of houses.

Observations were concentrated on the use of this pedestrian system.

1. The paths are the most direct route to the corner shop and the school and are therefore used to the virtual exclusion of the alternative road routes.
2. The entire system, but particularly the 10-foot-wide access paths, are used by the pre-school children as an extension of the house as play area. Toys of all kinds are used and deposited in the area. Contact with parents is easy and immediate. The steps linking the paths with the roads are an effective barrier which children do not try to transgress. The low walls and platforms by the front doors, which occur in the paths, are excellent seats and table tops for the various play activities. The ramps linking access paths function well, for play and passage through.
3. Trades people, the trolley for the path sweeper, and adults going about their business, bring the interest into the area which the children appreciate. The road-sweeper's trolley in particular was followed

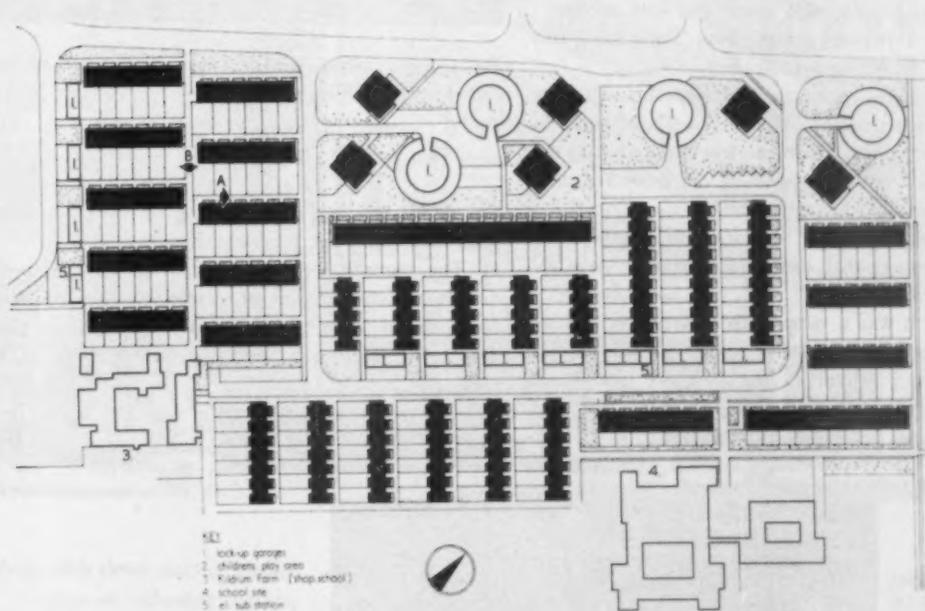


Fig. 4. Plan of Kildrum 3 Estate, Cumbernauld (Chief Architect, L. Hugh Wilson). Arrows represent view points of photographs. Scale: 1 : 3000

technical section

and inspected most closely for the nature of its contents.

4. Noise was not a nuisance during the period 2 p.m. to 4 p.m., although the many hard surfaces suggest that it might be.

5. That dwellings faced onto these narrow paths from one side only did not seem to detract from their pleasant character. In fact a certain privacy is obtained which adds to the amenity. There are no back gates which lead into the paths. From the photographs and plans it would seem that there is a rather arid canyon-like quality in these paths. However, moving through them the slatted fences reveal surprising qualities:

(a) Walking along the paths the green and flowers of the back gardens can be seen and add quite decidedly to the dimensions of the paths giving a feeling of space.

(b) From within the gardens the stationary dweller is cut off to a sufficient degree to make him feel private and unobserved by the passer-by.

(c) The unity of the ground and the retaining concrete paving slab has a good effect, reducing the apparent height of the fence.

6. The general emotional climate between small children and their mothers seemed particularly good. This is based on the complete lack of any crying which one often hears from the houses and gardens, if one spends two hours in a dense area like this. If this is in fact related to the layout (and not, for example, to the national characteristics of the Scot), then the addition of so much out-door play space and the complementary absence of danger and worry of traffic are likely to be responsible. The very intimacy of the paths is likely to encourage use.

7. The bicycle (and only one was observed, which was ridden at considerable speed and with considerable joy, by a twelve-year-old boy) along the paths constitutes an unresolved danger.

8. This area seems to be an effective solution to the problem of socialisation of the pre-school child in a safe environment, immediately related to the dwelling, which is not satisfied by the private garden or the pavement.

9. The complete absence of flora from these areas has the advantage that dust and mud are, very advantageously, banned.

10. Although it was a very windy afternoon the stillness of the area was conducive to outdoor play and is due, to a large extent, to the closed-in quality of



*Fig. 5 (top). Access path, Kildrum, leading to main path and motor road. View point A*

*Fig. 6 (bottom). Main path, Kildrum, leading to corner shop. View point B*

the paths. Whether this is valid for wind in other directions could not be established.

11. The contrast between the paved paths and the nearby wooded area is most effective and promises to be useful, each stimulating its own kind of play. The above comments stimulate further study of the area.



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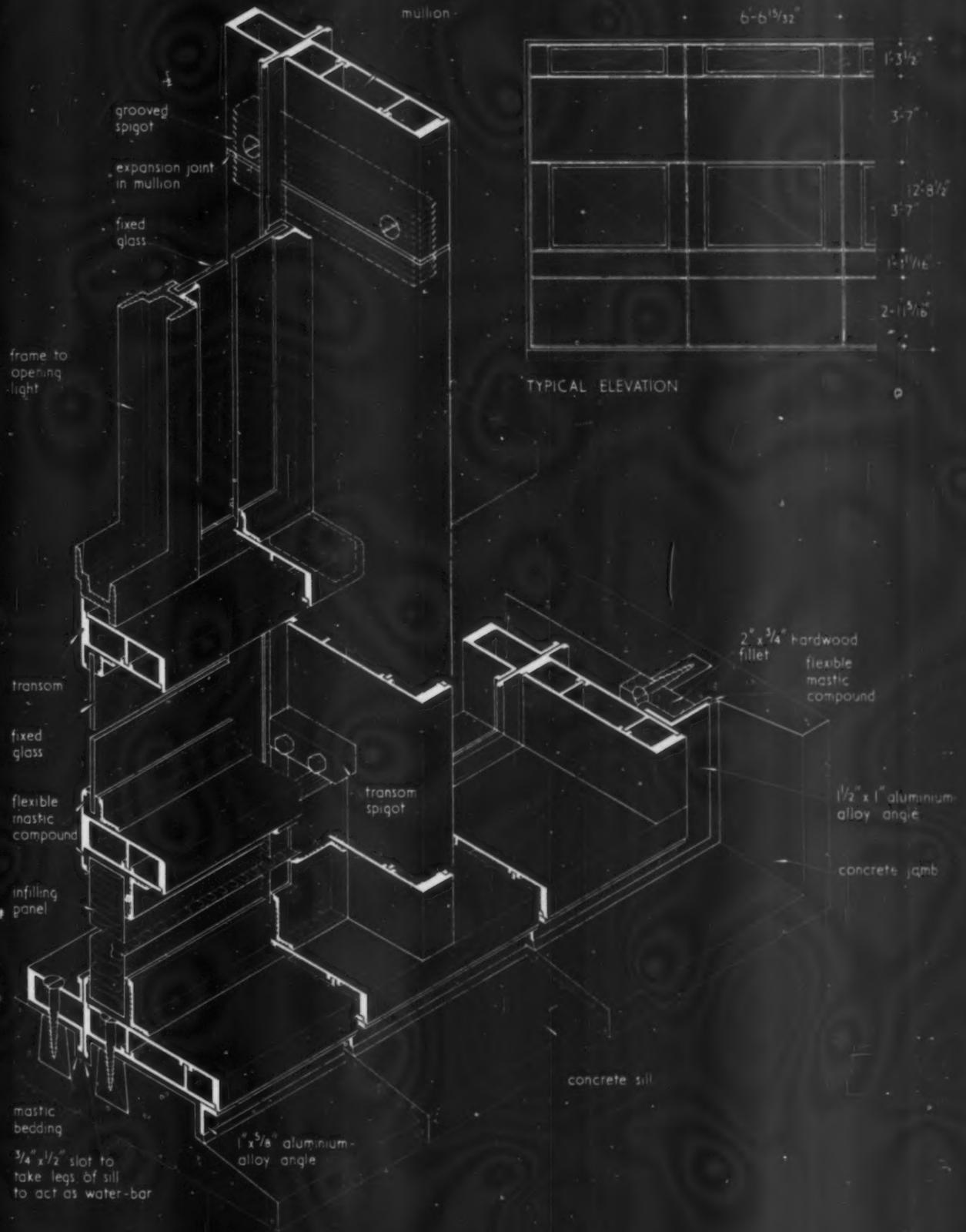
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# WALLS | ALUMINIUM

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TYPICAL ASSEMBLY OF COMPONENT PARTS

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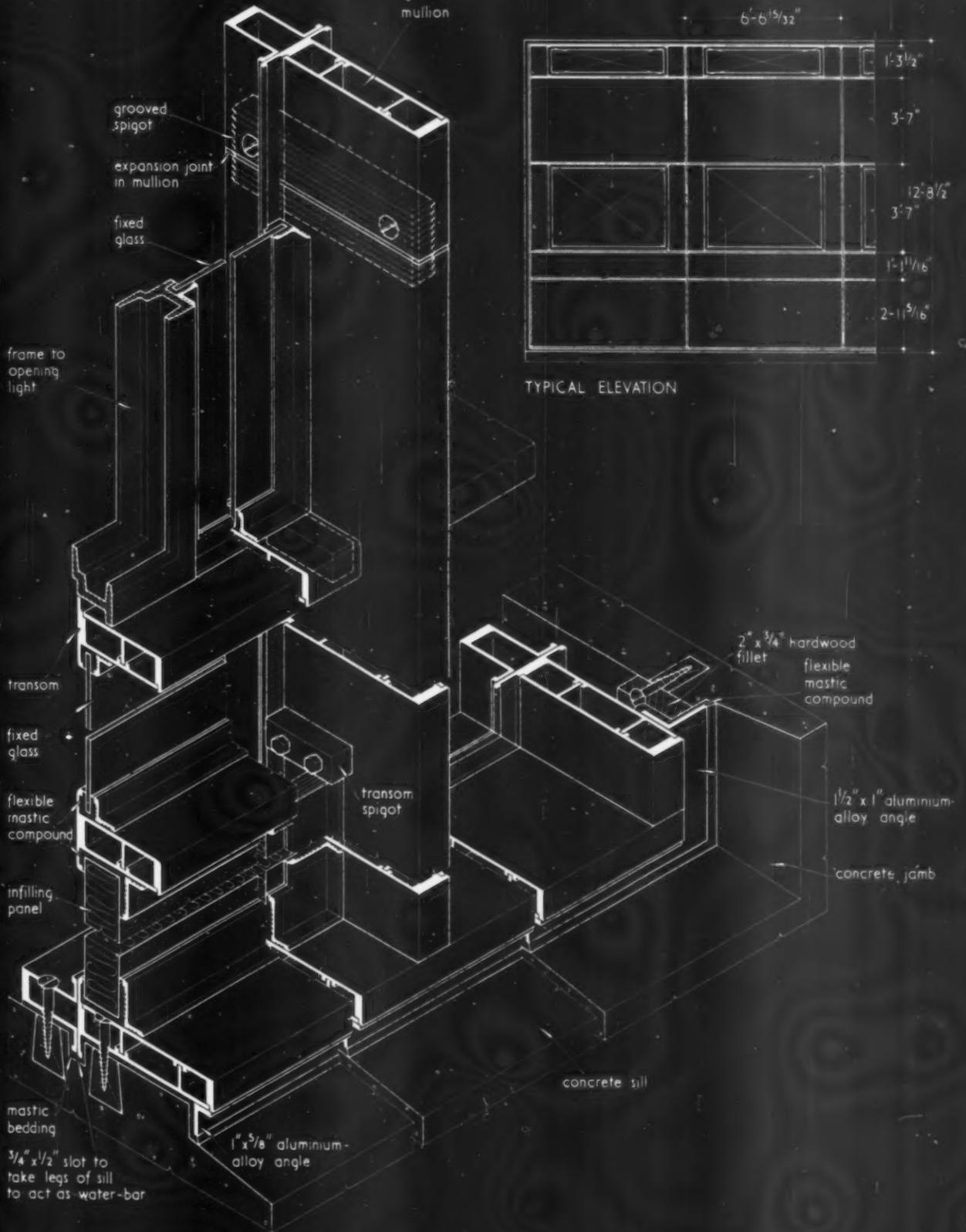
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TYPICAL ASSEMBLY OF COMPONENT PARTS

## 21.C5 · MELLOCLAD · ALUMINIUM-ALLOY CURTAIN WALLING

This Sheet describes Melloclad curtain walling which consists of aluminium-alloy sections to take glazing and various types of infilling panels.

### General

The system can be used for any type of curtain wall using glazed or solid panels. The drawings on the face of the Sheet show a typical example and illustrate the fixing of the transoms to the mullions and the method of jointing the latter so as to allow for expansion.

### Components

**Mullions:** These consist basically of interlocking extrusions with internal stiffening webs or fins to prevent distortion of the profiles. By combining a number of sections, mullions in depths from 3½ in. to 8½ in. can be produced, with a wide range of internal and external projections according to the architectural effect desired.

**Corner sections:** External and internal corner sections can be specially extruded to suit requirements or fabricated from the available basic sections.

**Transoms:** These are similar to the mullions but normally splayed to shed water and provided with drips along the front edges. Transoms are available from a minimum depth back to front of 2½ in.

**Fixing beads:** Fixing beads for glazed or unglazed infill panels are normally of angle section with a deeply-fluted face which provides a key for sufficient jointing compound to ensure against failure of the seal through thermal movement.

### Infill Panels

Any type of infill panel can be accommodated including those faced with glass, vitreous-enamelled steel, aluminium and stainless steel, the latter normally being patterned to break up the reflecting surface. For glazed areas, single glass may be used or factory-sealed multiple units for thermal insulation.

### Finish

The aluminium-alloy sections are normally supplied in their natural finish, but may be anodised, if required, or primed for painting.

### Further Information

The manufacturer maintains a technical advisory service available to answer questions dealing with this subject generally.

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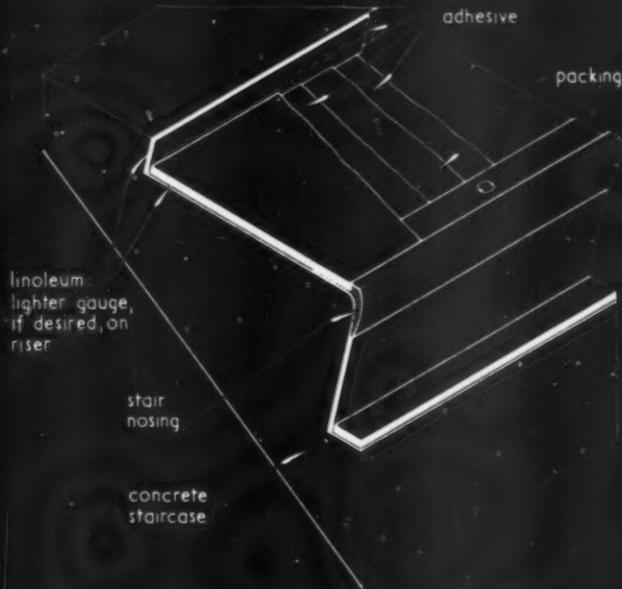
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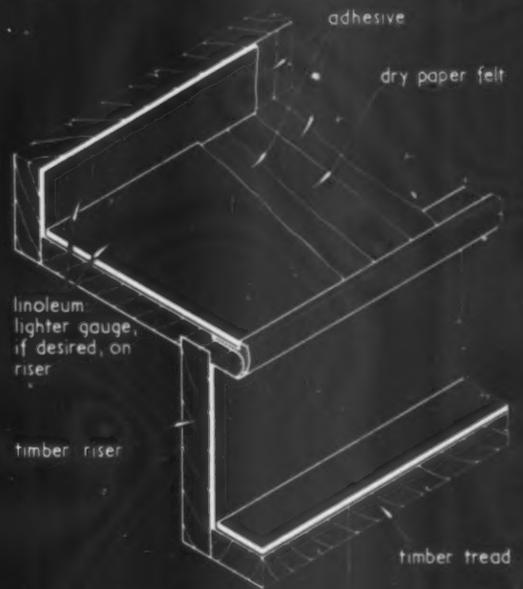
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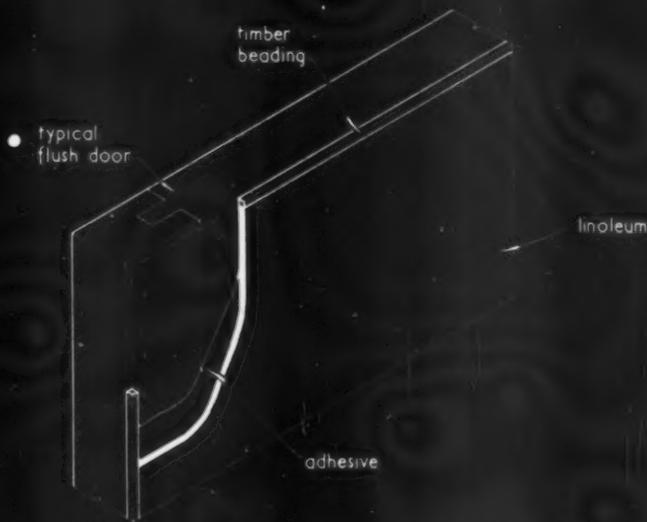
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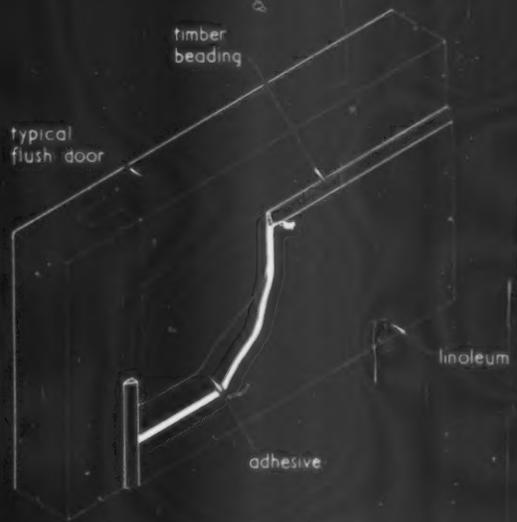
CONCRETE STAIRCASE



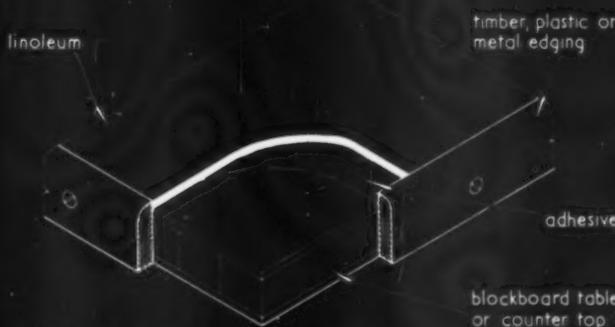
TIMBER STAIRCASE



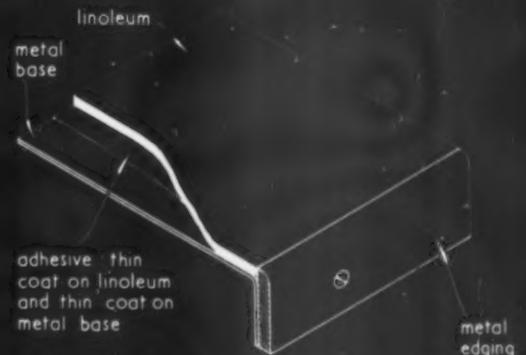
FLUSH DOOR WITH BEADED EDGE



FLUSH DOOR WITH BEADED PANEL



TYPICAL FINISH TO TIMBER TABLE OR COUNTER



TYPICAL FINISH TO METAL SURFACE

## LINOLEUM AND CORK CARPET : SPECIALISED USES

Compiled from information supplied by The Linoleum Manufacturers' Association

## 19.G4. LINOLEUM AND CORK CARPET: SPECIALISED USES

This Sheet supersedes Sheet 19.G4 published 15.4.54. It is the fourth of a series on linoleum and cork carpet and deals with the application of the material to stairs, furniture, doors and walls. Sheet 19.G1 covers general data, types and uses, 19.G2 deals with laying, including typical designs and 19.G3 gives specifications for various applications.

**General**

Linoleum can be applied to any rigid base where a resilient, hardwearing surface is required. The following table gives the gauges recommended for various specialised applications and the type of adhesive that should be used for bonding.

Application	Gauge (mm)	Recommended adhesives
Stairs: treads and risers	6.70 4.50 3.20	Gum spirit or other approved adhesive
Walls, partitions (including w.c. compartments)	2.50 2.00 1.60	
Doors	2.00 1.60	Gum spirit
Desk tops	2.00 (cotton- or hessian-backed)	To steel: Approved special or impact type. To wood: As for steel, or gum spirit
Counter and bar tops	6.70 4.50 3.20 2.50 2.00	
Shelving	2.00 1.60	

**Laying and Fixing**

*To timber surfaces (except doors, blockboards, laminates, etc.):* Dry felt paper not less than 0.90 mm. thick should first be bonded to the base to take up any seasonal movement in the timber.

*To metal surfaces:* Metal table, desk or cabinet tops should be buffed to remove scale and rust, then cleaned and degreased with a solvent such as carbon

tetrachloride. The adhesive should be applied to the metal and the linoleum in accordance with the adhesive manufacturer's instructions.

*To stairs:* Where it is necessary to keep costs down, the heavier gauges of linoleum can be used for treads and lighter gauges for the risers, in a matching or contrasting colour. Many types of proprietary nosing are available in dimensions suitable for use with various gauges of linoleum, e.g. extruded aluminium (with linoleum, fabric or p.v.c. inserts), moulded or extruded rubber, p.v.c., etc. They are obtainable in a wide choice of types and colours and should be fixed according to their manufacturer's instructions.

*To furniture and doors:* Where linoleum is fixed to furniture or doors, the edges should be protected with a suitable finishing strip as shown in the drawings on the lower face of the Sheet. Doors should be covered on both sides to prevent distortion.

*To walls:* Walls should be permanently dry with a smooth, clean, even surface. New walls and porous surfaces should be suitably primed before the adhesive is applied. Old walls should be stripped to the original surface finish, cracks and cavities should be filled with a non-shrinking filler, smoothed by sand-papering and finally washed clean. Sheet linoleum or tiles can be applied to walls, but in either case all vertical or horizontal joints should be close-butted. Sheet linoleum may be split into 3-ft. widths to facilitate hanging. Tiles may be hung with straight or staggered joints. Various types of trim or moulding can be used at dado or ceiling height.

Compiled from information supplied by:

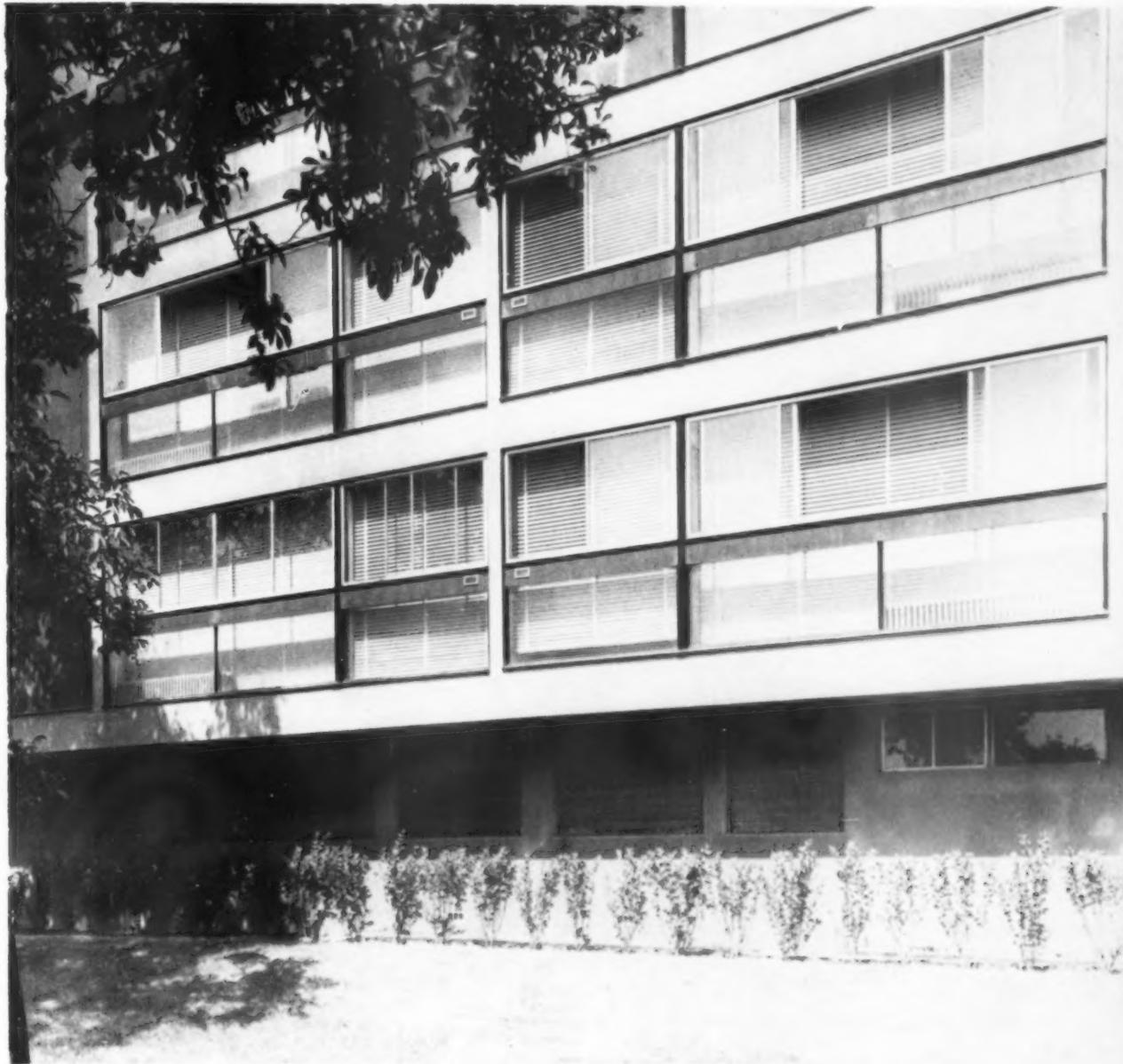
The Linoleum Manufacturers' Association

Address: 127, Victoria Street, London, S.W.1.

Telephone: Tate Gallery 4218/9.

WINDOW: FLATS IN FONTENAY-AUX-ROSES, FRANCE

*G. Laqueau, M. Weill, J. Dimitrijevic, J. Perrottet, architects (material supplied by Sylvester F. Bone)*



*This is an interesting example of the insertion of factory-made components into an in-situ reinforced concrete structure. The aluminium frames are made in two parts, inner and outer, and these are screwed together so that they clamp against the projecting flange of the m.s. sub frame.*

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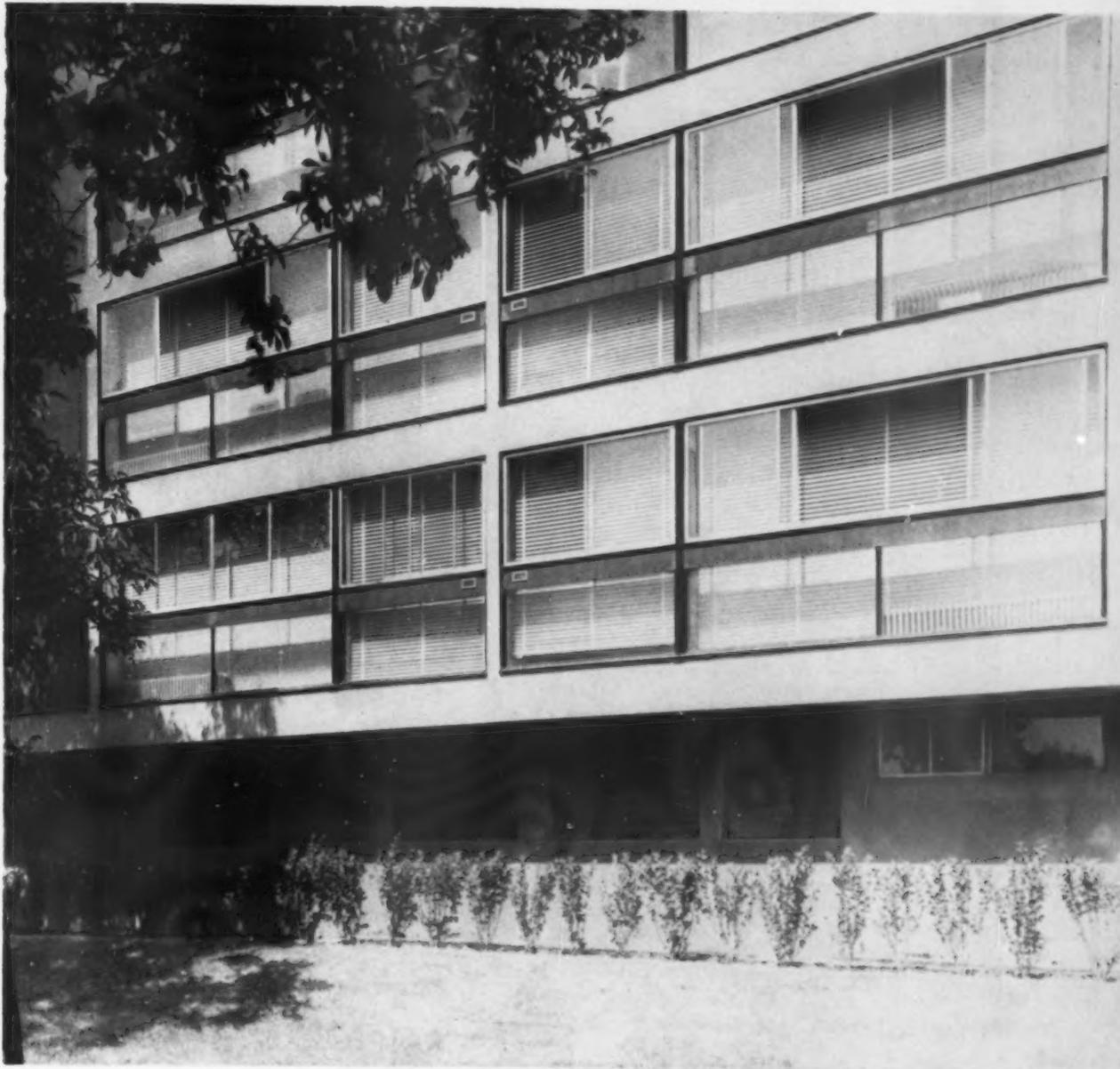
The Linoleum Manufacturers' Association

Address : 127, Victoria Street, London, S.W.1.

Telephone : Tate Gallery 4218/9.

WINDOW: FLATS IN FONTENAY-AUX-ROSES, FRANCE

*G. Lagneau, M. Weill, J. Dimitrijevic, J. Perrottet, architects (material supplied by Sylvester F. Bone)*

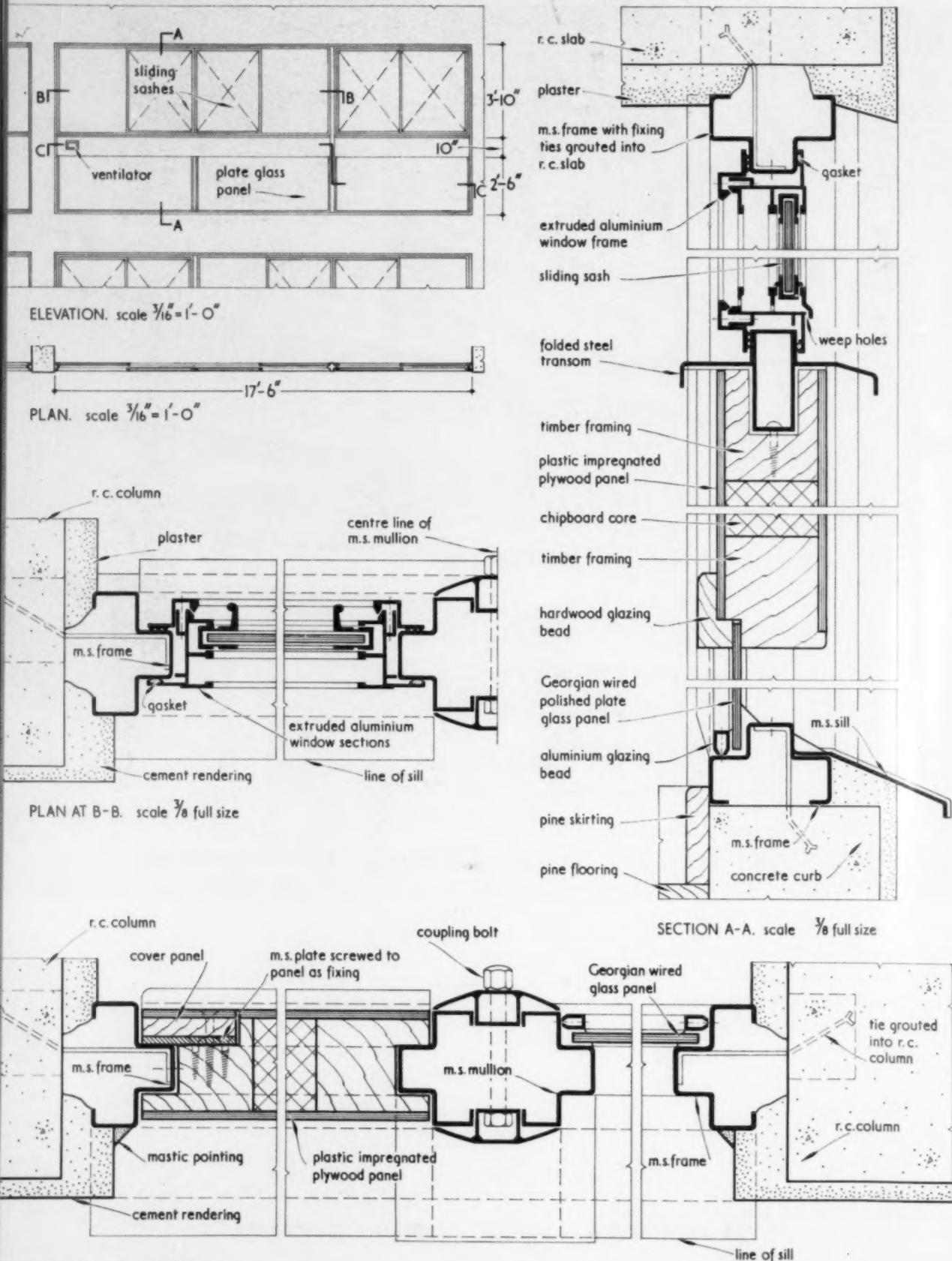


*This is an interesting example of the insertion of factory-made components into an in-situ reinforced concrete structure. The aluminium frames are made in two parts, inner and outer, and these are screwed together so that they clamp against the projecting flange of the m.s. sub-frame.*

**working detail**

WINDOW: FLATS IN FONTENAY-AUX-ROSES, FRANCE

G. Lagneau, M. Weill, J. Dimitrijevic, J. Perrotet, architects (material supplied by Sylvester F. Bone)



ELEVATION. scale  $\frac{3}{16}'' = 1'-0''$

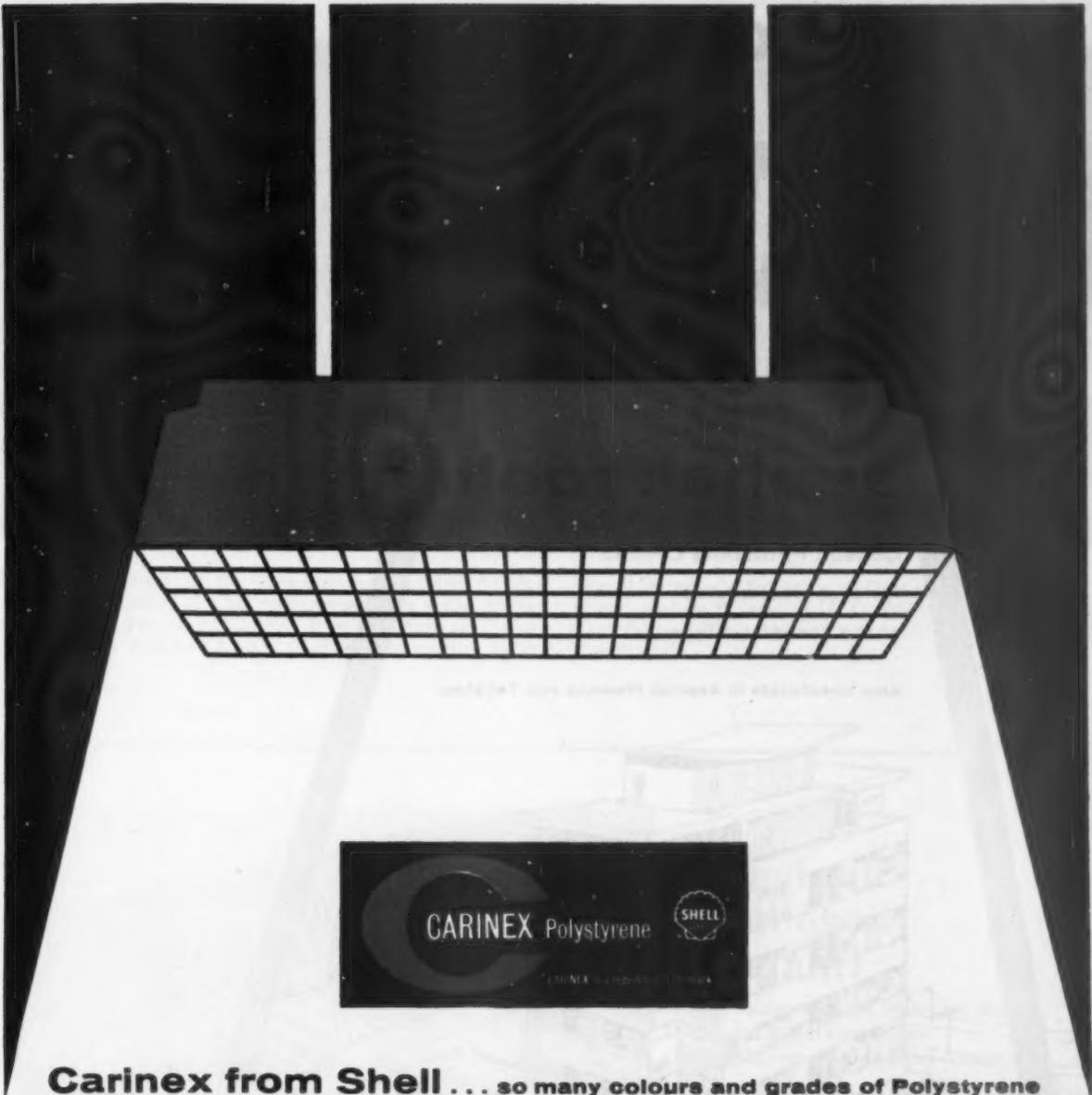
PLAN. scale  $\frac{3}{16}'' = 1'-0''$

PLAN AT B-B. scale  $\frac{7}{8}$  full size

PLAN AT C-C. scale  $\frac{7}{8}$  full size

SECTION A-A. scale  $\frac{7}{8}$  full size

note: figured dimensions in feet and inches are approximate



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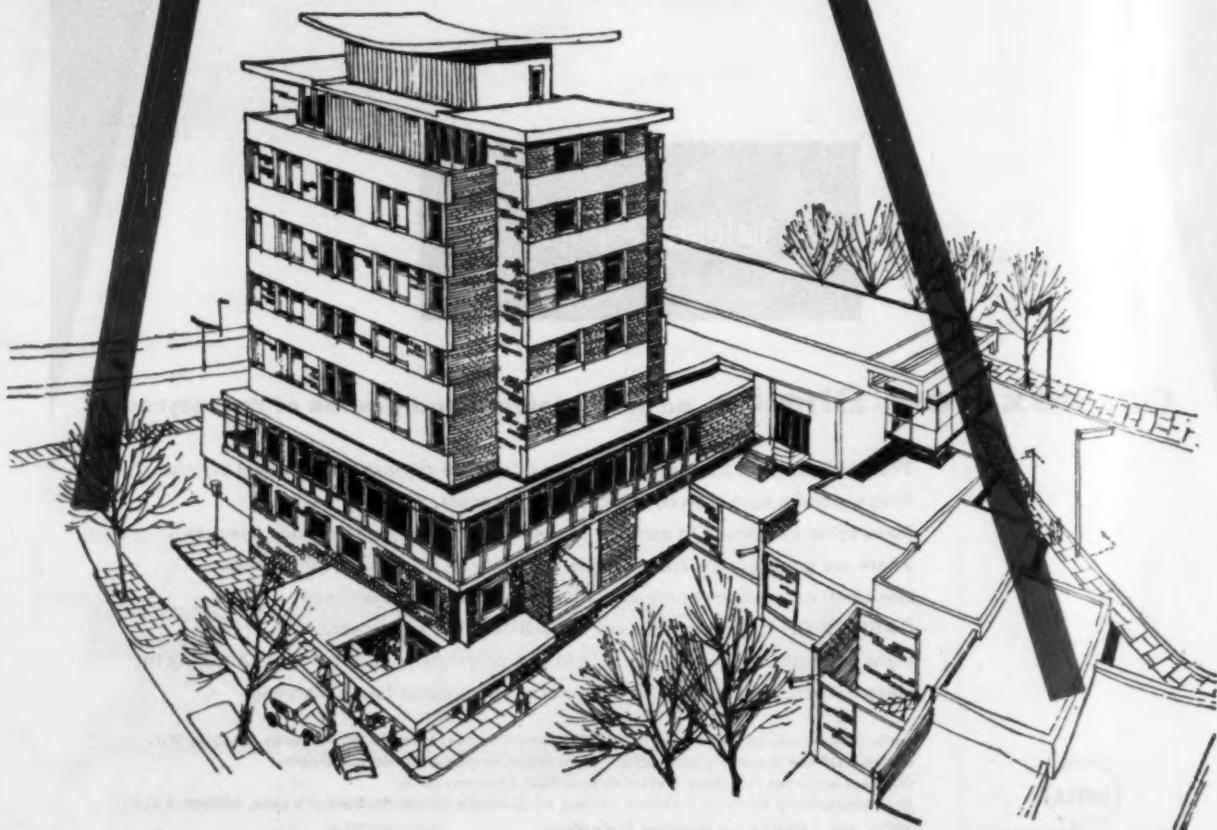
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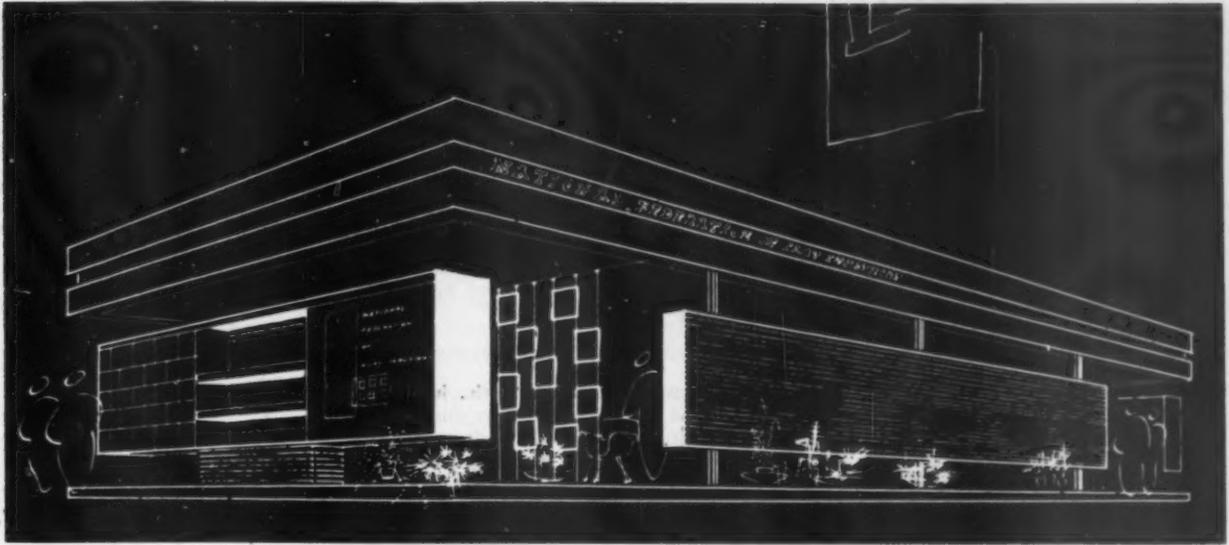
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### Exhibition Stand Competition



The winning design in the competition organised by the National Federation of Clay Industries, for a stand at the 1961 Building Trades Exhibition. It is the work of Trevor Hubert Anson, student A.R.I.B.A., of Hull, who receives £150.

Second prize of £50 went to Graham Pryce Thomas, of Jersey, and third prize to G. D. Baker and J. Gooding, of Canterbury. The assessor for the competition was Cecil C. Handisyde.



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Esavian sliding and folding partitions finished in polished mahogany.

## Announcements

### PROFESSIONAL

Roy D. Lyons, A.R.I.B.A., has commenced in private practice, and has opened an office at Burt Street, Basseterre, St. Kitts, West Indies, where he will be pleased to receive trade literature, samples, etc.

Chapman, Taylor, Partners, have moved their offices to 5a, Gregory Place, Holland Street, London, W.8 (telephone Western 6611).

The partnership between F. J. Munce, A.R.I.B.A., and G. R. Smail, M.A., M.I.C.E., practising as Munce & Kennedy has been dissolved. The practice is continuing at London and Belfast under the same title and J. F. Munce has taken into partnership L. A. Roche, B.A. (Arch.), A.R.I.B.A., W. J. McDowell, A.M.I.C.E., and J. F. Sheldon, A.R.I.B.A. The London office has now moved to 10-11, Bulstrode Place, London, W.1 (telephone Welbeck 0185).

J. Carter Jonas & Sons, chartered surveyors, have opened a design department office at 12-13 Bene't Street, Cambridge. A library of technical literature is being formed and they will be pleased to receive, by post, manufacturers' trade catalogues, etc.

The Illuminating Engineering Society has awarded the Leon Gaster Memorial Premium for 1960 to Mr. H. C. Weston, O.B.E., for his paper on "Rationally Recommended Illumination Levels," which was presented at the I.E.S. Summer Meeting in Harrogate, in May.

Mr. Weston was until recently with the Medical Research Council, and was responsible for much fundamental work on the basis of recommended illumination levels.

Frederick Hill, F.R.I.B.A., A.M.T.P.I., F.I.L.A., has been appointed visiting lecturer in Landscape Design at the Department of Fine Arts, Reading University.

D. W. Dickenson, F.R.I.B.A. Dip.Arch., has been appointed County Architect by Cumberland County Council. He is Deputy County Architect to the North Riding County Council.

Clifford Tee & Gale, chartered architects, are moving to new premises at 5, Eccleston Street, S.W.1, as from November 28, when their offices at 5 and 1a, Buckingham Palace Gardens, 147, Victoria Street, and 22, Gillingham Street, will be closed. They have taken into partnership Alan C. Hills, M.S.I.A., and Clive A. S. Hunt, M.S.I.A., as associate designers.

### TRADE

Concrete Development Co. Ltd. has appointed A. Marcham, B.Sc.(Hons.), M.I.C.E., director and general manager.

Colt Ventilation Ltd. are part owners of a subsidiary company in Holland, to be known as N.V., Braat en Colt Ventilatie, of The Hague.

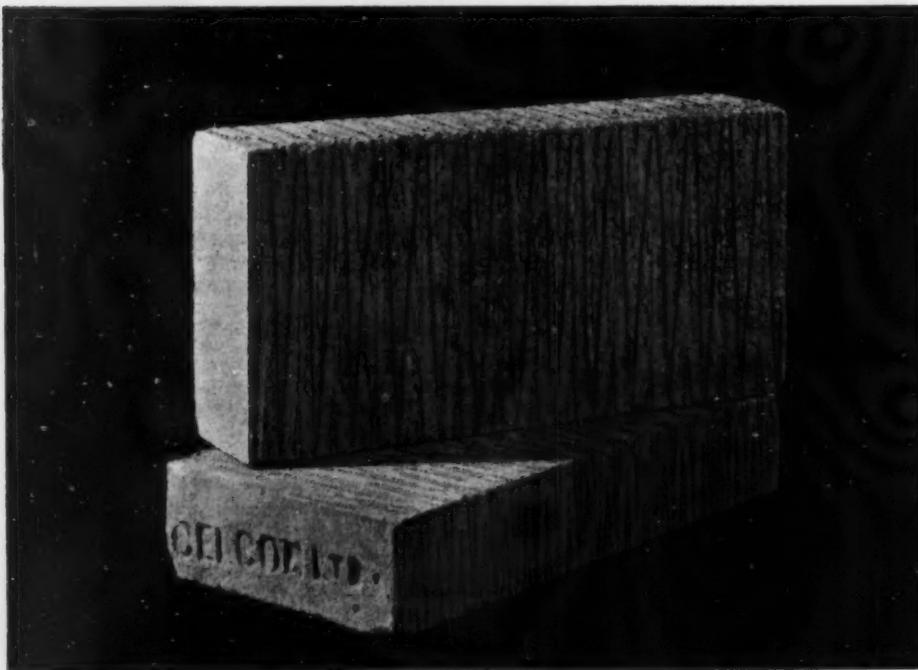
The Acoustics Department of Armstrong Cork Co. Ltd. have moved offices to 11a, Carlisle Road, Colindale, London, N.W.9 (telephone Colindale 9744).

Cape Building Products Ltd. have changed the telephone number to Uxbridge 37111.

## Corrections

The name of the president of the London Master Builders' Association was incorrectly given as E. J. Crouch by Astragal in the AJ for September 10: it is E. J. Cook, as given in the editorial in the same issue.

*Weeks Hall, Imperial College of Science and Technology* (AJ, November 10, 1960). The list of contractors should have included the following information: *Glass and Glazing*: Aygee Limited. We regret this omission.



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Drying Shrinkage—.05%

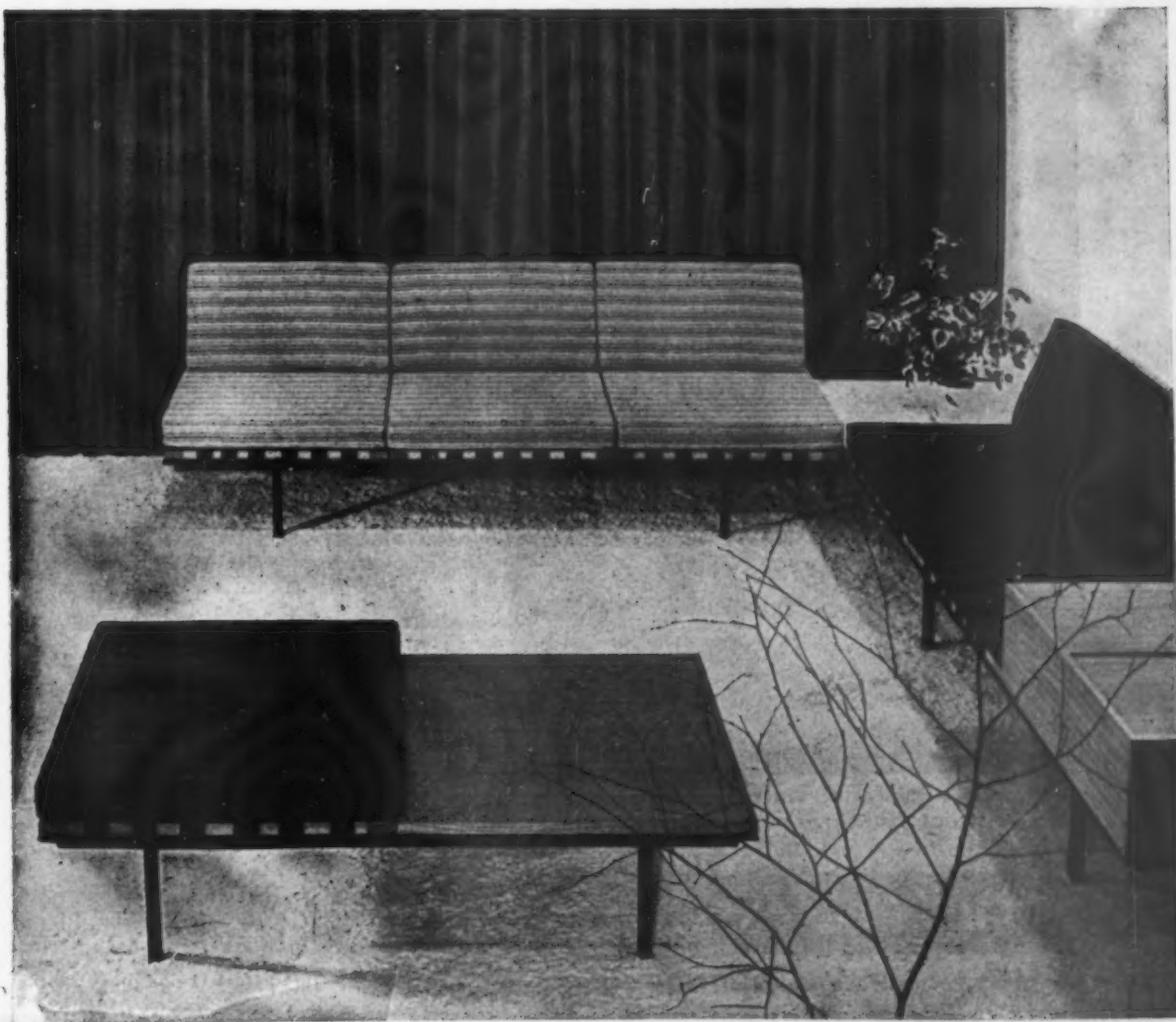
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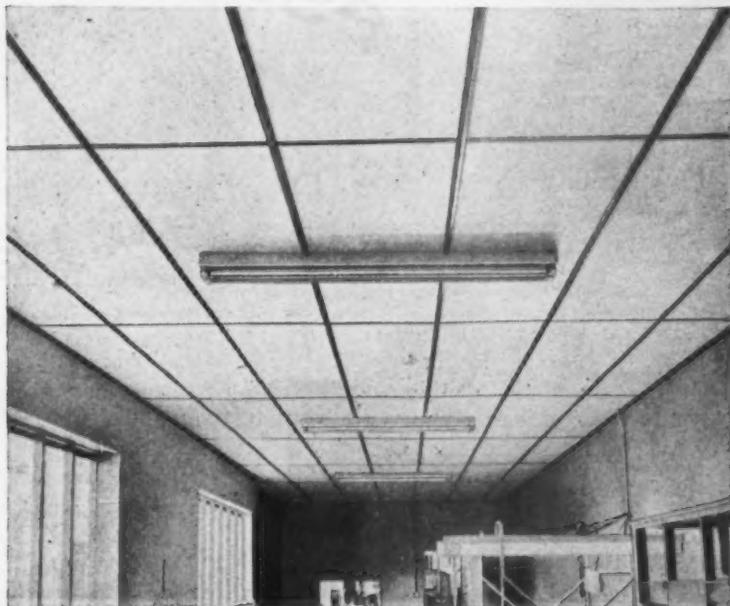
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# "I thought a week - they took two days"



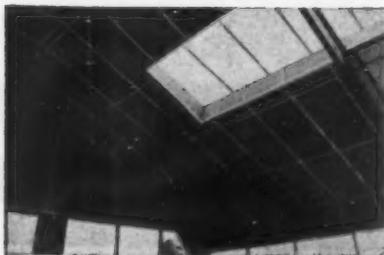
Mr. R.E. Downes-Shaw, M.I. Mech.E., Superintending Engineer for Peterlight Products Ltd., had many problems when he had to install fully suspended, insulated ceilings in old factory premises in Redhill, Surrey. The materials used had to be dust proof and cover large sections which were not capable of bearing much extra weight. Every minute saved was vital because unavoidable complications on the takeover of the building delayed the whole schedule three months. The entire insulation of each of two areas of ceiling with Marleycel panelling was actually completed in two days with the use of the Grecon System. The total area covered was 1,600 sq. ft. The Marleycel Polystyrene panels took care of the insulation problem, and their exceptionally light weight has ensured a ceiling free from sag and undue load on the roof. The panels were suspended by means of the lightweight Grecon System, using suspension tubes over 9 ft. long, fixed to the structural members by Grecon metal hangers. To seal the butt joints of the boards, a coloured plastic noggin bar was used, and to cover the clips securing the board, as well as giving a de luxe dust-free finish, black plastic capping was fitted.



The Grecon System can be adapted in many ways. On the left is shown an under purlin lining, with standard industrial finish.

Thus, this combination of lightweight Grecon and lightweight Marleycel made a fully suspended ceiling with individual board removability possible with a roof already bearing a critical load.

And the cost? Says Mr. Downes-Shaw: "Well within my budget—and considering the saving in time truly economical".



On the left can be seen the great flexibility of the Grecon System, it fits neatly and securely around the existing roof and window lights, and any panel is easily removed and replaced for inspection purposes.

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 ONE METAL FIXING SYSTEM

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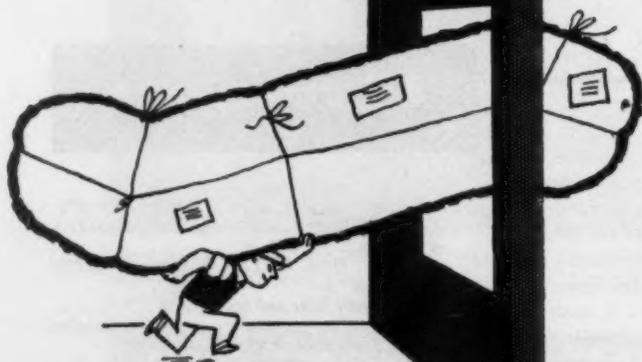
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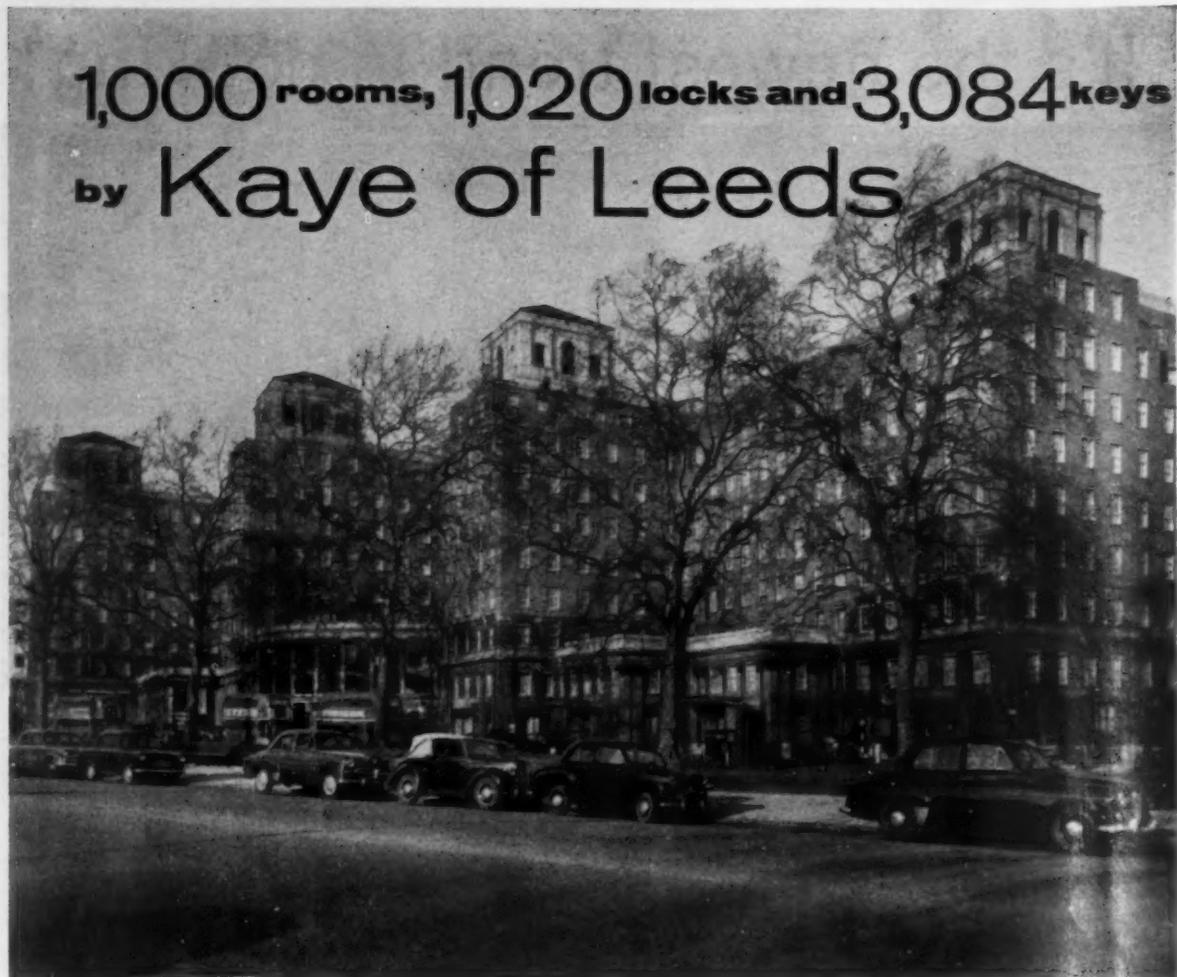
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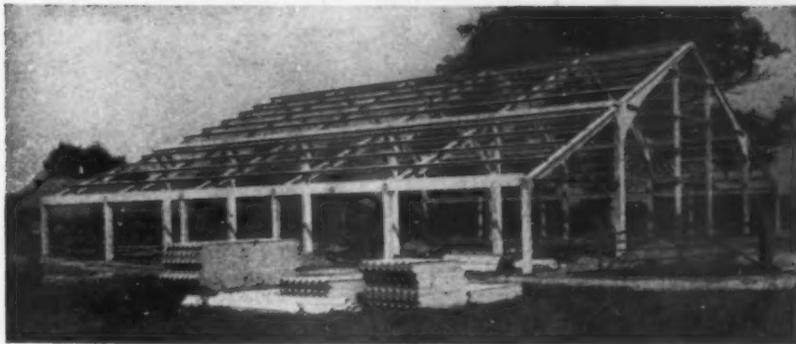
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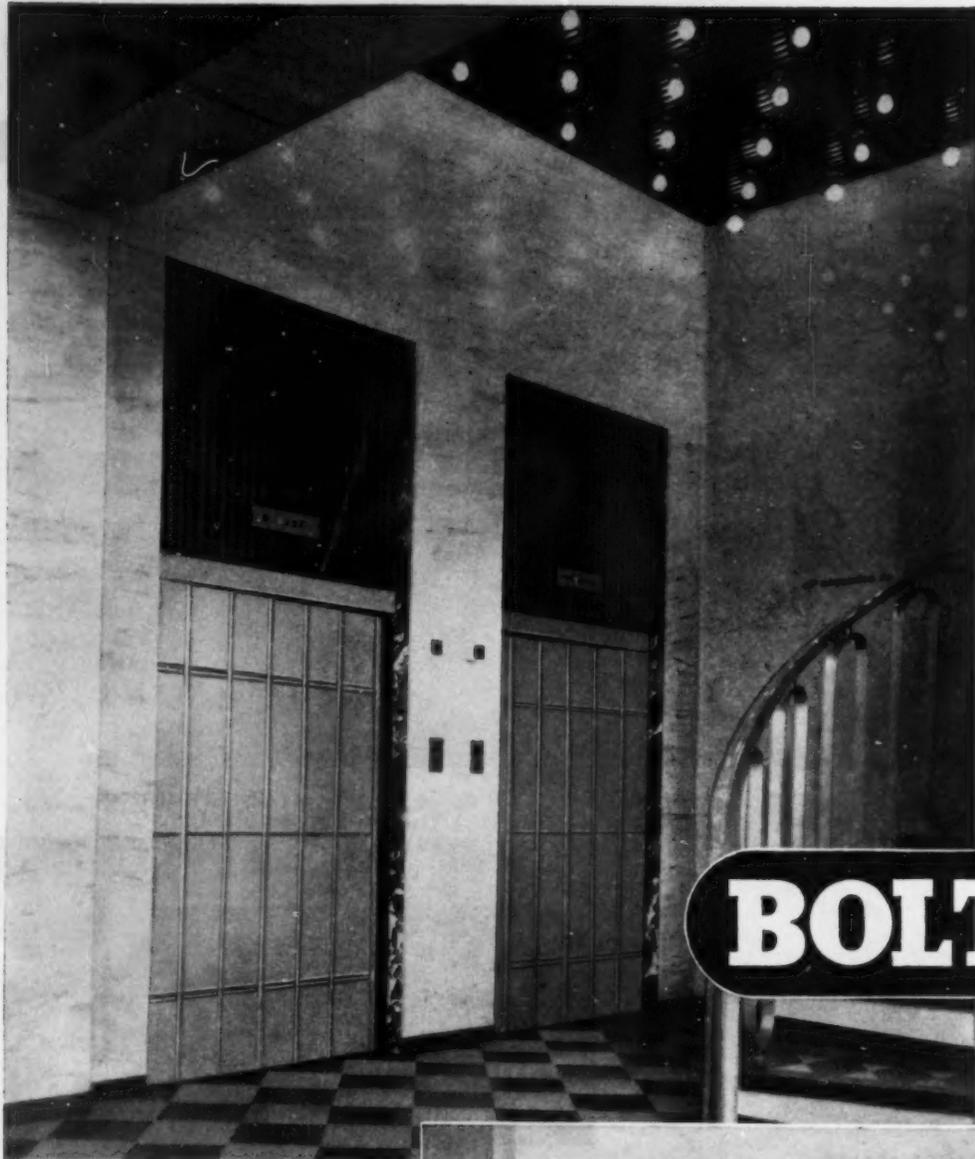
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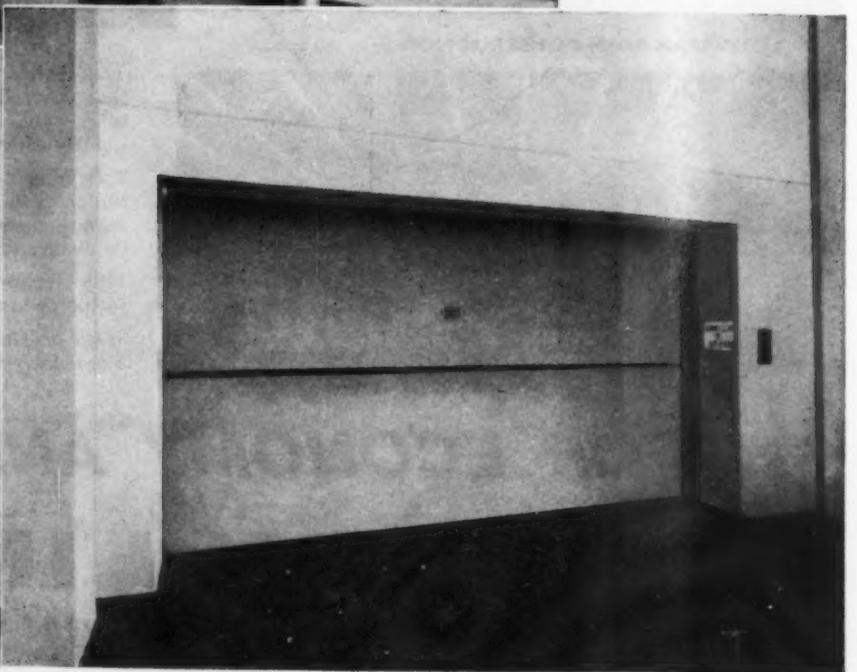
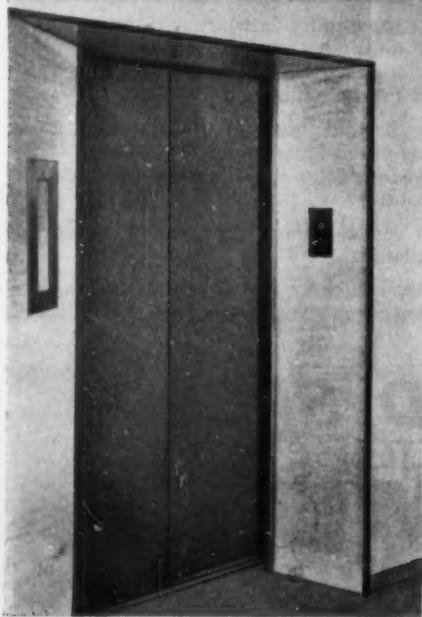
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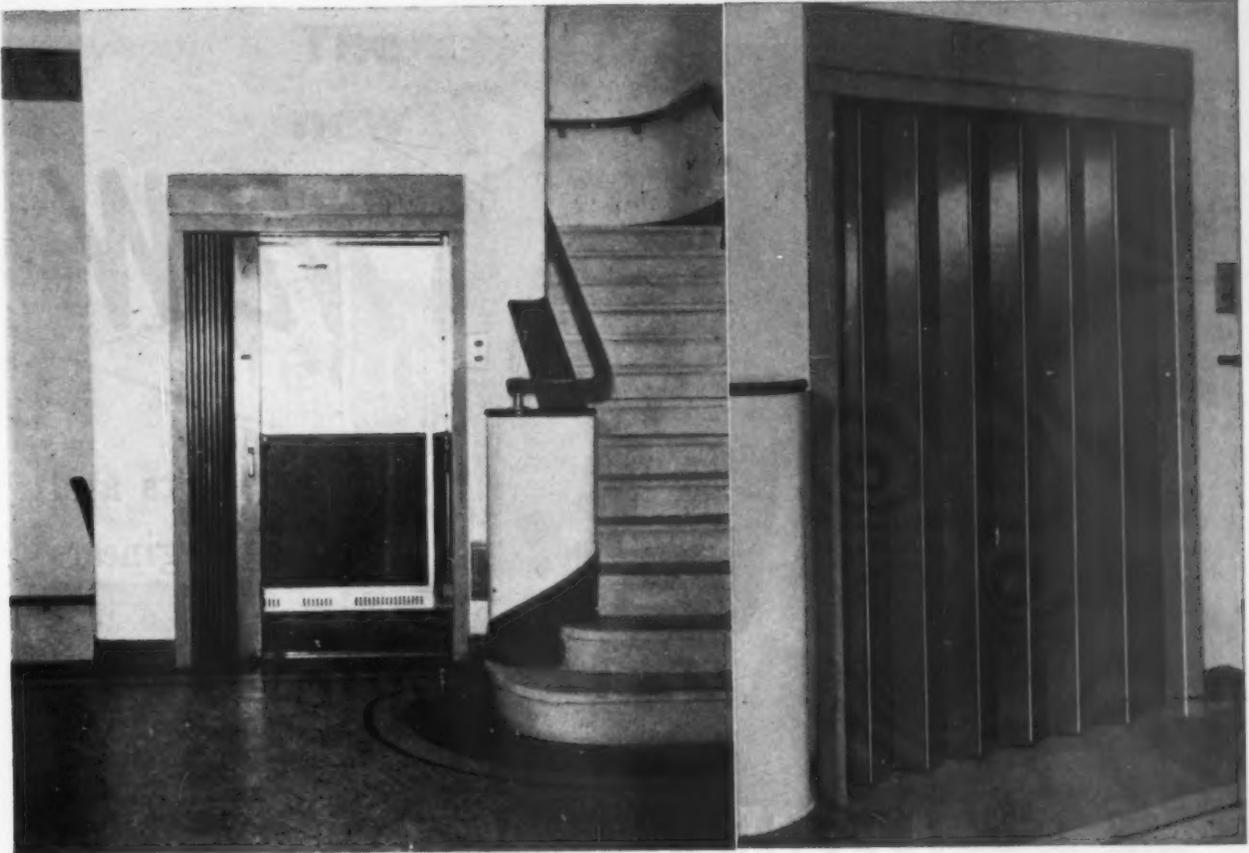
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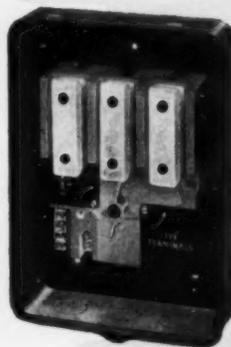
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all contractors and consulting engineers will want to use these **NEW**

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SINGLE POLE AND NEUTRAL - DOUBLE POLE - TRIPLE POLE - TRIPLE POLE AND NEUTRAL

Men whose business it is to assess and advise are quick to appreciate the very real advantages offered by G.E.C.'s new Hidutac switchfuses. Unlimited full load switching. High breaking capacity. High fault current protection. Absolute safety. These are the performance features that the experts like so much, but they also welcome the smaller size and the good looks of this advanced range of switchfuses. As it is made by G.E.C., they naturally take its reliability for granted.



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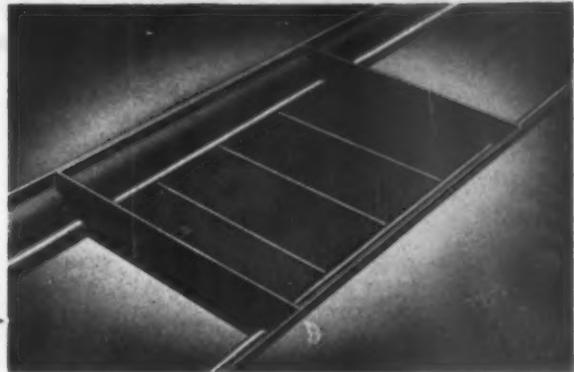
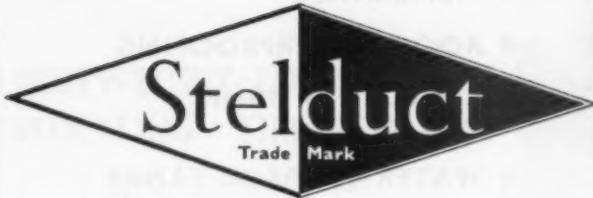


### INSTALLATION EQUIPMENT GROUP

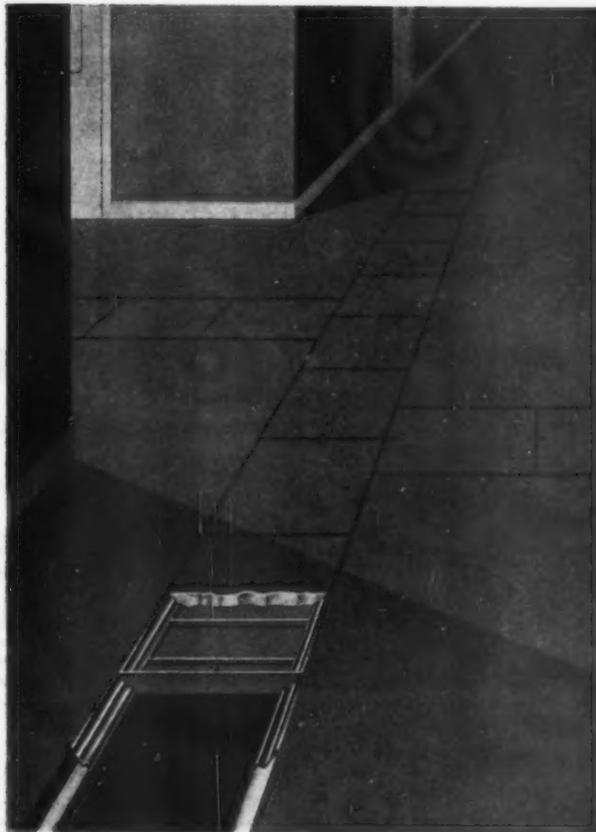
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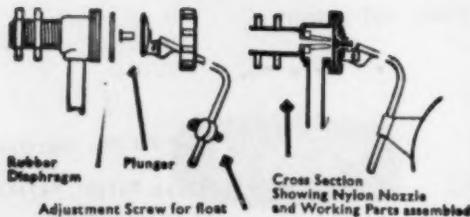
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Calcium plumbate; zinc chromate-iron oxide; asbestos-cement primers. High gloss non-bituminous protective coloured coatings (alkyd resin media). Bituminous black and coloured coatings. Mastic and semi-mastic sealing compounds. Silicone water repellents.

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**TROUBLE-FREE** because:—No working parts are in water and no sticking can occur as with the old piston type of fitting.

Cavitation of the seatings is greatly reduced if not entirely eliminated, giving the valve a trouble-free long life many times that of an ordinary ball valve.

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**MAIN FEATURES:** The main features of the *Kingley B.R.S. Ball Valves* are as illustrated, a nylon nozzle shaped to overcome cavitation and a rubber diaphragm which stops the flow of water when pressed against the nozzle by a plunger. The diaphragm keeps the moving parts of valve dry and free from corrosion and incrustation.

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- ★ Thumbscrew for adjusting float to suit required water level.
- ★ The Kingley B.R.S. Ball Valves are designed for both high and low pressure nozzles.

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Telephone: Kings Langley 4022 Telegrams: Champion Kings Langley

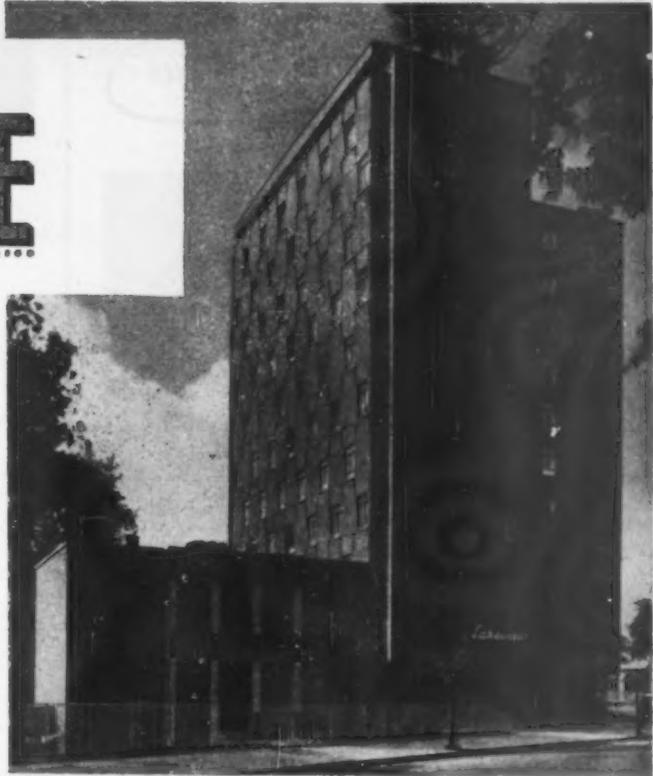
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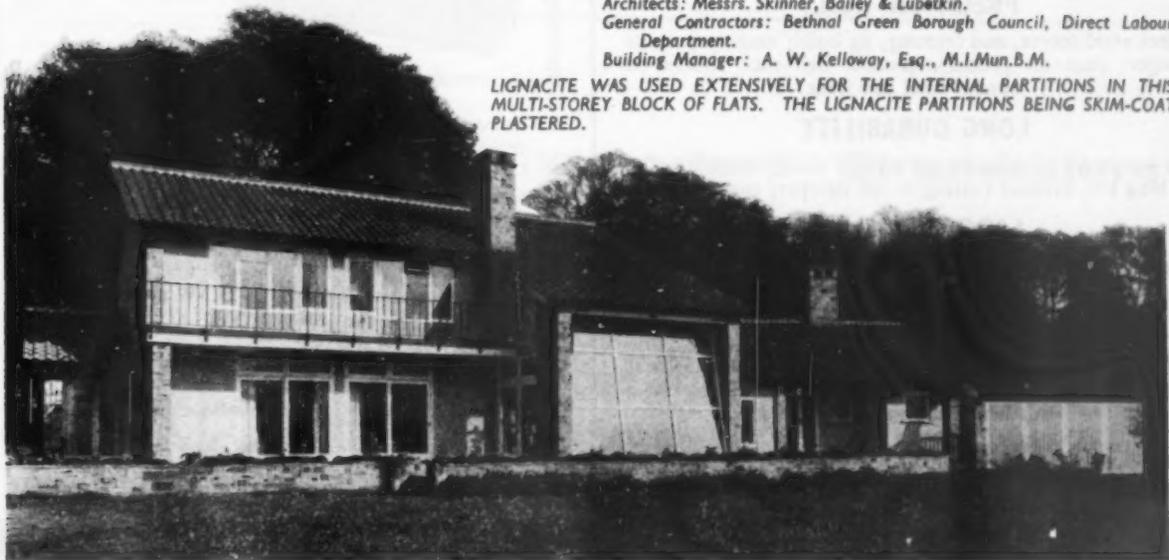
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BETTER DOORS

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Lift entrances, bus garages, works entrances, internal partitions—all can have the smooth-running security of a Brookes folding shutter door.

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*Type 'WM' wall-mounting Thermovent heater. 1½ and 2½ kW loadings. Robust welded sheet steel construction with light 'hammered bronze' stove enamel finish.*

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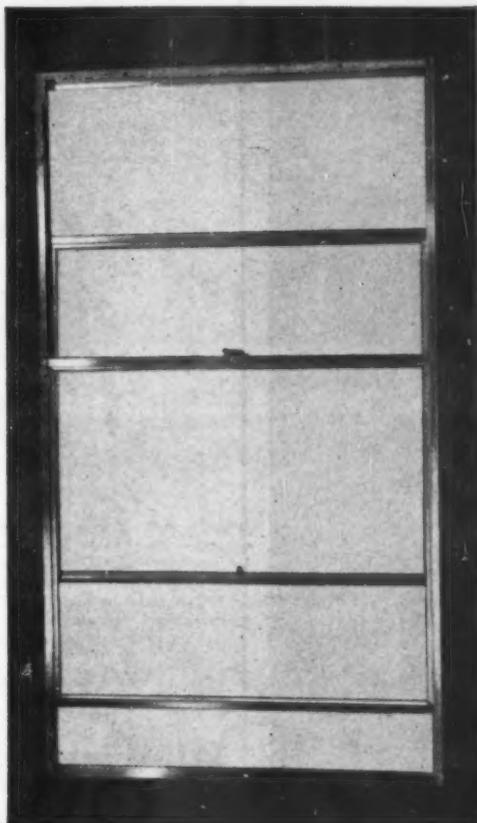
# EKCO THERMOVENT

## ELECTRIC SPACE HEATING

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*The new*  
**CRITTALL**  
 aluminium  
 double-hung  
 sash Mk. III

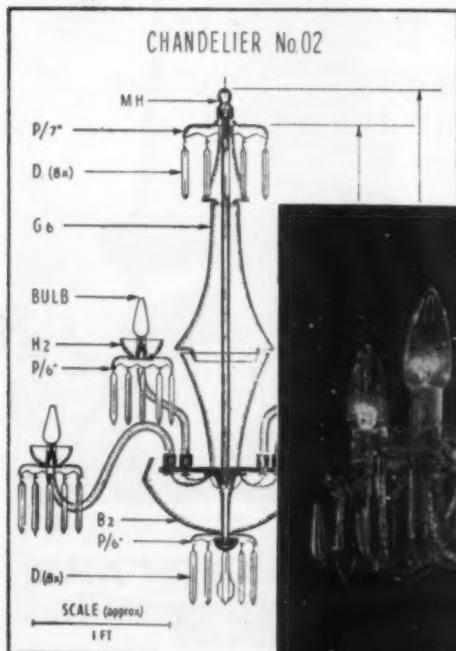


Made in five standard widths and three heights, delivered ready glazed, this is an improved and less expensive version of the Crittall double-hung sash Mk. II. The extruded aluminium sections have been completely redesigned. The continuous sash-lifts are an integral part of the extrusion at the bottom of each frame. These, and the pile weather-stripping, ensure easy and noiseless operation.

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Beautifully hand cut from full lead crystal, Waterford Chandeliers are available in sizes suitable for modern interiors.

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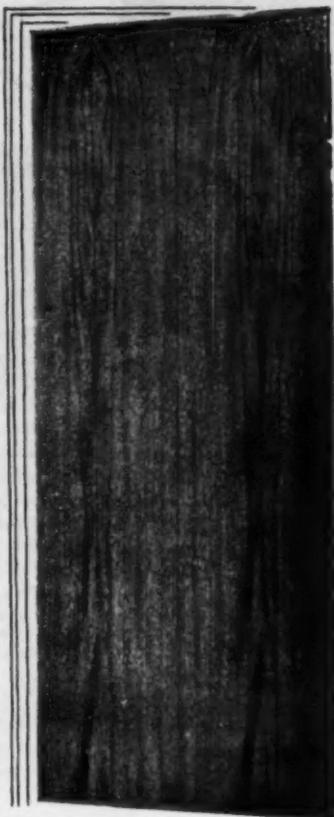
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"properties gracefully combined in an object so as to please or attract the senses, especially the eye..."



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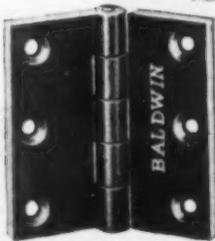
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3

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3' Reb.

"3' Reb." is the identification symbol for our 3' Rebated Channel Reinforced Wood Wool Roofing Slab, which is designed for use in conditions of high humidity. A strip of cork or ONAZOTE lies snugly in the recess formed by two adjacent channels when the slabs are butted together, creating a discontinuity and so eliminating the "cold bridge" effect which would otherwise cause condensation along the steel reinforcing strips. Only Thermacoust offers this advantage.

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3' Reb. is ideal for roofing kitchens, laundries, weaving sheds, swimming baths or any other buildings whose contents, uses or heating systems create abnormal atmospheric humidity.

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When supported on inverted "T" or Thermacoust purlins no special fixing arrangements are required. Flat-top purlins or R.S.J.'s call for Type 1 site fixing clips.

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THE

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**ITS ALUMINIUM CONSTRUCTION  
OFFERS A LIFE-TIME OF  
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**ITS APPEARANCE BLENDS WITH  
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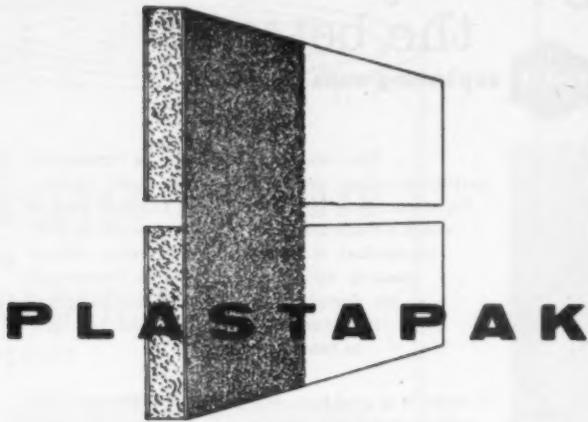
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yesterday's craft  
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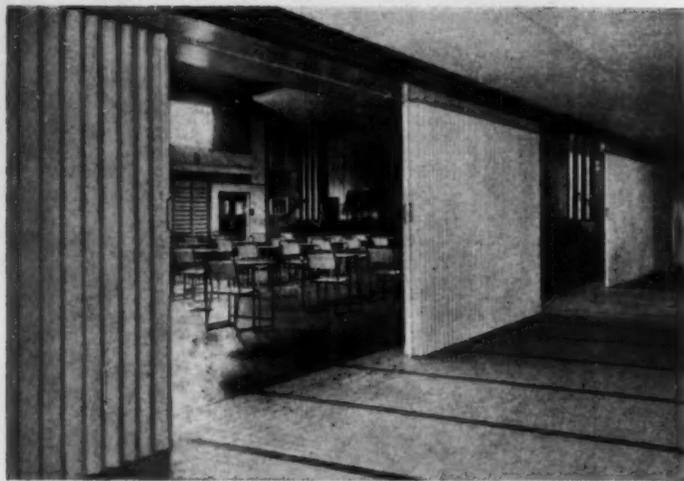
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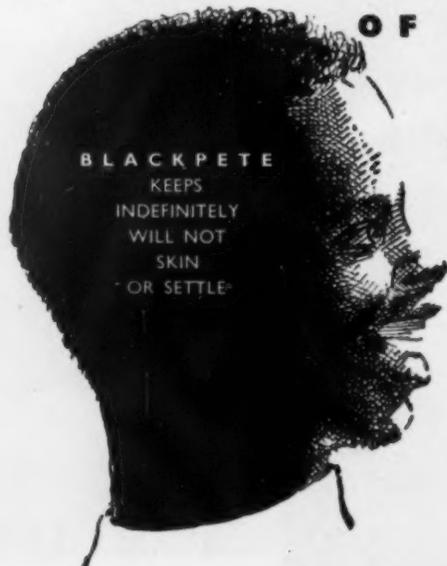
If noise is a problem, the new **SOUNDMASTER** will provide the answer—specially designed for use where quiet working conditions are required. The effectiveness of **SOUNDMASTER** has been proved by conclusive tests, details of which are available on application.

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Covered in paintable P.V.A. leathercloth—the door in the lower price range, available particularly for estate developers.

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BLACKPETE  
KEEPS  
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WILL NOT  
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DRIES HARD IN  
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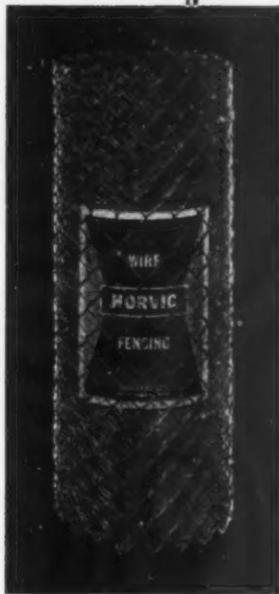
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Norvic Plastic Covering keeps its colour long after other fences have yielded to the atmosphere.

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The slight increase in initial cost is more than offset by longer life.



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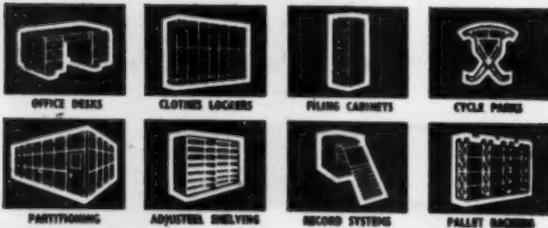


Concealed wiring facilities with flush switches are amongst the many exclusive Constructors features.

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# CONSTRUCTORS

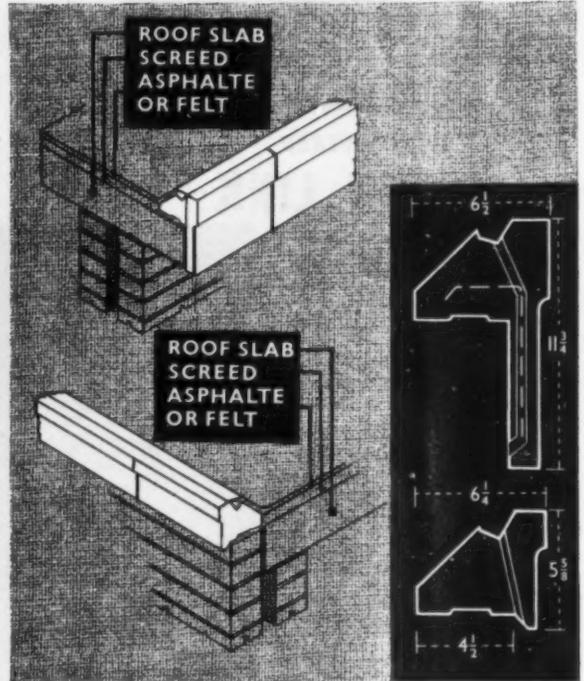
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The size of the book is 8½ × 5½ in. 340 pages including over 150 half-tone and line illustrations. 45s. net, postage 1s. 9d. The Architectural Press, 9-13 Queen Anne's Gate, S.W.1.

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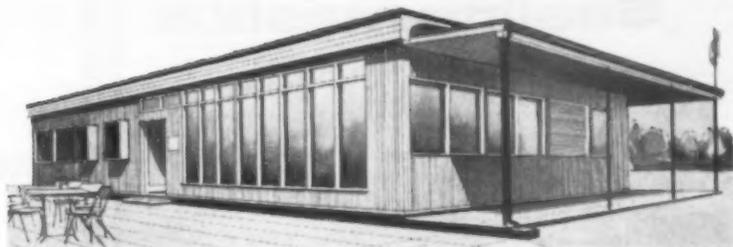
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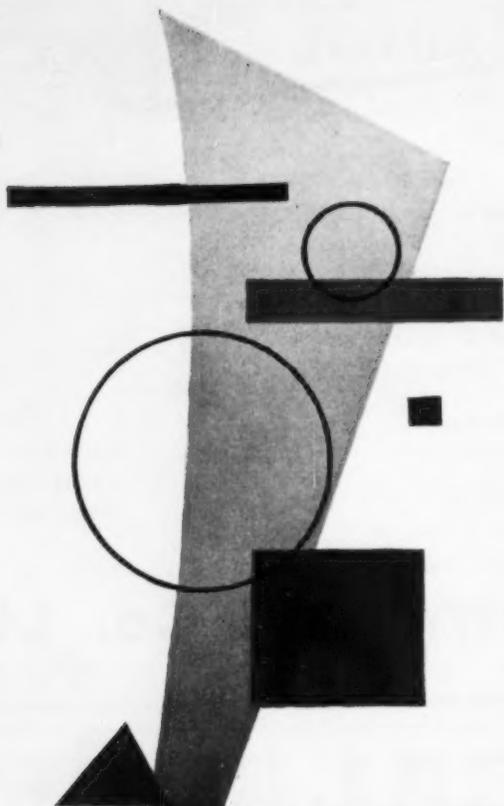
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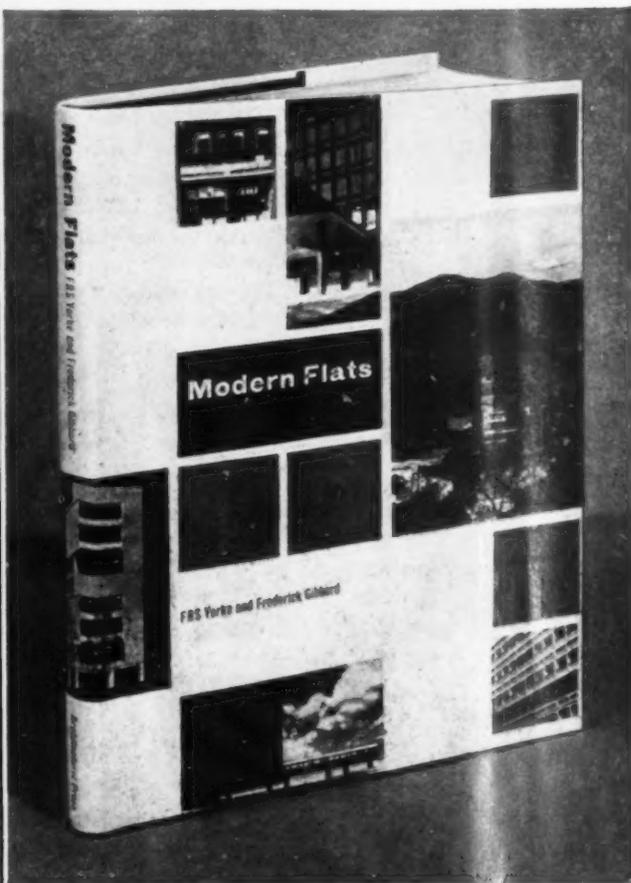


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**CLASSIFIED ADVERTISEMENTS**

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

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

**AIR-MAIL SERVICE** available on request. In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vachni, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of the special service to Overseas subscribers will be 5s. for four weeks (1s. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

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**BIRMINGHAM REGIONAL HOSPITAL BOARD**

**ASSISTANT ARCHITECTS** required for interesting work on all types of hospital architecture. Applicants must be registered architects having passed the requisite examinations. Salary scale £908-£1,310, commencing salary according to age and experience.

Apply naming two referees to Secretary, 10 Augustus Road, Birmingham, 15, as soon as possible. 3790

**VACANCY FOR ARCHITECTS  
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EASTERN NIGERIA**

Vacancies exist for candidates who are Associate Members of the R.I.B.A. or have an equivalent Commonwealth qualification as Architects in the Public Service of the Eastern Region of Nigeria. Candidates should have at least five years' experience after qualifying. Experience in hospital design and construction is desirable. Experience in tropical work will be an advantage. Candidates must not be less than 30 years of age nor more than 40.

The duties connected with the post will be to prepare sketch plans, working drawings, specifications and contract documents and to lead a team of Architects and Assistants under the direction of the Senior Architect.

The salary for the post ranges from £1,716 per annum to £2,166 per annum. The point of entry will depend upon experience. One credit for each year's experience after obtaining the specified qualification for the post is given. Liberal leave and passage conditions.

For further particulars apply to the Recruitment Officer Eastern Region, Office of the Agent-General for Eastern Nigeria, 9, Northumberland Avenue, London, W.C.2. 4096

**SURREY COUNTY COUNCIL**

Applications invited for the appointment of **ASSISTANT ARCHITECTS** on Grade IV (£1,140-£1,310 p.a. plus £45 p.a. London allowance). 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.

Approved removal expenses will be paid to successful candidates.

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

Full details, present salary and three copy testimonials to County Architect, County Hall, Kingston as soon as possible. 4214

**WARWICKSHIRE COUNTY COUNCIL**

**ARCHITECT'S DEPARTMENT**

**ASSISTANT ARCHITECTS**

Applications are invited from recently qualified Architects for appointment on Grade A.P.T. III-IV (£960-£1,310). The persons appointed will work in groups on large projects and an opportunity will be given to men with enthusiasm and ability to design and carry out projects under a group architect.

The commencing salary can be within the grade according to ability. Five-day week worked. The Council have schemes for the payment of removal expenses and a lodging allowance to married officers. Application forms and full conditions applicable to the appointments can be obtained from Eric Davies, F.R.I.B.A., A.M.T.P.I., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,

Clerk of the Council. 4302

**PRISON COMMISSION, London, require**

**ASSISTANT ARCHITECT.** Quails registered architects with good professional experience in housing, institution and general work. Age 25 or over. Duties concern design rather than execution of work. Five-day week. Some travelling. Salary £805 (at age 25)-£1,260 plus London weighting allowance of between £25 and £40. Starting pay according to age. Possibility of pensionable posts; promotion prospects. Particulars and forms from Ministry of Labour, Technical and Scientific Register (K), 26 King Street London, S.W.1 quoting J 264/OA. Closing date 8th December, 1960. 4371

**BOROUGH OF HAMPSTEAD**

Requires in the Housing Architect's Department (C. E. Jacob, A.R.I.B.A., housing architect) the following staff to work on area redevelopment and the design and construction of new houses and flats:—

- (a) ASSISTANT ARCHITECT (Group Leader), A.P.T. IV, £1,140-£1,310 per annum.
- (b) ARCHITECTURAL ASSISTANT (Temporary), A.P.T. III Special, £945-£1,145 per annum.
- (c) JUNIOR ARCHITECTURAL ASSISTANT (Temporary), General Division, £229-£730 per annum.

London weighting (maximum £45) payable in addition.

Applicants for post (a) must be Members of the Royal Institute of British Architects.

Previous Local Authority experience is an advantage but not essential.

Applicants for post (c) should be engaged on or be prepared to take a part-time course of studies and will be allowed up to one day per week to attend a recognised School of Architecture.

Applications giving details of training, experience and the names of two referees should be sent to the Town Clerk (A.J.) Town Hall, Haveringstock Hill, N.W.3, by 30th November, 1960. No housing provided. 4239

**CITY OF WORCESTER**

**APPOINTMENT OF ARCHITECTURAL ASSISTANT**

Applications are invited for this appointment within A.P.T. Grade I (£645-£815). The appointment is superannuable and subject to medical examination. Housing accommodation available if required, and the Corporation are prepared to make a contribution towards removal expenses. Casual User's Car Allowance 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 and Surveyor, 22, Bridge Street, Worcester, by Tuesday, 29th November, 1960.

BERTRAM WEBSTER,  
Town Clerk.

Guildhall, Worcester. 4308

**CRAWLEY DEVELOPMENT CORPORATION**

requires:—

- (a) ASSISTANT ARCHITECT, A.P.T. III-IV (£960-£1,310).
- (b) JUNIOR ASSISTANT ARCHITECT, A.P.T. II (£645-£815).
- (c) ARCHITECTURAL DRAUGHTSMAN—Salary according to experience.

Candidates for post (a) must be Associates of the R.I.B.A. and for post (b) to Intermediate R.I.B.A. standard. Candidates for post (c) should have had experience in Architectural Drawing Offices.

The Architects' Department is at present engaged upon a varied and interesting programme of Housing, Commercial and Industrial projects, etc., and Swimming Bath. Five-day week. Housing may be provided if required. Landscape experience an advantage.

Apply on forms from Chief Architect (Vacancy), Broadfield, Crawley, Sussex, by 10th December, 1960. 4299

**LANARK COUNTY COUNCIL**

**COUNTY HOUSING ARCHITECT'S DEPARTMENT**

The Department of the County Housing Architect (S. McColl, F.R.I.B.A., F.R.I.A.S.) at Hamilton has a large number of vacancies for **ARCHITECTS AND ASSISTANTS**

Salaries ranging from £1,650 to £665, according to qualifications and experience.

The vacancies include a number on salary range £1,450-£1,600.

The department has an extensive and interesting programme of building works on housing development and comprehensive redevelopment of central areas including multi-storey flats and maisonettes shopping precincts, and other ancillary buildings. The work will provide scope for personal initiative in the field of progressive design and modern constructional technique.

A superannuation scheme is in operation and a 5-day week will apply from 1.1.61.

Consideration given to applicant's housing requirements.

Applications to County Clerk, P.O. Box No. 1, Glasgow. 4285

**Amended Advertisement**

**RADNORSHIRE COUNTY COUNCIL**

**ARCHITECTURAL ASSISTANTS**

Applications are invited for the following permanent appointments on the established staff of the County Architect's Department:—

Two Architectural Assistants salary grade A.P.T. III (£960-£1,140). The commencing salary within the grade will be dependent on qualifications, and experience.

The Council have a varied and interesting building programme on hand including new schools, police houses and old people's homes.

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 stating age, qualifications and experience with the names and addresses of two persons to whom reference may be made must be received by the undersigned not later than the 28th November, 1960.

D. C. S. LANE,  
Clerk of the Council.

County Hall, Llandrindod Wells, Radnorshire. 4246

**CITY OF CARLISLE**

**CITY SURVEYOR'S DEPARTMENT**

Applications are invited for the following appointments:—

**ARCHITECTS**

Three Principal Assistants A.P.T.V. (£1,310-£1,480). Applicants should be A.R.I.B.A. and should preferably be experienced in work, including that for Education, normally undertaken in a Municipal Office.

**QUANTITY SURVEYORS**

(a) One Chief Assistant, Scale A (£1,480-£1,665). Applicants should be A.R.I.C.S. and be capable of taking charge of this section of the office.

(b) One Principal Assistant A.P.T. IV/V (£1,140-£1,480). Applicants should be A.R.I.C.S. or A.I.Q.S. and be experienced in taking off, abstracting, billing, etc., dealing with Contractors, settling Final Accounts, etc.

(c) One Assistant A.P.T. II/III (£815-£1,140). Intermediate or Final I.Q.S. Salary according to qualifications and experience.

For all appointments, the starting point in the grade will be dependent upon present salary, qualifications and experience. The Council have built a number of Staff Houses which are let at an economic rent.

Applications stating age, qualifications, present and past appointments with dates and salaries, experience and three referees, to be received by the City Surveyor, 18, Fisher Street, Carlisle, by 3rd December, 1960.

H. D. A. ROBERTSON,  
Town Clerk. 4280

**CITY OF CANTERBURY**

**SENIOR ASSISTANT ARCHITECT**

Applications are invited for the above appointment in the City Architect and Planning Officer's Department.

Commencing salary within A.P.T. III/IV (£960-£1,310) according to ability and experience. The successful candidate will be engaged initially on the new Technical College project and must have attained the necessary standard of professional qualification.

Housing accommodation available if required. Applications, with the names of two referees, to the City Architect and Planning Officer, John L. Rebbiers, F.R.I.B.A., A.M.T.P.I., by Saturday, 3rd December, 1960.

Canvassing will disqualify. J. BOYLE,  
Town Clerk.

Municipal Buildings, Canterbury. 4249

**FIFE COUNTY COUNCIL**

**PLANNING DEPARTMENT—MAP REGISTER ASSISTANT required.**

Salary Scale—Executive Grades I & II, £605-£735. Applicants should be good draughtsmen, be accustomed to working with Ordnance Survey maps and have experience in the preparation of plans for land acquisition and disposal. The successful applicant will be required to prepare and maintain a Map Register of all land owned by the County Council. Applications, stating age, experience, etc., to the County Clerk, County Buildings, Cupar, Fife, by 7th December, 1960. 4377

**GLAMORGAN COUNTY COUNCIL**

invite applications from qualified Architects with extensive technical experience for the following permanent appointment in the County Architect's Department:—

**SENIOR ASSISTANT ARCHITECT, J.N.C. Scale B (£1,480/£1,670).**

The commencing salary may be above the minimum of the grade and a temporary lodging allowance will be paid in certain circumstances. Applications, giving details of age, training, qualifications and experience, together with the names of two referees, to the County Architect, County Hall, Cardiff, by Friday, 2nd December, 1960.

RICHARD JOHN,

Clerk of the County Council. 4374

**BURGH OF PAISLEY**

Applications are invited from suitably qualified Architects for superannuated appointments in this Department:—

- (a) SENIOR ASSISTANT ARCHITECTS—Scale £1,100-£1,300
- (b) ASSISTANT ARCHITECTS—Scale £795-£1,075.
- (c) ARCHITECTURAL ASSISTANTS—Scale £680-£805.

Applicants for (a) and (b) must be A.R.I.B.A. and for (c) have reached the Intermediate stage.

Full details of age, experience and qualifications should be sent to me not later than Saturday, 3rd December, 1960. J. A. MCGREGOR,

Master of Works, 14, Gilman Street, Paisley. 4363

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**SENIOR ASSISTANT ARCHITECT.** Applicants must be qualified by examination and should be experienced in the handling of major contracts.

Salary Scale: £1,000 × 635 to £1,175.

Applications, marked "Staff-Confidential" and giving full details of experience and the names of two referees as to character, should be sent to the City Architect, City Chambers, Edinburgh, 1, not later than 7th December, 1960. 4344

**COUNTY BOROUGH OF WEST HAM**  
**BOROUGH ARCHITECT AND PLANNING OFFICER'S**  
**DEPARTMENT**

Following a review of the Establishment of the Department consequent upon an increased Capital Works Programme, it is now possible to invite applications from Architects and Assistants for the following permanent appointments:

- (a) SENIOR GROUP ARCHITECT: £1,485-£1,670 and Essential User Car Allowance.
- (b) GROUP ARCHITECTS (TWO): £1,310-£1,480.
- (c) DEPUTY GROUP ARCHITECTS (FOUR): £1,140-£1,310.
- (d) ASSISTANT ARCHITECT: £840-£1,145.
- (e) ARCHITECTURAL ASSISTANT: £815-£1,145.
- (f) ARCHITECTURAL ASSISTANT: £645-£960.
- (g) ASSISTANT PLANNING OFFICER (TWO): £1,140-£1,310.

*Posts (b)-(g) carry additional London Allowance in the range £25-£45 p.a.*

The programme, running at an estimated Annual Expenditure of over £2 million, consists of a large and varied number of projects, including Primary, Secondary, and Special Schools, Fire Stations, Clinics, and other public buildings, as well as extensive Slum Clearance and High Density residential reconstruction.

Work is also in the preliminary planning stages on a Shopping and Commercial Centre, covering approximately 18 acres. Applications giving full details and names of two referees should be sent to Thomas E. North, O.B.E., F.R.I.B.A., Dist.T.P., M.T.P.I., 70, West Ham Lane, Stratford, E.15, by first post on Saturday, 3rd December, 1960.

## The modern architectural model

by **T. W. Hendrick** F.R.S.A.  
Foreword by **Hugh Casson**

*THIS FASCINATING HANDBOOK is the first to deal in full detail with every aspect of the construction of models of modern buildings. The author, himself an expert and experienced model maker, deals with models of all scales, sizes and types, mobile and static, realistic or diagrammatic, as well as their surrounding landscape and impedimenta; careful instructions are given on the construction of every conceivable detail from pylons to potted plants, from glass domes to door handles. The author describes the proper uses and the virtues and vices of traditional materials, plywood, card, glue, and the many new synthetic materials now available, not even forgetting such unorthodox things as dental plaster or cherry sticks.*

*Architects are increasingly using models to express their projects in a three-dimensional form, and this book will be of invaluable help both to them, their assistants, students, model makers professional and amateur, and all who are intrigued by buildings in miniature.*

*The book is illustrated with line diagrams, and photographs of a selection of models of all types of buildings by well-known contemporary architects.*

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**GOVERNMENT OF NORTHERN IRELAND**

**ASSISTANT ARCHITECT Class II**  
Applications are invited for a pensionable post in the Ministry of Health and Local Government. Candidates must be Registered Architects by examination with general experience and aptitude for research. Duties connected with housing and public health buildings. Salary scale (under review), £805 (at age 25) £1,095 (age 34 and over) £1,260. Transfer of existing pension rights may, in certain circumstances, be approved. Preference for ex-Servicemen. Application forms, obtainable from The Secretary, Civil Service Commission, Stormont, Belfast, 4, should be returned by 8th December, 1960. 4429

**THE CITY OF EDMONTON**

requires  
**PLANNER AND PLANNING ASSISTANT**  
Planner's duties include the preparation of reports and recommendations with statistical data for a General Plan for the City based on analysis of population densities and distribution, industry, commerce, social functions and communications on a City and Metropolitan level. Preference will be given to associate members of the Town Planning Institutes.  
Starting salary \$5,612 to \$7,778 according to qualifications.

Planning Assistant will assist in preparation of new subdivisions and replanning schemes for residential and industrial areas and General Plan for the City. Must have minimum of two years' experience in an Architect's or Town Planner's office.  
Starting salary \$3,758 to \$5,690 according to qualifications.

Supply full details of education, experience, etc. to the Personnel Director, Room 310, City Hall, Edmonton, Alta., Canada. 4430

**AMENDED ADVERTISEMENT**

**BOROUGH OF WIDNES**

**ARCHITECT'S DEPARTMENT**

**QUANTITY SURVEYING ASSISTANT**

Applications are invited for the above post, in Grade A.P.T. II (£815-£960). Candidates must have passed the R.I.C.S. Intermediate examination. The successful candidate will work under the supervision of the Senior Quantity Surveyor. Five-day week. Housing accommodation to rent or lodging allowance in lieu for married applicants. Removal expenses in full. Superannuation scheme. Medical examination.

Applications, quoting two referees, by 8th December, 1960, to Borough Architect, Brendan House, Widnes.

**FRANK HOWARTH,**

Town Hall, Widnes, 17th November, 1960. 4427

**COUNTY OF ARMAGH EDUCATION COMMITTEE**

Applications are invited for the following appointments:-

- (a) ASSISTANT ARCHITECT (£805 to £1,260), R.I.B.A. Final standard.
- (b) ARCHITECTURAL ASSISTANT (£585 to £905), R.I.B.A. Intermediate standard.
- (c) JUNIOR ARCHITECT (£210 to £560).

Commencing salary within appropriate grades fixed according to qualifications and experience. Application forms may be obtained from the Chief Architect, 9 Beresford Row, Armagh, returnable by Monday, 12th December, 1960. 4424

**CITY OF CAMBRIDGE**

**ASSISTANT ARCHITECTS**

A number of posts exist in the Architects' Section for which keen and competent assistants are required.

Assistants are given full responsibility for their own jobs, including site supervision, and the posts offer excellent opportunities to obtain and/or widen all round experience in design, construction and contract administration.

(a) ONE SENIOR ASSISTANT ARCHITECT (Housing).

A.P.T. Grade IV (£1,140-£1,310 p.a.). To take charge of drawing office work in connection with the housing programme.

Experience of multi-storey structures would be an advantage. Placing on scale according to qualifications etc. which should be at least A.R.I.B.A. and five years' office experience.

Casual users car allowance payable for official duties.

(b) THREE ASSISTANT ARCHITECTS (Schools and General).

A.P.T. Grade III (£960-£1,140 p.a.).

Applicants should have had good general experience and be at Final R.I.B.A. stage.

Placing on scale as appropriate.

Housing accommodation will be available in approved cases.

Application forms may be obtained from the City Surveyor, The Guildhall, Cambridge, and should be returned not later than Friday, 16th December, 1960.

**ALAN H. I. SWIFT,**

*Town Clerk.*

The Guildhall, Cambridge. 4406

**COVENTRY**

Architects of outstanding design ability required for:-

(a) Reconstruction of City Centre.

(b) Extensive School Building Programme.

Experience of C.L.A.S.P. Construction will be an advantage. Salary: £1,470-£1,670 p.a. Apply City Architect, Council House, Coventry, for application form, returnable by 8th December. 4422

**BOROUGH OF BASINGSTOKE**

**BOROUGH ARCHITECT'S DEPARTMENT**

Applications are invited from Associates, R.I.B.A., for the post of SENIOR ASSISTANT in the Architect's Department of a town which is growing rapidly.

The work is varied and interesting, but applicants must have gained considerable housing knowledge. Experience with full flats an advantage. Salary within range £1,140-£1,310 according to experience. N.J.C. conditions. Post pensionable. Medical examination. Casual user car allowance. Housing available in due course. Assistance with removal expenses. Five-day week.

Details giving qualifications, age, training, experience, etc. and names and addresses of two referees to be sent to the Borough Architect, Eric Almond, Dipl. Arch., A.R.I.B.A., Municipal Buildings, Basingstoke, Hants, by 16th December, 1960.

**L. WOMERSLEY,**

*Town Clerk.*

**BOROUGH OF LUTON**

Applications are invited for the following appointments:-

(a) SENIOR ASSISTANT ARCHITECTS, A.P.T. IV/V (£1,140-£1,480).

(b) SENIOR ASSISTANT ARCHITECTS, A.P.T. IV (£1,140-£1,310).

(c) ARCHITECTURAL ASSISTANTS, A.P.T. I/III (£645-£1,140).

Applicants for (a) and (b) must be Chartered Architects and the commencing salaries will be dependent on qualifications and experience.

Under (c) the Council will consider applications from candidates who have completed professional training but have not passed their Final examinations. The grades within the range at which appointments will be made will depend on qualifications and experience.

Consideration will be given to the provision of housing accommodation and payment of reasonable removal expenses for all appointments.

Luton is a rapidly developing borough with a large and varied programme of capital works in hand or projected which offers exceptional opportunities of gaining experience.

Forms of application may be obtained from The Borough Architect, Town Hall, Luton, by whom applications should be received not later than 5th December, 1960. 4337

**BOROUGH OF EALING**

ARCHITECTURAL ASSISTANT within Scale A.P.T. IV according to experience (£1,185-£1,355 inclusive). Must have recognized architectural qualifications.

JUNIOR ARCHITECTURAL ASSISTANT, A.P.T. I (£645-£815) plus London weighting.

DRAUGHTSMAN for Civil Engineering work. Miscellaneous Grade V, £725-£800 inclusive.

Full particulars and forms of application obtainable from Borough Engineer, Town Hall, Ealing, W.5.

**E. J. COPE BROWN,**

*Town Clerk.*

**DEPARTMENT OF MUNICIPAL AFFAIRS AND SUPPLY**

**PROVINCE OF NEWFOUNDLAND, CANADA**

Appointment of:

(a) ASSISTANT DIRECTOR.

(b) SENIOR PLANNING ASSISTANT.

Applications are invited from suitably qualified and experienced persons for the above appointments in the Provincial Planning Division of the Department of Municipal Affairs and Supply in St. John's. The appointments will be contractual for a period of two years and subject to satisfactory service will be established at the end of that time. Salaries will be within the salary scales:

- (a) \$6,160 x \$100-86,600.
- (b) \$5,390 x \$100-85,830.

Duties will include the preparation of Municipal and Regional Plans including detailed designs for communities and districts throughout the Province, and the control of development in accordance with various Provincial Regulations.

The office is situated in St. John's but some travelling within the Province will be required.

Candidates must have appropriate professional qualifications in Town Planning together with considerable practical post graduate experience. Experience in public relations and ability to address meetings of different types is very necessary.

Conditions of service, full details of which are available on request, provide free passage of applicant and family to St. John's.

Applications, giving full details of candidate's age, education, professional qualifications, appointments held, professional experience, together with the names of two referees, should be sent to J. T. Alston, Director of Urban and Rural Planning, Department of Municipal Affairs and Supply, Confederation Building, St. John's, Newfoundland.

**C. W. POWELL,**

*Deputy Minister of Municipal Affairs.*

**BIRMINGHAM REGIONAL HOSPITAL BOARD**

**ARCHITECT'S DEPARTMENT**

ASSISTANT QUANTITY SURVEYORS. Salary scale £960-£1,310 per annum. Corporate membership R.I.C.S. essential. Previous hospital experience not essential. Superannuable. Five-day week.

Applications (quoting Arch 9) stating qualifications, age, experience, present appointment and salary and names of two referees to Secretary, R.H.B. 10, Augustus Road, Birmingham, 15, by 5th December, 1960. 4281

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. 4358

**BOROUGH OF DAGENHAM**

**APPOINTMENT OF SENIOR ASSISTANT ARCHITECT-A.P.T. V**

Applications are invited for this permanent appointment. Salary £1,355-£1,525 inclusive at age 26 years.

Applicants must be Associates R.I.B.A. with an appreciation of contemporary design, and suitably experienced. The successful candidate will be engaged on many interesting projects, e.g. new schools, housing, redevelopment schemes, covered swimming bath, general municipal buildings, etc.

Housing accommodation will be provided if required, and a casual user car allowance will be paid.

Application forms, etc., from the Borough Engineer and Surveyor, to whom they must be returned by Monday, 5th December, 1960.

**KEITH LAUDER,**

*Town Clerk.*

Civic Centre, Dagenham. 4349

**CARMARTHENSHIRE COUNTY COUNCIL**

**COUNTY PLANNING DEPARTMENT**

**PLANNING ASSISTANT-A.P.T. III (Dev. Control Section).**

**PLANNING ASSISTANT-A.P.T. III (Dev. Plan & Gen. Section).**

**JUNIOR ASSISTANT-A.P.T. I/II.**

Salary placings according to qualifications and/or experience in planning or closely allied profession.

Appointments superannuable, subject to medical examination and N.J.C. conditions.

Applications, giving full details of education, training, qualifications and experience, with names and addresses of two referees, to be sent to undersigned by 7th December, 1960.

**W. S. THOMAS,**

*Clerk of the County Council.*

County Hall, Carmarthen. 4354

**BOROUGH OF GUILDFORD**

Applications are invited for the appointment of an ASSISTANT ARCHITECT, commencing salary at a point within Grade A.P.T. III according to qualifications. Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects and have had practical experience in general architectural work and housing.

Consideration will be given to the provision of housing accommodation if required.

Application, with names and addresses of two referees, must be sent to the Borough Engineer and Surveyor, Municipal Offices, High Street, Guildford, Surrey, by Monday, the 12th December, 1960.

**HERBERT C. WELLER,**

*Town Clerk.*

4333

**NORTH RIDING OF YORKSHIRE**

**COUNTY COUNCIL**

Applications are invited for the appointment of ASSISTANT COUNTY ARCHITECT, Salary Scale C/D, from candidates of initiative with a flair for design and wide practical experience and also preferring to live in the country rather than exist in urban surroundings.

Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherpoon, Clerk of the County Council, at the same address before 13th December. 4339

**URBAN DISTRICT COUNCIL OF CORBY**

**JUNIOR ARCHITECTURAL ASSISTANT GRADE A.P.T. I OR II**

Applications are invited for the above appointment in the Architectural Section of the Engineer and Surveyor's Department.

Applicants must have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognised schools of architecture and the salary applicable to candidates of not less than one year's subsequent experience in an architectural office will be in accordance with A.P.T. Grade II (£815-£960 p.a.). The salary, otherwise, will be in accordance with Grade A.P.T. I (£645-£815 p.a.).

The provisions of the Local Government Superannuation Acts, 1937/53, will apply to this appointment.

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

Forms of application may be obtained from the undersigned, to whom they should be returned not later than the first post on Saturday, 3rd December, 1960. Testimonials will be required only from applicants selected for interview.

**G. B. BLACKALL,**

*Clerk of the Council.*

Council Offices, Corby, Northants. 4342

14th November, 1960. 4342

## ARCHITECTS ASSISTANT ARCHITECTS

A leading firm of London Consulting Engineers have vacancies in their Architect's Department (Chief Architect: Mr. K. A Brundle, F.R.I.B.A., A.A. Dipl.) for work in a wide and interesting field of Industrial Projects. These are permanent and pensionable positions; five-day week, luncheon vouchers.

Applications, stating qualifications, experience and present salary should be sent in confidence, to the

Personnel Manager,  
W. S. Atkins & Partners,  
158 Victoria Street, London, S.W.1

## SENIOR ARCHITECTURAL DRAUGHTSMAN

required by Kodak Limited for its Project and Design Department. This department is a member of the Engineering Division where over 1,000 people are employed.

The work will cover design of structures in reinforced concrete and structural steelwork and the preparation of working drawings.

Candidates should possess H.N.C. in Structural Engineering or equivalent.

The Company offer excellent employee benefits and a career of real potential in a go-ahead industry.

Please write for application form to:—

Personnel Manager,  
**KODAK LIMITED (FACTORIES),**  
Wealdstone, Harrow, Middx.

## COUNTY BOROUGH OF EAST HAM

### ARCHITECTS

Applications are invited for the following temporary appointments:—

### Senior Assistant Architects Salary £1330 - £1500

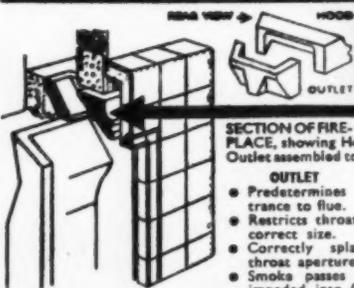
Salaries in excess of the minimum may be paid according to qualifications and experience. The appointments are for work on a new Technical College costing more than £700,000 and are expected to be for a period of not less than two years.

Further details and application forms returnable by 6th December 1960 from the Town Clerk, Town Hall, East Ham, E.6.

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**CARDIGANSHIRE COUNTY COUNCIL**

Applications are invited for the undermentioned vacancies in the County Architect's Department, County Hall, Aberystwyth:

- (a) ASSISTANT ARCHITECT—A.P.T. Grade III-IV (£935—£1,310).
- (b) ARCHITECTURAL ASSISTANT—A.P.T. Grade II (£815—£960).

The appointments are superannuable and subject to medical examination.

Applicants for (a) must be Associate Members of the Royal Institute of British Architects, with experience, and applicants for (b) should have passed the Intermediate Examination for associate membership of the Royal Institute of British Architects.

Forms of application and further details obtainable from the County Architect.

Applications are to be returned to the undersigned by not later than 10th December, 1960.

J. E. R. CARSON,

Clerk of the Cardiganshire County Council, Swyddfa'r Sir,

Marine Terrace, Aberystwyth,

12th November, 1960. 4386

**MODERNISATION OF BRITISH RAILWAYS THE WESTERN REGION**

requires the following technical staff: CIVIL ENGINEERING ARCHITECTURAL BUILDING

**HEATING & VENTILATING SOIL MECHANICS**

Interesting work in pleasant conditions with promotion on MERIT;

Superannuation Fund;

Reduced rates of travel and other concessions;

Commencing salaries up to £1,000 according to ability;

A limited number of posts in ranges between £1,150 and £1,695;

Five-day week.

Applications in the first instance, giving qualifications and experience, to:—

Chief Civil Engineer British Railways Western Region

Paddington Station London, W.2. 4343

**REBUILDING OF ST. THOMAS' HOSPITAL ASSISTANT ARCHITECTS, £905 > £35 (1) x £45 (6) x £50 (2) to £1,310 plus £40-£50 London weighting.**

Opportunities occur for young, imaginative architects to assist in carrying out the design and construction of a complete new 800 bed teaching hospital. Working drawings for Stage I are now under way and planning studies for Stage II will be commencing shortly.

Preference will be given to qualified architects who have recently completed a full-time course at a recognised School of Architecture.

Previous hospital experience is not essential. Applications should be returned to me within two weeks, giving particulars of education, qualifications and experience.

W. FOWLER HOWITT, A.R.I.B.A.,

Architect to the Board of Governors,

45 Lambeth Palace Road, London, S.E.1. 4417

ARCHITECTURAL ASSISTANTS for London and the Provinces.—Keen and enthusiastic Assistants of Intermediate R.I.B.A. standard required by Ministry of Works for design of interesting and varied types of buildings in all parts of the world. Salary range is from £600 (at age 21) to £980 per annum London (slightly less elsewhere). Starting pay according to age and experience. Five-day week. Three-and-a-half weeks' annual leave initially. Prospects of promotion with salaries rising to £1,435 per annum, London. Opportunities for permanent (non-contributory) pensionable posts. Apply, giving details of age, training and experience, to:— E. Bedford, Esq. C.B., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works (A3), Abell House, Room 427, John Islip Street, London, S.W.1. Interviews will be held in London and at Regional Offices where possible. 4115

**NEW TOWN ARCHITECTS**

For young keen architects a few vacancies exist in the Chief Architect's department which will afford unique experience of absorbing work in a rapidly developing New Town.

The commencing salaries are from £815 to £1,140. The appointments carry generous increments and emoluments; work will be available for years ahead and there are excellent prospects of promotion.

Good housing is available in pleasant surroundings, removal expenses are paid, and there is a superannuation scheme under Local Government conditions.

Write at once for an interview, stating age, present appointment and salary, details of qualifications and experience and the names of two referees.

R. F. BROOKS GRUNDY, General Manager.

Corby Development Corporation, Spencer House, Corby, Northants. 4418

**HORNCHURCH URBAN DISTRICT COUNCIL ENGINEER AND SURVEYOR'S DEPARTMENT APPOINTMENT OF**

**ARCHITECTURAL ASSISTANT**

Applications are invited for the appointment of Architectural Assistant, Grade A.P.T. IV (£1,140—£1,310) with a plusage equivalent to London weighting. The commencing salary will be fixed according to the ability and experience of the successful candidate.

Housing accommodation will be provided if required.

Candidates for this post should have passed the Final Examination of the R.I.B.A. and in addition to general architectural work, the duties will include work on plans for the redevelopment of the central area of Hornchurch and the erection of a Civic Centre.

Forms of application can be obtained from the undersigned, to whom completed forms should be returned not later than noon on Wednesday, 14th December, 1960.

P. L. COX,

Clerk of the Council.

Council Offices, Billet Lane, Hornchurch. 4419

**BOROUGH OF RAWTENSTALL APPOINTMENT OF JUNIOR ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment at a salary within A.P.T. Grade I (£645 to £815). The starting salary will be fixed according to experience. Housing accommodation available.

Applications with names and addresses of two referees must reach the undersigned by Saturday, 3rd December, 1960. Any relationship to members or senior Officers of the Council must be disclosed. Canvassing disqualifies.

COLIN CAMPBELL,

Town Clerk.

Town Hall, RAWTENSTALL, Rossendale, Lancs. 14th November, 1960. 4410

**BASILDON DEVELOPMENT CORPORATION DEPARTMENT OF ARCHITECTURE AND PLANNING**

(i) ARCHITECTS required by Chief Architect/Planner to form groups engaged on the comprehensive design of major Town Centre, Industrial and Housing Development. The Town is less than half way towards its ultimate development as The largest New Town, and excellent opportunity exists.

Appointments are available within the range £935 to £1,670 per annum.

(ii) ARCHITECTURAL ASSISTANTS, up to intermediate standard and DRAUGHTSMEN are required to support the groups, in appointments within the range £645 to £935.

Posts are superannuable and a house or flat can be provided.

Please reply immediately to the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, stating age, training, qualifications, experience and salary required. 4409

**BOROUGH OF ILFORD BOROUGH ENGINEER'S DEPARTMENT APPOINTMENT OF ARCHITECTURAL DRAUGHTSMAN**

**GRADE MISC. IV (Male or Female)**

Applications are invited for this appointment. Salary £625—£885 (plus London Weighting depending on age and amounting to £40 p.a. if 36 or over). Commencing salary according to qualifications and experience. Maximum paid to suitable applicant. Five day week. Candidates should be competent draughtsmen and be capable of preparing working drawings under supervision. Appointment permanent, superannuable and subject to medical examination.

Form of application obtainable from Borough Engineer, Town Hall, Ilford. Closing date Friday, 9th December, 1960. 4404

**BOROUGH OF WORTHING**

**APPOINTMENT OF ASSISTANT ARCHITECT**

Applications are invited for the appointment of an Assistant Architect in the Borough Engineer's Department on Grade A.P.T. III, i.e., £960—£1,140 per annum, commencing salary according to experience.

Candidates must have passed the Intermediate Examination of the R.I.B.A. or its equivalent at a recognised school of Architecture.

The appointment will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Acts, and to the successful candidate passing satisfactorily a medical examination.

Applications, stating age, qualifications, experience, present and past appointments, with dates, and accompanied by copies of two recent testimonials, should be submitted to the Borough Engineer and Surveyor, Town Hall, Worthing, not later than the 5th December, 1960.

ERNEST G. TOWNSEND,

Town Clerk. 4405

**CORPORATION OF THE CITY OF GLASGOW SENIOR ARCHITECT**

Applications are invited for the post of Senior Architect, Salary Scale £1,700 x £25—£1,825, in the Education Section of the Architectural and Planning Department.

This Section of the Department, which is under the control of a Principal Architect, has a large programme of important school projects and the architect appointed will have excellent scope in the field of design and will be responsible for the control of staff. For this reason it is necessary that the successful candidate should be an Associate of the R.I.B.A. and have real design ability, combined with personal qualities of leadership. Preference will be given to candidates with experience in modern school work, some administrative experience and a desire to lead a team of assistant architects.

Housing accommodation to let cannot be made available to the successful applicant but the Corporation would be prepared to consider making an advance for the purchase of a house in the area.

Applications, giving full particulars of age, qualifications, experience, present and past appointments, etc., should be sent, together with the names of three referees, to A. G. JURY, F.R.I.B.A., City Architect and Director of Planning, 20, Trongate, Glasgow, C.1, within two weeks of the publication of this advertisement. 4385

**COUNTY BOROUGH OF SOUTHAMPTON**

Applications are invited for the appointment of ASSISTANT ARCHITECT, Grade A.P.T. III/IV (£660/£1,310), for duties in connection with housing estate development. Applicants must have passed Parts I and II of the R.I.B.A. Final Examination. Commencing salary according to experience and qualifications. The appointment is subject to the N.J.C. conditions of service, with housing accommodation available in approved cases, and approved removal expenses reimbursable up to a maximum of £50.

Apply on forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, returnable by Monday, 12th December, 1960. 4391



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**ACCRINGTON 'NORI' PAVING BRICKS**

**A vacancy exists on the staff of the Chief Civil Engineer, British Railways, York, for an ASSISTANT QUANTITY SURVEYOR.**

Applicants must have had wide experience in all aspects of quantity surveying on both building and civil engineering works. Knowledge of law of contract and understanding of techniques of cost planning and cost study an advantage. Applicants should be Corporate Members of R.I.C.S. (Quantities).

Salary range £1,050/£1,125.  
Applications in writing, giving age, qualifications, etc., to Chief Civil Engineer, British Railways, North Eastern Region, York. 4382

**FROM URBAN DISTRICT COUNCIL ARCHITECTURAL ASSISTANT**

Applications are invited for the appointment of an Architectural Assistant at a salary in accordance with Grade A.P.T. II (£815 x £30 (4) x £25 (1) to £960).

Applicants must have had good experience in architectural design and construction and preference will be given to those who have passed the Intermediate Examination of the Royal Institute of British Architects. The appointment is subject to the Local Government Superannuation Act, the National Conditions of Service, the passing of a medical examination and will be subject to one month's notice on either side.

Applications, stating present appointment, age, experience and qualifications, together with the names of two referees, must be delivered to the undersigned not later than the 12th December, 1960. Further particulars of the appointment can be obtained on request to the Council's Engineer & Surveyor.

A. W. YOUNG, Clerk of the Council.

Municipal Offices, North Parade, Frome, 15th November, 1960. 4381

**ISLE OF WIGHT COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT**

Applications are invited for the appointment of SENIOR ASSISTANT ARCHITECT. Salary on Grade V A.P.T. (£1,310-£1,480 per annum). Candidates should be Associates of the Royal Institute of British Architects and have had considerable experience of the planning, design and construction of educational buildings and other architectural work undertaken by a Local Authority.

Forms of application obtainable from Clerk of the County Council, County Hall, Newport, I.W. Closing date 16th December, 1960. 4380

**CITY OF PETERBOROUGH**

Applications are invited from qualified Architects with Local Government experience for the appointment of a SENIOR ARCHITECTURAL ASSISTANT in Grade IV, A.P.T. Housing accommodation, if desired, will be provided.

Forms of application from the City Engineer, Town Hall, Peterborough. Closing date for applications 9th December, 1960.

C. PETER CLARKE, Town Clerk.

Town Hall, Peterborough. 4379

**COVENTRY**

£1,470-£1,670 p.a. offered for ARCHITECTS of outstanding design ability required for (a) construction of City Centre and (b) Extensive Schools Building Programme.

Apply to City Architect, Council House, Coventry, for application form returnable by 8th December. 4421

**UNIVERSITY GRANTS COMMITTEE**

University Grants Committee require unestablished ARCHITECTS to work as members of small team engaged on design of university hall of residence. Applicants must be registered Architects, previous office experience desirable but not essential. Salary range: £930-£1,300 (London) p.a. Forms from Ministry of Labour, Technical and Scientific Register (K), 25, King Street, London, S.W.1. Quoting J.309/OA. 4399

**BOROUGH OF CHATHAM APPOINTMENT OF ASSISTANT ARCHITECT**

Applications are invited for the above appointment from professionally qualified and suitably experienced Architects. Commencing salary £1,140, A.P.T. IV.

Applications, with the names and addresses of two referees, should be delivered to Mr. J. A. T. Richards, Borough Engineer and Surveyor, Town Hall, Chatham, not later than Monday, 5th December, 1960.

Housing accommodation will be available in an appropriate case.

The appointment will be (a) in accordance with the National Scheme of Conditions of Service, (b) terminable by one month's notice on either side, and (c) superannuable, subject to satisfactory medical report.

In accordance with their usual practice the Council will require the successful candidate to give an undertaking to remain in the Council's service for two years.

ROWLAND NEWNES, Town Clerk. 4378

**UNIVERSITY OF DURHAM KING'S COLLEGE NEWCASTLE UPON TYNE, 1**

The Council of King's College, in the University of Durham, invite applications for the post of ARCHITECT PLANNER. The person appointed will be required to work under the general direction of the Consulting Architect, who is also the Professor of Architecture, on collecting and analysing information, preparing and presenting a report to the Council, and creating certain design drawings to give effect to an outline Development Plan already drawn up for the University of Newcastle upon Tyne. Suitable supporting staff will be engaged. Candidates must have a recognised qualification of a Professional Body. The appointment will be a whole-time one for a period of three years in the first instance. The starting salary will be fixed, according to the experience and qualifications of the person appointed, on an incremental scale ranging from £1,050 x £50-£1,400 x £75-£1,550 (Bar) x £75-£1,850. The Architect Planner will be required to join the Federated Superannuation System for Universities. Child allowance will be paid.

Further particulars may be obtained from the Registrar, King's College, Newcastle upon Tyne, 1, to whom applications should be submitted not later than Saturday, 10th December, 1960. 4400

**LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT**

ARCHITECTS and BUILDING SURVEYORS required for modernisation of older type Council flats (jobs up to £50,000) and the rehabilitation of dwellings acquired by the Council or for improvements, alterations and extensions to Council buildings (jobs up to £20,000).

Applicants should have experience of this type of work and ability to act on their own judgment. Every opportunity to carry jobs through from beginning to end. Salaries up to £1,250.

Application form, and particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/AJ 2971/11), County Hall, S.E.1. 4318

**LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT**

NEW AND EXPANDING TOWNS SECTION Qualified ARCHITECT PLANNER (salary scale £1,500-£1,700 a year) required for work on expanding towns in Hampshire and other counties. A post of responsibility requiring imagination and initiative for work on master plans, residential and central area design.

The New and Expanding Towns Section is a compact, inter-professional group at present principally engaged on schemes for Andover, Basingstoke and Tadley. Responsibilities will include construction as well as design.

Application form and particulars, returnable by 6th December, 1960, from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/AJ 2970/11), County Hall, S.E.1. 4317

**AUSTRALIA GOVERNMENT OF QUEENSLAND VACANCIES FOR ARCHITECTS AND QUANTITY SURVEYORS**

Applications, closing 31st December, 1960, are invited for appointment to the following positions in the Department of Public Works, in Queensland—age limit 45 years.

SENIOR ARCHITECT (GENERAL)—Minimum £A2,610; maximum £A2,690.

SENIOR ARCHITECT (DESIGN)—Minimum £A2,610; maximum £A2,680.

ARCHITECT, DIVISION I (GENERAL)—Minimum £A2,355; maximum £A2,430.

ARCHITECT, DIVISION I (DESIGN)—Minimum £A2,355; maximum £A2,430.

STRUCTURAL DESIGNER—Minimum £A2,355; maximum £A2,430.

ARCHITECT, DIVISION II—Minimum £A1,875; maximum £A2,055.

ARCHITECT, DIVISION III—Minimum £A1,505; maximum £A1,905.

QUANTITY SURVEYOR, DIVISION I—Minimum £A2,230; maximum £A2,305.

Application form and further details may be obtained from the Agent-General for Queensland, 409, 410, Strand, London, W.C.2. 6346

**BOROUGH OF WREXHAM ENGINEER & SURVEYOR'S DEPARTMENT**

Applications are invited for the following appointment:— ASSISTANT ARCHITECT—Salary in the range of A.P.T. Grade III (£960-£1,140 per annum).

Candidates should have passed the Parts 1 and 2 of the R.I.B.A. examinations or equivalent. Casual car allowance will be paid on the instructions of the Borough Surveyor, and the Council will consider the payment of removal expenses.

Housing accommodation is available if required. Form of application and particulars of duties and works in hand are obtainable from the Borough Surveyor, 31, Chester Street, Wrexham. Applications to be returned to the undersigned by not later than 12 noon on 10th December, 1960.

PHILIP J. WALTERS, Town Clerk.

Guildhall, Wrexham, 12th November, 1960. 4392

**BOROUGH OF ENFIELD BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT**

Non-County Borough in the County of Middlesex. Population 109,700. Area 12,425 acres.

Applications are invited, from suitably qualified persons, for the following permanent appointments:—

1. ASSISTANT ARCHITECT—A.P.T. IV—£1,140-£1,310 plus London weighting.

2. ARCHITECTURAL ASSISTANTS (TWO)—A.P.T. III—£960-£1,140 plus London weighting.

The commencing salary will be fixed at points within the scale commensurate with qualifications and experience.

There is a large varied programme of work, including the redevelopment of Clearance Areas and other areas scheduled for Comprehensive Development.

Housing accommodation may be made available in appropriate cases. The Council is also prepared to consider 100 per cent. advances to successful applicants for house purchase within the Borough.

Saturday mornings are normally free from duty. Application forms, obtainable from H. D. Peake, M.Sc. (Eng.), M.I.C.E., Borough Engineer and Surveyor, 7, Little Park Gardens, Enfield, Middlesex, must be delivered to the undersigned as soon as possible.

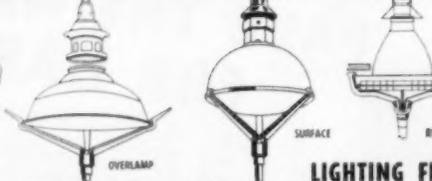
CYRIL E. R. PLATTEN, Town Clerk.

Public Offices, Gentleman's Row, Enfield, Middx. 4348

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**METROPOLITAN BOROUGH OF GREENWICH**

**APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT**  
 Applications are invited from suitably qualified persons with experience of multi-storey building, for appointment in the Borough Engineer and Surveyor's Department. Salary Grade A.P.T. III IV (£980-£1,355 per annum, including London weighting at age 26 or above). The commencing salary will be according to qualifications and experience.  
 The successful candidate will be given opportunities for designing schemes and bringing them through to completion, as part of a varied and imaginative building programme in historic Greenwich.  
 Application form obtainable from the undersigned and returnable by noon on Thursday, 1st December, 1960.

G. C. TURK,  
*Town Clerk.*

Town Hall,  
 Greenwich, S.E.10,  
 November, 1960. 4402

**COUNTY BOROUGH OF BLACKPOOL SURVEYOR'S DEPT.**

Applications are invited from ARCHITECTS and QUANTITY SURVEYORS of enthusiasm and a capacity for hard work, to work in the Architects' Section of this Department (Chief Assistant-Architectural Services-A. G. Beckett, A.R.I.B.A., Dip. T.P., A.M.T.P.I.) on an interesting and varied programme of buildings.  
 A five-day week is worked.  
 Vacancies exist for:-

ASSISTANT ARCHITECTS, A.P.T. Special, £940-£1,145.

ARCHITECTURAL ASSISTANTS, A.P.T. II, £815-£960.

ARCHITECTURAL ASSISTANTS, A.P.T. I, £645-£815.

SENIOR ASSISTANT QUANTITY SURVEYORS, A.P.T. Special, £940-£1,145.

Application forms from Arthur Hamilton, B.Sc., A.R.I.B.A., Borough Surveyor, P.O. Box 17, Municipal Buildings, Blackpool. 4141

**AIR MINISTRY Works Designs Branch** requires in LONDON and PROVINCES ARCHITECTURAL ASSISTANTS with adequate training and drawing office exp. 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 £805 (age 25) to £980 p.a., somewhat lower in PROVINCES. Commencing salary dependent on age, quals. and exp. Applicants, who must be natural born British subjects, should write (quoting Order No. Kings Cross 897) to Air Ministry, W.G.1, Lacon House, Theobalds Road, London, W.C.1, or to any Employment Exchange giving age, details of training, quals., full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed. 3608

**COUNTY BOROUGH OF EAST HAM**

**SENIOR ASSISTANT PLANNING OFFICER**  
 GRADE A.P.T. II (£815-£960)

Vacancy in Borough Engineer's Department. London weighting paid in addition. Salary above minimum paid according to qualifications and experience.

A subsistence allowance may be paid over a reasonable period to person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Details and application form (to be returned within seven days) from the Town Clerk, E.6.

**COVENTRY**

Applications are invited for Planning Division posts:-

(a) **AREA PLANNING OFFICER**, Special Grade (£840-£1,145 p.a.) or A.P.T. IV (£1,140-£1,310 p.a.) according to qualifications/experience.

(b) **PLANNING CONTROL ASSISTANTS**, A.P.T. II (£815-£960 p.a.).

Interesting varied work with responsibility for development control and enforcement work and preparation of appeal evidence for one of three Area Divisions in the City, with close liaison with Development Plan and Suburban Areas Groups.

Permanent and pensionable subject to satisfactory medical certificate. Housing accommodation in approved cases. Removal expenses loan available. Five-day working week. Canteen facilities.

Application forms from Department of Architecture and Planning, Council House, East Street, returnable 10 days publication. 4345

**NATIONAL COAL BOARD**

**OPPORTUNITY FOR ARCHITECTS**

There is a vacancy in the Divisional Architect's Office, National Coal Board, Northern (N. & C.) Division, Whitley Road, Longbenton, Newcastle upon Tyne, 12, for a qualified ARCHITECT to work on an interesting and varied programme. Salary within present scale of £815 + £30-£1,125 or £1,125 + £40-£1,475 p.a. depending upon qualifications and experience.

Applications, giving date of birth and full details of education, qualifications and experience, to Staff Department at the above address by 2nd December, 1960. Please quote A/3. 4398

**BOROUGH OF OLDBURY**

Applications are invited for the following appointments on the staff of the Borough Surveyor's Department:

**ARCHITECTURAL ASSISTANTS**, Salary A.P.T. II (£815-£960 per annum).

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 appointments will be supernumerary subject to the National Conditions of Service and to the selected candidates 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 30th November, 1960.

KENNETH PEARCE,  
*Town Clerk.*

Municipal Buildings,  
 Oldbury, 4316

**BOROUGH OF TWICKENHAM**

Applications are invited for the following posts:-

(a) **SENIOR ASSISTANT ENGINEER** (A.P.T. IV, £1,140-£1,310).

(b) **ASSISTANT ARCHITECT** (A.P.T. II, £815-£960).

(c) **JUNIOR ASSISTANT ENGINEER** (A.P.T. I, £645-£815).

(d) **PLANNING ASSISTANT** (A.P.T. III, £590-£1,140).

Post (a) must have passed the Final; (b) and (c) the Intermediate Examinations of the appropriate technical institute, and (d) commencing salary in accordance with qualifications and experience. All plus London weighting allowance. Five-day week. Application forms obtainable from Borough Engineer, Municipal Offices, Twickenham, to be returned by 5th December, 1960.

W. H. JONES,  
*Town Clerk.*

4401

**CUMBERLAND COUNTY COUNCIL**

Applications are invited for the appointment of **SENIOR ASSISTANT QUANTITY SURVEYOR** in the County Architect's Department. Salary within A.P.T. Grade IV (£1,140-£1,310). N.J.C. Service Conditions. Post pensionable. Subject to medical examination. Essential User Grade D travelling allowance.

Applicants must be A.R.I.C.S. (Quantities), or equivalent qualification, preferably with experience on new school buildings.

Applications, on forms obtainable from H. R. Clark, L.R.I.B.A., Acting County Architect, 15, Portland Square, Carlisle, to be returned to him not later than Monday, 19th December, 1960.

G. N. C. SWIFT,  
*Clerk of the County Council.*

4389

**Architectural Appointments Vacant**

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

**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. 2560

**ARCHITECTURAL ASSISTANT** required in busy City Office. Assistants should be capable of carrying through schemes from sketch stage to final construction. Mainly office and residential buildings in London area. Varied and interesting projects. Long term engagement to right person. £1,500 per annum plus luncheon vouchers. Five-day week. Applicants must be capable of producing sketch schemes on contemporary buildings, and preparing working drawings. Box 4228.

**BASIL SPENCE & PARTNERS** require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 48, Queen Anne Street, W.1, stating experience and salary required. 9824

**WEST END OFFICE** requires ASSISTANT ARCHITECTS of Final and Intermediate standards for interesting industrial projects in Home Counties. Good salaries offered to men with initiative and ability. Bonus Scheme. Five-day week, holiday arrangements honoured. Box 2039.

**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 910, c/o 7 Coddle Street, W.C.1. 8815

**ELIE MAYORCAS** requires ARCHITECTURAL ASSISTANTS with a minimum of three years' office experience in this country. Write, giving brief particulars of architectural education and experience, and salary required, to 13, David Mews, Baker Street, W.1. 3293

**ARCHITECTURAL ASSISTANT** required for City Office. Qualifications unnecessary, but experience in the preparation of working drawings essential. Salary £1,000 per annum plus luncheon vouchers. Five-day week. Box 4229.

**SENIOR ASSISTANT** required by Hasker & Hall, L.F.R.I.B.A., in their office in Warwickshire. Good salary, with scope for initiative and responsibility. Write Longdon House, High Street, Knowle, or telephone Knowle (Birmingham) 3562. 414

**£1,000** £2,000 p.a. will be paid to experienced competent 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.

**£850-£1,400.** ARCHITECTS 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, 63, Kingsway, W.C.2. HOLBORN 4071. 2186

**MONRO AND PARTNERS** require ARCHITECTURAL ASSISTANTS of Intermediate/Final R.I.B.A. standard in their London, Watford, and Glasgow Offices for work on interesting industrial and commercial projects. Salaries ranging from £1,000 to £1,500 per annum. Luncheon vouchers. Pension and Medical schemes (non-contributory). Telephone LANGHAM 3825 for appointment. 2113

**SIR JOHN BURNET, TAIT & PARTNERS** have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries ranging from £1,000 to £1,500 per annum. Luncheon vouchers. Pension and Medical schemes (non-contributory). Telephone LANGHAM 3825 for appointment. 2113

**ARCHITECTURAL ASSISTANT** required, with at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 20, Bedford Square, London, W.C.1. 7282

**SIR GILES SCOTT, SON & PARTNER** require ARCHITECTURAL ASSISTANT, qualified or unqualified, with practical experience. Interesting and varied practice. Salary up to £1,000 plus luncheon vouchers. Write 9, Gray's Inn Square, W.C.1, or telephone CHANCERY 8387/8. 2469

**BRYAN & NORMAN WESTWOOD & PARTNERS** require Senior and Junior ASSISTANT ARCHITECTS. Please apply to 21 Suffolk Street, London, S.W.1. Trafalgar 4411. 4108

**SCHERRER AND HICKS**, 60 Spring Gardens, Manchester, 2, require an Intermediate ASSISTANT with some office experience for interesting work on school projects. Five-day week, L.V.'s and bonus scheme. 4112

**SENIOR ASSISTANTS** required immediately. Salary by arrangement. Theo H. Birks, 30, Portland Place, London, W.1. LAN 7236. 1486

**SIR GILES SCOTT, SON & PARTNER** require SENIOR ASSISTANT with good general experience in practical supervision of work and also in administration. Varied work including schools, hotels, churches, office buildings, municipal buildings, etc. Five-day week, luncheon vouchers, and salary in accordance with experience. Please apply in writing to 9, Gray's Inn Square, London, W.C.1. 2710

**ASSISTANT ARCHITECTS** required for staffing 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

**WILLIAM H. ROBBINS, A.R.I.B.A.**, requires ARCHITECTURAL ASSISTANTS of Final and Intermediate standard for interesting work in expanding office. Applicants should be experienced in design and construction and taking responsibility. Excellent opportunity of advancement, salary range from £750 to £1,400 per annum according to experience. Five-day week. Apply to 77 Wigmore Street, London, W.1. WELBECK 0274/5. 3841

**FARMER AND DARK** require ASSISTANT ARCHITECTS with some office experience, initiative and ability. Varied work. Apply Romney House, Tufton Street, S.W.1. Tel. Abbey 6311. 4163

**INTERMEDIATE standard ARCHITECTURAL ASSISTANTS** required in busy provincial practice for permanent positions with interesting work in modern offices. Five-day week. Apply J. W. Hammond, Chartered Architects, Lords Bank Chambers, Gidea Park, Romford, Essex. 3952

**DOUGLAS J. OLIVER & PARTNERS** require ARCHITECTS in their Rugby Office. Salaries £1,000-£1,500 per annum for qualified Architects according to ability and experience. Salaries reviewed annually. Office Superannuation Scheme in operation. Apply to Douglas J. Oliver, F.R.I.B.A., 10 St. Matthew's Street, Rugby. Telephone No. Rugby 4452. 4075

**L**ONDON Architect prepared to pay up to £1,000 per annum for competent **JUNIOR ARCHITECTURAL ASSISTANTS**. Write stating age, experience and salary required to Box 4195.

**L**ARGE Development Company Architects' Department requires two **SMALL ASSISTANTS** to work in impossibly overcrowded office, on buildings varying from £350,000 office blocks to small housing, including industrial and commercial buildings of all types. Salary £200-£1,200. Write or phone G. W. Mills, A.R.I.B.A., Staff Architect, Ronald Lyon Estates Co. Ltd., Lyon House, Lyon Road, Hersham, Surrey. Tel. Walton on Thames 26311. 4063

**Y**OUNG qualified **ARCHITECTURAL ASSISTANT** required in old established practice in expanding South Eastern town. Salary according to experience. Box 4071.

**C**APABLE qualified **ASSISTANT ARCHITECT** required January or before by young partners with varied expanding practice. Should be confident, able to control contracts and staff. Age about 30-35. Salary up to £1,250 for right man. Write stating qualifications, experience, age and salary required, marking envelope "Staff confidential," Silverton & Welton, A.R.I.B.A., Dip. Arch., 16 Weston Road, Southend-on-Sea, Essex. 4170

**S**CHERRER AND HICKS, 19 Cavendish Square, W.1, require immediately **ASSISTANTS** of Intermediate to Final standard. Good opportunities for men with experience and initiative. Salary range £700 to £1,100. 4095

**R**IGHT men for small varied practice (e.g. patio housing, industrial and office building, shops and interiors) gain responsibility, reward and opportunity in congenial conditions with **MICHAEL LAIRD**, 22, Moray Place, £1,000-£1,300 p.a. on commencement. 4209

**ARCHITECTURAL ASSISTANTS**, qualified, A required. Salary £800-£1,250 per annum according to experience. Glasgow Office. Five-day week. Schools, Offices, Redevelopment, etc. State experience. D. Harvey & A. Scott, 2, Lynedoch Place, Glasgow, C.3. Tel. No. Douglas 8388. 4047

**H**OWARD 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

**B**OOTH, LEDEBOER AND PINCKHEARD 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

**I**NTERMEDIATE to Final **ASSISTANTS** required immediately. Salary according to ability and experience. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7236. 9739

**R**ICHARD SHEPPARD, ROBSON & PARTNERS require **ASSISTANTS** of Intermediate and Final standard; salary range £750-£1,000 according to ability. 5 Southampton Place, W.C.1. CHANCery 4261. 3592

**B**IGGINS AND ASSOCIATES invite you, if you have an eye to the future, to write to Richmond House, Brompton, Chester. 3977

**L**OUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON & FRASER require competent **ASSISTANTS**, both senior and junior, for appointments in their Exeter and Plymouth Offices; good salaries will be offered to suitable applicants. Applications, giving details of age, training and experience, should be sent to 12, Baring Crescent, Exeter. 3975

**A**SSISTANT **ARCHITECT** required by Haaker & Hall, for responsible position in their London Office, 13, Welbeck Street, W.1 (WBL 0061). 3756

**E**STABLISHED practice, shortly moving into larger premises, requires **ASSISTANT ARCHITECTS** to assist in expansion. Salary, bonus and pension in excess of £1,100. Housing accommodation. Box 4128.

**W**ALLIS GILBERT and PARTNERS ALSO NEED STAFF URGENTLY. 5, Cromwell Road, S.W.7 KENSington 1450. 3814

**E**RNO GOLDFINGER requires **ASSISTANTS** with sound knowledge of construction. Expanding programme of work includes office buildings, schools, shops, factories, local authority and private housing. Local Authority Rates. Telephone: HYDe Park 5657. 4129

**S**ENIOR **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

**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.

**ARCHITECTURAL STAFF** required for Eastbourne and Hastings Offices. Good salaries and prospects according to experience and ability. Apply to B. Stevens and Partners, 31, Cornfield Road, Eastbourne. 4289

**S**ENIOR **ASSISTANT** required of Intermediate/Final standard. Sound training, experience private practice. Accommodation difficult, single man therefore preferred. Busy private practice, Jersey, Channel Islands. Apply stating salary required, when free, etc., to Box 4142.

**W**ELLS, HICKMAN & PARTNERS require **ARCHITECTURAL ASSISTANTS**. Salaries £700 to £1,000 according to ability and experience. Please ring TERminus 1404 for appointment. 4154

**E**XPERIENCED **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. 3743

**C**LIFFORD CULPIN & PARTNERS, who have a wide variety of interesting work, require two experienced **ASSISTANTS** in their London Office. Must be capable of taking initiative and responsibility. Write giving brief particulars to 39 Doughty Street, W.C.1. CHANCery 5395. 4125

**£1,200, PLUS** profit sharing, PLUS pension scheme, PLUS housing accommodation or car, PLUS hard work in expanding office, South Yorkshire, for keen and energetic young **ARCHITECT** with good personality. Box 4127.

**T**HERE 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 4130 or telephone MAYfair 3112.

**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.

**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

**S**TAFF Architect requires **SENIOR DEPUTY**. Vacancy exists in an expanding department for a qualified Architect to act as Deputy to Chief who would like a young and go-ahead Assistant to take charge of present medium size contracts. Idea is to build up an enlightened design team to cope with bigger work. Five-day week. Salary up to £1,150 p.a. Please apply Box 4270.

**ARCHITECTS AND PLANNERS** required. Large City Development Area, University work, Schools, etc. D. Harvey & A. Scott, 2, Lynedoch Place, Glasgow, C.3. Tel. No. Douglas 8388. 4287

**E**RIC G. V. HIVES AND SONS require **ARCHITECTURAL ASSISTANTS** of Intermediate/Final R.I.B.A. standard in their London, Reading and Derby Offices for varied work of contemporary nature. Good salaries. Apply in writing to 46, Queen's Road, Reading. 4269

**£1,000 TO £1,500**, or higher cases. Intermediate and Final **ASSISTANTS** and **ARCHITECTS** required at all levels on a variety of interesting projects at home and overseas in large progressive Office, which, owing to size, offers outstanding opportunities for advancement, both at home and abroad. Excellent working conditions, five-day week, three weeks' annual leave, luncheon vouchers, bonus scheme and generous sick pay provision. Write or telephone, Norman & Dawbarn, Architects & Consulting Engineers, 7, Portland Place, London, W.1. LANGham 8011. 4292

**A**SSISTANT required for small, busy country practice in isolated part of East Anglia. Applicant should be thoroughly experienced in housing and agricultural buildings, particularly modern grain stores. Work mainly on drawing board but ability to write specifications, meet clients and supervise work in progress, essential. House available. Full details of age, qualifications, experience, salary expected, to Box 4283.

**S**MALL progressive office requires good **ASSISTANT**. Intermediate to Final standard. Capable of carrying work from start to finish. Norris & Stanton, Architects, 2, Augustus Road, Edgbaston, Birmingham, 15. 4299

**S**OUTHAMPTON. Senior and Junior **ARCHITECTURAL ASSISTANTS** required for interesting contracts in the Southern Counties. Apply with details of experience and salary required to E. M. Galloway & Partners, F.I.A.R.I.B.A., 10 Portland Street, Southampton. 3665

**A**SSISTANT with several years' office experience and accustomed to preparing working drawings from sketches, required immediately by West End Architects. Should be interested in supervising the work and have a sound knowledge of construction. Write for interview to Box 3557.

**L**ETCHWORTH  
Would anybody like to change the grime of the town for the freshness of the First Garden City? **ASSISTANT** required for small general expanding practice. Five-day week in pleasant office. Please write, stating age, experience and salary required, to William E. Barnes, F.R.I.B.A., St. Margarets, Broadway, Letchworth, Herts. 4232

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**A**SSISTANTS of Final and post Intermediate standard required immediately to fill responsible positions in expanding practice. Applicants must be competent draughtsmen with sound knowledge of construction and detailing, with keen interest in good design. Details of experience and ability, and salary required, to: Felix Walter, F.R.I.B.A., 4, Raymond Buildings, Gray's Inn, London, W.C.1, or telephone HOLBURN 9535. 4247

**A**RGHITECTURAL ASSISTANTS required. Intermediate standard capable of preparing working drawings from preliminary sketch plans. Interesting Hospital and Laboratory work. Salary according to experience. Five-day week, luncheon vouchers. Write Box 4243.

**A**SSISTANT ARCHITECT required. Final or near Final standard, car driver, capable of works from sketch plan to completion. Commencing salary £800 to £1,000 according to experience. Good prospects. Particulars to D. B. Lawrence, A.R.I.B.A., 59a, Southgate, Sleaford. 4294

**A**RGHITECTURAL ASSISTANT required by established firm of Surveyors in Romford. Should have passed Intermediate E.I.B.A. and had good experience of multi-storey flat development, shops and offices. Superannuation scheme. Write Box 4223, stating details and salary required.

**T**WO first class ARCHITECTURAL ASSISTANTS required. Salary range £1,250-£1,750 p.a. depending upon experience. Write with fullest details of experience. Box 4227.

**W**ATKINS, GRAY & PARTNERS, 57, Catherine Place, S.W.1, require ASSISTANTS of Intermediate and Final standards for work on large hospital projects. Excellent opportunities for those seeking first hand experience in this most interesting and rapidly developing field. Luncheon vouchers and pension scheme in operation. Write giving full particulars. 4233

**£1,800** PER annum offered to experienced ARCHITECTS and ASSISTANTS on short-term appointments for periods up to 18 months. Interesting work on large industrial building projects. Please write, in confidence, giving brief particulars to Box No. 3719, c/o Charles Barker & Sons Limited, Gateway House, London, E.C.4. 4234

**A**RGHITECTS: TWO ASSISTANTS required by West End Architect, Portland Square area. Staff of over 20. Preferably experienced on interior design and good at perspectives. Salary £750 upwards dependent on experience. Ample outdoor duties. Write Box 4260.

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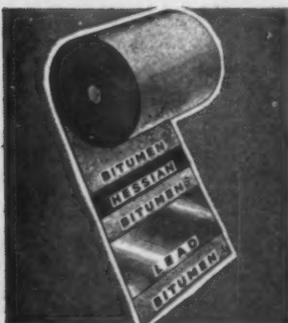
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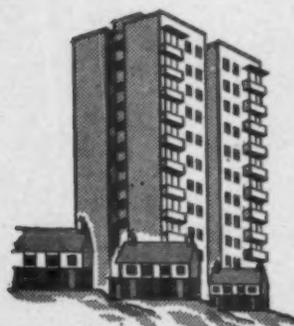
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