ARCHITECT JOURNAL



standard

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AAI

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

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No. 34381

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

Architectural Association, 34/6, Bedford Square, W.C.1.

AAI	Association of Art Institutions. Secy.: J. H. Holden,
	College of Art, Cavendish Street, Manchester 15
ABS	Architects' Benevolent Society. 66, Portland Place, W.1. Langham 5533
ABT	Association of Building Technicians. 156, Waterloo Road, S.E.1. Waterloo 5427/8
ACGB	Arts Council of Great Britain. 4, St. James's Square, S.W.1. Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1. Mayfair 7501/8 Architects' Registration Council. 68, Portland Place, W.1. Langham 5861
ARCUK	Architects' Registration Council. 68, Portland Place, W.1. Langham 5861
BAE	Board of Architectural Education. 66, Portland Place, W.1. Langham 5721
BASA	British Architectural Students Association. Building Centre, 26 Store Street, W.C.1.
BC	Building Centre, 26, Store Street, Tottenham Court Road, W.C.1. Museum 5400
BCC	British Colour Council. 13, Portland Square, W.1. Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5. Ealing 9621 British Cast Iron Research Association. Alvechurch, Birmingham. Redditch 716
BCIRA BDA	British Cast Iron Research Association. Alvechurch, Birmingham. Redditch 716 British Door Association. 10, The Boltons, S.W.10. Fremantle 8494
BE	British Door Association. 10, The Boltons, S.W.10. Fremantle 8494 Building Exhibition. 11, Manchester Square, W.1. Hunter 1951
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2. Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.
	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1. Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1. Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, S.W.1. Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford. Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1. Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1. Mayfair 9000
CABAS	City and Borough Architects Society. C/o S. A. G. Cook, A.R.I.B.A., Borough
	Architect and Director of Housing, Town Hall, High Holborn, W.C.1.
CAS	County Architects' Society C/o I Hurst A B I B A County Hell Dorohester
CAS	County Architects' Society. C/o J. Hurst, A.R.I.B.A., County Hall, Dorchester.
CDA	Conner Development Association. 55 South Audiev Street W. 1. Grossenor 9811
COID	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Belgravia 6661 Copper Development Association. 55 South Audley Street, W.1. Grosvenor 8811 Council of Industrial Design. 28, Haymarket, S.W.1. Trafalgar 8000
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.1. Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1. Sloane 9116
DIA	Design and Industries Association, 13, Suffolk Street, S.W.1. Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House,
	40, Piccadilly, W.1. Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1. Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors,
EDDDO	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 Federation of British Industries. 21, Tothill Street, S.W.1. Whitehall 6711
FBI	Federation of Pritish Industries 21 Totalil Street S W 1 Whitehall 4711
FC	Forestry Commission. 25, Savile Row, W.1. Regent 0221
FCMI	Federation of Coated Macadam Industries 37 Cheeter Square S W 1 Sloans 1002
FDMA	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1. Sloane 1002 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.
00	Monarch 8888
GC GG	Gas Council. 1, Grosvenor Place, S.W.1. Belgravia 4321
HC	Georgian Group. 2, Chester Street, S.W.1. Housing Centre. 13, Suffolk Street, S.W.1. Belgravia 3081 Whitehall 2881
IAAS	Housing Centre. 13, Suffolk Street, S.W.1. Whitehall 2881 Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1
Inno	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
IEB	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.
HIDDID	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 37, Soho Square, W.1. Gerrard 5056
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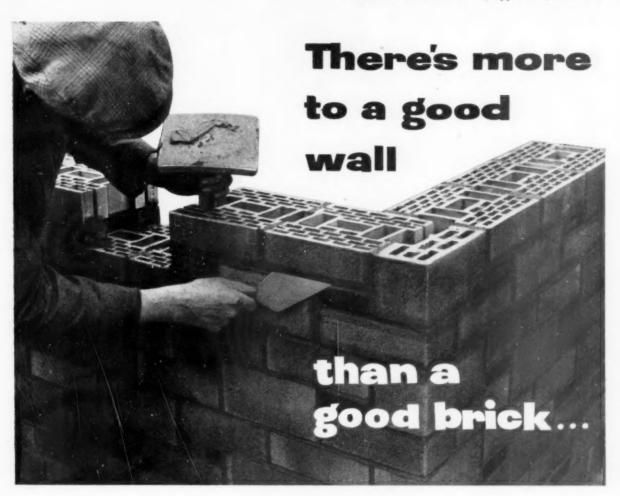
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and that means the mortar - for the strength, stability and watertightness of the wall depends on the type of mortar used. In the soft state, the mortar must be highly plastic so that it spreads with ease and allows the bricks to be cushioned easily into position. It should hold together well and it must also have good water retentivity to prevent the bricks sucking the water out of the mortar too quickly so that the mortar does not stiffen before the bricks are thoroughly bedded and bonded.

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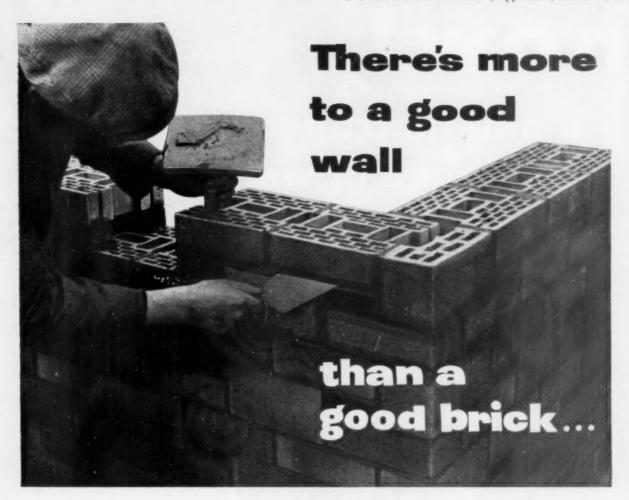
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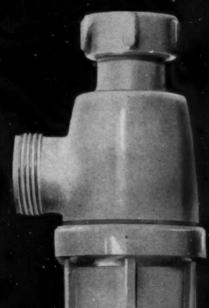
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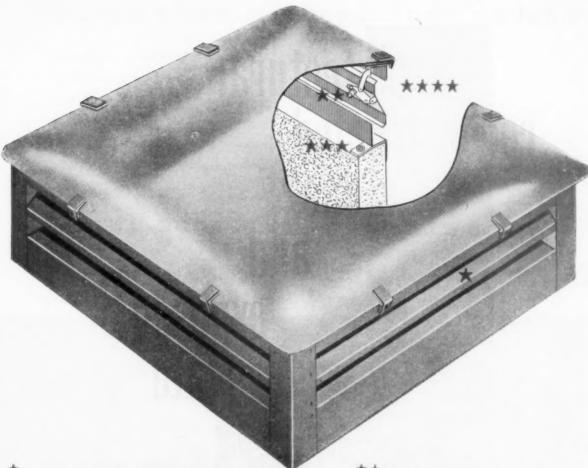
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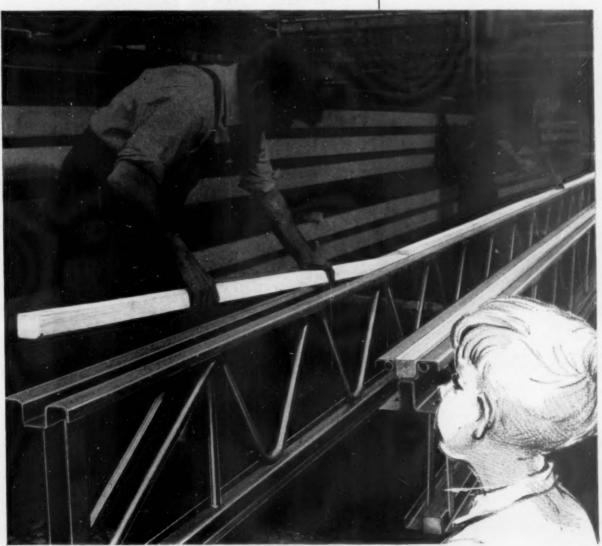
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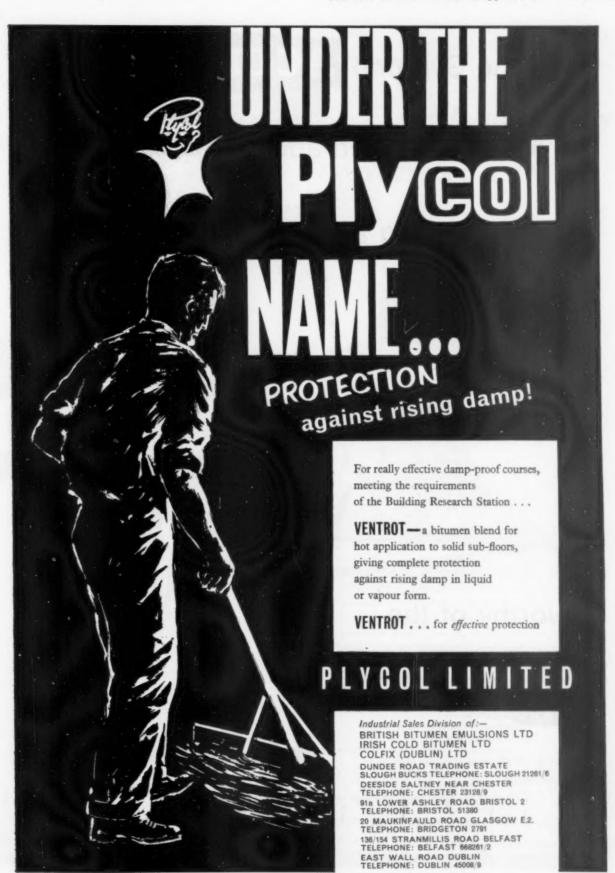
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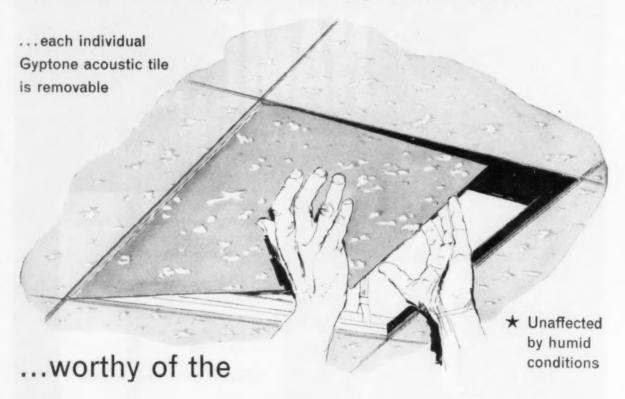


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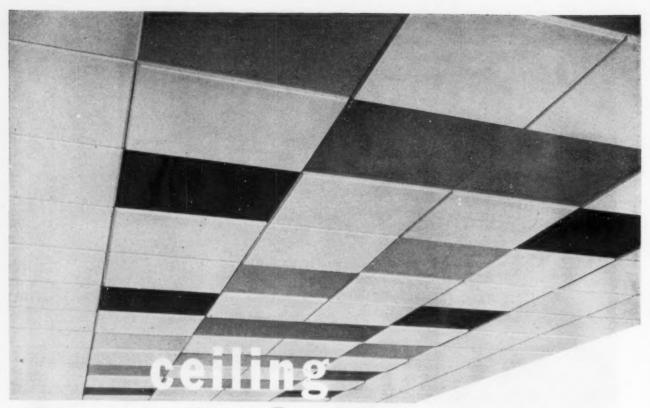
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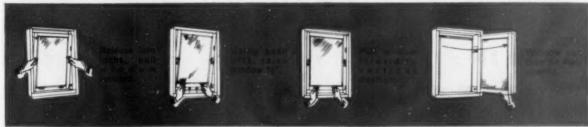
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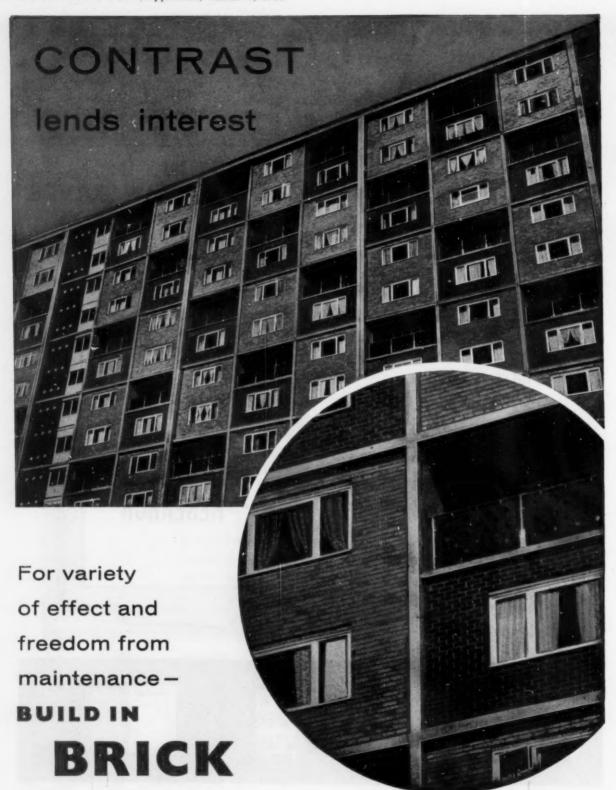


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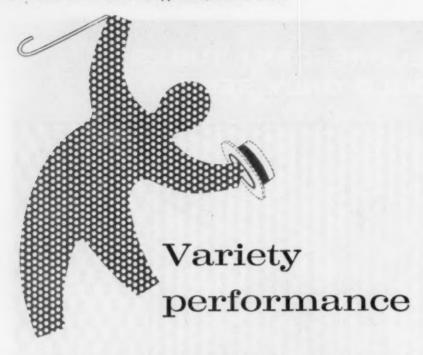
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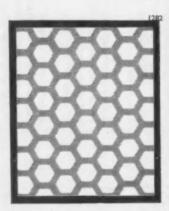


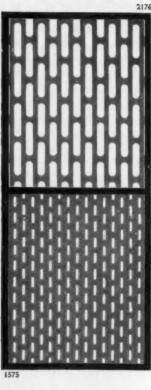
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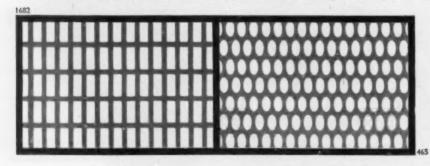


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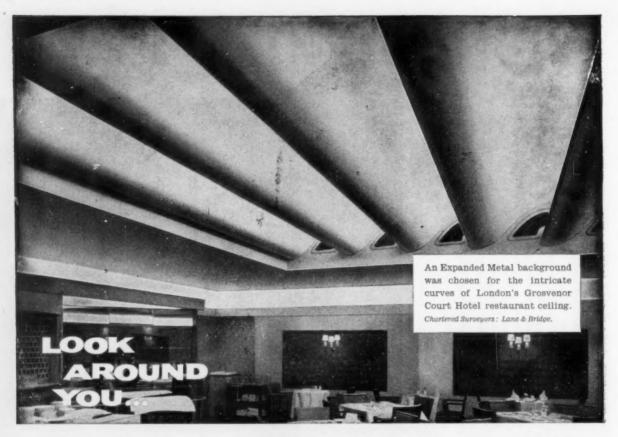
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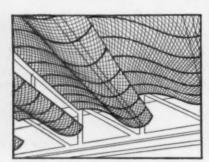
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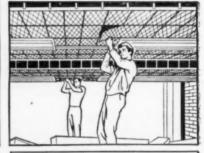
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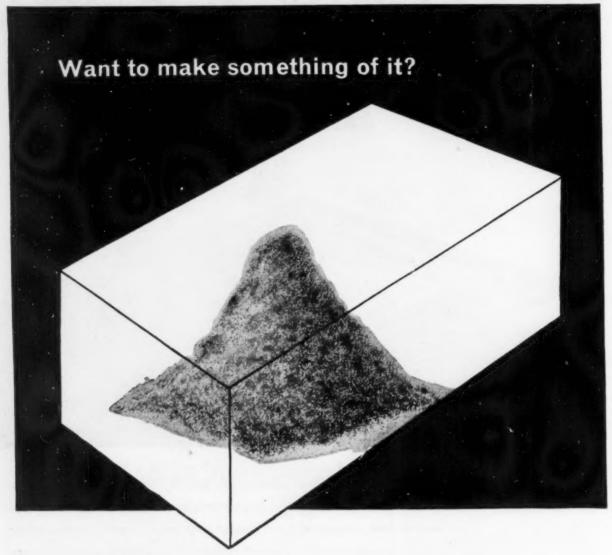
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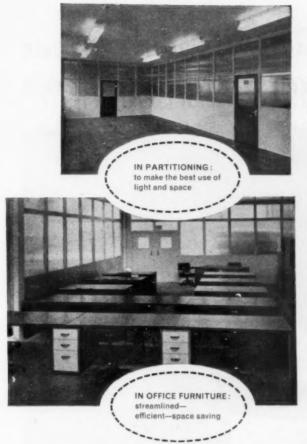
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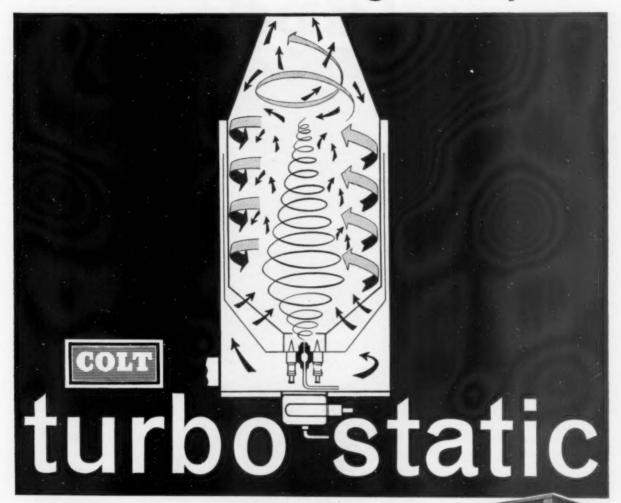
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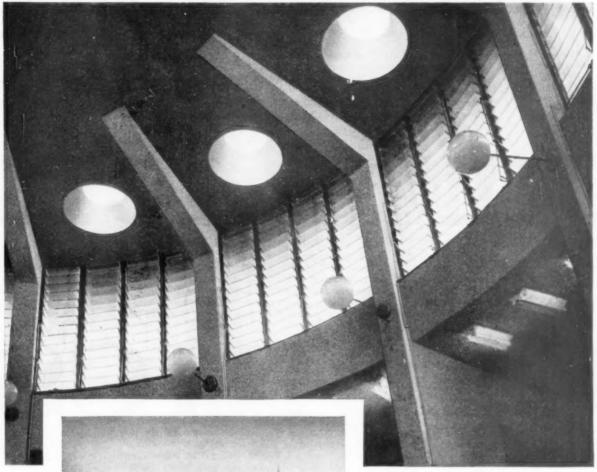
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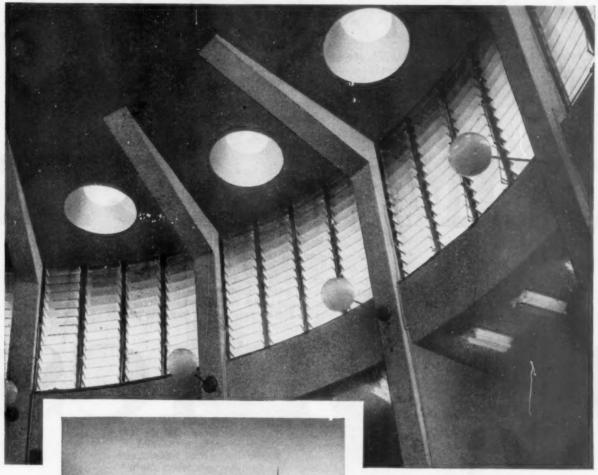
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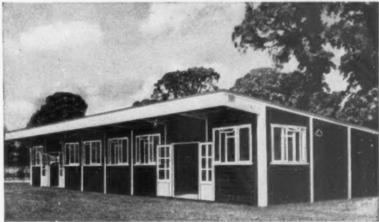
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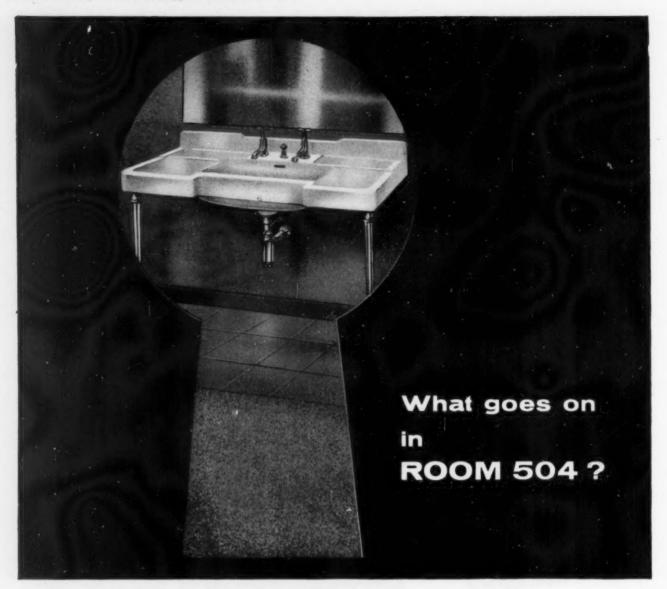
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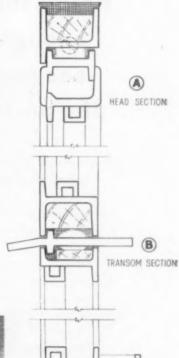
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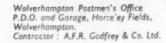
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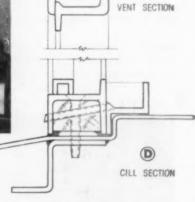
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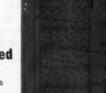
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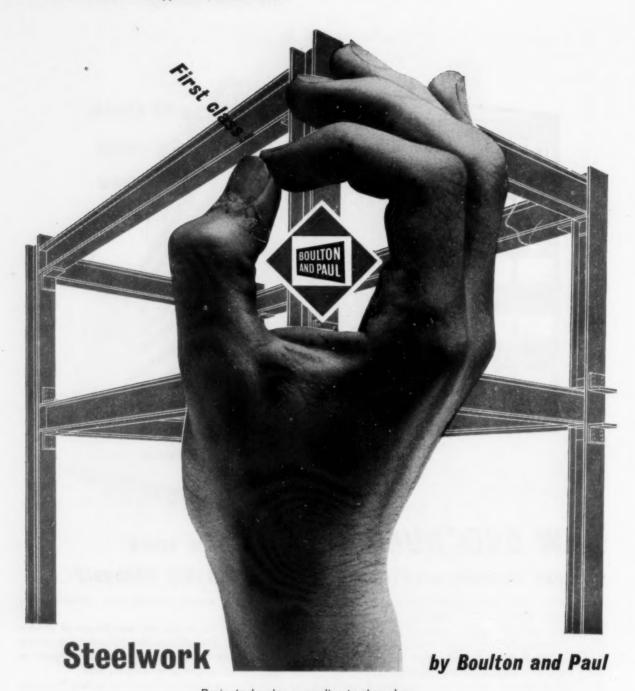
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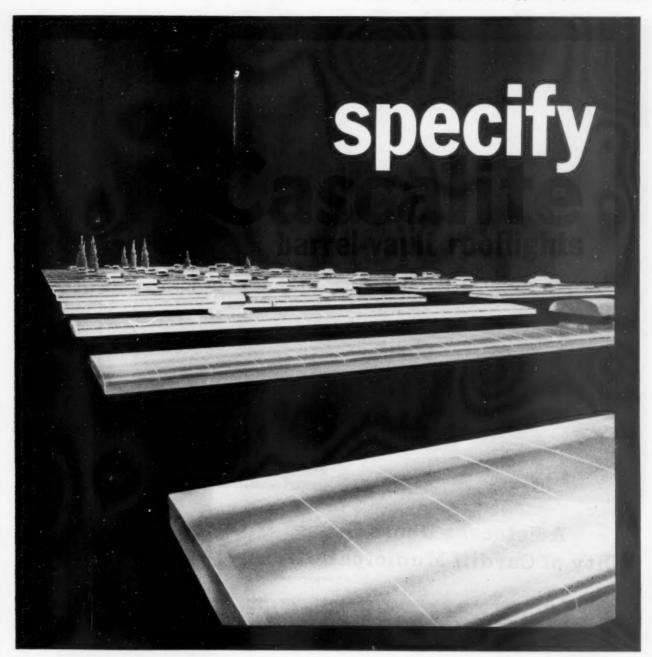
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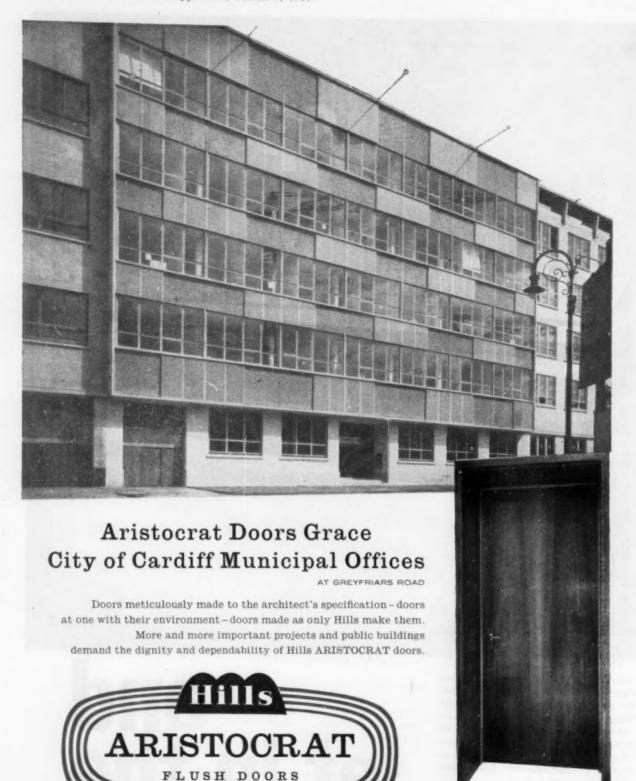
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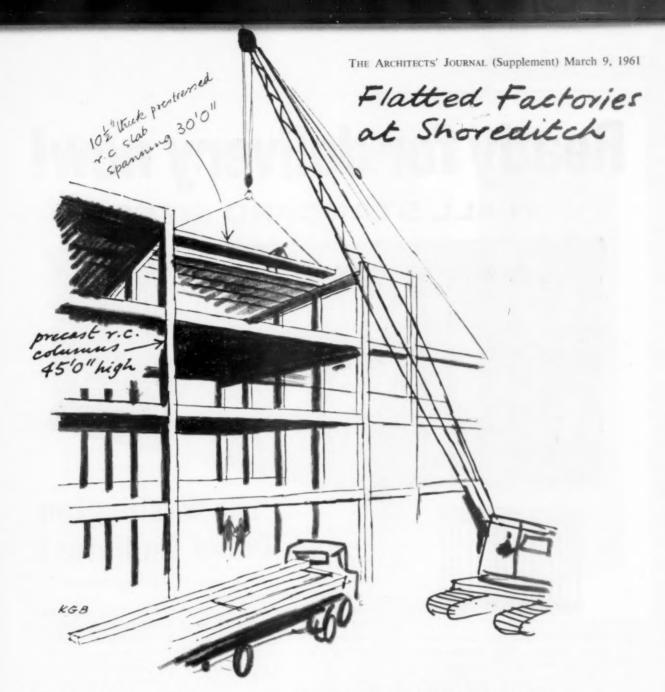
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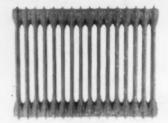
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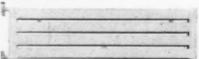
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Lindoco patent factory-hung doorways are highly-efficient fire-barriers which fulfil all Fire-Check requirements as laid down by B.S. 476—1932 and BSS.459, Part III, 1946. Tests by the Department of Scientific and Industrial Research and Fire Offices Committee Joint Research Organisation indicate that the "half-hour type" door also passed for the GRADE "E" fire-resistance.

National Physical Laboratory tests show that the Lindoco Fire-Check door, with its core of solid Stramit, provides better insulation against airborne sound than a solid timber door Official test report forwarded on request.

There's an open-and-shut case for

Hindogo

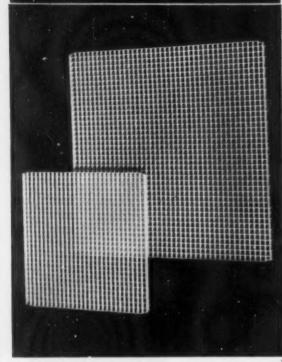
FIRE-CHECK

DOORS

ALSO AVAILABLE: HIGH QUALITY FLUSH DOORS, PANELLED DOORS, GLAZED DOORS, GARAGE DOORS, ETC.

LINDEN DOORS LTD . COWLEY PEACHEY . UXBRIDGE . MIDDLESEX . TELEPHONE: WEST DRAYTON 3751

PARAGRID 24 and 16



"PARAGRID" is now made in both 24 in. and 16 in. square tiles, called "PARAGRID 24" and "PARAGRID 16" respectively.

"PARAGRID 24" allows fewer tiles and suspension points to be used, thus lowering installation costs. It finds its main application in large ceilings.

"PARAGRID 16" provides a more elegant detail where smaller apertures are concerned, or allows a narrow trough of light to be made without cutting the tiles.

The method of suspension is the same in both cases. In "PARAGRID 24" suspension points are on 24" x 24" centres, in "PARAGRID 16" they are on 16" x 32" centres.

A PARAGRID installation in the new Motor Showroom for Messrs. Allens of Bristol. The scheme includes fifty-eight 4 ft. 0 in. square modular areas of PARAGRID Tile each containing four 4 ft. 0 in. colour-matching tubes.



PARAGRID IS ONE OF MANY HARRIS & SHELDON SYSTEMS WHICH ARE SOLVING EVERY TYPE OF LIGHTING PROBLEM.

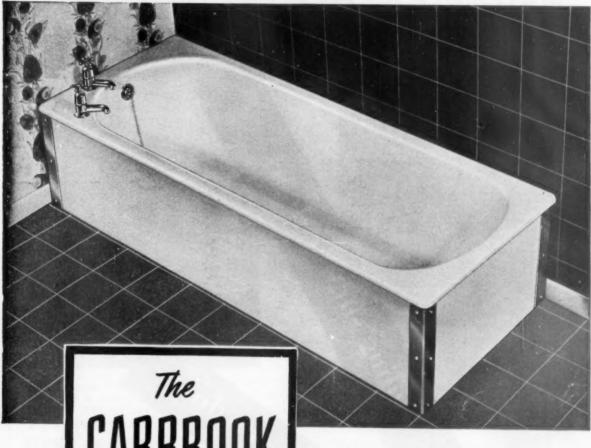


Harris & Sheldon ELECTRICAL

STAFFORD ST BIRMINGHAM CENtral 6272 . 46 GT. MARLBOROUGH ST LONDON WI GERrard 0969



CARRON QUALITY FOR THE SMALLER BATHROOM

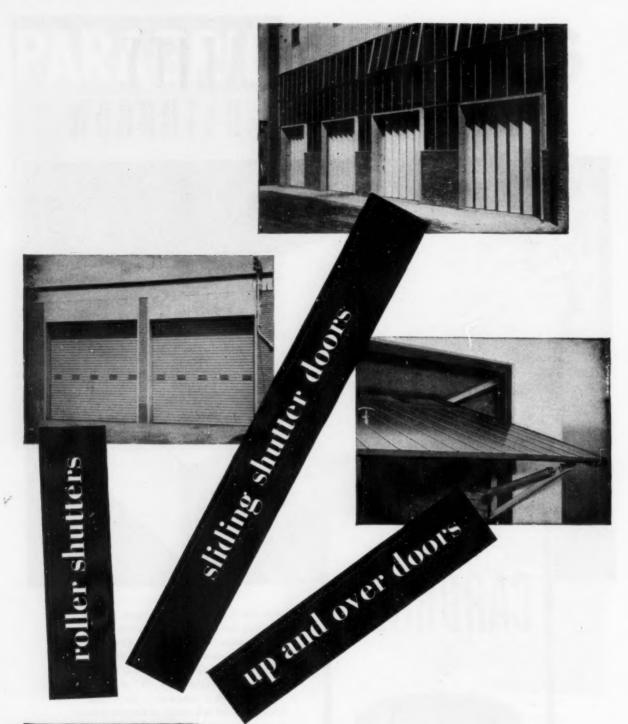


CARRON

Now Carron make a flat bottom bath specially designed for installation in bathrooms of limited size. Corner tap positions are available to facilitate plumbing, and the overall width is limited to 26½" and to lengths of 54", 60" or 66". The Carbrook is moderately priced and finished in the full range of Carron colours, or in white porcelain enamel. Write today for detailed specification sheet.



CARRON COMPANY · CARRON · FALKIRK · STIRLINGSHIRE LONDON OFFICE: 15 UPPER THAMES STREET, E.C.4. CENtral 7581 (4 lines) and at 72-76 Redcross Street, Liverpool, 1. 125 Buchanan Street, Glasgow, C.I. 23 Bath Lane, Newcastle Upon Tyme.



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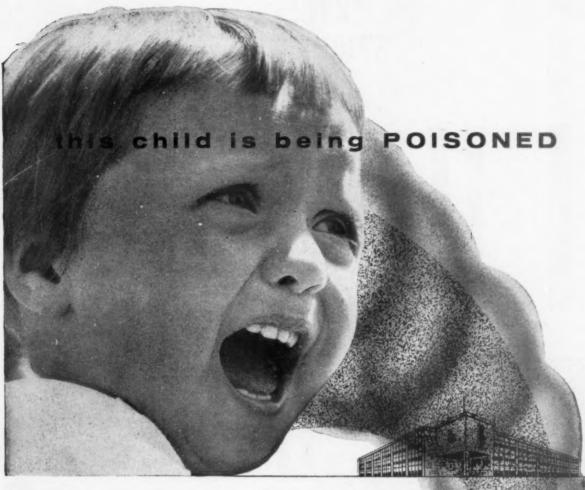
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G. Brady & Company Limited, Manchester 4. Telephone COLlyhurst 2797/8/9 and at London, Birmingham, Glasgow, Montreal, Port Credit, Hong Kong.

BRADY FOR EVERY OPENING: BRADY ROLLING DOORS IN STEEL, WOOD AND ALUMINIUM SILIDING SHUTTER DOORS

GRILLES IN STEEL, ALUMINIUM OR NYLON UP AND OVER DOORS FIREPROOF DOORS COLLAPSIBLE CATES SLIDING DOOR GEAR

RUBBER DOORS ORNAMENTAL IRONWORE ALSO MANUFACTURERS OF BRADY LIFTS.



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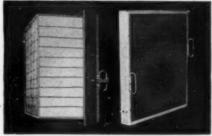
In buildings without filtration or where filtration systems are inefficient, germ laden air still poisons our children. In factories, adults too are subjected to deadly poisons through air pollution.

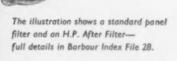
Where Far-Air Filtration has replaced conventional systems, 99.5% filtration efficiency has been obtained. Far-Air filters have a much longer life than conventional systems and annual costs are considerably reduced.

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EXTOL STICK-LIGHTS

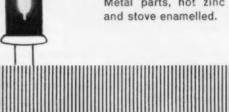
have already been selected as standard units for National Benzole service station forecourts. Now architects and specifying authorities are finding many other applications for them. Economical to run. they commend themselves to car park operators. Slimly attractive, they will grace any hotel, or flat block forecourt. Highly efficient, they are suitable for many street lighting schemes. The list is long. Standard fluorescent tubes provide the illumination and robust construction ensures long service. Please write for full details.

GENERAL SPECIFICATION

TYPE I: two 2ft., 20 watt tubes, 1ft. or 8ft. pole. TYPE II: four 2ft., 40 watt tubes, 8ft. pole.

> TYPE III: four 5ft., 80 watt tubes, 8ft. pole. MARKER LIGHT: two 9 ins., 6 watt tubes. All lamphouses of opalised Perspex.

Metal parts, hot zinc sprayed



EXTOL DESIGN AND UNDERTAKE SPECIAL PURPOSE LIGHTING CONTRACTS



ENGINEERING LIMITED

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THE DESIGN AND MANUFACTURING DIVISION OF THE EXTOL ENGINEERING GROUP

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a magnificent new range

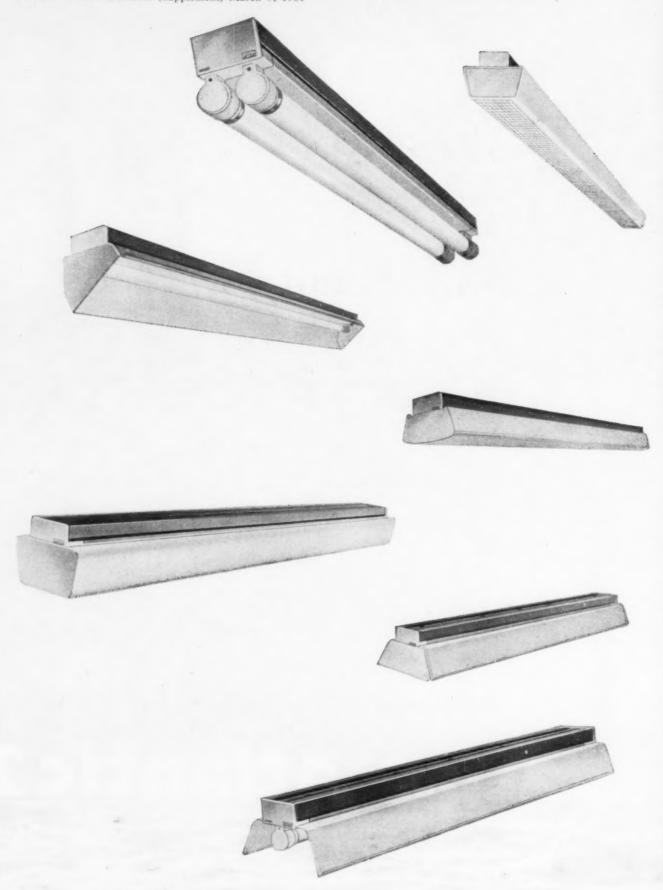
of fluorescent fittings

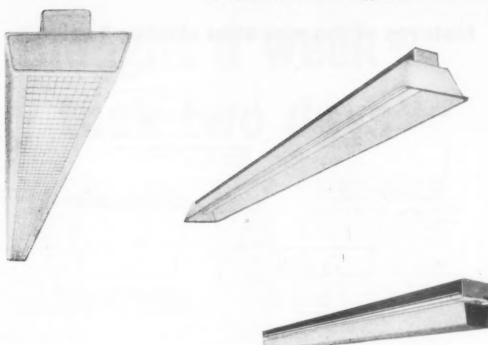
incorporating many new features

in design, finish

and ease of installation

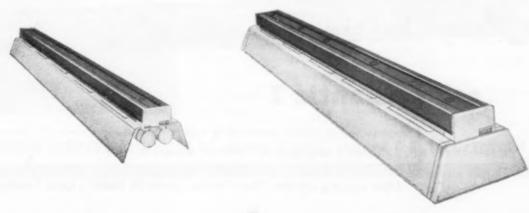
atlas atlantic 2



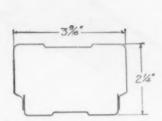


atlas atlantic 2

Here is a new complete family of fluorescent fittings, remarkable for outstanding appearance and a host of features with tremendous appeal on both practical and aesthetic grounds. They are built to the highest quality standards, yet offer surprisingly competitive prices. A unique spine of new slim section provides exceptional ease of installation, simple maintenance and reliability. The flexibility of this range is such that, from the one basic spine using the minimum number of interchangeable components, a wide variety of fluorescent fittings can be created to meet the precise lighting needs of almost any commercial, municipal or industrial premises. Fitting sizes cover 4 ft., 5 ft., and 8 ft., with single or double tubes, a choice of switch—or quickstart control gear, and reflector and diffuser attachments. Included in the range are fittings which accommodate the new Atlas 'Super-8' Circuit. For details of the unique design features of the Atlas Atlantic 2 spine, please see overleaf...

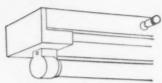


features of the new atlas atlantic 2 spine

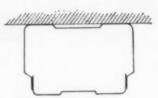


Slimmer section with more pleasing proportions.

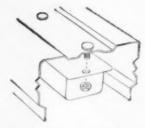
Snap fit terminal block



Starter switches replaceable without dismantling. Fixed voltage gear in-creases reliability.



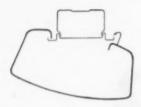
Completely closed back, drip and dust proof. Perfect seating when flush



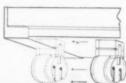
Welded screw studs for easy gear replacement

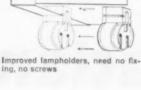


Automatic alignment when mounted in continuous runs. Rugged cast end plates.

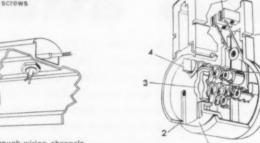


Fast, positive fixing of attachments





Enclosed through-wiring channels (Optional Extra)



- THE NEW LAMPHOLDER
 1 Plunger 2 Pin Guides
 3 Double finger contacts 4 Earth Contact
 5 Terminal connections
 6 Lampholder support slots
 7 Contact springs 8 Lamp Housing



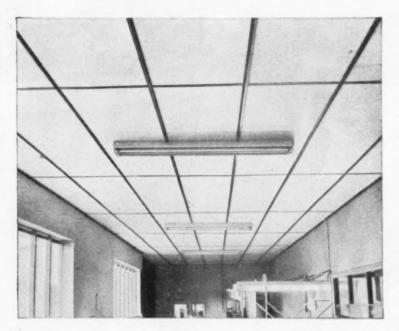
atlas atlantic 2

Single component chassis, pre-wired ready to install. Finest 'Miracryl' finish superior to stove enamels and with advantages over vitreous enamels

Complete details of this outstanding new range can be seen in the Atlas Atlantic 2 catalogue, available on request to

Atlas Lighting Limited, Thorn House, Upper St. Martin's Lane, London, WC2.

"I thought a weekthey took two days"





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

Mr.R.E.Downes-Shaw, M.I.Mech.E., Superintending Engineer for Peter-light Products Ltd., had many pro-blems 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 The total area covered was 1,600 sq. ft. The Marleycel Polystrene 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 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

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

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.

Grecon

* SIMPLICITY
VERSATILITY ★ EFFICIENCY .
★ and ECONOMY in ONE METAL FIXING SYSTEM

Extremely light and easy to fix
 Rot proof and immune to organic deterioration

Extremely high in thermal insulation

4. Resistant to water and water vapour

If you would like to know more about the Grecon System, write to: GRECON SYSTEMS LTD 29/30 St. James Street, London S.W.1 Tel: TRA 1454



in one working day!

Modernisation of a bar, restaurant, shop or office all in one day? And without disturbing staff or customers? That's what can be achieved by using HARDEC - quickest fixing plastic surface. The reason is this: HARDEC is a balanced board which lies flat by itself, needing only the simplest fixing.

In 'Operation hardec', the area to be re-surfaced is measured-up and the boards pre-cut to size beforehand. Then colourful, plastic-surfaced harder tops can be quickly and permanently fixed on horizontal surfaces with the minimum of adhesive or by simple metal edging.

Wall-panelling with HARDEC (in another of its many designs) takes only a little longer. A simple framework of timber grounds . . . contact adhesive (panel-pins or screws, if you prefer) and the job is done.



Quickest-Fixing Horizontal or Vertical Plastic Surface

Write for free sample to:-THE AIRSCREW COMPANY & JICWOOD LTD . DEPT AJIS . WEYBRIDGE . SURBBY

from LEISURE a self-contained SHOWER CUBICLE



a space-saving **private** bathroom within the reach of all your clients!

The Leisure Shower Cubicle has been designed to stand anywhere without structural alterations of any kind. It is particularly useful in flatlets, where space is so precious. What does the Leisure Shower Cubicle offer? An attractive shower curtain seals off the gleaming white and black enamel interior from the outside room. The spotlight glass panel, set into the roof, provides plenty of light. A twist of the anti-scald mixer tap gives instant hot or cold showers. The chrome flexible pipe can be transferred to the washbasin, which together with the mirror and glass holder is an optional accessory. The Leisure Shower Cubicle is soundly constructed in pressed steel, and is easy to install. Prices have been kept to a minimum so that all can benefit from this unique piece of home equipment. Display the Shower Cubicle prominently in your showroom—and get set for brisk sales this summer!

PRICES FROM £43.4.6 (undrilled)

TO £58.3.3 (complete with all accessories)

THE LEISURE SHOWER CUBICLE IS MADE BY LEISURE KITCHEN EQUIPMENT LTD



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from LEISURE a self-contained SHOWER CUBICLE



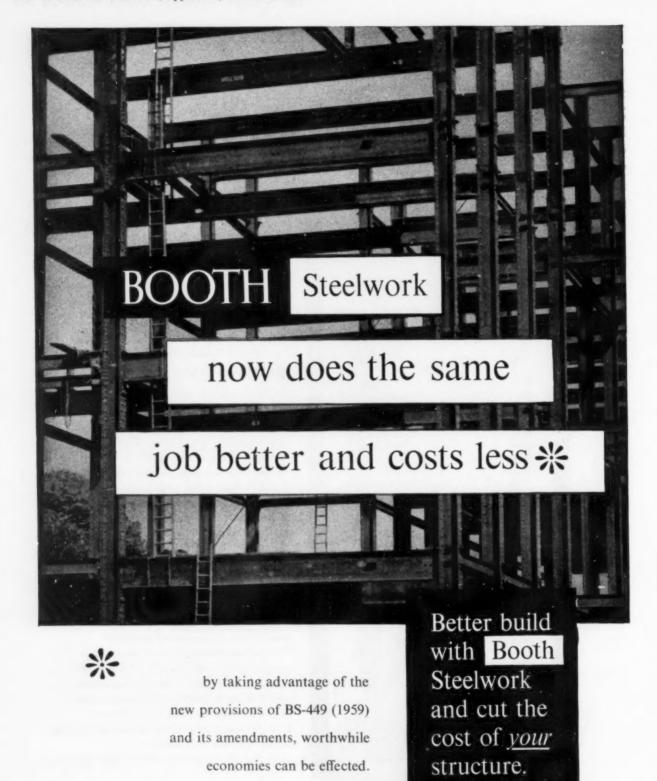
a space-saving **private** bathroom within the reach of all your clients!

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JOHN BOOTH & SONS (BOLTON) LTD. HULTON STEELWORKS, BOLTON. Telephone: BOLTON 61191

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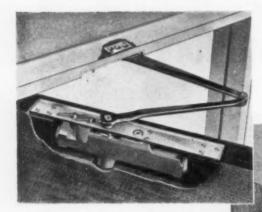
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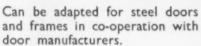
MODEL 4C CONCEALED

The ultimate in door closers

WITH UNSURPASSED MECHANICAL EFFICIENCY



Concealment of door closers is not new but the adaptation of the sound basic principles found in the best exposed type of closers to concealed operation is comparatively recent in this country. As a result of this method the "LANCER" avoids certain inherent faults in earlier concealed devices and delivers ample power, smooth control and long satisfactory service.



Has independent control of check over full closing period and separate control for latching.

Has uniform power over full period of closing due to rack and pinion activated by compression spring, very smooth in action, as pinion is running in needle bearings, and all internal parts are enclosed in a sealed oil bath.

All parts scientifically designed of the finest materials obtainable.

Special Arm Bracket for surface mounting can be designed for metal-framed doors, similar in principle to those specially manufactured for Messrs. Roneo Ltd.

POINTS TO BE OBSERVED

- As this type is HANDED, it is essential when ordering to state correct hand. (See small sketch.)
- 2 If flush-type doors are used LEFT HAND these doors must have a
- RIGHT HAND substantial top rail of not less than 5in. depth. Cover plates are required on doors of lain. thickness.
- 3 This closer enables the door to open to any predetermined angle (according to table supplied with fitting instructions).
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Degree of Opening	90°	110°	130°	150°	180°
Distance from Hinge Line to Mortice	57"	47"	41"	27"	15"



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Flexible Doors

by the people who pioneered them



Vision Panels on the light doors are supplied with ½" Perspex and ½" Perspex on the heavy doors.

Light Rubber Doors are fitted with a fully adjustable patented double action return spring, concealed in the top of the tubular steel door frame. The door pivots on a hardened come bearing let into the floor.

Heavy Rubber Doors are fitted with adjustable door springs top and bottom of each leaf.

The Dunlep Panels are specially manufactured and are reinforced with cotton duck. In the light door 42 oz. 2-ply and 42 oz. 4-ply in the heavy does.

All doors can be fitted with additional vision panels if required. Jamb brackets can be supplied for both light and heavy doors where the floor cannot be cut or if there is no head. Neway doors are truly flexible they can be tailored to fit most openings.

DUNLOP make the Rubber Panels.



All details can be found in the 'Barbour' Index, File No. 53

FLEXIBLE RUBBER DOORS

See Neway Flexible Doors at the Building Centre, 26 Store Street, London, W.C.1. or write for free leaflet to the Manufacturers. Architects are invited to apply for Specification Sheets.

WILLIAM NEWMAN & SONS LTD. (Dept. AJ3), HOSPITAL STREET, BIRMINGHAM 19

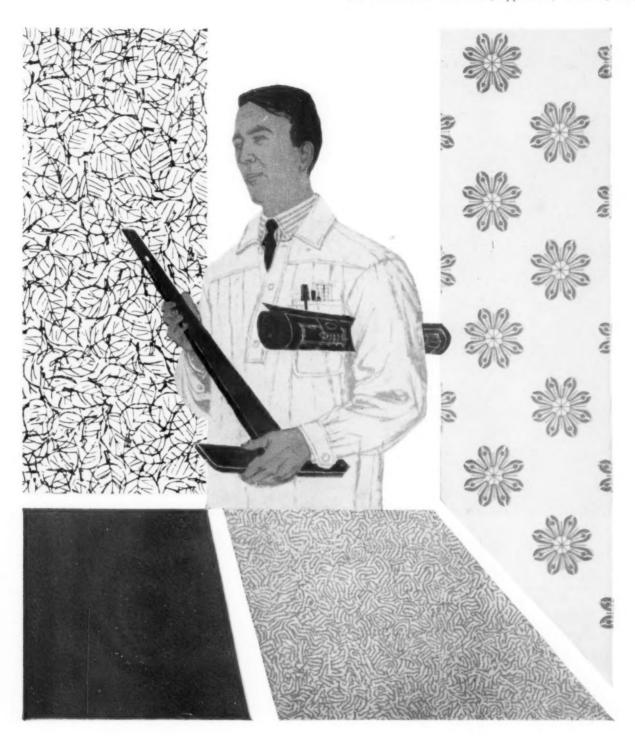
NEW SCOPE IN LAMINATED PLASTICS

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* The complete Decorplast range now offers fifty-six different choices, including wood grains that really look like wood!



DECORPLASTIC

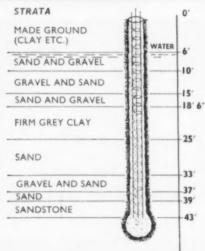


Decorplast Sales Office, 2 Caxton Street, London S.W.1. Telephone: Abbey 4866

FRANKI facts

SALFORD MULTI-STOREY FLATS





FRANKIPILE

PROBLEM

The Multi-Storey Blocks of Flats had to be sited on an old flood plain of the River Irwell, where a great variation in alluvial deposits occurred overlying sandstone bedrock.

The rock level varied from 11' to 43' below existing ground level and there was a high and variable water table.

SOLUTION

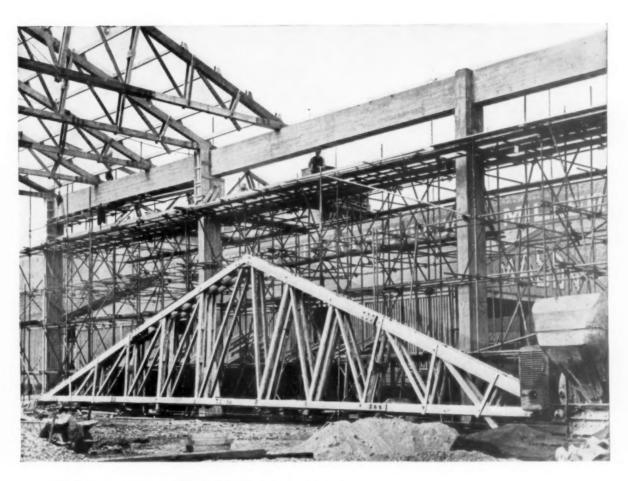
Franki 16/17" dia. driven *in situ* piles were selected for this work as providing a firm foundation by transference of load from the superstructures, through waterlogged material, to bedrock. This system proved eminently satisfactory in not only compacting the loose alluvial deposits, but also being able to contend with variations in pile length from 14' to 43' in the most economical manner.

Contract No: 3048 · Client: Salford City Council
Location: Salford · Architects: Cruickshank & Seward
City Engineer: G. A. McWilliam, B.Sc., A.M.I.C.E., A.R.I.C.S., M.I.MUN.E.
Contractors: Salford Direct Works Dept.
Truscon Ltd., The Fram Reinforced Concrete Company Ltd., Matthews & Mumby Ltd.
Type of Structure: Multi-Storey Flats · Number and Type of Piles: 1801 Franki Driven

Working Load: 50 tons · Average Length: 21 feet

Write for "The FRANKI systems of Piling"

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Elements of construction

Trusses, made better in 'Tanalised' timber, vacuum/pressure impregnated to the correct net retention for the hazard, be it fungal decay, temperate insect grubs or the tropical termite. Additionally - flameproofing is offered by 'Pyrolith' treatment. Either treatment is suitable for bolted, nailed or glued trusses. Completely non-metallic and hence corrosion-resistant, glued 'Tanalised' timber trusses have been made for factories where the atmosphere is highly acidic. 'Tanalith' treatment is suitable for the vast majority of industrial and agricultural buildings, but 'Pyrolith' is recommended where the fire hazard is high or for the roofing of the large sheds favoured by massproduction industries. Used in large sizes.

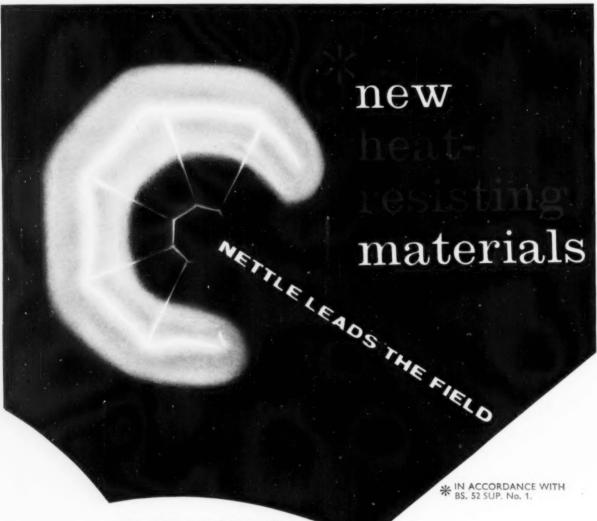
'Pyrolith' treated timber has better fire resistance than unprotected metal. Both 'Tanalith' and 'Pyrolith' treated timber trusses do not require paint for maintenance purposes, though normal paint specifications may be used where a painted finish is required, Please write for technical literature or advice on specific problems.



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These fittings, in white, black or dove grey, are in accordance with Supplement No. I to B.S. 52, and are very competitively priced.

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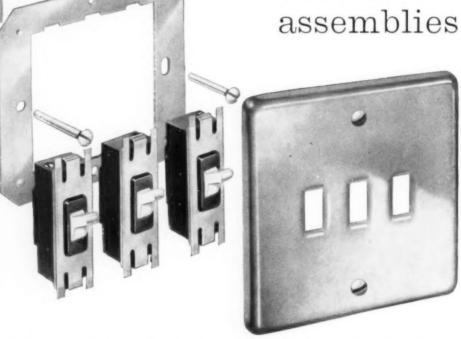
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BS 1299 1-GANG BOX

with 'MUTAC CLIPPER'

switch

Three into one does go, safely, compactly and swiftly, when you use 'Mutac Clipper' switch assemblies and a standard B.S.1299 box. And now all the proven 'Mutac Clipper' advantages-simplified installation, time saved, reduced costs, are available in types and sizes to cover every normal switching requirement. The chart below gives full details and a useful switch selector, available freely on request, makes ordering simple too.



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to 110,000
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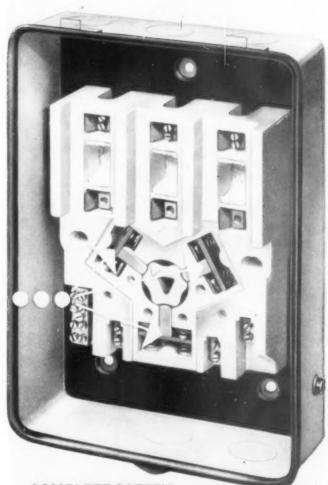
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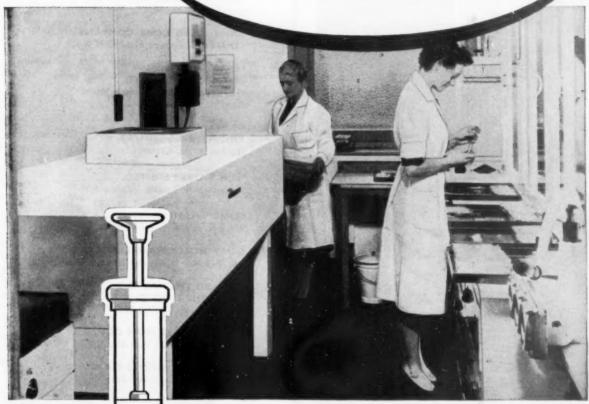
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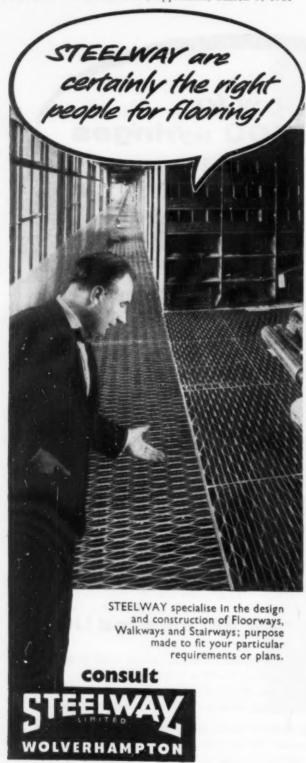


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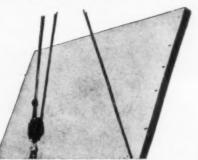
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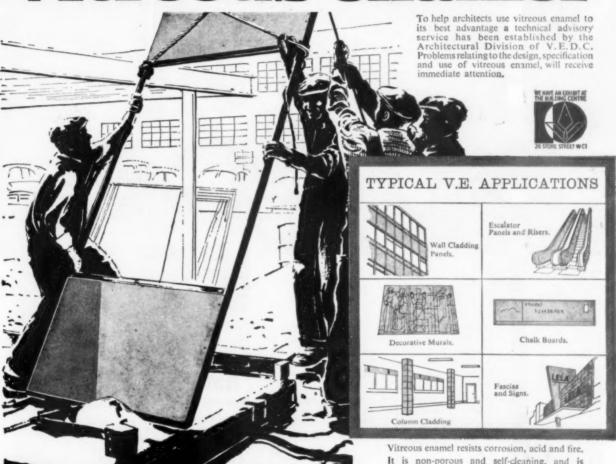
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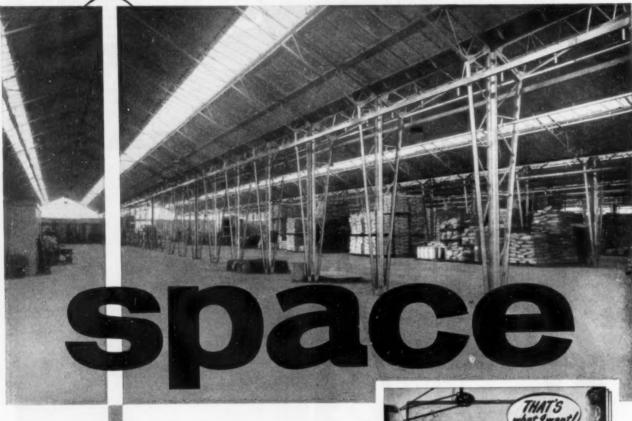
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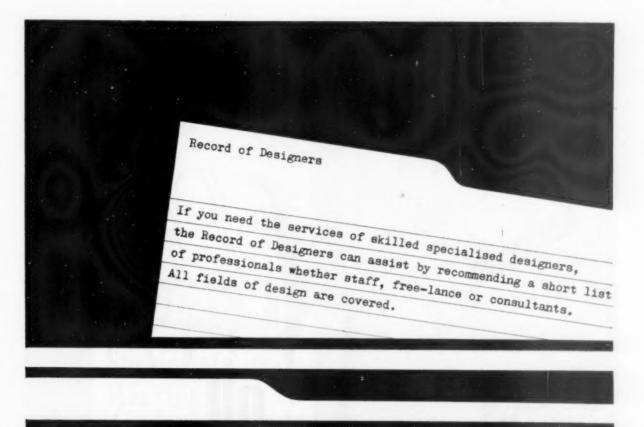
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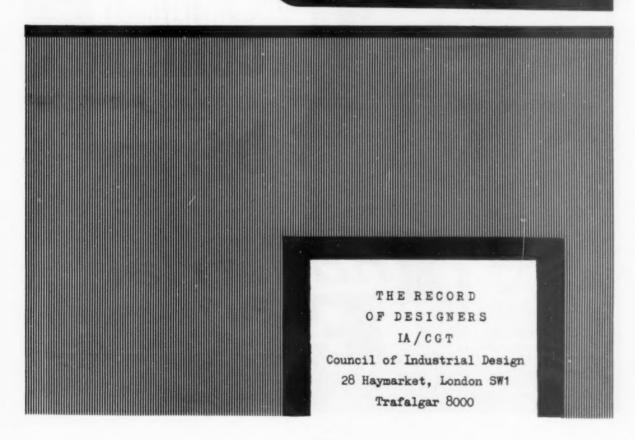
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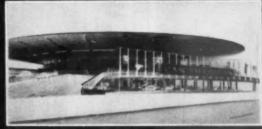
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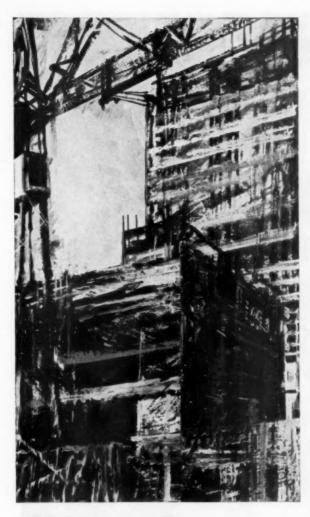
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The Architects' Journal

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NOT QUITE ARCHITECTURE

Short History of Four-Dimensional Man

"There is nothing so timid," Frank Lloyd Wright once remarked contemptuously, "as a million dollars." But when an individual or a company has to find hard money and then let someone else spend it, it is perhaps not altogether surprising. When it was suggested that the Dymaxion house should be made a feature of the 1932 Chicago World's Fair, Mr. Buckminster Fuller refused to show a mock-up and offered instead "a true prototype—one fully engineered and ready to go into production." When asked the cost he gave the figure of a hundred million dollars.

Mr. Fuller is an enthusiastic technician with a touch of Jules Verne about him, but when he describes his house as Fourth Dimensional, it does not automatically put him in the same class as Einstein. To be fair to Mr. Fuller, he has nowhere suggested that it does, but his disciples do him a major disservice with their uncritical adulation. The latest of them, Dr. Robert Marks*, retells the Chicago Fair story and seems aggrieved that Mr. Fuller's hundred million offer was not accepted forthwith. He seems to suffer from a firm conviction

^{*}The Dymaxion World of Buckminster Fuller by Robert W. Marks, New York, Rimhold.

Competition in Broad Sanctuary

minster, as this aerial picture makes clear. The site, facing Westminster Abbey and completing the enclosure of Broad Sanctuary, shows clearly, left of centre (report on p. 348), with the Abbey to the right, Central Hall on left. No competition was ever held for the development of a more important site, historically and visually, than that just launched by the Ministry of Works for a Government office block and Conference Centre at Broad Sanctuary, West-



that anything Mr. Fuller suggests has not only never been done before, but is always a decade or so ahead of its time.

When Mr. Fuller asks Alcoa for heat treatable alloys in 1927, he is told aluminium is not a building material as it is used "only in percolators, pots, ashtrays and souvenirs." Later, the engineer ("resentful of Fuller's persistence") says "We have two kinds of aluminium, soft and softer. Which do you want?" And sure enough "Five years later, in 1932, the first heat treated aluminium alloys became available." An apparent triumph for Dr. Marks's far-seeing hero. though a few casual enquiries would have told him that the original Duralumin patent dates from 1906, that the material had been used in both aeroplanes and Zeppelins, and even in America as early as 1918.

The same comments apply, more or less, to Fuller's Dymaxion car, which, in 1933, had the "innovations" of front wheel drive and a rear engine. Yet front wheel drive was no innovation when Alvis redeveloped it in 1925 or so, for the first effort was the American Christie in 1904, or so. "Rear engine" means virtually nothing, for all that Fuller really did was to build an ordinary car with a single front wheel and then arrange it to be driven backwards. It must have been quite a stinker to handle. Even the 1943 Kaiser-Dymaxion car which could turn all its wheels in the same direction and park sideways like a crab, had been anticipated soon after 1918 by a Frenchman.

Until the last decade or so Mr. Fuller has suffered from the advertising boys, who seemed to regard him as some kind of super-gimmick. It is not difficult to whip up plenty of publicity for something which looks advanced, even though the essential materials are not yet available. But when Mr. Fuller started with his geodesic domes they were outstandingly successful, not only because they were needed as shelter, whether for exhibition space or for the Distant Early Warning system across the top of Canada, but perhaps also because it was actually possible to build them from materials currently in production. Here there are exciting possibilities, when a steel skinned dome with a clear span of 384 ft. has a structural weight of only 2 oz. per cu. ft. of space enclosed. Here, too, is the most informative part of the book, for the last third of it is almost all photographs of the domes, small and large, structural models, in construction, and completed. Of Dr. Marks's contribution one cannot say very much, though one may quote his preface. "Bucky has never been easy to understand -even by those best equipped to grasp his meanings." Dr. Marks may have the equipment, but, like his prophet, he "overloads the channels of communication."

The Editors

THE JOB ARCHITECT

THE recent discussion at the RIBA on the responsibilities of the job architect (reported on p. 349) was a crackingly good affair, because it brought out into the open all the main arguments in favour of this method of office organization. Implicit in the idea, which is of immense importance to the lower end of the profession, is that if the young architect is a qualified practitioner, he should be given every possible opportunity to act as such. It is also self evident that the method offers, by delegation of responsibility, a means for chief architects and partners in private practice to lead saner and less nerve-wracking lives.

But beyond these elementary points, the method offers the answer to many of the profession's current problems. It can make the medium-sized and large offices good places in which to work and gain experience quickly. It can lead to greater efficiency, if one man carries through a job from start to finish. It can provide the best possible argument for increasing the salary and status levels of the profession. If properly applied it can put an end to the present habit of rapid job-changing in search of slightly higher salaries. But this, as Thurston Williams pointed out, can only be implemented if the present many-layered salary scales used by local authorities are scrapped in favour of two main rates of pay, one for job architects and for group leaders.

If the profession is to survive and to achieve a standard of design which the public will accept, we see this process of democratisation as inevitable. It is for this very reason that we have already expressed our disapproval for any reform which seeks to perpetuate the old hierarchical structure, such as the proposal for a two-tier profession.

The form of the meeting was particularly useful: short statements from a panel of speakers probably make the best possible opening for a discussion. There is room for further RIBA meetings of this character to cover other current issues.

A further discussion would be very useful to carry on where this one left off, by considering the various ways in which the job architect's work might be made more efficient. For instance there is the very valuable proposal that every architect should have a second skill as well as that of being a potential job architect, by becoming a specialist in some particular field to whom the other job architects in his office could refer for advice and help. Not only would this increase efficiency and raise the standard of design, but it would equally give some purpose to a considerable expansion and diversification of post-graduate studies in the schools of architecture. The issues raised are of such importance that we would very much like to see this same panel, plus perhaps a speaker from a private office using the job architect method make a tour of the allied societies to present the same arguments. alternative to the two-tier proposals could then be properly presented to them.



A FAMOUS VICTORY?

Seldom does a local government election manifesto provoke a cheer—a cautious "humph!" is more usual—so the announcement of the London Labour Party this week that they propose, if re-elected to run the LCC, to acquire the Monico site and other vital acres round Piccadilly Circus by compulsory purchase, and develop this famous battlefield of planning and private enterprise comprehensively, in accordance with Sir William Holford's plan, is a welcome break with the traditional dullness of local politics.

The AJ having already come out stoutly in favour of the compulsory purchase of the Circus as the only practicable solution, perhaps ASTRAGAL may offer the London Labour Party as an electioneering song:

"We don't want to move you but we think you ought to go!

"We've got the men, we've got the Plan, we've got the money too!" Jingo but jolly for the kids to sing

Jingo but jolly for the kids to sin round the streets on election night?

COAL OR CUSTOMS?

The fight to save the Coal Exchange has been taken a stage further. The Victorian Society has formed a committee to look at all the available alternatives during the building's three-month reprieve (narrower roads,

slivers off the Custom House, arcading in the Coal Exchange), and it will discuss them with the Ministry, the LCC, the City Corporation or whoever happens to be carrying the buck when the time comes. The real issue is whether a six-lane road with a central reservation is, in fact, necessaryor practicable-all the way from the Tower to Blackfriars. This point has been sidestepped completely by the City representatives. Mr. Mealand, the City Planning Officer said quite bluntly, at the Victorian Society's meeting last week, that "the building has got to come down." On the question of moving it he asked "Who's going to move it, who's going to pay for it and what use is it going to be when it's up?" Not very helpful words.

One thing is definite: the Coal Exchange is a masterpiece. If it is pulled down something irreplaceable will have gone.

MANNERED WORK

If you are interested in Mannerism. then you should see the Sanmicheli exhibition at the RIBA. This is an imaginatively put-together exhibition, as photographic shows go. But the inclusion of casts of mouldings and friezes (an old-fashioned piece of scholarly technique that pays off here) and nearly a dozen models, put the exhibit in quite a different category. It is better even than the Corbusier show a couple of years ago, because the models are equally well made and very much bigger, and the best of them are arranged so that you can see both the inside and the outside of the building. Professor Gazzola and his assistants have given a pretty fair picture of an architect who was not in the Bramante class, but had his own strength and, even if Mannerist, was at least a scholar. Some of the buildings have a flavour of Edwardian Bankers' Classic about them, but are none the worse for that. After all, Sanmicheli thought of it first-and not in a tired and stodgy way.

CHINKS IN DESIGN

Some of the displays at the Ideal Home Exhibition are so outrageously far-fetched that they can't be taken too seriously. I'm thinking particularly of Allied Ironfounders' delightful collection of lush bathrooms, courageously bedecked with bidets,

and including quilted bath panels and something called "the Japanese influence," which involves nothing more than the use of a bamboo towel rail and an oriental painting. Then there are the Daily Mail penthouse rooms, furnished presumably to show us how to cope with our eyries on top of LCC tower blocks. These are done with just the right sinister, sinful touch that one expects (but why?) in a penthouse: oriental furniture, a television set squatting among tropical plants, perspex nudes, leopard skins and transparent chairs. After this I very much enjoyed the "Economy Rooms" display. This is a good idea and it's a pity the rooms are hidden away on the second floor. Three bed-sitters have been furnished by ex-students of the Royal College of Art for £50, £75 and £100 respectively. In front of each room, with its ingenious mixture of good modern and make-do furnishings. is a row of bills to verify that the designers really did spend what they said they spent,

ENTHUSIASM INC.

The speculators' house prices are, of course, considerably higher than they were last year, and I asked some of the developers at Olympia what they thought of the successful schemeopened at the week-end in Wimbledon -by which a group of enthusiasts built houses without getting involved in the developers' profits. The idea was laughed at, but not I think with good reason. The Danes have done successful co-operative housing for some years and the Wimbledon housing estate may well be the forerunner of the same kind of thing in this country. I hope it will at least repeat itself because it is a triumph of enthusiasm over the most incredible difficulties.

When the founders of Housing Partnership Ltd. got together in 1958, with the intention of building houses and flats for their members on a non-profit basis, they had only £30 in the bank. Whenever they thought of buying a particular site they had to acquire enough money to hold it while they found out what they would be permitted to build on it, and then estimate how much it would cost. At that stage they could not even be sure that

enough members would want to live in the district or to pay the necessary price. When they did get their land at Inner Park Road, Wimbledon, they increased their membership by advertising the proposed development (eventually financed by Wates Ltd. who also built it), commissioned Kenneth Capon (of the Architects Copartnership) to design it and then entered into contracts with members.

More than 100 people are still on the waiting list, but the association is extending its membership and official encouragement is also quite likely. The Housing Bill shows that the Government is interested in this kind of co-operative housing. The association gets nothing from the scheme but its expenses and the salary of its full-time secretary. Most of the work is done by an unpaid committee of management, which includes the architect Oliver Cox, whose advice has helped the association to produce houses economically without making them look cheap.

YOUR COUNTRY NEEDS YOU

You have the responsibility for exacting order out of existing disorder. No one in the Ministry underestimates the importance of what you do, said Sir Keith Joseph, Parliamentary Secretary of the Ministry of Housing and Local Government to the Town Planning Institute at their annual dinner last week. This is the kind of stimulating, heart-warming remark it is pleasant to get from the guest of honour after an excellent meal. It is also, on second thoughts, a neat revelation of Conservative thinking, which, while not denying the need for planning, puts the responsibility for it firmly on to the shoulders of the Planning Institute. No wonder Sir Keith asked anxiously about T-PI recruitment and hoped that they were aware of the intense competition for available talent (incidentally the number of planners at the dinner seemed alarmingly small).

Dame Evelyn Sharp, Permanent Secretary of the MOHLG, speaking later in the evening reinforced Sir Keith's points. Planning today, she said, is in something of a crisis. The prospect for the Ministry and the Institute is dismaying but also challenging, she said, and she went on to remind us of the many county boroughs' with

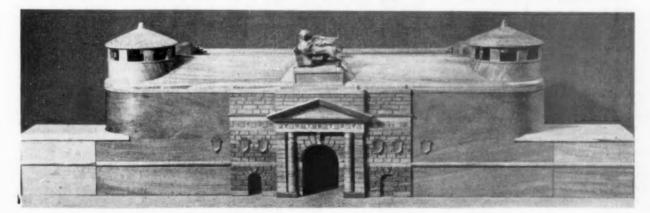
immense planning problems who did not employ chief planning officers and who asked where they could find planners who were competent.

The evening was not entirely Jeremiahical. President Rowland Nicholas announced that the TPI council was sending out a memorandum to local authorities on comprehensive redevelopment. Not, one must in honesty admit, a moment too soon.

ASTRAGAL



The Gates of Verona, by Sanmicheli: above, the Porta di San Giacomo; below, model of the Porta Nuova. (See "Mannered Work.")





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CHINKS IN DESIGN

Some of the displays at the Ideal Home Exhibition are so outrageously far-fetched that they can't be taken too seriously. I'm thinking particularly of Allied Ironfounders' delightful collection of lush bathrooms, courageously bedecked with bidets,

and including quilted bath panels and something called "the Japanese influence," which involves nothing more than the use of a bamboo towel rail and an oriental painting. Then there are the Daily Mail penthouse rooms, furnished presumably to show us how to cope with our eyries on top of LCC tower blocks. These are done with just the right sinister, sinful touch that one expects (but why?) in a penthouse: oriental furniture, a television set squatting among tropical plants, perspex nudes, leopard skins and transparent chairs. After this I very much enjoyed the "Economy Rooms" display. This is a good idea and it's a pity the rooms are hidden away on the second floor. Three bed-sitters have been furnished by ex-students of the Royal College of Art for £50, £75 and £100 respectively. In front of each room, with its ingenious mixture of good modern and make-do furnishings. is a row of bills to verify that the designers really did spend what they said they spent.

ENTHUSIASM INC.

The speculators' house prices are, of course, considerably higher than they were last year, and I asked some of the developers at Olympia what they thought of the successful schemeopened at the week-end in Wimbledon -by which a group of enthusiasts built houses without getting involved in the developers' profits. The idea was laughed at, but not I think with good reason. The Danes have done successful co-operative housing for some years and the Wimbledon housing estate may well be the forerunner of the same kind of thing in this country. I hope it will at least repeat itself because it is a triumph of enthusiasm over the most incredible difficulties.

When the founders of Housing Partnership Ltd. got together in 1958, with the intention of building houses and flats for their members on a non-profit basis, they had only £30 in the bank. Whenever they thought of buying a particular site they had to acquire enough money to hold it while they found out what they would be permitted to build on it, and then estimate how much it would cost. At that stage they could not even be sure that

enough members would want to live in the district or to pay the necessary price. When they did get their land at Inner Park Road, Wimbledon, they increased their membership by advertising the proposed development (eventually financed by Wates Ltd. who also built it), commissioned Kenneth Capon (of the Architects Copartnership) to design it and then entered into contracts with members.

More than 100 people are still on the waiting list, but the association is extending its membership and official encouragement is also quite likely. The Housing Bill shows that the Government is interested in this kind of co-operative housing. The association gets nothing from the scheme but its expenses and the salary of its full-time secretary. Most of the work is done by an unpaid committee of management, which includes the architect Oliver Cox, whose advice has helped the association to produce houses economically without making them look cheap.

YOUR COUNTRY NEEDS YOU

You have the responsibility for exacting order out of existing disorder. No one in the Ministry underestimates the importance of what you do, said Sir Keith Joseph, Parliamentary Secretary of the Ministry of Housing and Local Government to the Town Planning Institute at their annual dinner last week. This is the kind of stimulating, heart-warming remark it is pleasant to get from the guest of honour after an excellent meal. It is also, on second thoughts, a neat revelation of Conservative thinking, which, while not denying the need for planning, puts the responsibility for it firmly on to the shoulders of the Planning Institute. No wonder Sir Keith asked anxiously about TPI recruitment and hoped that they were aware of the intense competition for available talent (incidentally the number of planners at the dinner seemed alarmingly small).

Dame Evelyn Sharp, Permanent Secretary of the MOHLG, speaking later in the evening reinforced Sir Keith's points. Planning today, she said, is in something of a crisis. The prospect for the Ministry and the Institute is dismaying but also challenging, she said, and she went on to remind us of the many county boroughs with immense planning problems who did not employ chief planning officers and who asked where they could find planners who were competent.

The evening was not entirely Jeremiahical. President Rowland Nicholas announced that the TPI council was sending out a memorandum to local authorities on comprehensive redevelopment. Not, one must in honesty admit, a moment too soon.

ASTRAGAL



The Gates of Verona, by Sanmicheli: above, the Porta di San Giacomo; below, model of the Porta Nuova. (See "Mannered Work.")



LETTERS

Henryk Blachnicki

A. Roderick Males, A.R.I.B.A.

Peter Cowan

Reyner Banham, B.A., Ph.D.

V. Franco

Bryan K. Thomas, A.R.I.B.A. A.A.Dipl.(Hons.)

The New Piccadilly

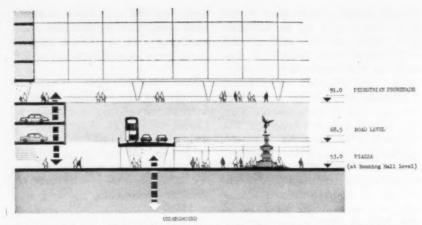
SIR: Together with many architects I have talked to about the Piccadilly proposals, I do not quite share the enthusiasm for the scheme expressed in your leading article of February 16, 1961.

I am disappointed that complete segregation between vehicular and pedestrian traffic has not been achieved. The introduction of a new piazza 7 feet above the existing ground level seems to complicate matters unnecessarily. The retention of pavements on all surrounding sites, together with the pavement and wide, inviting monumental steps on the west side of the new piazza might become a death trap to many people who would cross the street. People in general take the more direct route, even when more dangerous, in preference to the safer underpass.

I would like to make the following suggestions as indicated on the attached sketch:—

- (1) Remove all pavements at present street level.
- (2) Extend the existing underground concourse at 53.0 level over the whole central island creating a large piazza.
- (3) This new piazza to be opened to the sky, designed with all amenities, fountains, sculpture, Eros, etc.
- (4) Provide wide stairs and escalators from the adjoining sites with wide underpasses under the road, thus making the roads elevated (on stilts).
- (5) Shops and kiosks to be provided under the road.
- (6) Extend the elevated pedestrian level at 91.0 over all sites creating a unifying podium to the whole scheme, from which buildings could rise.
- (7) The area under the pedestrian platform to be used as two-storey car parking.
- (8) The elevated pedestrian platform to be designed as an urban open space. From my experience, working on the Barbican Scheme (the only urban scheme with total segregation), and the study and research on the problem of segregation, I have come to the conclusion that segregation, to be effective, must be complete and this means the exclusion of pavements at ground level. The pedestrian deserves a better fate than having to move on the same level as the smelly and noisy motor-car.

As a matter of interest Stockholm's new proposals for the central area now under



Diagrammatic sketch of H. Blachnicki's scheme for total pedestrian segregation at Piccadilly Circus

construction, creates a sunken piazza (to be called Sergels Torg), similar to the one suggested.

H. BLACHNICKI

London, N.22

Tree Preservation

SIR: The preservation and retention of trees about building development is generally considered desirable. It may surprise many to learn how little practical power planning authorities actually possess concerning the safeguarding of trees.

Under Section 28 of the 1947 Town and Country Planning Act the machinery exists for planning authorities to make orders for the preservation of trees or groups of trees. In order to establish such an order, the trees must be fully surveyed for position, girth, height, type and condition, and the Minister has to be satisfied that each tree or group merits preservation. The preparation of such surveys and applications for orders is a skilled and expensive procedure. Many authorities, particularly the smaller districts, have neither the staff, time, money nor, indeed, even the inclination to make such orders.

Trees which are not covered by preservation orders may be felled by their owners regardless of any amenity value that may thereby be lost. Attempts have been made by certain planning authorities to impose conditions of tree retention attached to planning consents, particularly in the case of housing development, but it is found that while such conditions appear to be binding upon the developer, subsequent owners of sites within the development area are free to fell any of the trees they wish. Land ripe for development often falls within the areas of small authorities who do not possess the means to have preservation orders imposed, their attempts to retain trees by conditions of planning consent can easily be negatived and the consequent risk of wholesale felling of trees is very con-

A solution to this difficulty may lie within the application of blanket preservation orders which the Minister could have generally applied over the whole, or large areas of, the country. Forestry plantations and commercial tree felling concerns could be exempted. Blanket orders could be applied with little or no labour on the part of the planning authority. Permission for felling would then have to be obtained under normal planning application procedures. Trees could then be treated as an integral part of development. Limitations of girth or height of trees subject to the blanket order would, of course, be necessary.

It is hoped the advantages of blanket orders will eventually commend themselves to the Minister, but in the meanwhile I should be pleased to receive any observations readers may have on this matter.

A. RODERICK MALES

What Science Lacks

SIR: May I comment upon Mr. Ritter's most interesting letter (AJ 22/12/60).

First, the use of sociology as a reference to illustrate the confusion of science loads the argument. That sociology lacks the sophistication of the natural sciences is due to historical and political causes rather than fundamental methodological weakness. The objective study of society has hitherto been discouraged by those in control, whose interests were directed towards maintaining the status quo. The advent of democratic societies allowed some progress, but in fact sociology has only developed independently during the past 100 years. The inference that defects in sociology reveal fundamental weaknesses in science generally is therefore misleading.

Second, although the actual operations of differing disciplines are not necessarily interdescribable, the basic methodology must be similar in order to remain science. Operations not based upon observation, measurement, and classification, cannot be described as scientific. Because of this common approach to the problem-solving process the sciences are in an encouraging position vis a vis communication problems. Charles Morris (Signs, Language, and Behaviour) says, "The tendency towards the unification of science is inherent in scientific activity, since science is not content with the mere collection of statements known to be true. but aims at the organisation of its knowledge." This does not imply the concept of a "Universal Man" but rather the idea of a method which is understandable by all

those participating in a certain sort of

Third, it is surely wrong to suggest that we "lead the rest" in education and practice. Because of a historical process, whereby we lag behind science in the understanding of our world, we should be able to profit by the errors of others. While we may be "in an ideal position to note . . . etc.," it is presumptuous to suggest in our state of professional naïveté that we are capable of leading anyone anywhere.

Fourth, the search for a "unifying principle," seems as vain as the hunt for the philosopher's stone, and almost as profitless. Time and again such quests have started, only to lose themselves in the thickets of philosophic debate. Our problems are such that only by adopting a pragmatic approach can we hope to adjust to our rapidly chang-

Finally, while agreeing that there is danger in expecting too much of science, I feel that this is generally due to a misapprehension of its nature. J. D. Bernal (Science and History) says, "Whether for good or ill, the importance of science today needs no emphasising, but it does, just because of that importance, need understanding . . . it is essential to be aware of how it came to be what it is, how it has responded to the successive forms of society, and how in its turn it has served to mould them."

PETER COWAN

London, N.W.8.

Architecture on TV

SIR: Ramsay Short's letter last week serves a useful purpose in getting the discussion around Pilkington out of the slough of despond into which Astragal (what's the matter, boy? Jealous?) had pushed it, and as one of the bored old pro's who are not involved with the subject (in spite of my smatterings of art-history, jazz, science, etc.) I shall give due attention to all the shortcomings he lists.

However, there are two points, one of fact, the other of opinion, that his letter raises, Mr. Short lists the architectural equivalents. as he sees them, of Kendrew, Ryle and others in science.

As far as I know, everyone on his list, except Walter Segal who isn't heard much in public (more's the pity), has been listened to and, in some cases, tried out by either Leonie Cohn or Prudence Smith on behalf of the Third Programme, which is desperate for new speaking talent on architecture.

Only one got through onto the air, and you don't need total recall to remember how much obvious tape-twisting, cutting and subbing was required to turn thousands of feet of Brutalist thinking-aloud into a talk understandable by a lay audience. It may reflect no credit on us, but under the circumstances do you marvel that the Third turns to professional journalists?

The opinion point is concerned with someone who is more important than the actual performer on TV-and radio, come to that -the producer and his terms of reference. If a speaker sounds bored, or tired, or nervous, it is mostly the producer's fault, in my own experience, or the fault of the way the programme is put together. Comment is the most continuously abused programme on steam radio, and rightly so-practically everybody sounds dreadful on it-it's just the business of trying to whizz together three little chatlets on high-level topics once a week with insufficient staff.

Conversely, my time with ATV was strenuous but exhilarating-I don't know what Mr. Short thinks, but I rate those shows among my best performances in any medium, and I attribute this almost entirely to the brilliance and enthusiasm of Michael Redington's production, and the esprit de corps that he can instil into an ever-changing team flitting about from studio to studio. But there would never have been the airtime for these programmes had we not been backed by the enthusiasm of Sir Kenneth Clark and others. What TV needs is enthusiasm and skill behind the cameras as well as in front of them.

As far as the Third is concerned, this kind of enthusiasm for architecture does exist in at least two producers. As far as most of TV is concerned, BBC or commercial, it's almost impossible to find-indeed, where Monitor is involved, indifference borders on hostility as far as one can make out.

REYNER BANHAM

Two-Tiers

SIR: I do feel that there is a strong tendency in some would-be architects to try to skimp their training in an effort to become qualified. This I see, not so much as a shortcoming in the individuals concerned, but as a weakness in the structure of the profes-

Because there is no worthwhile status in the profession other than "architect" (intermediate assistants being now considered largely as draughtsmen), and because of the vastness of the scope of architecture, there seems to be no alternative but to get through the formal training as quickly as possible in order that one might have an opportunity of doing something worth while in the profession, detailed study and further research and education being then undertaken by many privately.

I feel that if there were a qualification of good status other than architect, many people would be attracted to it and the effect would be greater satisfaction in their work for these people. Further, and perhaps of more importance, more efficient building would result-due to the fact that there would be much more detailed technical knowledge at the command of the architect. I see this as an alternative to the present state of affairs where, in the average office, there are qualified architects who must turn to other qualified professional peopleengineers, q.s.'s, etc., for advice on all but the most elementary aspects of the related subjects. I feel that much of the work that is now being sent to outside consultants could then be safely and efficiently undertaken by architectural offices with, say, a "master architect" assisted by various technicians. These technicians should all have a common background training (perhaps to about intermediate level) before proceeding with their special training.

The training of the architect is a different problem and much more difficult of solution, but I do feel that a purely academic training for architects is the wrong approach.

Architecture is a profession of bricks and mortar; treacherous foundations; the elements; people. One must know what can be done and what cannot be done with materials-with concrete, steel, synthetics; what people are capable of doing; what is required by society-by doctors in hospitals, children in classrooms, typists, managers, musicians in concert halls, and all the other things which so readily come to mind. This, I think, takes many years to achieve and it cannot be achieved within four walls-in universities or technical colleges-but on building sites, in research establishments, professional and contractors' offices and even in factories where materials are made. These comments are a result of my having read recently your Editorial in the issue of December 22.

V. FRANCO

London, N.16.

SIR: Your editorial on January 26 clearly sets out your own views against proposals for a "two-tier" profession but you have so far failed to put forward an alternative. May I, as others have done, ask for your ideas on a solution?

You mentioned significantly that the schools' architects are of your opinion but you overlooked the equally significant fact that the Bristol and Somerset Society of Architects include members of one of the finest groups of young architects working in smaller offices in the country. You have had occasion in the past to admit this with enthusiasm. Are they not entitled to a fair hearing without this slur on their

Or perhaps you advocate abandoning the small practices altogether and we will all go and work for the few large offices which notoriously will not accept the job below £10,000 because it does not pay (in spite of their efficiency).

The financial aspects of the problem are very real-it would be interesting to have figures on the number of principals in small provincial practices who out of love for their work and their independence accept incomes which after years of experience are as low as the newly qualified "architects" you wish them to employ. They must be very many.

There will aways be temptations for men to put the reward before the job. I do not advocate that life should be made easier for them but that in any discussion on the future status of the profession, the problems of the smaller provincial offices should be considered constructively. It is a chastening thought that the Modern Movement would not have existed without them.

BRYAN K. THOMAS

Colchester, Essex.

(For one solution see this week's leading article, p. 344, and news report "The responsibility of the job architect," p. 349 .-THE EDITORS.)

NEWS

COMPETITIONS

Office Block for MOW

A competition for the design of an £800,000 building for Broad Sanctuary, Westminster, has been announced by the Ministry of Works. It will contain offices for three small Government departments and a conference centre.

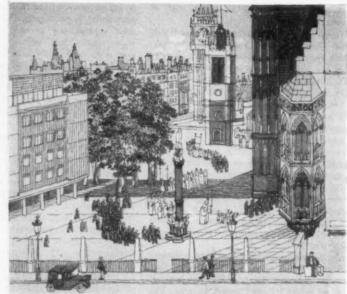
First, second and third prizes will be £3,000, £1,500 and £1,000 respectively. Sir William Holford, P.R.I.B.A., M.T.P.I., A.R.I.B.A., Sir Leslie Martin, PH.D., F.R.I.B.A., and Mr. Eric Bedford, C.B., C.V.O., A.R.I.B.A., have been appointed assessors. The conditions of the competition can be obtained from the Secretary, MOW (AS 8L), Lambeth Bridge House, London, S.E.1, on payment of £2 deposit. All questions should be asked by May 1, 1961: no designs will be accepted after October 2, 1961. A building contract should be let by early 1963 for completion in 1964.

This important site next to Central Hall and oblique to Westminster Abbey has been much mulled over since the Government bought it in 1946 for a new Colonial Office. Demolition of the old Westminster Hospital was finished in 1950 and a new substructure completed two years later. In 1951 the proposed building was criticised in the House of Lords for its bulk, floundered a bit and by 1955 work had been suspended. The new building will show evidence of the mulling. The competition instructions contain the requirement of 110,000 sq. ft. of floor space and set the S. façade back, as far as, or beyond the line of Matthew Parker Street. The intention here is the permanent revelation of Central Hall.

The instructions call for self-contained offices for the Treasury Solicitor's Department (36,000-40,000 sq. ft.), and the Parliamentary Counsel (11,000-12,000 sq. ft.) and also for a third (20,000 sq. ft.) which can either be independent or used by either of the others for expansion. The conference centre should contain one large and nine small rooms totalling 30,000 sq. ft.

Entrances to the building are available both to east and west on Little Sanctuary and Storey's Gate and the instructions say that the "general road structure is under review." For a moment this raises hope that a peaceful Westminster precinct free from traffic, as visualised by the Architectural Review in "Westminster Regained" (November 1947) is still possible, but details of improvement lines that cut into the site along Broad Sanctuary and Storey's Gate in order to speed existing traffic promptly restore doubt.

In fact the present development of 1-19. Victoria Street (with revised street line) and the proposed development of the wedgeshaped plot between Victoria St. and Tothill St., which confirm the existing street plan. plus obstructive building along the route that might have ringed Westminster, make the precinct a remote possibility.



Above: What we have missed. Broad Sanctuary as part of a pedestrian precinct, conceived by Gordon Cullen

Below: What we have avoided. A hunk of Colonial Office covering the site, which was abandoned after protests and policy changes



This does not, however, free the MOW from aesthetic obligations towards the Broad Sanctuary site. One clause of the competition instructions concerns the substructure left over from the ill-fated Colonial Office. The front part of this is directed "to be used for underground car parking or some or other part of the requirements. If this should result in the raising of the front part of the site above pavement level, this would be acceptable provided the sense of openness is maintained."

Surely there is enough of this type of design in Parliament Square. The raised garden there looks like a dumb waiter that has just pushed up through the ground and got stuck. A comparable structure running along the south side of the proposed Broad Sanctuary building like a fender would be equally ugly and would impair the sense of openness. Competing architects should bear this in mind.

The north façade of the building raises a further question. For the time being it will face the eyesore backs of several offices in Gt. George Street. These buildings merit redevelopment. The instructions make no reference to this possibility nor to the fact that should Gt. George Street be widened the north face might be permanently exposed.

All this suggests a lack of overall planning, the need for which has been interminably expressed but always frustrated by the fact that Crown Lands surround Westminster Precinct and since the Crown Commissioners are not subject to planning control, the LCC does not plan for their comprehensive development. A case for friendly co-operation?

County Offices for Berkshire

The Royal County of Berkshire this week announces a competition for new county offices and council chamber at Reading, to be built on a central site bounded by Abbot's Walk and Abbey Street.

The promoters have appointed Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I., F.I.L.A., to advise them on the conduct of the competition, and act as their assessor. An award of £3,000 will be made to the author of the

design placed first; £2,000 for the second and £1,000 for the third best design.

Closing date for designs is October 31, 1961, and closing date for questions, June 26. Requests for full details of the competition should be sent with a deposit of 2 gns. to the Clerk of the County Council, Shire Hall, Reading, Berks.

RIBA

Responsibility of the Job Architect

A lively and constructive discussion took place last month at the RIBA on the job architect's responsibilities. Under the chairmanship of Donald Gibson, it was opened by three speakers, Henry Swain of Nottinghamshire, John Kitchin of the M.O.E. Development Group and Thurston Williams of the LCC. All three led off with some very precise and powerful points.

Henry Swain described the structure of the Notts office, how it was broken down into groups, and how within each one the majority of architects were each responsible for a particular job. It was normal practice, he said, to give group members a job to run as soon as they had had six months experience after finishing their full-time training.

John Kitchin described the MOE method: each group was responsible directly to the chief architect, and through a series of jobs the responsibility for various aspects of design would rotate amongst the members, including the overall job responsibility. He saw nothing irrational in a group member with seniority concentrating on one part of the building, working in conjunction with someone with less experience who had responsibility for the job as a whole. Indeed, this led to a proper attitude to design, and to a proper study of all the aspects of a particular building.

The third speaker, Thurston Williams, concentrated on the question of architects' salaries, saying that the many-graded scale of the local authority offices was wrong, and led to a pyramidal structure which was incompatible with current ideas about the job architect's role. This should be replaced by a structure similar to that existing already for the Civil Service, with a basic rate from say £1,000 to £2,000 a year for job architects, the next scale above being for group leaders.

All three speakers were agreed on the virtues of the job architect method. It gave responsibility quickly, and this was the right way for new members of the profession to gain experience. It led to greater efficiency, because the job architect had some real purpose in getting on with the work, and because with one man co-ordinating the building from start to finish there was a minimum of overlapping. It could provide a convincing answer to the generally low level of income in the profession, and could put a stop to perpetual job-changing in search of a little extra salary. It was the answer to the demand for two tiers and could create, by its continuity, a much

higher standard of design. Above all, it was the most convincing possible way of dealing with the very human problem of how to make medium-sized and large offices good places for the recently qualified to work in and gain experience.

The speakers seemed to expect to come under heavy fire as a result of this salvo. Instead there was a warm glow of satisfaction and agreement with nearly everything they had said, and as far as the packed audience was concerned, it seemed that they had been preaching to the converted. The discussion then developed into a consideration of the best techniques for carrying out the job architect idea. Stirrat Johnson-Marshall pointed out that the spreading out of authority within the office to the job architect did not apply in at least one respect. The chief architect in the local authority or the partner in the private practice still had to "carry the can." This situation was unfair, and should be changed so that the responsibility of the job architect could become a reality in every possible

E. D. Jefferiss Mathews raised the problem of communication when the larger office was split into groups. One group might spend weeks tackling a particular problem that another had recently solved. The answer would seem to be a form of specialisation, that the group system should be supplemented by each architect in an office being specially knowledgeable about one particular aspect of building. Each job architect would then refer to the specialist concerned should he have any design problem so as to check the current state of knowledge or technical development. Other speakers added that the job architect method must be plainly apparent to the client. For instance he should, however junior, take the chair at client meetings, even though the head of his office attended. The discussion had to close after an hour and a half, and was perhaps not entirely conclusive, but as Donald Gibson pointed out from the chair, the RIBA office survey team were present, and the discussion had provided them with a great deal of valuable background information.

CHELTENHAM

Road Plan Inquiry

A plan to ban traffic and to form a pedestrian shopping precinct in part of Cheltenham's town centre is one of the alternative proposals urged by the Cheltenham Civil and Rural Society in opposition to the Gloucestershire County Council's Development Plan. The Society outlined their scheme at the first quinquennial review of the county proposals.

Instead of widening High Street to 60 ft., the county's proposal, which is condemned as "an out-of-date method, expensive and slow," the Society propose to pave over part of it and the whole of the Promenade, making a shopping precinct for pedestrians only, and to provide a ring road round the rear of the centre with car parks for shoppers.

While this inner ring road would give local traffic access to the centre without allowing it right in, an outer ring road should be provided for long-distance, heavy traffic. Representing the Society Captain F. V. Corfield, Conservative M.P. for Gloucester South, said the County Plan did nothing to solve the traffic problem and would only increase congestion. It was purely a temporary palliative.

Lionel Brett gave evidence in support of the Society's proposals for what he called "the most elegant town centre in England." They would increase the beauty of the town and at the same time enable the traffic problem to be eased, he said.

The Town Clerk of Cheltenham, Mr. F. D. Littlewood said that Cheltenham Corporation saw no reason to depart from the Authority's proposals.

At a meeting of the Gloucestershire Architectural Association in Gloucester, on the reconstruction of city centres, Sir William Holford warmly supported the proposals of the Civic and Rural Society, which he said were "exactly what is required to keep the Promenade as a real promenade and the High Street as a real shopping street while providing access, loading and parking space behind them.

"I do not know every corner of Cheltenham," said Sir William, "but I am absolutely convinced that the right method of dealing with the twin problems of preservation and redevelopment in the centres of historic towns is not to invite more traffic to pass through the very heart of them but to segregate to the maximum possible extent, the social pedestrian from the less social motor-car and through traffic from stopping traffic. This is precisely what the Civic Society's proposals set out to do."

BRISTOL

Minister Turns Thumbs Down

Mr. Henry Brooke, the Minister of Housing, has rejected the final appeal for a public inquiry into the piecemeal development of the Wine Street area of Bristol (AJ. February 9).

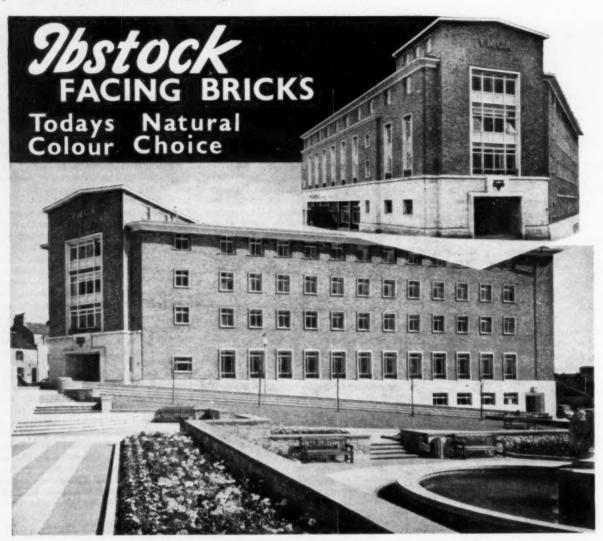
In a written reply in the House of Commons on February 28, Mr. Brooke said "There is nothing into which a public inquiry could be held."

Commenting on the refusal of the Minister to intervene, Mr. Adrian Sansom of Bristol Architects' Forum said, "At least he has said that the Council would be well advised to produce comprehensive proposals for the rest of the site, and this makes the issue a political one. The Forum will be sending a questionnaire to each candidate in the forth-coming elections about their attitude."

SPUR

The Major Shopping Street

A special meeting of SPUR is being held at the RIBA, 66, Portland Place, on March 22,



Photographs by Nicholas Horne, Totnes

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at 4 p.m., when the problems and opportunities of "The Major Shopping Street" will be reviewed and illustrated by D. Rigby Childs, with special reference to the possibilities and difficulties of Oxford Street.

Proposals for dealing with these have been prepared in collaboration with a group of consultants—such as the introduction of a high-level shopping way which could be built quite quickly and independently of the redevelopment of the individual buildings. And the following discussion will provide an opportunity for representatives of interested bodies who have been invited to attend, to join in and express their views. Peter Chamberlin will take the chair.

COVENTRY

Hillfields Comprehensive Redevelopment

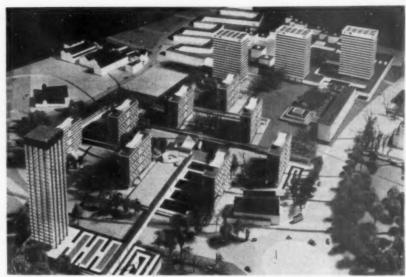
Models and plans of Coventry's first largescale urban renewal scheme, in the Hillfields Comprehensive Development Area, were on show last week in the armoury of the Council House: they represented the first 163 acres of a redevelopment plan for a much larger neighbourhood.

Coventry has already found in the course of reconstructing the centre of the city, that there is a high demand from all types of families, for accommodation near the centre, even though it is still surrounded by a drab and decaying area, and the development plan proposes to rebuild at a density of approximately 117 persons per acre, in dwellings which vary from a 30-storey block to old people's bungalows.

This would enable the council to house slightly more people in the area after redevelopment than live there at present, besides providing a considerably higher quality of environment, based on a pedestrian circulation system. About 5,600 people are living in the area at present, in housing over half of which would probably be condemned during the next five years.

The redevelopment has been devised to allow for stage by stage development as sites become available, and envisages three residential groups linked by a compact pedestrian shopping centre, with multistorey garages grouped outside these areas. Three 17-storey blocks of flats are placed on rising ground in conjunction with the shopping centre, and on the south-west slope of the hill, finking the area with Swanswell Park, 10 11-storey blocks of flats are planned, two of which are already built (see picture). A road divides these from the existing park and pool, with which, however, they will be linked by a high level pedestrian way. Adjoining the pool a 30-storey block of flats is proposed, standing on a multi-storey podium car park, the roof of which would form a terrace for the use of residents, including children's play space and possibly hard tennis courts.

The other two residential groups will consist of three-storey houses and flats and two-storey housing, some of patio type, and the area will also contain a comprehensive secondary school adjoining the City centre,



A model of Coventry's first comprehensive redevelopment area, showing the centre of the new residential and shopping area, with 30-storey point block on left, 11-storey flats, centre, and 17-storey slab blocks at top. Below, one of the already completed 11-storey blocks, seen from Swanwell Park.



a new primary school, an old people's home and old people's bungalows, nursery schools and small community centres. Corner shops, now much in evidence in the area, will not altogether disappear, as it is proposed that a shop should be included in some of the blocks of flats.

The Hillfields scheme was approved by the Minister of Housing in 1957 when it formed part of the City Development Plan.

MOLNS

Safety Regulations Inquiry

A public inquiry to hear objections to the new draft safety rules for operatives in the building and engineering construction industries opened in London on February 27, attended by representatives of the trade unions, employers and corporations.

Though there have been safety regulations for building operations since 1948 there have been none for engineering construction work, and the proposed new code, introduced under the Factories Acts, is to be applicable to both.

On behalf of the unions counsel welcomed the proposal for a unified safety system but expressed a number of misgivings about the draft rules.

For the Federation of Civil Engineering Contractors Mr. Mervyn Everett, Q.C., said it was most important that the courts should not be circumscribed. The regulations should not set a standard which the employers would find it impossible to keep to.

ST. ANDREWS

New Churches Research Group Conference

A conference on the theme of "New Church Architecture" will be held in University Hall, St. Andrews, from April 5 to 7, and speakers will include the Rev. Peter Hammond, Rev. Professor K. James Whyte, Dr. A. L. Drummond, and Robert Maguire. Visits will be made to the new R.C. and Church of Scotland churches at Glenrothes New Town.

Details and forms of application available from Dr. P. J. Nuttgens, Department of Architecture, University of Edinburgh, 18, George Square, Edinburgh 8.

NFBTE

Firm Price Tendering

At a Press conference held on February 23, Frank Russon, president of the NFBTE, said that, if firm price tendering is to be made to work, tenderers must be informed quickly if they have got the job (never later than two months after tendering); the contract itself must never exceed two years and the successful tenderer must be given at once all the drawings and instructions he needs to do the job.

LINCOLN INQUIRY

Allied Society's Leading Role

The Lincoln Branch of the Nottingham, Derby and Lincoln Society of Architects played a leading part last month in a Public Inquiry called by the Minister of Housing into a proposed housing development near Swanpool Garden Suburb which the city council had approved.

The Swanpool estate was designed in 1919 in the garden city tradition, but for economic reasons only a tenth of it was ever built. The land was not scheduled for development in the last town map, but the Fleetwood Estate Co. Ltd. had applied to develop about 70 acres there. Objectors to the scheme, along with the Lincoln architects, are the Lincoln Civic Trust, the Lincoln River Board, and the Swanpool Property Owners' Association.

Evidence for the architects was given by the branch secretary, Edward Craven, and the committee briefed a local solicitor, W. K. Wood, to present its case which was based on the following points:—

1. Further development in this sector of the city would be wrong until an adequate road system had been designed and constructed. The objectors' committee organised a 12-hour traffic census which showed that existing main roads would need to be widened, in one part to a dual carriageway and in another to a three-lane carriageway if MOT standards were to be achieved.

They pointed out, moreover, that as the Corporation is already planning development to house another 10,000 people on the south-west boundary of the city, these too would be using the already inadequate road system.

2. The existing road framework of the Swanpool estate, originally planned with 24-ft. spine carriageways had been allowed to be extended as 16-ft. carriageways, and one of the main access roads into the proposed new development would be through the heart of the existing estate along a 16-ft. carriageway with a blind corner.

3. The development involved the destruction of 40 per cent of a very pleasant copse, which would become only a narrow belt of trees.

4. The Corporation, which had originally intended to use some of this site for a new secondary school, was proposing to resite the school on low lying, badly drained land; and school buses would have to be run through the estate.

5. The area had been classed as unfit for development in the survey attached to the town map. The branch had taken levels which proved that a large portion of the area could not be satisfactorily drained without pumping.

 In spite of the Corporation's contention that there is a shortage of land for building, the branch showed that there was ample land available either in the city or adjacent to its boundaries.

7. They pleaded that if planning permission were granted a comprehensive plan must be prepared by a competent designer, but urged that permission be at least held up until the Quinquennial Review of the Town Map, when adequate consideration could be given to all these points.

Mr. W. K. Wood, the solicitor briefed by the branch to present its case, said this intervention by the architects of the city was "an historic event . . . caused by a public-spirited desire to prevent bad planning in the city, of which there was too much evidence." The application was premature and could well await such time as the road system had been modernised and the drainage of low-lying areas tackled.

Mr. G. E. Phillippo, representing the Lincolnshire River Board, said that the Education Committee might have to think again about its proposal to resite the school, if building were forbidden below 23 ft.; although the proposed site did not flood, there was a danger that the playing field would be waterlogged.

Lincoln is one of the cities which has no chief architect and the Lincoln branch has been pressing for the appointment of an architect-planner as chief officer, instead of the administration of town planning being, as at present, one of the many duties of the city engineer.

TRAVEL GRANTS

Ford Foundation—English-Speaking Union

Four travel grants to the United States, deferred from last year, are available for men or women of British nationality between the ages of 30 and 50, and practising in any of the following branches of the art: painting, sculpture, music architecture or design. Museum curators and art historians are also eligible.

Each grant covers the cost of travel to and from the USA and travel within the country, with a subsistence allowance for each of the 56 days spent there: it may be taken up after mid-September 1961, but must be completed by July 1, 1962.

Application forms and further details from the Secretary, The English-Speaking Union, 37, Charles Street, London, W.1.

HMSO

Housing in Britain

This reference pamphlet published by the Central Office of Information (price, 3s. 6d.) shows that there has been a steady fall in the number of local authority dwellings built each year since 1956, and that of that smaller number an increasing proportion consists of one-bedroom dwellings. While local authorities in Britain built 166.267 houses and flats in 1956, they completed only 122,165 in 1959. And between 1957 and 1959 the proportion of one-bedroom dwellings built in England and Wales rose from 13.3 per cent to 22 per cent of the total.

The pamphlet, which is one of the series prepared by the COI for the UK Govern-

ment Overseas Information Services, surveys housing policy since the end of the war, explains housing finance and outlines the Rent Acts. The section of housing subsidies, however, will presumably be rendered completely out of date by the new Housing Bill based on the recent White Paper.

FACE LIFT

Hampstead Adopts Civic Trust Scheme

The Hampstead Borough Council has appointed Leonard Manasseh, A.A.Dipl.. A.R.I.B.A., to prepare a "face-lifting" scheme for Hampstead High Street and Rosslyn Hill on the lines of the Civic Trust scheme in Norwich: it will be the first London borough to take up the idea.

Over 50 shopkeepers in the high street attended a meeting at the Town Hall last week and unanimously agreed to take part, and elected representatives to sit on the ad hoc committee set up by the Borough Council to investigate and carry the idea through.

Mr. Manasseh said, "You have the bones of a very fine street. It does look like a meaningless jumble of buildings all going downhill, metaphorically as well as literally. But there is a great deal of underlying charm there that needs to be brought back to life." He illuminated his points with a series of excellent colour slides showing how commercial clutter was ruining the beauty of the street.

COURTAULD INSTITUTE OF ART

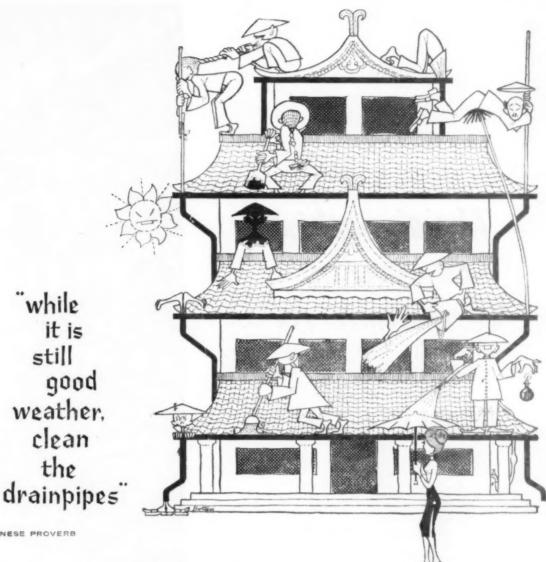
Summer School

This year's summer school will be held at Bath from July 22 to August 5, and lectures will deal with the Romanesque School in Herefordshire, Avalon, Medieval Vaulting, Later Plantagenet Manor Houses, the Origins of Perpendicular Architecture, and Bath. Resident tutors for the course will be Dr. G. Zarnecki, Ph.D., F.S.A., Slade Professor of Fine Art at Oxford University and Reader in the History of Art in London University, and C. Hohler, M.A., F.S.A., lecturer at the Courtauld Institute. Visiting lecturers will be John Harvey, F.S.A., F.R.S.L., Peter Kidson, M.A., Ph.D., Sir John Summerson, C.B.E., F.B.A., A.R.I.B.A., and Geoffrey Ashe. Full particulars of the school are available from Charles J. Robertson, Combe Hay Manor, Bath.

ICE & IME

Amalgamation Ballot

The postal ballot for the proposed amalgamation of the Institution of Civil Engineers and the Institution of Municipal Engineers has resulted in a majority of 1,203 for amalgamation. 3,108 voted for, 1,905 against the proposal, which has now to be considered by a special general manner of members of the IME before are there whether to apply for approval to the Prove Council.



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THE INDUSTRY

This week Brian Grant describes rubber mastic, a dishwasher, a refrigerator, a dustbin cabinet, building blocks and electrical floor heating.

Mastics for Large Movements

Joints in curtain wall structures must be capable of a considerable degree of stretch to accommodate thermal movements, and also tough enough to resist weather and possible damage when the building is being cleaned. The ordinary oleo-resinous compound will not stand up continuously to movements greater than 25 per cent of the original joint width, and this may involve a relatively large volume of mastic. Secoseal, a cold curing rubber-type sealer has now been evolved and is claimed to have a minimum life of 30 years and to have an extensibility of up to 50 per cent indefinitely. Standard colours are grey and black, and the sealer can be applied by a hand or air-operated caulking gun. The company maintains a technical service department and demonstrators are also available. (Secomastic Ltd., Western Road, Bracknell, Berks.)

New Dishwasher

Electrolux have just introduced an electrically operated dishwasher which is quite compact and should fit easily enough into the small kitchen. It has a consumption of 75 watts and needs connection by hose to a hot water supply at a temperature not less than 120° F, plus a drain hose to the sink. The illustration shows how the plates and dishes are loaded into the rack. A centrifugal pump sprays jets of water on the rotating rack, and the dishes are first rinsed with a through flow of water, after which they are washed for 4 minutes with 7 pints of water

and a non-foaming detergent. With a final rinse the whole job is done in about 10 minutes. The washer is not intended to deal with saucepans. Weight is only 40 lb. and the unit can be stood on the draining board or bracketed to the wall as in the illustration. Price is £61 19s. including purchase tax. Deliveries in Eastern areas will start in May, and the rest of the country will follow on. (Electrolux Ltd., 153 Regent Street, London, W.1.)

New Table Top Refrigerator

There is now a 3½ cu. ft. table top Astral refrigerator which sells at £44 2s. It is an absorption type, with feet for levelling on uneven surfaces, and the door can be arranged to open right or left. Cooling unit stores up to 15 lb. of frozen food. Standard colours are white and cream. (Morphy-Richards (Astral) Ltd., 50, Conduit Street, London, W.1.)

Rubbish Disposal

Williams & Williams are now producing a dustbin unit which has been standardised at Crawley New Town. The dustbin is hidden away in its own fly and vermin proof container. It is emptied from outside the house through a louvred sheet steel door, and on the inside there is a thief proof catch on the lid of the compartment in which the bin is stowed. The cabinet is normally bolted to a fixed light above, and in this form costs £21. It is also made coupled to a single door with a standard mullion, and other arrangements are possible since the unit is made of standard BS 990 window sections. The bin container measures 24 by 191 in. on plan and will take any standard size domestic bin. (Williams & Williams Ltd., Pressed Metal Division, 37. High Holborn. London, W.C.1.)

Partition and Building Blocks

Sankey have just issued an information sheet on building blocks. The sheet lists a variety of solid and hollow blocks, and includes the standard sizes available, weights, crushing strengths, thermal transmission. shrinkage, moisture movement, sound reduction, and comparative costs. The sheet would, I feel, be more use if it were on both sides of an A4 sheet, (J. H. Sankey & Son, Ltd., H.B. Division, Essex Works, Ripole Road, Barking, Essex.)

Electrical Floor Heating

Volex Electrical Products, who make electric cables for ceiling and floor heating, have recently opened a new showroom which has examples of different types of installation. Building materials, thermal insulation, installation and control methods of various kinds are shown in sectional models and it is also intended to arrange lectures and discussions. (Volex Electrical Products Ltd., Salford, 6.)



The small Astral refrigerator

The Electrolux compact dishwasher



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Architects: Samuel Jackson & Son

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Broughton Moor

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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.



1.19 sociology REDEVELOPMENT

Human Aspects of Redevelopment, Studies in Housing and Industrial Location No. 2. by J. Norris (Midlands New Towns Society, 1960). Available from Hon. Secretary, 58, Norman Road, Birmingham 31. Price 10s. There is currently so much discussion of urban redevelopment that a careful and factual study of some of the social effects of this policy is more than welcome. Mrs. Norris conducted a survey of 166 families who had been rehoused by Birmingham Corporation in 1952-3, at the beginning of the Corporation's programme for redeveloping the central areas of that city. At that time the only new houses available were situated in the outer suburbs.

One of the most illuminating sections of the book describes the process of selection by which tenants finally achieve a new house; for all the careful planning by the administration the allocation of houses appears to the tenant as largely hit and miss. The author deals with the tenants' appraisal of the design of their new homes somewhat cursorily, but the striking changes in rent, in time spent on the journey to work, in amount of contact with kindred which have occurred as a result of the move are well documented. The study is largely concerned with how the tenants themselves evaluate the experience of being moved; the author tries, but is unable to discover, some social characteristics which distinguish tenants who have settled happily in the new environment from those who have been less successful in making the adjustment. The study concludes with a number of recommendations for administrators which are largely designed to increase tenants' understanding of the rehousing process.

The report is written largely for sociologists and administrators, but it will also be of interest to the architect and planner. They may look for more discussion of the qualitative differences between life on a new housing estate and life in a slum. Although some of the tenants' comments are noted there is little to guide the planner

in how he might assist the development of community life. The sociologist too may regret the lack of discussion of the part played by middle class values in rehousing, and the possible effect on the adjustment of tenants to the new way of life. The report, however, provides a valuable account of how the results of planning appear to some of those on the receiving end.

(94) 725·56

10.205 design: building types OLD PEOPLE'S DWELLINGS

More Flatlets for Old People. MOHLG published by HMSO. Price 3s.

In More Flatlets for Old People the Ministry of Housing provides some further thoughts on the flatlet system described in their Flatlets for Old People in 1958. The flatlet is a form of accommodation intended primarily for single old persons, who might find a completely self-contained dwelling too much to manage. Flatlet schemes with central heating, shared W.C.s and bathrooms, and the services of a warden are designed to enable old people such as these to retain their independence. Experience with the first of these schemes has shown that a grouping of 8 to 12 flatlets is often preferable to those of up to 30 dwellings suggested in the first publication. For couples, a separate bedroom and sitting room has been found more satisfactory than the bedsitting rooms which have proved suitable for single persons. For the rest, the present publication largely reiterates the suggestions of the earlier one. with the added conviction that experience has brought. At the same time we must question whether the sharing of W.C.s and bathrooms is not being urged for economic rather than for social reasons. It seems unjustified.

The booklet contains a number of plans, including those of existing schemes in various parts of the country, and suggestions for conversion of old property.

(94) 725·5

10.206 design: building types THE HOSPITAL BRIEF

Commissioning a New Hospital, a report on the commissioning of the first stage of the Princess Margaret Hospital, Swindon, by J. A. Oddie, Published by the Oxford Regional Hospital Board, 43 Banbury Road, Oxford, Price 10s, 6d.

This is an interim report by J. A. Oddie, M.B., B.S., the Deputy Senior Administrative Medical Officer of the O.R.H.B., who, as chairman of a working party of officers of this Board and the Swindon and District Hospital Management Committee, has been intimately concerned with every major

aspect of the creation of the new Princess Margaret Hospital at Swindon.

The report, financed by the Nuffield Provincial Hospitals Trust, is the first of its kind to be published in England and will undoubtedly prove of interest and value to the many authorities soon to be faced with the very complex problem of commissioning a new hospital.

The Government is committed to a policy of considerable hospital expansion during the next 10 years but there is as yet no guiding information readily available on this particular subject. Hospital building in this country is still in its infancy and each new project tends to be experimental. The value of this report is that it provides a starting point from which may be developed a definite commissioning procedure in the future, and at the same time outlines some of the many problems likely to be encountered.

It is divided into two parts. The first gives "a factual account of the work undertaken in the commissioning of the first stage of the Princess Margaret Hospital." It describes the method of work of the committee, the timing of the project, the functioning and organisation of departments and mentions the problems that arose from the inevitable variation orders. It also includes an important section headed "The Hospital in Operation" in which a critical appraisal of the general layout, the design, the construction, and the services of the new building is given. Each department is analysed separately and mistakes are candidly exposed and discussed. Although many of the actual difficulties and frustrations experienced during the slow commissioning process have inevitably been omitted, and the information contained is a little uneven at times. this first part of the report does provide a common-sense approach to a complex problem and an admirable basis upon which to commence the second part.

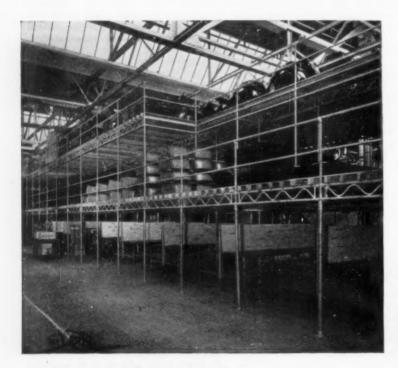
This comprises a suggested procedure for commissioning a new hospital building and is based mainly upon the experience gained in the work undertaken at Swindon.

The composition of the planning team is discussed, together with the briefing of the architect, the preparation of the schedule of accommodation and subsequent sketch plans. Also listed are the various authorities from whom planning permission must be obtained.

Two-thirds of the report, which is illustrated with detailed sketch plans of Princess Margaret Hospital, consist of appendices which include a room-by-room list of equipment installed in the hospital; a list of the contents of every pack in the central sterilising department; and a list of every department and service to be considered in the planning of any new hospital.

There is a need for the Ministry of Health (who as yet have provided very little information on this subject) to co-ordinate the results so far achieved in the individual regions, and thus obviate much of the work that now has to be undertaken by each new hospital planning committee. In the meantime this report will render a valuable service to all those concerned in the commissioning and design of new hospitals.

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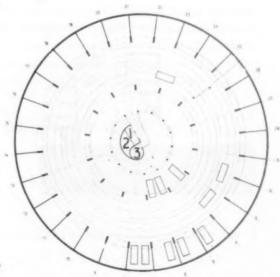
DEEP BASEMENT SUNK UNDER SELF-WEIGHT



To avoid complicated shoring and the risk of damaging adjoining buildings a seven-storey underground garage for 530 cars now under construction in Geneva has been designed to sink slowly to the required depth as it is being built. The garage (architect Fritz Jenny, civil engineers Kundig and Frey, hydraûlics engineer H. B. Fehlmann) is on plan a rotunda of 187 ft. diameter. The cars are parked on both sides of a continuous helicoidal ramp set at a 2.47 per cent slope. When the garage is completed, the foot of the foundation will be 91 ft. 11 in. below ground, the top floor will be 14 feet below ground and an eight-storey office block with basement will be built on top.

The method of construction is as follows. First the site is excavated to a depth of 11 ft. 6 in. and a circular concrete box foundation is cast on to a circular steel cutter. The first three storeys are then built on to this foundation. Next, water is injected at high pressure under the cutter and, at the same time, a heavy thixotropic liquid (thixotropy=the property of a gel to become liquid when shaken) is pumped through 4-in,-diameter holes made at 3-yard intervals in the external face of the concrete cylinder. Mechanical shovels excavate earth from beneath the cutter and draw it into the middle of the site, from whence it is taken away by crane. In consequence of these expedients, the structure sinks at a fairly even rate of about 1 ft. per day. The remaining four storeys are built on top of the first three while the latter are still sinking. Lastly, when the foot of the foundation

View from the interior showing extraction of earth from the vicinity of cutting edge



Plan: Key. 1. Lift. 2. Ventilation duct. 3. Fire escape stair

technical section

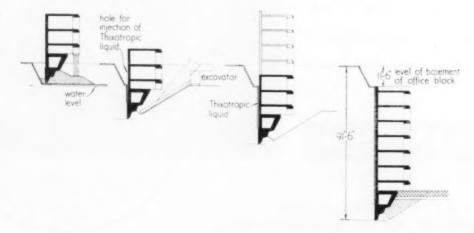


Aerial view showing the siting of the garage

reaches its final depth, the thixotropic liquid is replaced by mortar.

This method has often been used before for sinking wells and once in America for a larger structure (though only a third the size of this). The preliminary calculations were done in the University of Lausanne under Professor Bonnard. In practice it was found that the structure sank at a slightly different rate according to the nature of the subsoil. Work has had to be continuous, day and night, so that the rate of sinking is constant and at times it was found necessary to do extra local excavation to avoid uneven settlement. The estimated total cost of the garage is approximately £414,000.

Diagram showing main stages of construction





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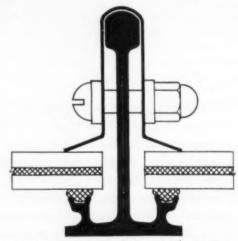
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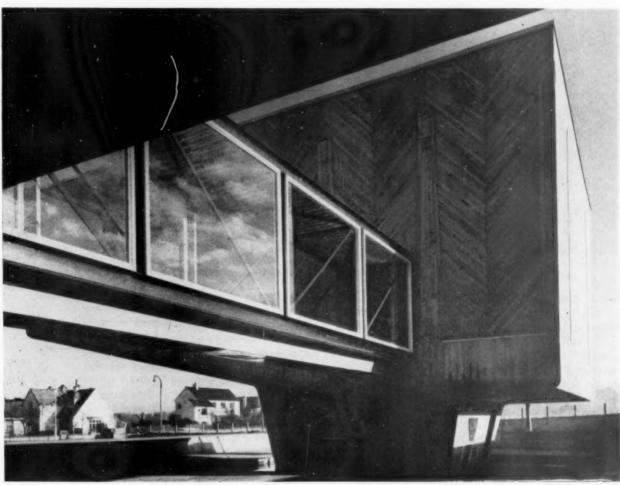


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Detail of steel and glass bridge link to Theatre

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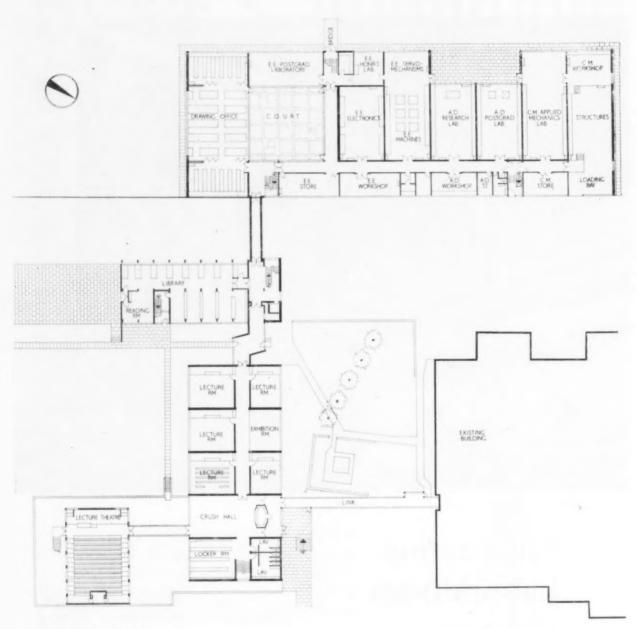
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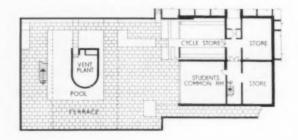
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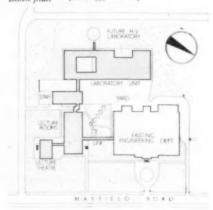


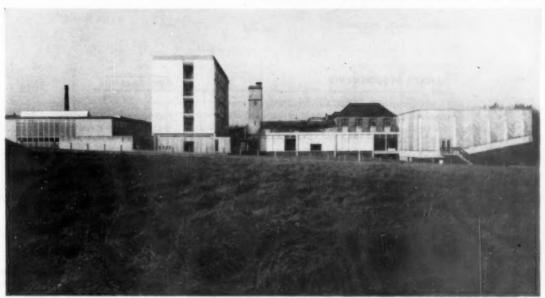
Ground floor plan [Scale: 1," = 1' 0"]

Plan at terrace level under lecture theatre



Block plan [Scale: 18 " = 1' 0"]





General view from the south-east, showing, from left to right, drawing office and laboratory unit, library and staff room unit (combined water tower and chimney of Sir Robert Lorimer's building in background), lecture room unit and lecture theatre

APPRAISAL: This interesting group of buildings, each of which makes a straightforward statement of purpose, has been well assembled. In designing the extension to an existing building which has a ponderous and rather institutional character, the architect has preferred to articulate separately (but not too diversely) the integral elements of the new building. There is a quite remarkable success in this expression which is generally rather modest but forthright in the Lecture Theatre. The sloping and open nature of the site provides a suitable basis for developing such an approach and there is no doubt that the building works extremely well in all its prime functions. That this should transpire in the context of a satisfying aerthetic, and at a very proper price, makes it precisely the kind of contribution which will most help forward-looking architecture at this moment, particularly with university clients.

As might be expected, the most controversial aspect of this group is its most salient feature, the Lecture Hall. This shape is frankly an extravagance from almost any point of view, which some architects might think of doubtful merit; lay people seem much less concerned and are generally intrigued and heartened by signs of plastic interest "among those modern boxes" thereby fulfilling one of the objectives natural to such stylistic gestures. Here the boxes are so precisely made and economically produced that the Lecture Theatre shows up particularly well as a quite justifiable manoeuvre. Whatever one may think about the sheer aesthetic, the fact is that this development cost only a little over £4 per square foot overall, although the theatre itself works out at £11 per square foot. Externally the patterning of the in-situ form work makes a suitably homespun surface of slightly changing curvature for the play of ripple reflections from the pool below. However, it is the interior furnishings, fittings and special services which account for the greater part of the cost and results are undeniably excellent. Acoustics, lighting and air-conditioning have been very well handled and leave the impression of contributing positively to the highly purposeful character of this unusual chamber.

Demonstration material may be wheeled to and from the Lecture Theatre to the workshops at the opposite end of the

site. A neatly detailed bridge connects the theatre to the upper floor of the lecture room block, which is in turn connected, through the entrance hall, to the existing engineering department. Careful handling of levels provides ramped access to a cycle store, and a south-facing students' common room below the lecture rooms themselves. These rooms are confidently handled in a straightforward manner, providing a perfect context for seating of impressive functional simplicity. The main crush hall disappoints a little in its patchy arrangement of notice boards and chandelier type light fittings. These are inoffensive but do not seem up to the standard the building generally leads one to expect.

In the staff block, butt-jointed cork cladding around the librarian's office quickly shows indelibly grubby marks, while black thermoplastic tiles in the laboratory block show similar effects, and are certainly slippy (possibly due to improper maintenance?). Here also there is some ironmongery of disappointing design, but it seems almost carping to criticise things which impinge more sharply in this building because of its excellent overall quality. The use of a wide variety of materials externally is carefully executed, and successful because of the clear articulation of the four main blocks, and of the use of refreshingly restrained colour and contrast. As a result, incidents of error in the junctions of materials and different planes hardly occur. Although there are places of compromise, perhaps the most obvious incongruity is the curious reversion to facing brick at the lift motor rooms, and this was volunteered by the architect as something he himself now regretted. But surely he can have few regrets about a building which stands so crisp, clean and confident on its refreshingly uncluttered sward of grass.

There are many points commanding respect, and sometimes admiration, so that discussion merely of excellent colour, furnishing, detailing and the like misses the point, made time and again in a variety of ways, that this is simply a fine work of architecture. In the laboratory and drawing office block especially the organisation of welded steel frames, exposed services, natural materials and large glazed areas (apparently always in their proper place!) inescapably creates the right character of an engineers' workshop.

CLIENT'S REQUIREMENTS

A new group of buildings, associated with the existing engineering building, providing workshops and laboratories for electrical and structural engineering and new teaching and staff accommodation for the whole department.

SITE

On the edge of the Braid Hills. A fall of some 15 ft, from south-west to north-east has been exploited by forming a sunken court at the eastern extremity. This forms an enclosure for the students' common-room on the lower ground floor, and out of a pool in the court springs the plastic form of the reinforced concrete lecture theatre. A light steel and glass bridge links the theatre to the crush hall in the classroom unit, allowing heavy demonstration material to be wheeled into the theatre from the workshops without a change in level. In the stem of the cantilevered theatre is housed the air-conditioning plant exclusively for the theatre.

PLANNING

The general idea is to separate the distinct functions in different but linked buildings, which vary appropriately in structure. The two-storey laboratory and drawing office unit is in exposed welded steel, lightly clad in plywood and aluminium, and is easily adaptable and expandable: the five-storey library and staff room unit has a reinforced (partly prestressed) concrete frame, clad on the ends with mosaic-lined brick and in window spandrels with grey stove-enamelled insulated panels: the classroom unit (largely single-storey) has structural brick party walls; the theatre is reinforced concrete, the upper part clad with hardwood planks between in-situ portals. Constantly proportioned aluminium windows throughout assist the unity of the group. As befits an engineering building, the structural system is everywhere apparent; the plastic concrete theatre and the mathematically elegant bridge symbolise the range of modern structural engineering in partnership with architecture.

NOTE

Because of the nature of the design, the cost analysis has been carried out separately for the four main blocks. Each analysis is based on tender, and uses the Af revised elemental breakdown in use from November 10, 1960.

LECTURE THEATRE BLOCK

SUMMARY

Total floor area: 2,282 sq. ft.
Type of contract: Firm price.
Tender date: August 1958.
Work began: October 1958.
Work finished: September 1960.
Tender price of foundation, superstructure, installation and finished: including date of the stallation and finished.

installation and finishes, including drainage to collecting manhole: £25,242 16s. 1d.

Tender price of external works and ancillary buildings, including drainage beyond collecting

manhole: £1,069 7s. 8d. Total: £26,312 3s. 9d.

COST ANALYSIS	Cost	
	sq.	ft.
	S	d
Preliminaries and Insurances	7	10
3.532 per cent of remainder of contract.		
Contingencies	4	8
Work below lowest floor finish	3	5
Reinforced concrete foundation slab, 11-in.		
mastic asphalt in 3 coats, lean concrete carpet		
cont		

STRUCTURAL ELEMENTS

Frame	56	6
Reinforced concrete raft foundation at ground		
level; reinforced concrete walls supporting		
reinforced concrete cantilever sloping and curved		
first floor, columns and beams.		

Upper floors	9	41
Stepped timber floor of softwood framing secured		
to reinforced concrete frame with 1 in, chipboard		
or 1 in, nominal maple tongued and grooved		
flooring: 205 sq. yds., 104s. 3d. per sq. yd.		

Roof	7	13
Softwood joists and plates secured to reinforced		
concrete frame and covered with } in. thick		
chipboard, waterproof building paper, three		
layers felt and chippings: 172 sq. yds., 94s. Id.		
per sq. yd.		
Copper rainwater pipe.		

Rooflights	4	9
I framed hardwood, glazed with diffusing plastic-		
bonded glass: 16 sq. yds., 165s. od. per sq. yd.		
2 similar glazed with refracting glass: 33 sq. yds.,		
251s. 3d. per sq. yd.		

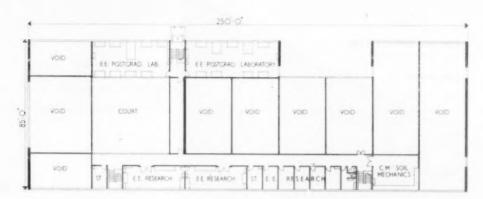
Staircases	4
1 external, 4 ft. 6 in. wide, 9 ft. 6 in. rise.	
Reinforced concrete set on granite landing.	
Granolithic finish to steps and landing.	
Wrought iron balusters, teak handrail.	

External walls	21	6
Softwood framing secured to concrete frame.		
Blanket of 1-in. mineral fibre slag wool spiked to		
timber grounds between framing and secured with		
plasterboard panels; covered internally with § in.		
thick idigbo tongued and grooved boarding secret		
nailed, and externally with a sandwich of § in.		
softwood tongued and grooved boarding,		
waterproof building paper and 7 in. tongued and		
grooved diagonal doussie boarding secret nailed:		
317 sq. yds., 154s. 9d. per sq. yd.		

317 sq. yds., 154s. 9d. per sq. yd.		
External doors I single, teak framed, ledged and braced: 19 sq. ft., 13s. 5d. per sq. ft. 2 pairs double, framed teak fitted with teak sash and glazed: 72 sq. ft., 46s. 8d. per sq. ft.	1	7

Ironmongery	81
Silver anodised door furniture, plastic push	
panels and kicking plates.	

Total of structural elements: 105s 63d

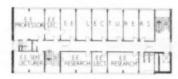


First floor, laboratories, drawing offices and workshop block

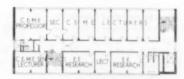
Fourth floor, staff block



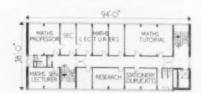
Third floor, staff block



Second floor, staff block



First floor, staff block [Scale: 44" = 1' 0"]



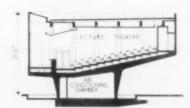
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Section through staff block [Scale: 100 00

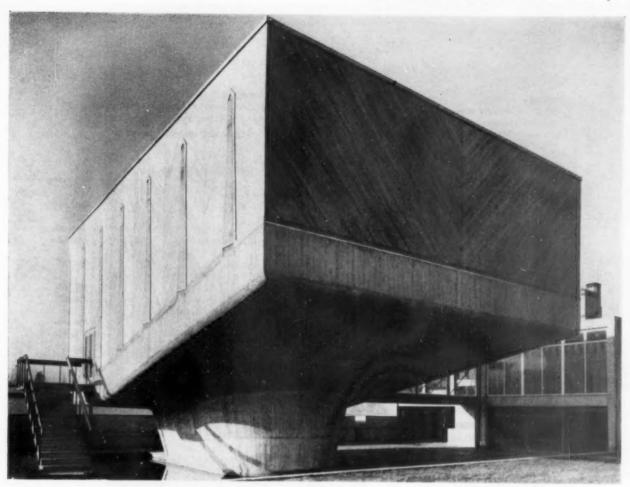


Section through laboratory, drawing office and workshop block

Section through lecture theatre

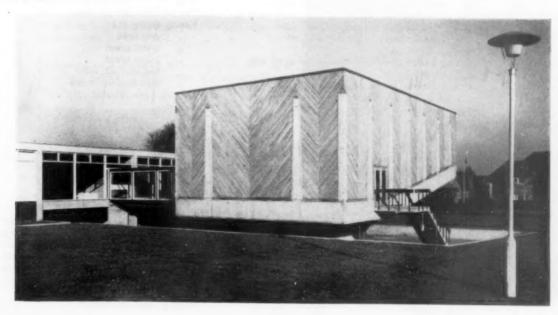


FINISHES AND FITTINGS s d Total per sq. ft. of floor area: Floor finishes Area in Cost per £25,242 16s. 1d. (net cost excluding external works) Type of finish sq. yds. sq. yd. 221 21 1-in. granolithic 27 os. od. 2,282 sq. ft. (measured inside external walls) Linoleum to stepped timber 42s. 10d. Maple strip 44s. od. 34 Ceiling finishes 7 91 Suspended ceiling of eggcrate type and idigbo LABORATORIES DRAWING OFFICES AND WORKSH. PS fascias secured to timber framing hung from roof joist: 99 sq. yds., 152s. 2d. per sq. yd. 1-in, idigbo tongued and grooved boarding secret nailed to roof joist: 67 sq. yds., 41s. 2d. per sq. yd. PLANNING **Decorations** 2 81 An expandable series of large laboratories, top-lit with Paint externally and internally. monitors, with a range of smaller laboratories, research rooms and workshops around them. The service yard **Fittings** 33 11 serves both old and new buildings. Seating: £2,290 os. od. Blinds: £784 8s. 10d. SUMMARY Blackboards: £356 os. od. Sound reflector, projection room, curtains, benches, Ground floor area: 21,714 sq. ft. etc.: £438 14s. 4d. Total floor area: 29,497 sq. ft. Type of contract: Firm price. Total of finishes and fittings: 47s 8 d Tender date: August 1958. Work began: October 1958. Work finished: September 1960. Tender price of foundation, superstructure, installation and finishes, including drainage to collecting SERVICES manhole: £120,689 16s. 7d. Tender price of external works and ancillary buildings, including drainage beyond collecting **Cold** water services manhole: £4,280 17s. 6d. Copper pipe and bib tap in air-conditioning unit. Total: £124,970 14s. 1d. I draw-off point. Includes builder's work. Heating and ventilation 35 0 High pressure steam and condenser mains. Plenum warming and extract ventilation system. COST ANALYSIS Heat load, 250,000 B.t.u.s per hour. Includes bui'der's work, 31d. Cost per sq. ft. 51 Gas services s d I gunmetal gas cock on lecturer's bench. Preliminaries and Insurances 2 10 Includes builder's work. 3.5 per cent of remainder of contract Electrical services 15 51 Contingencies 1 41 Meter and switchgear, 8s. 71d. Lighting installation, 101d. Work below lowest floor finish 8 10 Reinforced concrete floor slab, 11-in. mastic Lighting fittings, 2s. 41d. Power installation, 83d. asphalt, lean concrete carpet. Special equipment, 111d. Sub-floor ducts formed with brick side walls Cabinet heaters, 54d. tanked 3-in. mastic asphalt and bridged by precast Clocks, 2 d. concrete trough units. Internal telephones, 1s. 2d. Builder's work, 3d. STRUCTURAL ELEMENTS 84 lighting points: load 16 kW. 9 power points: load 2 kW. 13 4 Steel frame (not encased); all welded connections, including steel monitor light framing. Includes proportion of rerouting existing sewer. Upper floors 11 Total of services: 51s 11 d Reinforced precast concrete floor units over ducts: 182 sq. yds., 29s. 7d. per sq. yd. Reinforced precast concrete floor units: 670 sq. yds., External works Paved areas, grass seeding, trees, screen walls. 32s. 3d. per sq. yd.



Stem and underside of lecture theatre, showing radial and vertical pattern of shuttering to cantilever and diagonal timber cladding to walls

Lecture theatre and bridge link to lecture room unit. There is a contrast between the natural concrete and the warm light brown of the untreated Doussie wood planks which does not register in black and white



Roof

Precast concrete units, 2-in. foamed slag screed, ½-in. insulation board, ventilation barrier and 3 layers felt covering and chippings: 1,606 sq. yds., 63s. 5d. per sq. yd.

Aluminium roof decking, ½-in. insulation board and felt; 168 sq. yds. 65s. tod. per sq. yd.

felt: 368 sq. yds., 65s. 10d. per sq. yd. Monitor lights: 342 sq. yds., 103s. 5d. per sq. yd.

Rooflights

Pitched type of timber framing, one slope covered patent glazing, the other filled in with cork core panels. (Structural opening 42 sq. yds.) 65 sq. yds., 83s. 10d. per sq. yd.

Staircases

Steel framed; steel trays.
Treads and landings filled in with terrazzo and

edged with aluminium nosings. Steel balustrades.

No. of staircases	Width	Rise
1	3 ft. 6 in.	19 ft. 0 in.
2	3 ft. 6 in.	9 ft. 0 in.
2	3 ft. 6 in.	3 ft. o in.

External walls, windows and doors

15½-in. brick cavity: 4½-in. outer skin in rustic facings, 9-in. inner skin flush pointed: 423 sq. yds., 82s. 6d. per sq. yd.

9-in. brick, rustic faced both sides: 70 sq. yds., 79s. 1d. per sq. yd.

Curtain walling of softwood framing filled in with aluminium ribbed sheeting and cork core panels; aluminium windows and fittings, glazing to aluminium and timber, aluminium flashings, timber finishings, including external doors: 1,519 sq. yds., 168s. od. per sq. yd.

Partitions

9-in. wall flush pointed both sides: 454 sq. yds.,
46s. 10d. per sq. yd.
4½-in. ditto: 629 sq. yds., 26s. 9d. per sq. yd.
3-in. concrete lightweight blocks: 9 sq. yds.,
22s. 7d. per sq. yd.
Sliding folding glazed hardwood screen: 49 sq. yds.,
152s. 0d. per sq. yd.
Glazed softwood screens, including doors:
484 sq. yds., 92s. 9d. per sq. yd.
2-in. terrazzo w.c. partitions: 19 sq. yds.,

Internal doors

115s. 3d. per sq. yd.

internal goors		
Type and no. of doors	Area in	Cost per
	sq.ft.	sq. ft.
Deal flush, 25 single, 1 double	696	6s. 4d.
Deal flush glazed, 3 single,		
1 double	301	6s. 10d.
Deal flush sliding and folding,		
1 3-leaf	114	6s. 1d.
Mahogany-faced flush, 2 single	43	8s. 10d.
Mahogany-faced flush, glazed,		
5 double	157	11s. 3d.
Mahogany framed glazed,		
1 single, 7 double	377	128. 3d.
Steel, 1 double	39	48s. 7d.

5 Ironmonger

Silver anodised door furniture, plastic push panels and kicking plates.

Total of structural elements: 35s 6d

FINISHES AND FITTINGS

	Floor finishes			3	4
41	Type	Area in sq. vds.	Cost per sq. yd.		
	Granolithic to bases	38	20s. od.		
	Linoleum, 6.7 mm.	1,856	41s. 6d.		
	6 in. × 6 in. B.S.S. class				
	B clay tiles	25	63s. 7d.		
	6 in. × 6 in. stud pattern				
0	clay tiles	31	77s. Id.		
	Thermoplastic tiles	437	27s. Id.		
	2-inthick cement, sand and				
	shingle	428	9s. 6d.		
	1½-in. Caithness stone	22	61s. 8d.		

Decorations

Painting to all exposed surfaces of brick, concrete and steel.
Glazed cement wall finish: 81 sq. yds., 30s. od.

10 01 per sq. yd.

Fittings

Benching, including lecturers' bench £478. Cupboards, cabinets, telephone booths, chalk boards, shelving, blinds and lecturers' dais, £337.

Total of finishes and fittings: 6s 8 d

SERVICES

3 1) Sanitary fittings

Type No. of each type
Vitreous china lavatory basins 10
Fireclay Belfast sinks 19
,, drip sinks 2
,, 2-stall urinal 1
,, 4-stall urinal 1
,, low-level w.c. suites 2
,, high-level w.c. suites 5
Enamelled iron drinking
fountains 3
Chromium-plated towel rails 5

Waste, soil and overflow pipes

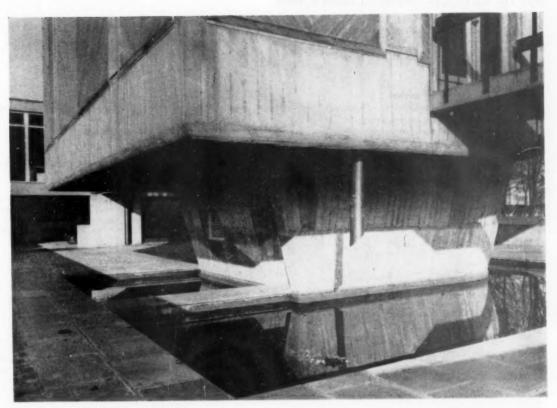
Copper waste and overflows. Cast iron soil pipes.

Gold water services

2-in. incoming main.
1,400-gallon cold water storage tanks in Staff
Block interconnected with 60 gallons per minute
booster pumps in basement of Laboratory Block,
Copper circulation pipework to lavatories and
sinks in laboratories, workshops and research

44 draw-off points.

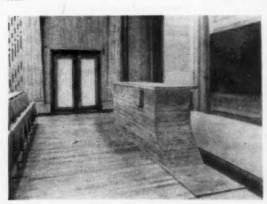
Builder's work less than |d.





The suspended egg-crate illuminated ceiling and ivory hide seating of the lecture theatre. In the background are acoustically absorbent panels

The lectern bench is of exposed reinforced concrete, rising out of the structure beneath the floor, bottom. It is topped with oiled teak



Detail showing concrete stem of Theatre, with access across pool to the air-conditioning plant which it houses

Interior of Theatre, showing perforated idigbo wood planking between tapering concrete columns, and top-lighting of aisles between the beams. Alternate absorbent and reflecting panels are fixed behind the planks. The perforations are calculated in extent but the patterning is unpremeditated



Hot water services

250-gallon calorifier in basement, 10 gallons per minute booster pumps.

Copper circulation pipework to lavatories and sinks in workshops and research rooms 31 draw-off points.

Builder's work less than &d.

Heating and ventilation

Vacuum return line steam system served by existing boiler plant.

Normal and fan-assisted convector unit heaters. Heat load: 1,970,000 B.t.u.s per hour. Includes builder's work, ‡d.

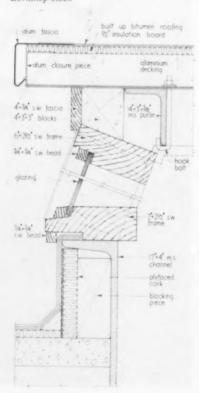
Gas services

20 outlets in laboratories and research rooms. Builders' work less than \{d.

Electrical services

Meter and switch ge	ar 28. 41d.
Lighting installation	1s. 1d.
,, fittings	2s. 4d.
Power installation	41d.
Specialist equipmen	t 6s. 9 d.
Cabinet heaters	4 ld.
Clocks	4 ld.
Internal telephones	is, iod.
Builder's work	īd.
439 lighting points:	load 94.3 kW.
27 power points: los	ad 7 kW.

Detail of monitor rooflights, laboratory, drawing office and workshop block



4 Drainage

DrainageIncludes proportion of rerouting existing sewer.

Total of services: 26s 51d

External works

Paved areas, grass seeding, trees and screen walls.

7 10 Total per sq. ft. of floor area:

£120,689 16s. 7d. (net cost excluding external works) = 81 9 29,497 sq. ft. (measured inside external walls)

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41

STAFF BLOCK

15 71 PLANNING

The library has been centrally placed on the ground floor, A lift serves staff rooms and the staff common-room on upper floors.

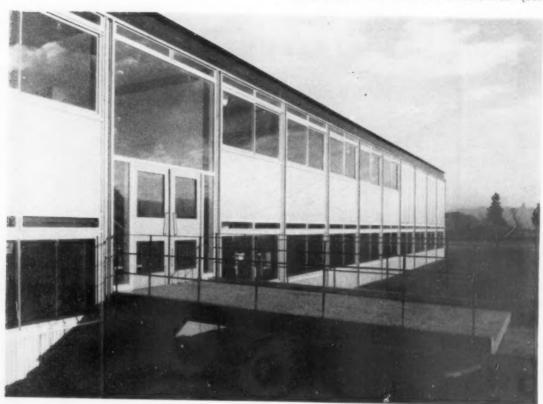
SUMMARY

Ground floor area: 3,363 sq. ft.
Total floor area: 16,572 sq. ft.
Type of contract: Firm price.
Tender date: August 1958.
Work began: October 1958.
Work finished: September 1960.
Tender price of foundation, superstructure, installation and finishes, including drainage to collecting manhole: £61,990 tos. 9d.
Tender price of external works and ancillary buildings, including drainage beyond collecting manhole: £1,850 os. od.
Total: £63,840 tos. 9d.

COST ANALYSIS

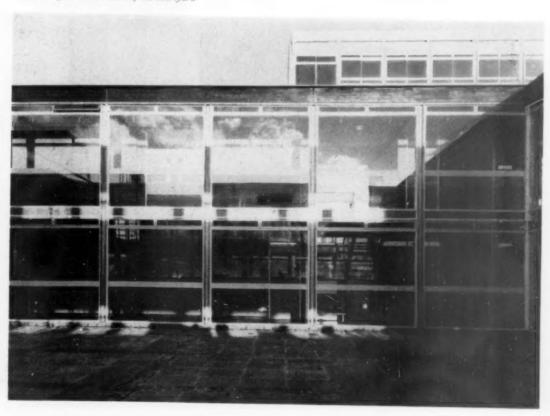
	Gost per
Preliminaries and Insurances 3.532 per cent. of remainder of contract.	2 7
Contingencies	1 91
Work below lowest floor finish Reinforced concrete floor slab, 14-in. mastic asphalt, lean concrete carpet. Sub-floor ducts as in Laboratory Block.	3 11

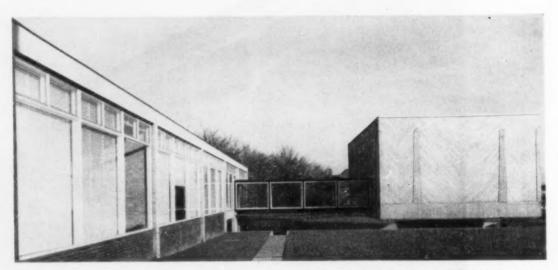
Frame	7	0
Precast concrete columns, and beams post-		
tensioned and cast in with in-situ concrete slab		
floors.		
Upper floors	4	2
51-in. precast concrete floor units: 25 sq. yds.,		
29s. 7d. per sq. yd.		
5 in. thick reinforced suspended in-situ floor;		
1,333 sq. vds., sts. 4d. per sq. vd.		



Laboratory and drawing office unit from the south-west. The bridge may later become a connection to a domed high voltage laboratory

One of the glass screen walls of the courtyard



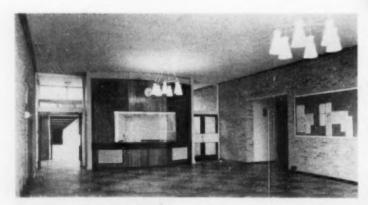


The bridge link between lecture room unit and lecture theatre seen from the library entrance

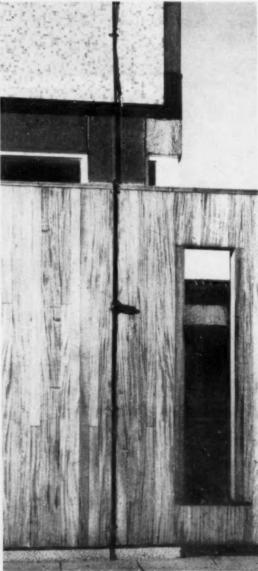
Boarded screen at end of library—an awkward corner with old residual areas of glass and other things, right

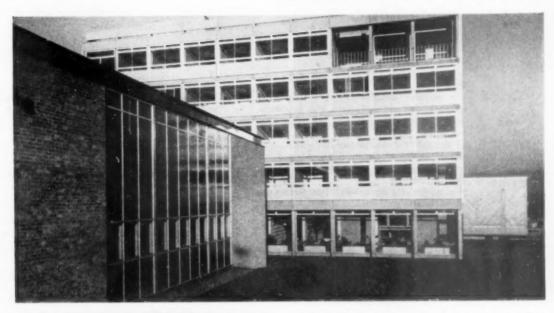
Entrance hall in lecture room unit, showing porter's cabin and covered way link to old building, below

Detail of seating in lecture theatre, of black metal and ivory-coloured hide, bottom









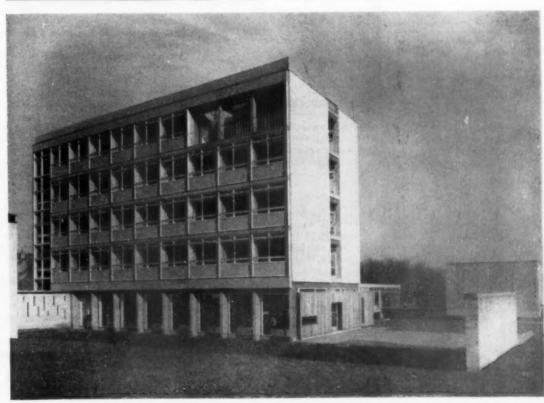


End of drawing office formed of mahogany ply panels between grey brick walls, with staff unit and Theatre in background

ς.

Reading area of library, with stacks to the left

Staff unit from south-west, showing relation to Theatre and link to laboratory unit. Concrete frame units have granite chipped finish. The end wall is covered in grey, green and white mosaic; panels under windows are neutral grey stove-enamelled metal backed with cork and asbestos. Staff common room balcony on top floor



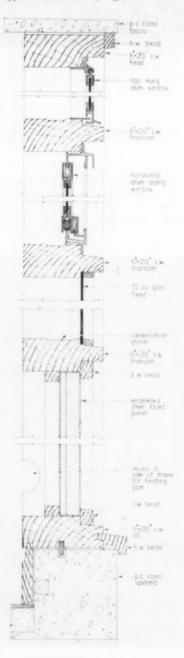
Roof

4-in. reinforced concrete slab, 21-in. foamed slag screed, cement and sand screed, 1-in. insulation board, felt and chippings: 8 sq. yds., 126s. 6d. per sq. yd.

46-in. reinforced concrete slab and beam, 2-in. foamed slag screed, cement and sand screed, 1-in. insulation board and chippings: 32 sq. yds., 139s. 4d. per sq. yd.

5-in. reinforced concrete slab, 21-in. foamed slag screed, cement and sand screed, 1-in. insulation board and chippings: 18 sq. yds., 129s. 2d. per

Typical window details, staff block [Scale: 2" = 1' 0"]



S 3 41

5-in, reinforced concrete slab and concrete balustrading, 31-in. foamed slag screed, cement and sand screed, 1-in. insulation board and 1 in. thick asbe stos tiles: 345 sq. yds., 140s. 1d. per sq. yd.

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Staircases

Reinforced concrete, mild steel balustrading with hardwood handrail, precast terrazzo finish to steps and landings. No. of staircases Width Rise

3 ft. 6 in. 41 ft. 8 in.

Mild steel cat ladder, 15 in. wide, 15 ft. 6 in. long.

External walls and windows

9-in., flush pointed one side, rustic facings the other: 60 sq. yds., 59s. 9d. per sq. yd. 9-in., rustic-faced one side: 26 sq. yds., 56s. 5d. per sq. yd.

9-in., rustic-faced both sides: 33 sq. yds., 78s. 6d. per sq. yd.

13½-in., of two 4½-in. common brick skins and 4½-in. cavity: 275 sq. yds., 44s. 11d. per sq. yd. 13½-in. solid brick: 37 sq. yds., 60s. 4d. per sq. yd.

Curtain walling of softwood framing filled in with cork core panels, aluminium windows and fittings, glazing to aluminium and timber; aluminium flashings, timber finishings, including external doors: 895 sq. yds., 176s. od. per sq. yd. Screen of softwood framing filled in with 1 in. thick insulation board and covered both sides with ?-in. mahogany boarding, including glazed windows and doors: 48 sq. yds., 99s. 9d. per sq. yd.

External doors

Mahogany-faced flush, 3 single, 2 pairs double: 120 sq. ft., 10s. 11d. per sq. ft. Mahogany framed and glazed, 10 single: 324 sq. ft., 12s. 1d. per sq. ft.

Partitions

3-in. concrete block: 10 sq. yds., 24s. 8d. per sq. vd. 4-in. ditto: 782 sq. yds., 29s. 4d. per sq. yd. 41-in. common brick: 174 sq. yds., 22s. 7d. per sq. yd. 9-in. ditto: 318 sq. yds., 43s. od. per sq. yd. 41-in. rustic: 15 sq. yds., 40s. 6d. per sq. yd.

2-in. terrazzo: 36 sq. yds., 115s. 10d. per sq. yd.

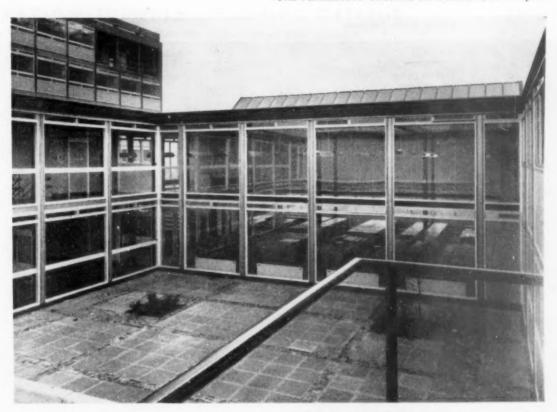
Internal needs			
Type and no. of doors	Area in	Cost per	
	sq.ft.	sq.ft.	
Deal flush, 24 single	554	6s. 11d.	
Deal flush glazed, 39 single	1,213	7s. od.	
Mahogany-faced flush,			
20 single	518	IOS. Id.	
Mahogany-faced flush,			
glazed, 12 double	666	13s. 9d.	
Mahogany framed, I double	60	14s. 1d.	

Silver anodised door furniture, including plastic push panels and kicking plates.

Total of structural elements: 33s 10d

FINISHES AND FITTINGS		s	d		5	d
FINISHES AND FITTINGS				Heating and ventilation		
Wall finishes		1	4	Vacuum return line steam system served by		
¿-in. cement plaster: 52 sq. yds., 6s. 2d. per				existing boiler.		
sq. yd.				Heat load: 670,000 B.t.u.s per hour.		
Plaster, wood float finish: 2,618 sq. yds., 7s. 6d. per sq. yd.				Normal and fan-assisted convector unit heaters. Builder's work, &d.		
9 in. × 9 in. cork wall tiles and	screed: 10 sq. vds			bunder's work, ad.		
37s. od. per sq. yd.	recear to ade Jamis			Gas services		01
6 in. × 6 in. white glazed tiles ar	nd screed:			4 outlets in research rooms.		-
26 sq. yds., 58s. 11d. per sq. yd.				Includes builder's work.		
Floor finishes		3	10	Electrical services	7	51
12 in. × 12 in. precast terrazzo t	iles: 161 sa vds	3	10	Meter and switch gear, 2s. 2d.	1	31
67s. 3d. per sq. yd.	ites, roz sqr jassij			Lighting installation, 10d.		
9 in. × 9 in. cork tiles: 578 sq. y	ds., 32s. 9d.			Lighting fittings, 1s. 11\d.		
per sq. yd.				Power installation, 9d.		
12 in. × 12 in. linoleum tiles: 8	16 sq. yds.,			Specialist equipment, 8 d.		
33s. 6d. per sq. yd.				Clocks, 2d.		
6 in. × 6 in. clay tiles: 56 sq. yc	ls., 55s. 9d. per			Internal telephones, 9d.		
sq. yd.				232 lighting points: load, 35 kW.		
2 in. thick cement, sand and shir	igle: 9 sq. yds.,			112 power points: load, 28 kW.		
8s. 3d. per sq. yd.				Builder's work, 14d.		
ti-in. Caithness stone: 44 sq. yd	is., 70s. oa. per			Consist consists		
sq. yd.				Special services I electric lift (8 per sons—1,200 lb. rated capacity)	2	10
Geiling finishes		1	6	to operate between ground and fourth floors.		
1 in. suspended ceiling of sound	-absorbent wood			Builder's work, 1d.		
fibre acoustic board soffit, plywo				and the state of t		
timber framings: 298 sq. yds., 5				Drainage	1	0
Plaster on concrete soffits and be	ams: 1,433 sq. yds.,			Includes proportion of rerouting existing sewer.		
5s. 3d. per sq. yd.				Total of comices, 90c 414		
Decorations		4	7	Total of services: 20s 4 d		
Painting externally and internally	7.			External works	2	2
Vitreous glass wall mosaic on 3-i	n. cement and			Paved areas, grass seeding, trees and screen walls.	_	-
sand backing: 401 sq. yds., 85s.	3d. per sq. yd.			, , , , , , , , , , , , , , , , , , , ,		
				Total per sq. ft. of floor area:		
Fittings			11			
Cupboard units, screen, cupboar telephone booths, chalkboards, si				£61,990 10s. 9d. (net cost excluding external works)	74	1 9
tereprises booting established by				16,572 sq. ft. (measured inside external walls)		,
Total of finishes and fittings: 12s	3 d					
				LECTURE ROOM BLOCK		
SERVICES				ELUTURE HOUR BEOOK		
				PLANNING		
Sanitary fittings			5	This is a simple load-bearing structure sited between		
Type of fitting	No. of each type			lecture theatre and the library and staff-room block. I		
Vitreous china lavatory basins	7			includes the main entrance and, on a lower floor spilli		on
White fireclay Belfast sinks	6			to the sunken court, a students' common-room and co		
Fireclay drip sinks ,, low-level w.c. suites	3			store.	,	
Porcelain-enamelled iron drinkin						
fountains	4					
Chromium-plated towel rails	7			SUMMARY		
			_		-	
Waste, soil and overflow pipes			5	Ground floor area: 7,530 sq. ft.		
Copper wastes and overflows.				Total floor area: 10,186 sq. ft.		
Cast iron soil pipes.				Type of contract: Firm price.		
Cold water services			8	Tender date: August 1958.		
As in Laboratory Block.			0	Work began: October 1958. Work finished: September 1960.		
31 draw-off points.				Tender price of foundation, superstructure,		
Builder's work, \d.				installation and finishes, including drainage to		
				collecting manhole: £33,942 18s. 3d.		
Hot water services			4	Tender price of external works and ancillary		
As in Laboratory Block.				buildings, including drainage beyond collecting		
16 draw-off points.				manhole: £1,120 7s. 9d.		
Builder's work, \d.				Total: £35,063 fs. od.		

COST ANALYSIS Cost per Internal structural walls sq. ft. 9-in. brick: 111 sq. yds., 43s. 6d. per sq. yd. s d 134-in. rustic-faced one side: 20 sq. yds., 81s. 4d. Preliminaries and insurances 2 41 per sq. yd. 3-532 per cent of remainder of contract. 13½-in. rustic-faced both sides: 224 sq. yds. 96s. 1d. per sq. yd. Contingencies 1 7] **Partitions** 31 8 5} Work below lowest floor finish 3-in. lightweight concrete blocks: 5 sq. yds., Precast concrete trough unit forming main floor. 24s. Iod. per sq. yd. Basement floor and ducts all as in Laboratory 44-in. brick: 52 sq. yds., 20s. 5d. per sq. yd. 4½-in. rustic brick: 9 sq. yds., 50s. 2d. per sq. yd. 2-in. terrazzo: 11 sq. yds., 115s. 11d. per sq. yd. Internal doors Deal flush, 15 single: 378 sq. ft., 6s. 11d. per sq. ft. Mahogany-faced flush, 1 single: 22 sq. ft., 9s. Id. per sq. ft. STRUCTURAL ELEMENTS Mahogany, framed, glazed, 7 double: 318 sq. ft., 17s. 10d. per sq. ft. Steel framework to covered way. Ironmongery 11 Silver anodised door furniture, including plastic **Upper floors** push panels and kicking plates. 51-in. thick precast concrete trough section reinforced units in 14-in. widths: 761 sq. yds., Total of structural elements: 24s 1d 30s. 2d. per sq. yd. FINISHES AND FITTINGS Roof 7 84 34-in. thick reinforced precast concrete roof, Wall finishes beams, upstands; 21-in. foamed slag screed; 1-in. Plaster, wood float finish: 328 sq. yds., 8s. od. insulation board, vapour barrier and three layers per sq. yd. felt and chippings: 69 sq. yds., 102s. 11d. per Cement plaster: 142 sq. yds., 6s. od. per sq. yd. sq. yd. 51-in. thick precast concrete formed with hollow blocks and planks, with edge beams; 4 6 Floor finishes 31-in. foamed slag screed, 1-in. insulation board, 6-in. x 6-in. plain clay tiles and screed, 41 sq. yds., vapour barrier, 3 layers felt and chippings: 58s. 7d. per sq. yd. 698 sq. yds., 95s. 8d. per sq. yd. Linoleum 6.7 mm., and screed: 317 sq. yds., Aluminium decking, 1-in. insulation board, two 42s. 4d. per sq. yd. layers felt and chippings: 67 sq. yds., 67s. 8d. 12-in. < 12-in. precast terrazzo tiles and screed: per sq. yd. 337 sq. yds., 59s. 3d. per sq. yd. 2-in. thick cement, sand and shingle: 101 sq. yds., 10s. 2d. per sq. yd. 2-in. Caithness stone: 139 sq. yds., 69s. 11d. 1 of reinforced concrete with mild steel balustrading, hardwood handrail; precast per sq. yd. terrazzo finish to steps and landings: width 3 ft. 6 in., rise 9 ft. 6 in. Ceiling finishes 4 1 I ditto with Caithness stone finish to treads and Suspended ceiling of 1-in. sound-absorbent wood risers: width 9 ft. o in., rise 4 ft. o in. fibre acoustic board soffits and timber framings: 720 sq. vds., 57s. 7d. per sq. yd. Board plaster to concrete soffits and beams: External walls and windows 7 31 64 sq. yds., 6s. 10d. per sq. yd. 9-in. faced one side with blue engineering brick: 24 sq. yds., 70s. 6d. per sq. yd. 1 101 131-in. rustic-faced one side: 20 sq. yds., 83s. 6d. **Decorations** per sq. yd. Painting externally and internally. 131-in. rustic-faced both sides: 104 sq. yds., 99s. 4d. per sq. yd. **Fittings** 4 10 Curtain walling of softwood framing filled in with Servitor cork core panels; aluminium windows and fittings, Lecturers' dais glazing to aluminium and timber, aluminium Lecturers' benches £1,280 5s. 10d. flashings, timber finishings and doors: 450 sq. yds., Cuphoards 135s. 1d. per sq. yd. Cabinets Telephone booths Seating and desks: £1,185 os. od. External doors Mahogany framed three-leaf glazed sliding door: Total of finishes and fittings: 15s 8 d 208 sq. ft., 13s. 2d. per sq. ft.

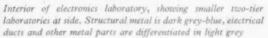


Looking into the drawing office (through the north window) from an upper laboratory. Covering of r.s.j. columns and beams in dark grey anodised aluminium. The roof tie-beam, forming a coping, is an exposed steel joist painted black





Stairway in laboratory unit. The unclad framing and exposed service runs are typical of this unit



Corridor of laboratory unit, showing welded framework painted blue-grey, and underside of exposed precast floor units painted white. Brick walls in this unit are painted; pale grey in laboratories and a variety of colours in corridors

SERVICES

Sanitary fittings		-
Type of fitting	No. of each type	
Vitreous china lavatory basins	8	
Fireclay drip sink	1	
Fireclay 3-stall urinals	2	
Fireclay low-level w.c. suites Porcelain-enamelled iron	4	
	2	
drinking fountains	2	
Chromium plated towel rails	4	
Waste, soil and overflow pipes		4
Copper wastes and overflows		
Cast-iron soil pipes.		
Cold water services		3
As in Laboratory Block.		-
17 draw-off points.		
Includes builder's work, ‡d.		
Hot water services		1
As in Laboratory Block.		
9 draw-off points.		
Includes builder's work.		
menues bunders work.		
Heating and ventilation		5 11
Vacuum return line steam system	m served by	

Vacuum return line steam system served by existing boiler.

Normal and fan-assisted convector unit heaters.

Heat load: 410,000 B.t.u.s per hour.

Includes builder's work, \(\frac{1}{2} \)d.

Electrical services

Meter and switchgear, 2s. Id.
Lighting installation, Iod.
Lighting fittings, Ioåd.

Power installation, 4åd.

Specialist equipment, IIåd.
Cabinet heaters, 2åd.
Clocks, Iåd.
Internal telephones, 7d.
Ial lighting points: load 21 kW.
I8 power points: load 4 kW.
Includes builder's work, åd.

DrainageIncludes proportion of rerouting existing sewer.

Paved areas, grass seeding, trees and screen walls.

External works

Total of services: 14s 5d

Total per sq. ft. of floor area: £33,942 18s. 3d. (net cost excluding external works) = 66 7

COST COMMENTS

The Lecture theatre is in a class of its own, the cost standing at 221s. 2½d. per sq. ft. Major portions of this cost are taken up with the structural concrete work 56s. 6½d., fittings 33s. 11d. and services 50s. 11d. The remainder of the work is down to the more known type of costs, even though there are some high costing items of finish and construction. The external walls appear expensive, but there are many layers to the unusual construction and this cost thus analysed represents fair value. A most unusual building shape also tends, perhaps, to exaggerate this form of cost as expressed per sq. ft. of floor area.

The remaining blocks, however, provide a wealth of informa-

tion in construction costs and it is very interesting to see the interplay of choice of construction to the superstructure sections as follows:—

	Steel frame Laboratory Part		Concrete frame Staff block		Load bearing brick Lecture block		
	2-5	torey	5-5	torey	1 an	nd 2- ey	
	S.	d.	S.	d.	S.	d.	
Foundations	8	101	3	111	8	51	
Frame	13	4	7	0]	0	6	
Upper floor							
construction	0	II	4	2	2	3	
Roofing	5	51	3	41	7	81	
Rooflights	0	41		electric de la constitución de l	-	-	
Stairs and steps	1	0	2	21	1	3	
External walls, windows and							
doors	10	01	11	51	7.	7	
Partitions	3	17	2	9	3	01	
Doors and							
ironmongery	1	2 ½	2	91/2	I	9	
	44	41/2	37	91	32	61	
	_		_		_		

The external walls show the Laboratory block area window walling is 1,519 sq. yds. out of a total 2,012 sq. yds. elevation area = 0.75 compared with the Staff block 895 sq. yds. of a total of 1,374 sq. yds. = 0.65 thus indicating on floor area costs at 10s. 0½d. and 11s. 5½d. respectively the higher elevation area used for the Staff block. It also shows that foundations are more expensive in the Staff block and the unit cost of the roof in this block is almost twice as costly as those in the Laboratory block. The all welded steel frame has also taken a higher proportion of the structural cost than the concrete frame.

The Lecture block has taken items of construction from each of the other two blocks, which, amalgamated with load bearing brickwork, achieved the lowest costed superstructure at 32s. 6½d.

The absence of the structural frame where possible is always a saving although increased roofing costs generally result.

Finishes to all blocks vary between the austere plaster and paint at a modest 5s. od. to 7s. od. to the more expensive type of suspended ceilings, glazed cement wall finish and vitreous wall mosaic at 85s. 3d. per sq. yd. This latter item should, perhaps, be considered as part of the superstructure external wall cost. Note also the absence of ceiling finish to Laboratory block, the aluminium decking performing in a dual capacity.

Service costs are normal for this type of scheme, use being made in the heating installation of existing boilers.

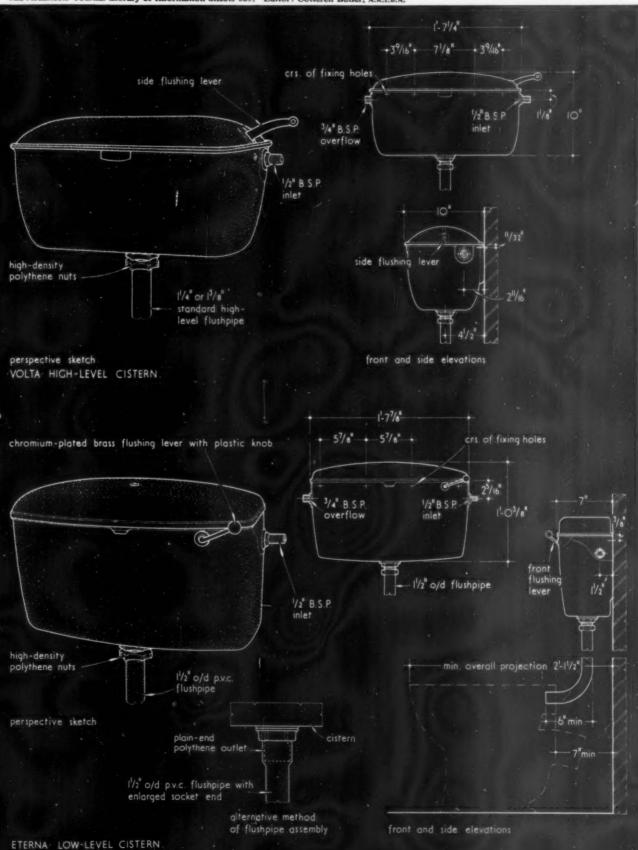
CONTRACTORS

General: Crudens Ltd. Sub-contractors-Steelwork: Redpath Brown Ltd. Heating and ventilation: Richard Crittall & Co. Ltd. Electrical: Wm. Allan Smith & Co. Ltd. Precast concrete floors and roof: James K. Millar & Co. Ltd. Thermoplastic floor tiles and mastic asphalt tanking: Limmer & Trinidad Lake Asphalt Co. Ltd. Mosaic and terrazzo: Toffolo Jackson & Co. Ltd. Core rail and balustrading: Marley Tile Co. Ltd. Felt roofing: Wm. Briggs & Sons Ltd. Fencing: Ross Contractors. Windows: Quicktho (1928) Ltd. Glazing: Northern Glazing Co. Ltd. Electric lifts: Glasgow Engineers Ltd. Acoustic materials: Hermeseal Acoustics Ltd. Bituminous macadam paving: W. G. Walker (Edinburgh) & Co. Ltd. Scaffolding: J. & W. Henderson Ltd. Linoleum: Neu chatel Asphalt (Contracting) Ltd. Blacksmith work: S. & P. Blair; Peter Heatley & Co. Blinds: Accordo Blinds Ltd. Sanitary fittings: Shanks & Co. Ltd. Paint: Imperial Chemical Industries Ltd.; Inertol Co. Ltd.; British Dolomac Co. Ltd.

SANITATION | EQUIPMENT | FLUSHING CISTERNS

33. 97

The Architects' Journal Library of Information Sheets 809. Editor: Cotterell Butler, A.R.I.B.A.



FORDHAM HIGH-DENSITY POLYTHENE FLUSHING CISTERNS.

Manufacturer Fordham Pressings Limited.

33.Q7 FORDHAM HIGH-DENSITY POLYTHENE FLUSHING CISTERNS

This Sheet describes the Volta high-level and Eterna low-level flushing cisterns manufactured from high-density polythene.

Material and Design

Both cisterns conform to the requirements of B.S.1125: 1959 and are accepted by the British Waterworks Association and by most water authorities. They are made from high-density rigid polythene which is light in weight, non-corrodible and unbreakable. They are unaffected by climatic conditions and will operate with any type of water, including sea water. Polythene provides a surface to which lime deposits will not readily adhere.

Volta High-Level Cistern

Operating lever: An end lever with chain pull is supplied operating through a slot in the cover. It may be right- or left-handed as required.

Syphon: The syphon is made from polythene and is water-lubricated. It is located by a built-in bridge which also reinforces the top of the cistern casing.

Ball valve: A Fordham Aquasave ball valve and float are normally fitted polythene, but standard brass valves can be supplied.

Overflow: A standard 3-in. screwed connection is fitted.

Flushpipe: The Volta is designed to take standard high-level flushpipes.

Fixing: Four fixing holes are provided, as shown in the drawings on the upper face of the Sheet and the cistern is fixed direct to the wall. The two outer screws should be fixed first, ensuring that the cistern is level before the other screws are inserted.

Eterna Low-Level Cistern

Operating lever: A front knob-type operating lever is supplied as shown on the face of the Sheet. The lever may be right- or left-handed as required.

Syphon: The syphon is similar to that used in the Volta cistern.

Ball valve: A Fordham Aquasave polythene ball valve and float are normally fitted as in the Volta, but standard brass valves can be supplied.

Overflow: A standard 3-in. screwed connection is fitted.

Flushpipe: A 1½-in. o/d rigid p.v.c. pipe is supplied as shown in the perspective sketch. An alternative flushpipe assembly is also shown in which the p.v.c. pipe has an enlarged socket which fits over a special plain-end outlet. The joint is a push-fit, dispensing with cap nut and washers.

Fixing: Four fixing holes are provided, as shown in the drawings on the lower face of the Sheet. Roundheaded number 8 screws, preferably brass, should be used for fixing, 1 in. long for screwing to timber or 1½ in. long for plugging into plaster. The recommended overall height for fixing is 3 ft. 4½ in. (3 ft. 2 in. from the floor to the fixing holes). A position lower than this may reduce the power of the flush. The two outer screws should be fixed first, ensuring that the cistern is level before the other screws are inserted. A minimum projection from the wall to the front of the pan is obtainable by shortening the flushpipe outlet by 2 in.

Sizes and Weights

Both cisterns have a capacity of 2 gallons in accordance with the recommendations of the Model Byelaws, although cisterns of $2\frac{1}{2}$ and 3 gallon capacity are also available. Their dimensions are as given on the face of the Sheet. The Volta weighs 7 lb. and the Eterna $7\frac{1}{2}$ lb. (both unfilled).

Colours

The Volta is available in white and the Eterna in white or black.

Further Information

The manufacturer maintains a technical advisory department.

Compiled from information supplied by.

Fordham Pressings Limited

Address: Melbourne Works, Dudley Road, Wolverhampton, Staffordshire.

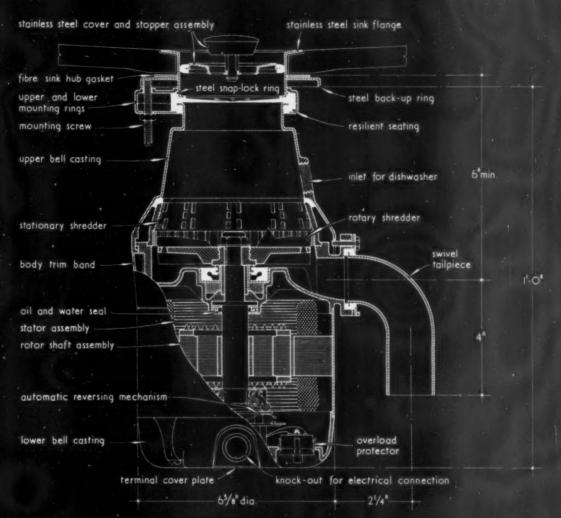
Telephone: Wolverhampton 23861-3.

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37.FI =

SERVICES AND EQUIPMENT REFUSE DISPOSAL

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SECTION THROUGH MODEL 77 SHOWING TYPICAL CONSTRUCTION OF UNITS.

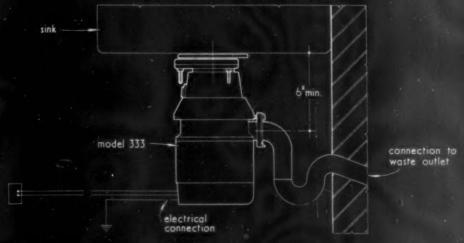


DIAGRAM SHOWING TYPICAL INSTALLATION

IN-SINK-ERATOR REFUSE DISPOSAL UNIT .

Supplier: Wynbourne-Satoba Equipment Ltd

37.F1 · IN-SINK-ERATOR· REFUSE DISPOSAL UNIT

This Sheet describes the In-Sink-Erator unit which can be fitted to any standard sink, with a 3½-in. drain aperture, for the disposal of kitchen waste. The two models described, 77 and 333, are for domestic use but other models are available for use in hotels, restaurants, cafeterias, hospitals, schools, etc.

Design and Construction

The unit is electrically operated and disposes of table scraps, bones, peelings, fruit stones, etc., by shredding them finely so that they can be washed down the sink waste. On model 77, the motor and shredder reverse automatically when the switch is operated or when the shredding load is extra heavy; this makes for faster and finer grinding and prolongs the life of the shredding elements. The In-Sink-Erator reversing mechanism is fully patented. The unit has provision for the draining of a dishwasher directly into the disposer leaving the sink free for other uses. Casing: The casing of the unit is of aluminium die castings with a tensile strength of over 40,000 lb./sq. in. This aluminium alloy is light in weight, resistant to acids and chemicals found in food waste, and will resist corrosion. The sink flange and disposer cover are of stainless steel.

Working Parts: The steel grinding elements are of a high carbon, chrome and nickel alloy called Damascan 10. All gaskets, water-seals and resilient mountings are made of Hycar which resists acids in food waste and chemical action of fats and greases. Installation fittings are of 12 g. steel and the sleeve-type bronze motor bearings (permanently lubricated) are designed for heavy loads and silent operation. Tailpiece: The tailpiece is brass, covered with a stainless steel protective coating.

Operation

Both models are continuous feed types (i.e. food waste is fed continuously into the unit during operation). To operate, the cold water should first be turned on after removing the disposer cover. A strong flow helps the disposer to operate at its best, and cold water should be used as it congeals fats and grease. The disposer switch should then be turned on and food waste fed continuously into the unit. Centrifugal force is used to grind and pulverise the waste into small particles, and by using water as the carrier the waste is washed down the drain. When food waste is fed into the grinding chamber it falls on to the rotary shredder which has a solid bar situated on its face. It is picked up by the bar, tumbled until it is broken into smaller and smaller pieces, and then pulverised between the crusher and the stationary shredder. The double-bladed rotary shredder revolves between the 36 grinding teeth of the stationary shredder. As the motor revolves at 1,450 revs. per min., over 100,000 grinding edges per minute are provided. On model 77, a further 100,000 edges are provided when the disposer reverses its direction.

Sizes and Weights

The units are 12 in. high excluding the sink flange and 6\{\frac{1}{6}}\) in. in diameter. Model 77 weighs 22 lb. and model 333, 21 lb.

Drainage

The unit functions satisfactorily with a 1½-in. waste-A bottle trap should not be used with a body larger than its outlet. As the installation of the unit necessitates fixing the trap approximately 6 in. lower than usual, the waste outlet from an existing sink may be too high and in this case should be lowered to give adequate fall to the drain. Long horizontal runs in the waste pipe should be avoided, as should T connections and stopped ends. All bends should be easy and shoulders, off-sets and obstructions in the pipes obviated. The conditions laid down by the local authority must be observed in every aspect of the installation.

Fixing

When fixed, the centre of the unit outlet should be a minimum of 6 in, from the bottom of the sink, as shown on the face of the Sheet. The sink flange, which fits any 3½-in. to 4-in. opening, should be fixed by forming a ring of oil-based, non-hardening putty round the sink opening and inserting the flange. The unit is then attached underneath the sink in accordance with the instructions supplied. In order to connect the tailpiece to the trap, the stainless steel coating should be cleaned off the former for about in. at the bottom. The tailpiece may then be sweated on to a copper or lead trap. All plumbing connections should be tested for water-tightness after fixing and the disposal unit should be left free of foreign matter. It is important that the waste pipe should not impose any strain on the free-hanging position of the unit: this would tend to make the disposer noisy in operation. The resilient mountings. between the unit and the sink opening, and the unit and the waste connection, are designed to provide for quiet operation, free from vibration.

Electrical Data

Power Supply: The supply should be 220/240 volts, 50 cycles, a.c. All connections should comply with the electrical authority's regulations.

Motor: The motor is capacitor-start \(\frac{1}{3} \) h.p. with a current consumption of 2 amp.

Switch: The disposal unit is controlled by a standard 20 amp. DP flush or surface switch (not supplied). The switch may be located where desired. In model 77 the automatic reversing switch is built into the body of the unit, and the only exterior switch required is that described above. A knock-out is provided in the unit for the entry of a 3-core TRS cable, and a cover plate must be removed to expose the terminals. The unit must be earthed to a 13- or 15-amp. 3-pin plug and socket, as, although the consumption is only 2 amp., in the event of overload conditions this consumption would rise momentarily until the overload protector cuts out.

Finish

The units are finished in white vitreous enamel, with stainless steel sink fittings.

Further Information

Both models carry a five-year warranty on all parts, which includes free service during the first year. Servicing is carried out by local authorised agents.

Compiled from information supplied by
Wynbourne-Satoba Equipment Ltd.
Address: 90-96 City Road, London, E.C.1.
Telephone: Clerkenwell 6006 (PBX).

working detail

TELEPHONE KIOSK IN HELSINKI

Kurt Simbery, architect (material supplied by H. S. Sami)

MISCELLANEOUS: 40

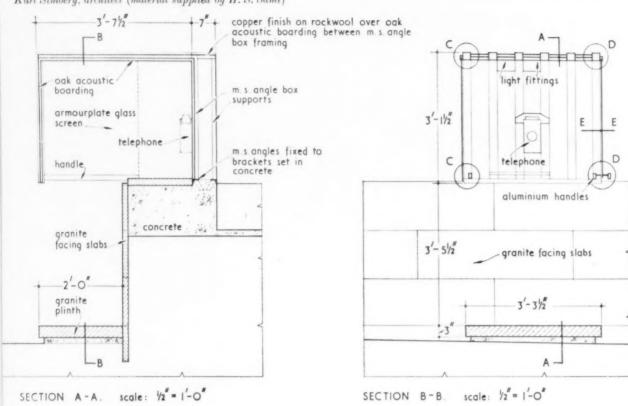


This telephone hood which projects over a public pavement shows a method whereby a public telephone service can be provided on the front of a building with a minimum of visual interruption, At the same time it must be questioned whether the slightness of the projecting parts, when approached from the side, is not a risk to people bumping into the kiosk.

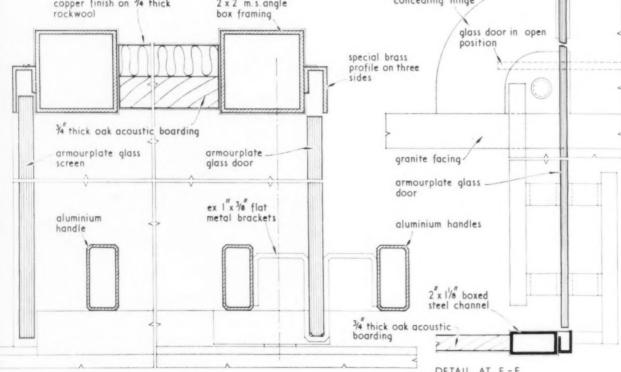
working detail

TELEPHONE KIOSK IN HELSINKI

Kurt Simbery, architect (material supplied by H. S. Sami)



brass cover for 2"x 2" m. s. angle box framing copper finish on 3/4 thick concealing hinge rockwool



DETAIL AT C. scale: 1/2 full size

DETAIL AT D scale: 1/2 full size

DETAIL AT E-E scale: 1/4 full size

note: figured dimensions in feet and inches are approximate.

above all...

PERMANITE

the first name one thinks of for

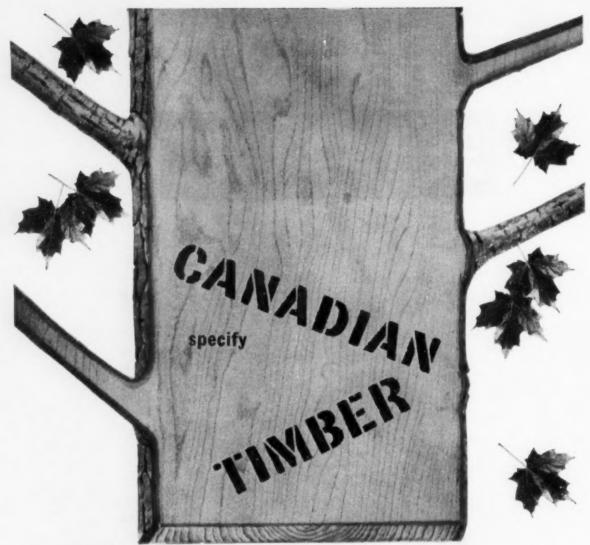
roofing

Consult Permanite Limited at the planning stage for Asphalt and Built-up Felt Roofing systems.

Also specialists in Asphalt Flooring and Tanking.



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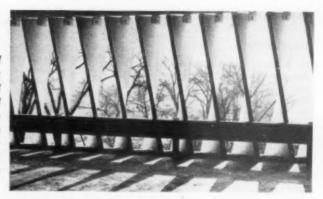
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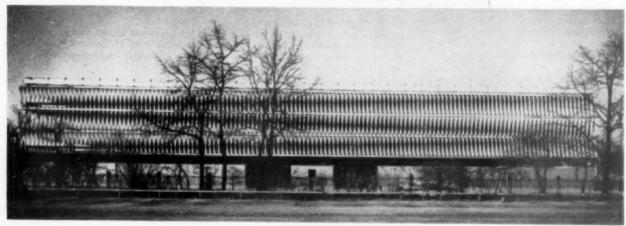


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Announcements

PROFESSIONAL

G. B. Smith, Dip. Arch. (Birm.), A.R.I.B.A., has resigned from the Ministry of Education and is in private practice at Curphey Place, South Avenue, Kingston, Jamaica, where he will be pleased to receive trade literature and catalogues.

Leslie J. Newton & Partners, chartered quantity surveyors have taken into partnership J. D. Saxton, A.R.J.C.S.

Victor G. Bartholomew, A.R.I.B.A., A.R.I.C.S., A.M.T.P.I., has resigned from the Basildon Development Corporation and entered into partnership with Jan Farber, practising under the style of Jan Farber & Bartholomew, from Nevendon Hall, Basildon, Essex.

G. A. Hanscomb Partnership have opened a further branch office under the direction of the resident partner, A. G. Tapley, A.R.J.C.S., at 145, New London Road, Chelmsford, Essex. (Telephone: Chelmsford 57562.)

The Architect's Department of E. S. & A. Robinson (Holdings) Ltd., Bristol 1, are engaged in reorganising their information library into the S.f.B. classification and would be pleased to receive trade literature to A.4 size only.

H. L. Shah, A.R.I.B.A., DIP.Arch. (The Polytechnic), has changed his office postal address to P.O. Box 1971, Dar-es-Salaam, Tanganyika, where he will be pleased to receive trade literature and samples. The office address remains at 13, Textile House, Market Street, Dar-es-Salaam. (Telephone: 20452.)

Oliver Carey, F.R.I.B.A., A.A.(Hons.)Dip., has moved to 28, Newnham Road, Cambridge. (Telephone: Cambridge 54504.)

Emile J. Hosking, LL.B., A.R.I.C.S., F.I.Arb., chartered quantity surveyor, has moved his practice to 1, New Court. Lincoln's Inn., Carey Street, London, W.C.2. (Telephone: HOLborn 1892.)

L. W. Carpenter, A.A.Dip., A.R.I.B.A., has opened a branch office at 11, Hill Street, Lydney, Gloucestershire, where he would be pleased to receive trade literature.

TRADE

Robert M. Douglas (Contractors) Ltd., of Birmingham, announce that Peter Graham Boosie, B.Sc., A.M.I.C.E., A.M.I.Mech.E., A.M.Am.Soc.C.E., has been appointed a director of the company.

G.K.N. Reinforcements Ltd, have opened a drawing office at 23, Carlton Crescent, Southampton. (Telephone: 22167.)

C. Roberts of 78, Byron Street, Loughborough, Leicestershire (Telephone: Loughborough 4859), has been appointed East Midlands representative for Concrete (Midlands) Limited.

Conex-Terna Limited (Birmingham Branch) have changed their telephone number to Tipton 2831 (5 lines).

B. S. Rogers, A.I.O.B., has been appointed a director of Holland & Hannen (Great Britain) Limited.

The British Transport Commission have appointed A. B. Kaukas as principal assistant architect and N. D. T. Wikely as sectional architect.

Davy-Ashmore Export Company Limited is operating from 15, Portland Place, London, W.1. (Telephone: LANgham 5588.)

Correction

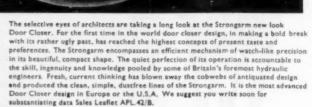
The "Entrance Door: Offices in Athens" published as a Working Detail in the issue of February 2, 1961, was wrongly attributed to P. A. Sakellarios, Mr. Sakellarios was the supervising architect, but the offices were designed by Mr. Patrick de Saulles. We apologise to both architects for this mistake.

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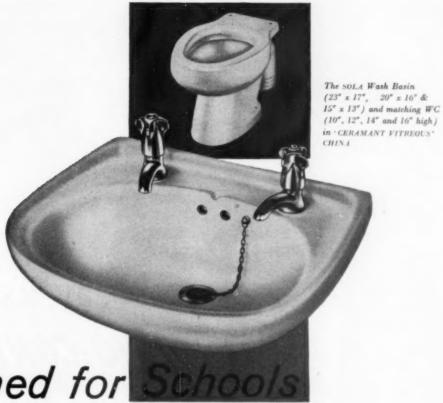
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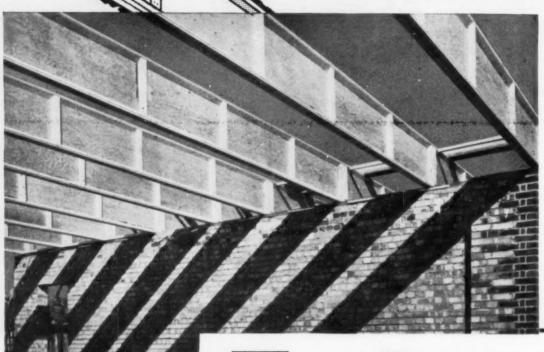
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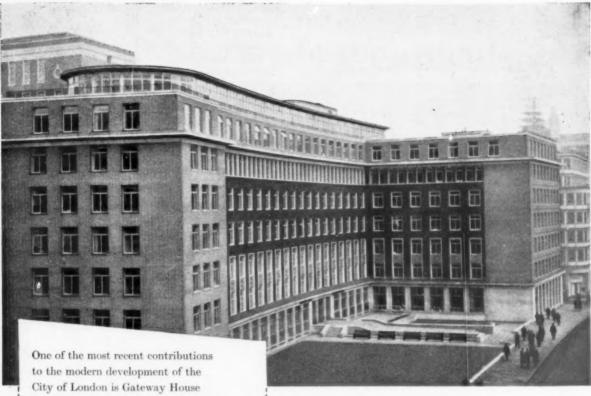
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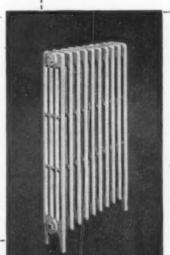
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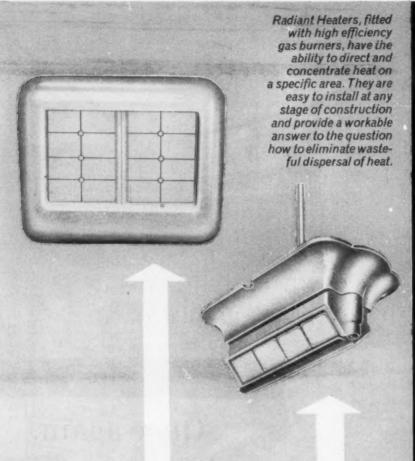
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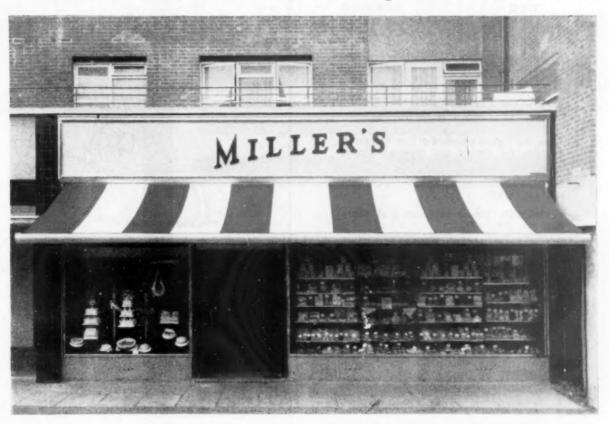
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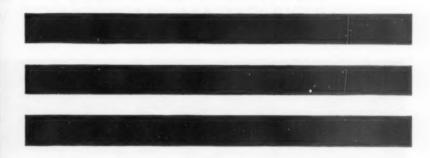
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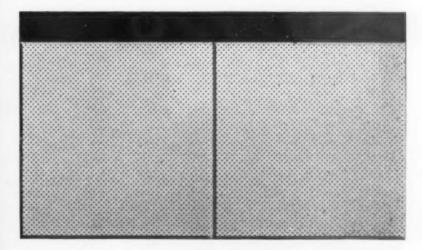


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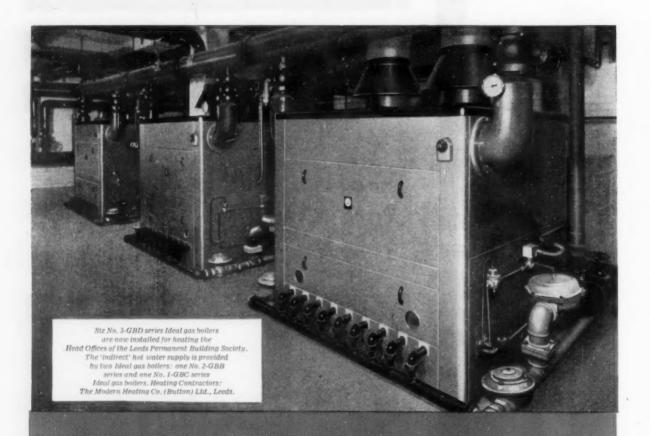
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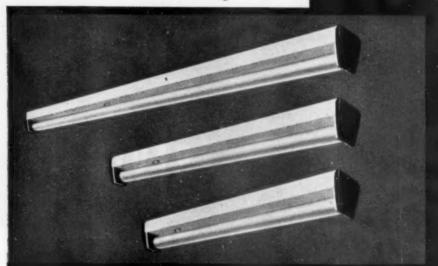
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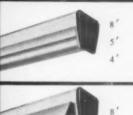


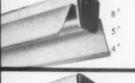
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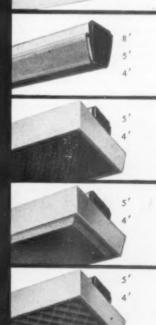


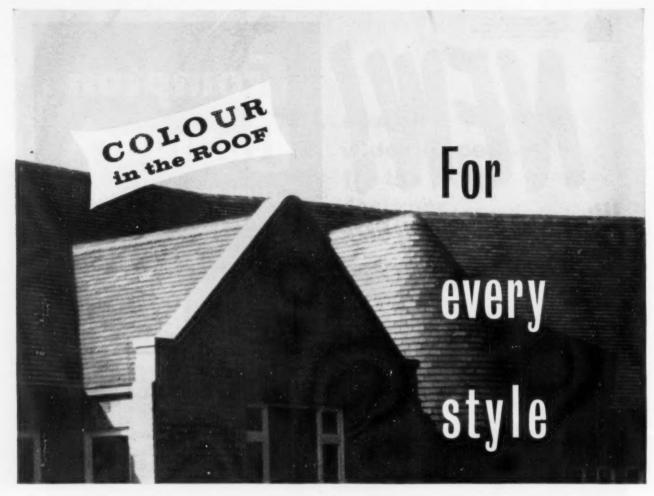
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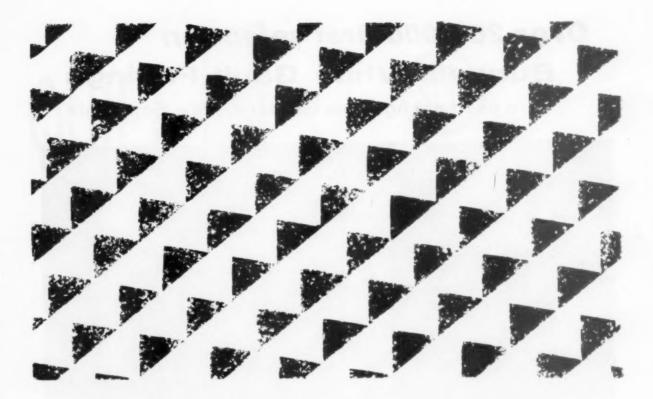


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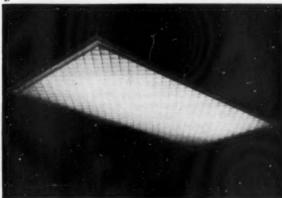
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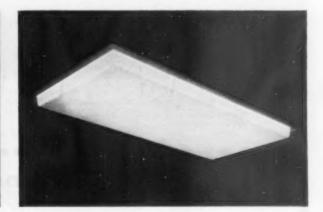




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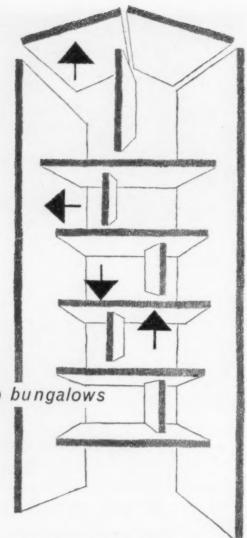
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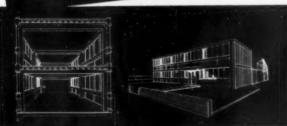
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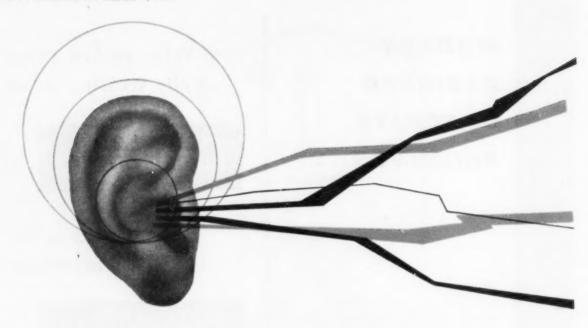
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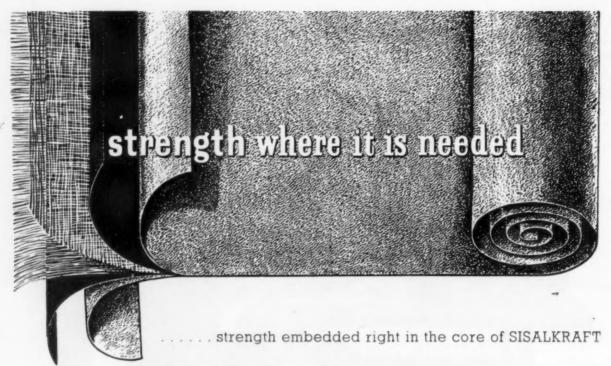




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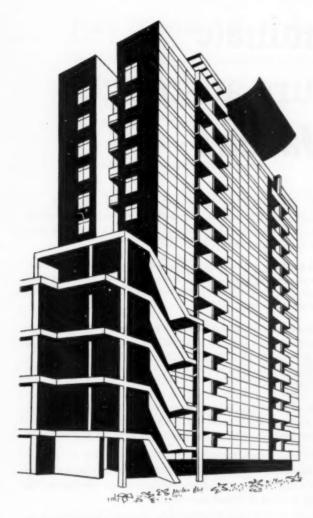
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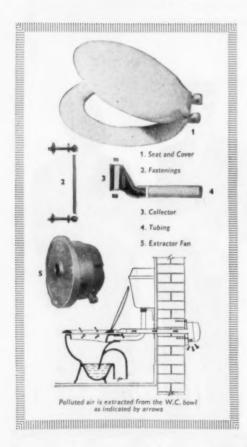


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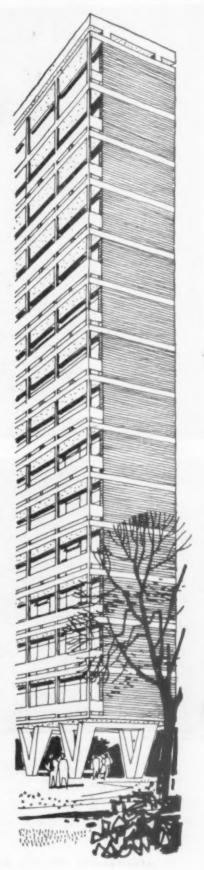
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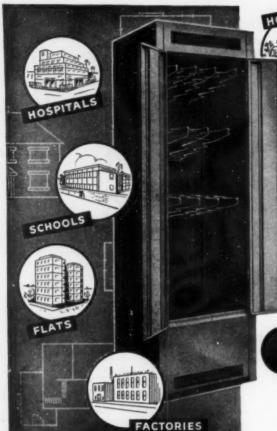
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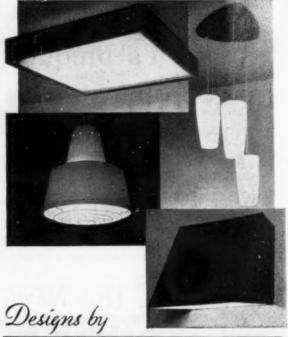
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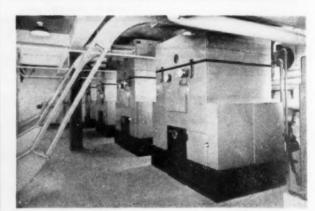
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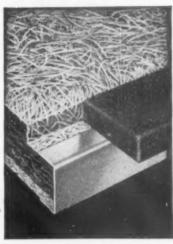
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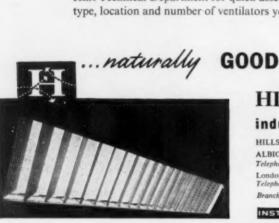
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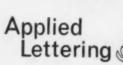
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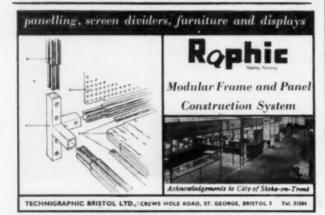
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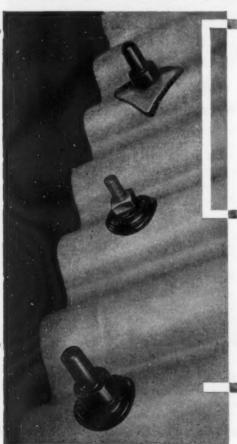
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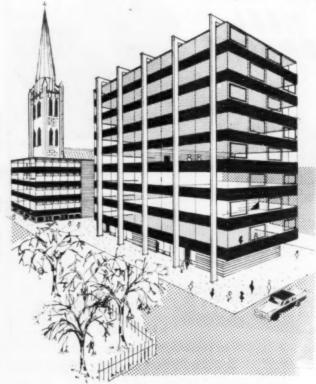
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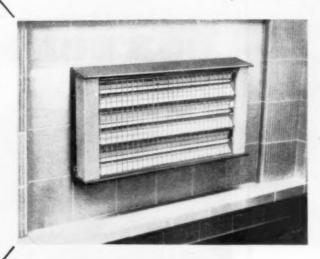
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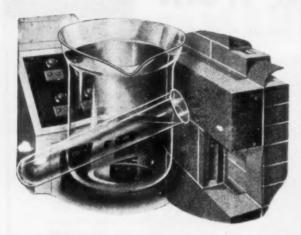
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Lingfield 1961 COXDOMES the favourite



Some of the 94" × 70" Mark II Coxdomes installed over the Weighing-in Room at Lingfield Racecourse, Surrey, for the Racecourse Betting Control Board. Main Contractors, Messrs. Hoad and Taylor Ltd.

FOR ADDED LIGHT

Leading the field (as usual) the Mark II Coxdome was an automatic choice for the new Weighing-in Room at Lingfield

Racecourse. Virtually unbreakable, the Mark II Coxdome,

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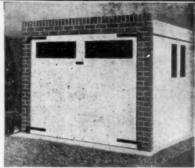
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Architects Architectural assistants

We have vacancies in the Architects' Department in LONDON and EPSOM for qualified men and those who have passed the Intermediate R.I.B.A. Examination.

These are permanent positions: luncheon vouchers, five day week, pension scheme.

Please write fully in confidence to:

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Concerned with the excessive heat loss through their factory roof, and faced with the problem of condensation and dust exclusion, Steatite & Porcelain Products Limited, manufacturers of electrical insulators, carefully considered various methods of insulation. Only a sprayed insulation offered, in one operation, all the advantages they required.

43,430 sq. ft. of 'SEEL' sprayed asbestos was applied to the underside of the asbestos cement roof.

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Calculated heat loss through whole roof reduced from \$1,400 B.Th.U/hr. "F to 33,500 B.Th.U/hr. "F.

Effect on average night temperatures:

- Before insulation: January, 1958. Outside 35.4°F; Inside factory 61°F; with all steam heating coils on.
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Drying time was considerably reduced; throughput capacity was increased and long-standing problems of dust intake and condensation have been completely eliminated.

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GUILDFORD

(a) ASSISTANT ARCHITECT

Applications are invited from Fellows and Associates of the R.I.B.A. for the above post in the Civil Engineering Branch at Guildford, Surrey. The desirable age limits are 35—40 years: a planning qualification would also be an advantage.

The duties are to give day-to-day advice concerning the problems of architectural design and the amenity considerations associated with the siting and construction of high voltage transmission switching stations.

Salary within the scale £2,380-£2,595 p.a.

(b) ARCHITECTURAL ASSISTANT

The successful candidate will act as assistant to the Assistant Architect. Draughtsmanship, a good design sense and the ability to detail buildings and other structures are the essentials. A recognised qualification and Associate membership of the R.I.B.A. are also a prerequisite.

Salary within scale £1,650-£2,085 p.a.

Applications stating age qualifications, experience, present position and salary, and indicating post applied for, to the Appointments Officer, 24/30, Holborn, London, E.C.I., by 21st March. Envelopes should be marked "Confidential Ref. AN/95."



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is offered to Readers of The Architects' Journal enabling them to buy for themselves or their clients, a wide range of first-class goods at large discounts.

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ARCHITECT

A major engineering company in the Midlands wishes to appoint a young qualified architect as an assistant to their Chief Architect. The company is one of an extensive industrial group and the architect's department is called upon from time to time to act in an advisory capacity to other companies within the group. Candidates must be able to provide evidence of imaginative work and good artistic draughtsmanship. The successful candidate will be required to assume responsibility for his own projects under the overall direction of the Chief Architect, and the appointment will provide excellent opportunities of gaining interesting and varied experience in the industrial field. The initial salary will be in the region of £1,500 per annum. There are excellent pension and life assurance schemes in operation. Reference Number 163

Please apply in confidence, quoting reference number to:-



Robert Clive (Consultants) Limited

Appointments Consultants

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CITY OF SALFORD

ARCHITECTS REQUIRED FOR CENTRAL AREA REDEVELOPMENT SCHOOLS GENERAL WORKS

Principal Assistant Architects
J.N.C. Scale 'A' (£1,410—£1,565 p.a.)

Senior Assistant Architects
Grade A.P.T. V (£1,310—£1,480 p.a.)

Applications are invited from qualified and enthusiastic Architects who possess good modern design ability and a sound knowledge of up-to-date construction.

The successful applicants will work under the direction of the Chief Architect, and will be engaged upon a challenging central area redevelopment programme, which will include housing, high flats, shops and the proposed City shopping precinct, together with schemes for overspill housing, schools, and together with general works.

Housing accommodation may be provided in approved cases. A five-day week is in operation.

Applications stating age, education, qualifications and experience, together with the names and addresses of two referees, should be sent to the City Engineer & Surveyor, Town Hall, Salford 3, Lancs., to arrive by the 20th March, 1961.

LAING

John Laing Construction Limited

Sydney Greenwood, A.R.I.B.A., Chief Architect.

requires

ARCHITECTS AND ARCHITECTURAL ASSISTANTS

Architects should be qualified and although experience is valuable vacancies exist for newly qualified Architects.

Architectural Assistants should have passed the Intermediate Examination of the R.I.B.A. or have reasonable equivalent experience.

Salaries will be commensurate with qualifications and experience.

Work in hand includes major commercial projects and industrial, domestic and school projects.

The office offers full opportunity for close collaboration with all branches of the industry and there is ample opportunity for advancement.

Pension facilities are available and applications should be made to:

> The Group Personnel Manager (RSA 9). JOHN LAING AND SON LIMITED

Page Street, Mill Hill, N.W.7

or arrangements for interviews can be made by telephone (Mill Hill 3636).

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 17th March 1961 from the Town Clerk, Town Hall, East Ham, E.6.

High salaries offered by Production-Engineering Ltd.

Industrial Consultants who require urgently

Junior Architectural Assistants

pre or post intermediate standard

To work on all phases of industrial building. Opportunity to travel for short periods in the U.K. and Europe. Attractive working conditions in country house in Surrey. Ample opportunity for initiative and advancement of personal status in return for high quality of architectural design.

Write or phone :

The Architect,
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Egham, Surrey. EGHAM 4411,



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require an

ARCHITECT

(preferably A.R.I.B.A.)

for work on the design of offices, laboratories and industrial buildings in connection with oil and chemical process plants, both in the U.K. and overseas.

Applicants must have good experience in the industrial field embracing all phases of work from preliminary sketch designs to final construction.

This is a permanent position, and conditions of employment include a five-day week, luncheon vouchers, and a contributory Pension Scheme which carries Life Assurance benefits.

Applications should be sent to:-

The Personnel Manager,
CONSTRUCTORS JOHN BROWN LIMITED,
CJB House, Eastbourne Terrace, Paddington, London, W.2
quoting Ref. No. K 7981.

RADNOR COUNTY COUNCIL

(This is an English speaking County)

ARCHITECTURAL ASSISTANTS

2 A.P.T. III (£960-£1140)

A lodging allowance, proportion of approved removal expenses and rail fare home every three weeks for a limited period will be paid to married men appointed to the above two posts.

ASSISTANT BUILDING INSPECTOR

I A.P.T. II (£815—£960)

CLERK OF WORKS

For new primary school £20 per week for approximately 12 months.

Further details from: J. A. McRobbie, A.R.I.B.A.,

County Architect, County Hall, Llandrindod Wells, Radnor.

BRITISH RAILWAYS

London Midland Region

require

ASSISTANT ARCHITECTS

for general work in connection with the Railway Modernisation Plan and the London Midland Main Line Electrification Scheme.

A high standard of design ability is necessary and consideration will be given to newly qualified members of the R.I.B.A. and to unqualified men with considerable office experience.

Appointments will be made in the salary range £945-£1,020.

Five-day week and concessionary rail travel. Superannuation Fund.

Applications in writing quoting reference No. 114 (AJ) and stating qualifications, age and experience to:—

W. R. Headley, A.R.I.B.A., A.A.Dipl., Regional Architect, Chief Civil Engineer's Office, Stephenson House, 67/87 Hampstead Road, London, N.W.1.

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the adver-tisements 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:

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

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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 Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the AJ., shall be despatched by air-mail on Wednesday of each week (one day prior to AJ. publication date). The cost of this special service to Overseas subscribers will be in for four weeks (is. 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.

Public and Official Announcements

per inch; each additional line 3s

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CORPORATION OF LONDON
Applications invited for temporary appointment of ASSISTANT ARCHITECT in City
Engineer's Office. Salary £1,95 p.a. Approximate duration two years.
Candidates should have had good general
experience in preparation of working details and
have passed the Intermediate R.I.B.A.
Applications, stating age, appointments held
and experience, with names of two referees, to
The City Engineer, Guildhall, E.C.2. 5847

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

erience.

Salary range within Miscellaneous VI. N.J.C. onditions. Superannuation scheme. Assistance ith housing and removal expenses where appro-

priate.

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

BOROUGH OF POOLE Applications are invited for the following appointments in the Borough Architect's Department.

appointments in the Borough Architect's Department:—

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

(b) ASSISTANT ARCHITECT, Grade A.P.T. III (£900—£1,140).

(b) ASSISTANT ARCHITECT, Grade A.F.T. 111
(£960-£1,140).
(c) ARCHITECTURAL ASSISTANT, Grade
A.P.T. II (£315-£960).
Applicants for Post (a) must be fully qualified
and a high standard of design ability is required.
In all cases the successful applicant will be
engaged on a variety of projects which include
a new Civic Centre and a programme of redevelopment including multi-storey flats.
Application forms from the Borough Architect,
Municipal Buildings, Poole, Dorset, to be returned to me by Saturday, 18th March, 1961.
J. G. HILLIER,
Town Clerk.

BOROUGH OF HESTON AND ISLEWORTH
Applications are invited for the undermentioned appointments in the Borough Engineer
(a) CHIEF PLANNING ASSISTANT. Salary
in accordance with A.P.T. Grade V (£1,310—
£1,480 per annum, plus London "weighting.")

ting").

(b) SENIOR PLANNING ASSISTANT. Salary in accordance with A.P.T. Grades II-III (£815—£1,140 per annum plus London "weighting").

(c) PLANNING ASSISTANT. Salary in the salary in

in accordance with A.P.T. Grades II-III (£815-£1,140 per annum plus London "weighting").

(c) PLANVING ASSISTANT. Salary in accordance with A.P.T. Grade I (£845-£815 per annum, plus London "weighting").

Applicants for (a) must be Members or Associate Members of Town Planning Institute and it will be an advantage if they hold additional qualifications. Applicants must have good experience in general planning matters, development control and public inquiry work. A car allowance of £130 p.a. will be paid at the pleasure of the Council if the successful applicant provides a motor car for regular use in carrying out his duties.

Applicants for (b) and (c) should have passed the Intermediate examination of the Town Planning Institute or other equivalent and have had experience in a town planning department of a local authority. Commencing salary to be in accordance with qualifications and experience.

The Council is unable to assist the successful candidates with housing accommodation.

Applications are to be submitted by 20th March 1961, on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88. Lampton Road, Hounslow.

Town Hall,

Hounslow.

Town Hall, Hounslow, Middlesex.

BOROUGH OF TAUNTON
ARCHITECT'S DEPARTMENT
Applications are invited for the forpointments in the Borough Architect's

appointments in the Borough Architect's Department.

ASSISTANT ARCHITECTS. Grade A.P.T.

III-IV (£960-£1,140-£1,510 p.a.).

The Conneil have an interesting programme of estate development and re-development schemes including flatted accommodation, groups of shops, old persons' accommodation, market offices and other ancillary buildings.

The posts are superannuable, subject to medical examination and to National Conditions of Service. Salary placing according to qualifications and experience. Applications, stating age, present position and salary, qualifications, experience and names of two referees, to be sent to C. Bacon, Esq., F.R.I.B.A., Borough Architect, Flook House, Station Road, Taunton, within 14 days of the appearance of this advertisement. Housing accommodation will be made available to suitable applicants if required.

K. A. HORNE,

Town Clerk.

CITY OF MANCHESTER
SENIOR ASSISTANT PLANNING OFFICER
required in the City Surveyor & Engineer's
Department at a salary within J.N.C. Scale 'B'
(£1,420/£1,670).
Candidates must be appropriately qualified by
examination and must have had considerable
experience in the Planning and Development
work of a local authority.
This appointment offers practical experience on
large scale projects. Housing accommodation
and removal expenses.
Applications stating age, education, qualifications and experience with the names of three
referees to the Town Clerk, Town Hall, Manchester, 2, not later than 27th March, 1961, 6185
BOROUGH OF ENTIELD

BOROUGH OF ENTIELD

chester, 2, not later than 27th March, 1961. 6183

BOROUGH OF ENFIELD

BOROUGH ENGINEER & SURVEYOR'S

(Non-County Borough in the County of Middlesex. Population 109,700. Area 12,400 acres)

Applications are invited, from suitably qualified persons, for the post of ARCHITECTURAL ASSISTANT—GRADE A.P.T. III (2960—21,140 per annum, plus appropriate London weighting). The commencing salary will be fixed at a point within the Scale commensurate with qualifications and experience.

within the Scale commensurate with qualifications and experience.

The successful applicant will be engaged, interalia, on the preparation of three-dimensional schemes for the redevelopment of the Town Centre as a pedestrian shopping precinct, the design of multi-storey point blocks of flats, and the redevelopment of clearance areas.

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

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

CYRIL E. C. R. PLATTEN Town C Public Offices

Gentleman's Row, Enfield, Middx

Enfield. Middx. 6064

AYCLIFFE DEVELOPMENT CORPORATION (New Town of Newton Avcilife)

SENIOR ASSISTANT ARCHIFECT
Applications are invited for an appointment of Senior Assistant Architect at a salary in accordance with Grades A.P.T. IV or V of the Whitley Council for New Towns Staff Scales of Salaries, i.e. 21,140-21,510 p.a. or 21,310-41,480 p.a. The commencing salary and grade will be fixed according to the qualifications and experience of the successful applicant. The principal work for the successful applicant will be in connection with the development of the town centre of the new town.

Appointment subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side. Housing accommodation available, if required. Applications stating age, qualifications and experience together with the names of two referees to be sent to the undersigned.

Churchill House,
Newton Aycliffe.

Churchill House, Newton Aycliffe, Nr. Darlington.

Nr. Darlington.

AMENDED ADVERTISEMENT
BIRMINGHAM REGIONAL HOSPITAL

ROARD
SENIOR ASSISTANT QUANTITY SURVEYORS, Salary scale £1,300-£1,600 per annum,
Qualification: Corporate Membership R.I.C.S.
Superannable, Five-day week, Apply (quoting
Arch. 23) stating qualifications, age, experience,
present position and salary and names of two
referees to Secretary, Birmingham Regional
Hospital Board, 10, Augustus Road, Birmingham,
15, by 20th March, 1961.

BOROUGH OF WIMBLEDON
ARCHITECTUBAL ASSISTANT, Grade A.P.T.
II. £315 to £960 plus London weighting. Form
of application from Borough Engineer and Surveyor, Town Hall, Wimbledon, S.W.19. Refurnable by 20th March, 1961. Canvassing disqualifies.
6124

BOROUGH OF HESTON AND ISLEWORTH Applications are invited for the appointment of a DRAUGHTSMAN/TRAINEE in the Architect's Section of the Borough Engineer and Surveyor's Department. Commencing salary will be in accordance with examination qualifications, ability and experience, but will not be less than 2480 per annum at age 22. Maximum 2500 or 2730 per annum according to examination qualifications.

Applicants should have a good school record and be interested in architectural drawing.

The Council is unable to assist with housing accommodation.

Applications are to be submitted by 20th March, 1961, on forms to be obtained from and returned to Borough Engineer and Surveyor, 88, Lampton Road, Hounslow.

D. MATHLESON, Town Hall. BOROUGH OF HESTON AND ISLEWORTH

Town Hall,
Hounslow,
Middlesex.

CUMBERLAND COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the following appointments to the Architectural Staff. Appointments will be made within the scales shown according to ability and experience. Post pensionable. Subject to medical examination.

(a) ASSISTANT COUNTY ARCHITECT: J.N.C.
Scale A. £1,435-£1,565. Must be a qualified and experienced architect capable of taking charge of a group of assistants employed ou major projects.

(b) SENIOR ASSISTANT ARCHITECTS: A.P.T.
Grade 5. £1,310-£1,480. Must be A.R.I.B.A. with experience of handling large contracts.

(c) ASSISTANT ARCHITECTS: A.P.T. Grade 4. £1,140-£1,310. Must be A.R.I.B.A. preferably with Schools' experience.
Further particulars and forms of application may be obtained from the County Architect, 15, Portland Square, Carlisle, to whom applications should be returned not later than 22nd March, 1961.

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

G. N. C. SWIFT.
Clerk of the County Council.
Carlisle.
February. 1961.

COUNTY BOROUGH OF PRESTON
APPOINTMENT OF ARCHITECTURAL
ASSISTANTS
Applications are invited from suitably qualified persons for the following appointments:—
(a) ARCHITECTURAL. ASSISTANTS—A.P.T.
(b) ADDITEDERAL.

(a) ARCHITECTURAL ASSISTANTS—A.P.T. IV (£1,40—£1,510).

(b) ARCHITECTURAL ASSISTANTS—A.P.T. III (12,656—£1,510).

(c) ARCHITECTURAL ASSISTANTS—A.P.T. III (£215—£960).

(d) ARCHITECTURAL ASSISTANTS—A.P.T. II (£245—£2315).

Applications, stating age, qualifications, present position and salary, previous positions and full details of experience, together with the names and addresses of two referees, and stating clearly which appointment (a, b, c or d) is being applied for, to be received by me not later than Friday, 17th March, 1961.

W. E. LOCKLEY,

Municipal Building.

W. E. E. LOCKLEY

Municipal Building,
Preston.

BOROUGH OF LEYTON

Applications invited for appointments of
ASSISTANT ARCHITECTS. Salary within Grade
A.P.T. III 2960/g1,140 per annum plus London
Weighting Housing accommedation will be provided. Five-day week. National Joint Council
Conditions of Service.
A large and varied programme of capital works
in hand or projected offers good opportunities of
gaining experience.
Apply with details to Borough Engineer. Town
Hall, Leyton, E.10, not later than 16th March,
1961.

D. J. OSBORNE. Town Clerk.

Town Hall, Leyton, E.10. 6137

Leyton, R.10.

CITY OF SHEFFIELD

APPOINTMENT OF PRINCIPAL ASSISTANT
ARCHITECT CIVIC CENTRE)

Scale "C"—21,560—21,225

Applications are invited from young men for couragement, both financial and otherwise, will be permanent staff of the City Architect, Mr. J. L.

Womersley.

The City Council have recently designated a spacious and attractive site, including the present Town Hall and Public Library, as a City Centre. The new buildings which are required will ultimately include a large extension to the Town Hall, new Law Courts, Police Headquarters and an Arts Centre. Following the preparation of a comprehensive scheme for the whole centre, the successful candidate's first task will be to design and execute the new Town Hall Extension which is urgently required.

Commencing salary within the above grade according to qualifications, present and past appointments (with dates and salaries), experience and the names of two persons to woom reference may be made, should reach me not later than the 20th March, 1961.

JOHN HEYS,
Town Clerk.

JOHN HEYS. Town Clerk

BARBOUR INDEX 500 GUINEA COMPETITION ON TECHNICAL LITERATURE

ARCHITECTS frequently comment on the need for improved technical literature. The object of this Competition is to give architects an opportunity to consider and express their ideas on the aim, content and use of manufacturers' catalogues and leaflets, and so to help manufacturers produce improved technical information.

RULES AND CONDITIONS

1. ELIGIBILITY

The Competition is open to all Architects and Architectural Assis-tants working or registered in the United Kingdom.

A total of 500 guineas in Prize Money will be awarded as follows:-

1st Prize - 250 guineas 2nd Prize - 100 guineas 3rd Prize - 50 guineas 4 Prizes of 25 guineas

Competitors are invited to:a) Describe briefly (approximately 750 words) the factors and principles to be considered in the production of manufacturers' technical literature, taking into account its content, design and use by Architects, Consultants, Quantity Surveyors, Contractors and Merchants. In so doing, consider the technical information required by each at various stages, and its presentation for easy reference without excessive cost or complication.

b) i) Select any one existing building product. Analyse the problems involved in producing for it an item of manufacturers' literature, conforming with all the factors and principles previously described.

ii) Illustrate this analysis with no less than four sample pages of a cat-alogue or leaflet for the product, in sufficient detail to demonstrate all the factors involved.

4. NOTES ON REQUIREMENTS

a) Entries will be judged on the aptness and practicability of the factors and principles listed, and on the skill of the entrant in applying them to the selected subject.
b) The sample pages of the leaflet or catalogue will be assessed:
i) From the point of view of their convenience and usefulness to architects and other users:

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i) From the point of view of their practicability to manufacturers, including suitability for printing. c) The technique of presentation is at the discretion of the competitor.

BARBOUR INDEX LIMITED

31 Charlotte Street, London, W.I. GERrard 5436

It should be emphasised that the subject chosen must be such as to demonstrate adequately all the factors and principles involved. Note also that certain products require more information than others—e.g. those with many possible applications—and this may raise additional problems of content and presentation.

d) The sample pages must be on one side only of International A4 size paper (11.7 x 8.3in.).

e) Written and illustrative information on the sample pages should be carefully related. As it is intended to exhibit winning and other entries of merit, a reasonable standard of draughtsmanship is called for in any drawings, but highly-finished art-work is not required. The use of colour, tones, symbols, referencing, etc. is at the discretion of the com-

f) Written matter other than on sample pages must be typed on one side only of plain white paper, and should be kept as brief as is com-patible with an adequate explanation of the subject.

5. JUDGES

The Competition will be judged by the following:

Mr. D. E. E. Gibson, C.B.E., D.C.L. F.R.I.B.A. Director of Works, War Office.

Mr. Howard V. Lobb, C. F.R.I.B.A., A.M.I. Struct, E.

Mr. Dargan Bullivant, A.R.I.B.A., Architects' Journal Research

Mr. P. Talbot-Smith, Director, The U.A.M. Group of Companies. Mr. R. N. Smith, Director, William

Newman & Sons Ltd.

An Exhibition will be held after the completion of the Competition. Entries cannot therefore be returned and Barbour Index Ltd. shall have the right to publish and exhibit any designs or other entry material as it sees fit. All other rights in the entries shall be reserved to their authors. served to their authors.

7. HOW TO ENTER

Entries, together with a completed entry form, should be sent unfolded and suitably protected to:-

"Competition", Barbour Index Ltd., 81 Charlotte Street, London, W.1.

All written matter, designs, and drawings must be submitted without name, pseudonym, or disting-uishing mark of any kind. The entry form shall be signed, sealed entry form shall be signed, sealed in a plain envelope, and securely attached to the entry. On receipt of the entry a number will be placed on each item and on the envelope. The envelope will not be opened until after the judging has been completed. Additional entry forms may be obtained from the above address. There is no entry fee.

8. CLOSING DATE

Closing date for receipt of entries is Friday, April 28TH 1961.

All prize winners will be notified by post, and a full list of awards will be published in the architectural press in June 1961. A Presentation of Awards will take place, details of which will be announced.

10. The decisions of the Judges shall 10. The decisions of the Judges shall be final and legally binding. No correspondence or communication will be entered into. No responsibility will be accepted for entries lost, delayed, undelivered, or mislaid in the post. Barbour Index Ltd. shall be at liberty to withhold any or all of the awards if, in the opinion of the Judges, the entries submitted do not show sufficient merit or do not comply with the conditions

n. not comply with the conditions.
BARBOUR INDEX COMPETITION ON TECHNICAL LITERATURE
Please use Block Letters
ice etc.
Signature

CITY AND COUNTY OF NEWCASTLE UPON TYNE

CITY ARCHITECT'S DEPARTMENT

A unique opportunity exists in this office for competent Architects to take part in one of the most ambitious programmes of varied building works in the country, and vacancies in the establishment occur for ARCHITECTS who will be considered on their ability in design, experience, and architectural outlook, in the following grades:—

be considered on their ability in design, experience, and architectural outlook, in the following grades:—

J.N.C. "C": £1,560—£1,825 per annum.

J.N.C. "B": £1,410—£1,670 per annum.

A.P.T. V: £1,310—£1,830 per annum.

A.P.T. III: £915—£1,960 per annum.

A.P.T. III: £965—£11, per annum.

A.P.T. II: £645—£815 per annum.

A.P.T. II: £645—£815 per annum.

The Department is engaged upon a wide and varied programme of major redevelopment schemes embracing multi-storey flats, shopping precincts and associated community buildings, one of which schemes is the Sootswood Road Redevelopment Area to rehouse approximately 5,000 people, and which is expected to cost in the region of £12 million work has now commenced on the new Education Precinct in the central area, comprising Colleges of Purther Education, Art and Industrial Design, Drama, Commerce and Multi-storey Hostels, which will be the largest development of its kind in the country.

Further projects include: Airport Terminal; Abattoir and Fatstock Market; Vegetable Markets, Central Library; and Divisional Police Headquarters, etc., and a varied programme of normal housing development of a stimulating character.

The department is also engaged on the New

normal housing development of a stimulating character.

The department is also engaged on the New Town Hall, where an exceptional opportunity is presented for working on a building of some 44 million in value, and being executed in materials of the highest quality.

Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, indicating the grade for which they wish to apply.

JOHN ATKINSON, Town Hall.

Town Hall.

Newcastle upon Tyne, 1.

20th February, 1961.

WARWICKSHIRE COUNTY COUNCIL

ARCHITECT'S DEPARTMENT

Applications are invited for the following ap-

pointments: (a) DEPUTY GROUP ARCHITECT-Grade "A"

(a) DEPUTY GROUP ARCHITECT—Grade "A"—(£1,450—£1,555).

The post is one of responsibility requiring a high degree of initiative and design ability in all forms of construction. The person appointed will have to deputise for the Group Architect and must be a member of the R.I.B.A.

(b) SENIOR ASSISTANT ARCHITECTS—A.P.T. V (£1,310—£1,880).

Applicants should be members of the R.I.B.A. and be competent designers with a good knowledge of modern methods of construction. The persons appointed will be responsible for carrying out individual projects from sketch plan stage to completion.

out individual projects from sketch plan stage to completion

(c) DEPUTY GROUP QUANTITY SURVEY-ORS-A.P.T. V (£1.310-£1.480).

Applicants should he chartered quantity surveyors capable of dealing with all types of building work. The group teams are responsible for all stages from the preparation of the estimates to the settlement of the final account. The commencing salary can be within the grades according to ability and experience. 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.

Shire Hall. Warwick. February, 1961

February, 1961.

URRAN DISTRICT OF TETTENHALL

ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the appointment of

ASSISTANT ARCHITECT on the Staff of the

Engineer and Surveyor at a salary within Grade

UIIE (£815-£1.140) commencing salary according
to experience.

Engineer and Surveyor at a same and the surveyor continued to experience.

The appointment will be subject to the provisions of the Local Government Superannuation Acts and will be determinable by one month's notice on either side.

Applicants should be suitably qualified with experience in the design of houses and estate development and should be competent to prepare plans and specifications in connection with these. The Council would give consideration to the provision of suitable housing accommodation to the successful applicant if required.

Applications setting out details of onalifications and experience together with the names of three persons to whom reference can be addressed, should be addressed to the Engineer and Surveyor, Council Offices, Upper Green, Tettenhall, Staffs, not later than 25th March, 1961.

Dated this 24th day of February, 1961.

R. WAKEFIELD RUSSELL.

Clerk of the Council.

WARWICKSHIRE COUNTY COUNCIL COUNTY PLANNING DEPARTMENT Applications are invited for the following ap-

PLANNING ASSISTANTS-Grade

consideration with the name of the following appointments:

(1) TWO ALPANNING ASSISTANTS—Grade A.P.T. IV.

(2) THREE PLANNING ASSISTANTS—Grade A.P.T. IV.

For one of the Grade V posts, experience in the problems of overspill and relocation of industry would be an advantage. For the other post, experience in Development Control is essential as the successful candidate will be mainly engaged on appeal work.

For the Grade IV posts, applicants must bave extensive experience of Development Plan work and will be engaged on the Plan review.

Applicants for all posts must be professionally qualified. All planning work is carried out at Headquarters in Warwick.

The commencing salary in each case will be according to experience and qualifications.

The posts are subject to the provisions of the Local Government Superannation Act and to a medical examination.

Consideration will be given to the granting of financial assistance towards removal expenses. Applications together with the names and addresses of two referces should be sent to J. J. BROOKS, County Planning Officer, Northgate, Warwick, not later than Saturday, 18th March, 1961.

L. EDGAR STEPHENS,

L. EDGAR STEPHENS, Clerk of the Council.

COUNTY BOROUGH OF GATESHEAD BOROUGH SURVEYOR'S DEPARTMENT Applications are invited from suitably qualified d experienced persons for the following appoint-

ments.
ARCHITECTURAL
SENIOR ASSISTANT ARCHITECT, A.P.T. V (£1,310—£1,480), ASSISTANT ARCHITECT, A.P.T. IV (£1,146—

41,510).
JUNIOR ARCHITECTURAL ASSISTANTS,
A.P.T. I-III (6645-61,140).
SENIOR QUANTITY SURVEYOR, A.P.T. V
(21,310-61,480), to lead the Quantity Surveying Section on a large and varied building

ASSISTANT QUANTITY SURVEYOR, A.P.T. III (290-£1,40), JUNIOR QUANTITY SURVEYORS, A.P.T. III (£645-£1,140).

JUNIOR QUANTITY SURVEYORS, A.P.T. IIII (2645—41,140).
PLANNING
SENIOR PLANNING ASSISTANT, A.P.T. IV-V
(21,140—41,480).
PLANNING ASSISTANTS, A.P.T. III-IV (£960
—41,310).
Salaries within the above scales according to
qualifications and experience.
All above posts pensionable, subject to medical
examination and one month's notice on either
side.

side.

Housing accommodation available at economic rent on pleasant post-war estates, and part removal expenses paid, for Senior posts.

Applications giving details of present and previous appointments, qualifications and experience, together with the names of two referees, to be sent to the Borough Surveyor, Swinburne Street, Gateshead, 8, within fourteen days of the appearance of this advertisement.

C. D. JACKSON.

C. D. JACKSON, Town Clerk

CITY OF SHEFFIELD

Applications are invited for the following post on the staff of the Estates Surveyor, Mr. W. H. Rothwell, B.S.c., F.R.I.C.S.—
MEASURING SURVEYOR (A.P.T. II—£815 to

MEANURING SURVEYOR (A.F.E. 11—2018)

gualification H.N.C. or equivalent
Applicants should be experienced in the preparation of measured schedules of builders' work
in all trades and in the supervision of contracts
and have practical experience in the building
trade. A knowledge of builders' estimating or
quantities is essential.

The post is superannuable, subject to N.J.C.
conditions of service and to medical examination.
Applications stating name, address, age, qualifications, experience, previous and present positions
with dates and salaries and the names and
addresses of two referees, should reach the undersigned not later than 5th April, 1961.

Town Clerk.

Sheffield, I.

WEST SUFFOLK COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the bost of ELECTRICAL ENGINEER on A.P.T. Grade IV (2),140
—C1,310); commencing salary in accordance with
qualifications and experience.
Applicants should hold a university degree or
equivalent diploma in electrical engineering or be
Associate Members of the Institution of Electrical Engineers, with experience in the design and
supervision of electrical lighting and power
installations.

Housing accommodation may be made avail-Housing accommodations; post pensionable; N.J.C. Service Conditions; post pensionable; medical examination.

Application forms obtainable from the County Architect. 13 Westgate Street. Bury St. Edmunds, to be returned as soon as possible. 6291

HORNCHURCH URBAN DISTRICT COUNCIL
(Architect's Department)

APPOINTMENT OF PRINCIPAL ASSISTANT ARCHITECT, GRADE A.P.T. V

(Salary £1,310-£1,480 p.a. plus equivalent to Salary £1,310-£1,480 p.a. plus equivalent to The Principal Assistant Architect would be responsible to the Deputy Architect for the detailed work and organisation of the Department. The revised establishment, under the Council's Architect, Mr. D. Pearcy, F.R.I.B.A., includes a Deputy Architect, Principal Assistant Architect, eight Architectural Assistants of various grades, two Architectural Assistants of various grades, two Architectural Pupils, a Technical Assistant for modernisation and improvement works, and four Clerks of Works.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, the N.J.C. Scheme of Conditions of Service and one month's notice on either side. The person appointed will be required to pass a medical examination.

Candidates must be registered Architects or Associates of the Royal Institute of British Architects. They should have considerable experience in the design of public buildings of all classes, in the handling of contracts and technical administration.

The Council's housing policy permits advances of up to 100 per cent. of the Surveyor's valuation to be granted to members of the staff, or alternatively, consideration may be given to the provision of housing accommodation.

In approved cases, the Council normally pay half the cost of removal expenses, subject to the person appointed undertaking to remain in the Council's service for a period of at least two years.

Essential car user allowance has been approved for this appointment.

Essential car user allowance has been approved for this appointment.

Completed forms of application, with details of experience and qualifications are to be returned to the Clerk of the Council by noon on Tuesday. 21st March, 1961.

P. L. COX.

P. L. COX.

Council Offices, Billet Lane, Hornchurch

Council UnacaBillet Lane,
Hornchurch.

BOROUGH OF RUGBY
ARCHITECTURAL ASSISTANT
Applications are invited for the above appointment in the Borough Engineer and Surveyor's Department. Commencing sulary will depend on qualifications and experience and will be within A.P.T. Grade II. 1815—1960. Housing accommodation will be provided if required.

Further particulars and form of application may be obtained from the Borough Engineer and Surveyor, Burford House, Church Walk, Rugby, to whom completed applications must be sent not later than 25th March, 1961.

T. L. DUFFY.

Town Clerk.
6274

ARCHITECTURAL ASSISTANTS, Surveyor's section, Headquarters, South Eastern Electricity Board. Salary £290 × £30—£1,010 under N.J.C. Grade 4. Applications are invited for two vacancies for architectural assistants with experience in the preparation of working and detail drawings for offices, stores, workshops, garages, showrooms and electricity substations. Applicants should be at Intermediate level of an appropriate professional body. Post is superannuable. Applications quoting A.J. and naming two referees to the Surveyor, Seeboard, 10 Queen's Gardens. Hove, 3, Sussex, by 20th March, 1961. 6278

COUNTY BOROUGH OF ROTHERHAM SENIOR ASSISTANT ARCHITECT Applications are invited for the appointment a Senior Assistant Architect, A.P.T. V (£1,310—

£1.480).

The department has a varied and interesting programme of architectural work and candidates are required to be Associate Members of the R.I.B.A. with good general experience in design and construction. The commencing salary in the grade will be according to capabilities and experience.
Housing accommodation will be available if

Housing account of the control of th

Municipal Offices.

March.

March. 1961.

CHESHIRE COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT
Applications are invited for the appointment
of a MODEL MAKER in the Design Section at
this Headquarters in the County Hall, Chester.
Applicants should be capable of constructing
scale models of buildings and layouts from
drawings and photographs.

The salary for this position is Grade A.P.T. I
(£645-£815 per annum).
Forms of application and further particulars can
be obtained from the undersigned to whom they
should be returned, not later than Wednesday,
22nd March, 1961.

KENNETH O. MALE.

KENNETH O. MALE, County Planning Officer, County Hall, Chester.

BARBOUR INDEX 500 GUINEA COMPETITION ON TECHNICAL LITERATURE

ARCHITECTS frequently comment on the need for improved technical literature. The object of this Competition is to give architects an opportunity to consider and express their ideas on the aim, content and use of manufacturers' catalogues and leaflets, and so to help manufacturers produce improved technical information.

RULES AND CONDITIONS

1. ELIGIBILITY

The Competition is open to all Architects and Architectural Assistants working or registered in the United Kingdom.

A total of 500 guineas in Prize Money will be awarded as follows:-

1st Prize - 250 guineas 2nd Prize - 100 guineas 3rd Prize - 50 guineas 4 Prizes of 25 guineas

Competitors are invited to:a) Describe briefly (approximately 750 words) the factors and principles to be considered in the production of manufacturers' technical literof manufacturers' technical liter-ature, taking into account its content, design and use by Archi-tects, Consultants, Quantity Sur-veyors, Contractors and Merchants. In so doing, consider the technical information required by each at various stages, and its presentation for easy reference without excessive cost or complication.

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ii) Illustrate this analysis with no less than four sample pages of a cat-alogue or leaflet for the product, in sufficient detail to demonstrate all the factors involved.

4. NOTES ON REQUIREMENTS

a) Entries will be judged on the aptness and practicability of the factors and principles listed, and on the skill of the entrant in applying them to the selected subject.
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i) From the point of view of their convenience and usefulness to archemost the sample pages of the leaflet or convenience and usefulness to archemost the sample pages of the sample pages of the leaflet or convenience and usefulness to archemost the sample pages of the sample pages of the leaflet or convenience and usefulness to archemost the sample pages of the sample pages of the leaflet or convenience and usefulness to archemost the sample pages of the sample pages of the leaflet or convenience and usefulness to archemost the sample pages of the leaflet or catalogue will be assessed:

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BARBOUR INDEX LIMITED

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Mr. Howard V. Lobb, C.I. F.R.I.B.A., A.M.I. Struct. E.

Mr. Dargan Bullivant, A.R.I.B.A., Architects' Journal Research

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A.P.T. V: £1,140-£1,570 per annum.

A.P.T. V: £1,140-£1,570 per annum.

A.P.T. II: £66-£815 per annum.

A.P.T. II: £615-£960 per annum.

A.P.T. III: £615-£960 per annum.

A.P.T. I

normal housing development of a stimulating character.

The department is also engaged on the New Town Hall, where an exceptional opportunity is presented for working on a building of some 44 million in value, and being executed in materials of the highest quality.

Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, indicating the grade for which they wish to apply.

JOHN ATKINSON, Town Clerk.

Town Hall.

Newcastle upon Tyne, 1.

20th February, 1961.

WARWICKSHIRE COUNTY COUNCIL

ARCHITECT'S DEPARTMENT

Applications are invited for the following ap-

pointments:—
(a) DEPUTY GROUP ARCHITECT—Grade "A"

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The post is one of responsibility requiring a high degree of initiative and design ability in all forms of construction. The person appointed will have to deputise for the Group Architect and must be a member of the R.I.B.A.

(b) SENIOR ASSISTANT ARCHITECTS—A.P.T. V (£1,310—£1,840).

Applicants should be members of the R.I.B.A. and be competent designers with a good knowledge of modern methods of construction. The persons appointed will be responsible for carrying out individual projects from sketch plan stage to completion.

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L. EDGAR STEPHENS.
Clerk of the Council.

Shire Hall.

Warwick

February, 1961.

URBAN DISTRICT OF TETTENHAUL

ENGINEER AND SURVEYOR'S DEPARTMENT

ADDICAtions are invited for the appointment of

ASSISTANT ARCHITECT on the Staff of the

Fingineer and Surveyor at a salary within Grade

II II (2815-£1,140) commencing salary according
to experience.

Engineer and Surveyor at a sale stary according to experience.

The appointment will be subject to the provisions of the Local Government Superannuation Acts and will be determinable by one month's notice on either side.

Applicants should be suitably qualified with experience in the design of houses and estate development and should be competent to prepare plans and specifications in connection with these. The Council would give consideration to the provision of suitable housing accommodation to the successful annicant if required.

Applications setting out details of qualifications and experience together with the names of three persons to whom reference can be addressed, should be addressed to the Engineer and Surveyor, Council Offices, Upper Green, Tettenhall, Staffs, not later than 25th March. 1961.

Bated this 24th day of February, 1961.

R. WAKEFIELD RUSSELL.

Clerk of the Council.

WARWICKSHIRE COUNTY COUNCIL COUNTY PLANNING DEPARTMENT oplications are invited for the following

PLANNING ASSISTANTS-Grade

the pointments:

1) TWO PLANNING ASSISTANTS—Grade
A.P.T. V.

2) THREE PLANNING ASSISTANTS—Grade
For one of the Grade V posts, experience in
the problems of overspill and relocation of industry would be an advantage. For the other
post, experience in Development Control is essential as the successful candidate will be mainly
engaged on appeal work.

For the Grade IV posts, applicants must have
and will be engaged on the Plan review.
Applicants for all posts must be professionally
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The commencing salary in each case will be
according to experience and qualifications.
The posts are subject to the provisions of the
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a medical examination.
Consideration will be given to the granting of
financial assistance towards removal expenses.
Applications together with the names and addresses of two referees should be sent to J. J.
BROOKS, County Planning Officer, Northgate,
Warwick, not later than Saturday, 18th March,
1961.

L. EDGAR STEPHENS.

Clerk of the Council

L. EDGAR STEPHENS, Clerk of the Council.

COUNTY BOROUGH OF GATESHEAD BOROUGH SURVEYOR'S DEPARTMENT Applications are invited from suitably qualified d experienced persons for the following appoint-

ments.
ARCHITECTURAL
SENIOR ASSISTANT ARCHITECT, A.P.T. V (£1,310—£1,480). ASSISTANT ARCHITECT, A.P.T. IV (£1,140—

£1,310).

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

SENIOR QUANTITY SURVEYOR, A.P.T. V
(£1,310-£1,480), to lead the Quantity Surveying Section on a large and varied building

ASSISTANT QUANTITY SURVEYOR, A.P.T. III (£960-£1,140), JUNIOR QUANTITY SURVEYORS, A.P.T. III (£645-£1,140).

PLANNING SENIOR PLANNING ASSISTANT, A.P.T. IV-V

(£1.140—£1.489).
PLANNING ASSISTANTS, A.P.T. III-IV (£960—£1.310).
Salaries within the above scales according to qualifications and experience.
All above posts pensionable, subject to medical examination and one month's notice on either side.

Side. Housing accommodation available at economic rent on pleasant post-war estates, and part removal expenses paid, for Senior posts. Applications giving details of present and previous appointments, qualifications and experience, together with the names of two referees, to be sent to the Borough Surveyor, Swinburne Street, Gateshead, 8, within fourteen days of the appearance of this advertisement.

C. D. JACKSON. C. D. JACKSON. Town Clerk.

CITY OF SHEFFIELD
Applications are invited for the following post on the staff of the Estates Surveyor, Mr. W. H. Rothwell, B.S., F.R.I.C.S.—
MEASURING SURVEYOR (A.P.T. II—£815 to

W. H. Robins SURVEYOR (A.P.T. 11 200 MEASURING SURVEYOR (A.P.T. 11 200 MEA

Sheffield, 1. 6289

WEST SUFFOLK COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the post of ELECTRICAL ENGINEER on A.P.T. Grade IV (£1,140£1,310); commencing salary in accordance with
qualifications and experience.
Applicants should hold a university degree or
equivalent diploma in electrical engineering or be
Associate Members of the Institution of Electrical Engineers, with experience in the design and
supervision of electrical lighting and power
installations.

Housing accommodation may be made available.

Housing accommodation may be made able.
N.J.C. Service Conditions; post pensionable; medical examination.
Application forms obtainable from the County Architect. 13 Westgate Street, Bury St. Edmunds, to be returned as soon as possible. 6291

HORNCHURCH URBAN DISTRICT COUNCIL (Architect's Department)
APPOINTMENT OF PRINCIPAL ASSISTANT ARCHITECT, GRADE A.P.T V
(Salary 21,310—21,480 p.a., plus equivalent to The Principal Assistant Architect would be responsible to the Departy Architect for the detailed work and organisation of the Department. The revised establishment, under the Council's Architect, Mr. D. Pearcy, F.R.I.B.A., includes a Deputy Architect, Principal Assistant Architect, eight Architectural Assistants of various grades, two Architectural Pupils, a Technical Assistant for modernisation and improvement works, and four Clerks of Works.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, the N.J.C. Scheme of Conditions of Service and one month's notice on either side. The person appointed will be required to pass a medical examination.

Candidates must be registered Architects of Associates of the Royal Institute of British Architects. They should have considerable experience in the design of public buildings of all classes, in the handling of contracts and technical administration.

The Council's housing policy permits advances of up to 100 per cent. of the Surveyor's valuation to be granted to members of the staff, or alternatively, consideration may be given to the provision of housing accommodation.

In approved cases, the Council normally pay half the cost of removal expenses, subject to the Poronical Survey Seas.

Essential car user allowance has been approved for this appointment.

Besential car user allowance has been approved for this appointment.

Completed forms of application, with details of experience and qualifications are to be returned to the Clerk of the Council by noon on Tnesday. 21st March, 1961.

P. L. COX.

Clerk of the Counc

Council Offices, Billet Lane, Hornchurch

Billet Lane,
Hornchurch

ROROUGH OF RUGBY
ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment in the Borough Engineer and Surveyor's Department. Commencing salary will depend on qualifications and experience and will be within A.P.T. Grade II. 1815—1856 Housing accommodation will be provided if required.
Further particulars and form of application may be obtained from the Borough Engineer and Surveyor, Burford House, Church Walk, Rugby, to whom completed applications must be sent not later than 25th March, 1961.

T. L. DUFFY,
Town Clerk.

ARCHITECTURAL ASSISTANTS, Surveyor's section. Headquarters, South Eastern Electricity Board. Salary £890 × £30-£1,010 under N.J.C. Grade 4. Applications are invited for two vacancies for architectural assistants with experience in the preparation of working and detail drawings for offices, stores, workshops, garages, showrooms and electricity substations. Applicants should be at Intermediate level of an appropriate professional body. Post is superannuable. Applications quoting A.J. and naming two referees to the Surveyor. Seeboard. 10 Queen's Gardens. Hove, 5, Sussox, by 20th March, 1961. 6278

COUNTY BOROUGH OF ROTHERHAM
SENIOR ASSISTANT ARCHITECT
Applications are invited for the appointment
a Senior Assistant Architect, A.P.T. V (£1.310480)

of a Senior Assistant Architect, A.P.T. V (£1,310—£1,480).

The department has a varied and interesting programme of architectural work and candidates are required to be Associate Members of the R.I.B.A. with good general experience in design and construction. The commencing salary in the grade will be according to capabilities and experience.

Housing accommodation will be available if processary.

Housing Accommode of "Senior Assistant Architect," stating age, qualifications and details of experience, together with names of two referees, should be received by me not later than Friday. 17th March, 1961.

Canvassing will disqualify.

JOHN S. WALL.
Town Clerk.

Municipal Offices, Rotherham. March, 1961.

March. 1961.

CHESHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT
Applications are invited for the appointment
of a MODEL MAKER in the Design Section at
this Headquarters in the County Hall. Chester.
Applicants should be capable of constructing
scale models of buildings and layouts from
drawings and photographs.
The salary for this position is Grade A.P.T. I
(2545-2815 per annum).
Forms of application and further particulars can
be obtained from the undersigned to whom they
should be returned, not later than Wednesday,
22nd March, 1961.

KENNETH O. MALE.

KENNETH O. MALE. County Planning Officer.

County Hall. Chester.

BOROUGH OF SCARBOROUGH
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
APPOINTMENT OF
CHIEF ASSISTANT ARCHITECT
Applications are invited for the permanent
appointment of Chief Assistant Architect at a
salary within Grade V of the A.P.T. Scale of the
National Scale of Salaries (£1,310—£1,480 per

National Scale of Salaries (21,510-21,500 per annum).

Applicants must be Chartered Architects capable of undertaking the design and supervision of building schemes (including housing) carried out by the Corporation.

The appointment will be subject to the pro-visions of the Local Government Superannuation Acts 1937-1953 and to the passing of a medical examination.

Homing accommodation will be made available

Initiation.
Itousing accommodation will be made available required and the Council will pay half removal

expenses.
Applications on a form to be obtained from the Borough Engineer must be delivered to the undersigned not later than 27th March, 1961.
V. FORSHAW,
Borough Engineer and Surveyor.

Borough Engineer and Surveyor.

Scarborough.
March, 1961.

WEST SUFFOLK COUNTY COUNCIL
Applications are invited from suitably qualified
persons for the post of ARCHITECTURAL ASSISTANT within A.P.T. Grades I.II (£645—£960).

N.J.C. Service Conditions; post pensionable,
medical examination.
One day per week will be allowed for study
at a recognised school of architecture.
Application forms obtainable from The County
Architect. 13 Westgate Street, Bury St. Edmunds, Suffolk, to be returned as soon as possible.

APPOINTMENT OF ARCHITECTURAL
ASSISTANT
Applications are invited for the appointment of Architectural Assistant in the Borough Engineer and Surveyor's Office. The salary will be A.P.T. Grade III.
The appointment will be subject to the provisions of the Local Government Superannuation Acts, the passing of a medical examination, the National Joint Council's Scheme of Conditions of Service, and one month's notice.
The post offers sope for interesting work on a varied programme including Redevelopment Schemes, Branch Library, Public Conveniences and Municipal Housing.
Housing accommodation will be provided if required.
A five-day week is in operation.
Applications stating age, training, qualifications, details of previous and present appointments and experience and prosent salary, together with copies of two recent testimonials, should reach the undersigned not later than 2 p.m. on Monday, the 20th March, 1961.

WILLIAM McINTYRE,
Town Clerk.
Fint.

Town Hall,
Flint.

23rd February, 1961.

THE MANCHESTER COLLEGE OF
SCIENCE AND TECHNOLOGY
(Faculty of Technology in the University of
Applications are invited for a SENIGR LECTURBSHIP IN INDUSTRIAL DESIGN within
the Division of Civil Engineering and Building
in the College, with corresponding title and status
in the University of Manchester. The person
appointed will be expected to assume responsibility
for the new section dealing with Industrial Design
under the general direction of Professor Denis
Harper. A new post-graduate course and some
teaching for other departments in the Faculty will
be involved. Applicants should have had some
industrial experience in the field of design and
some knowledge of ergonomics would be valuable.
Salary in the scale £1,975 × 275 to £2,325 per
annum. Superannuation under the F.S.S.U. Family
allowances.

Further particulars and form of application may
be obtained from the Registrar, The Manchester
College of Science and Technology, Mancheeter, I.
to whom completed forms should be returned by
Saturday, 18th March, 1961.

to whom completed forms should be returned by Saturday, 18th March, 1961.

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

Salary: In London ranges from £836 (age 25)—£1,920 p.a., somewhat lower in Provinces. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write (uncting Kings Cross O.N. 897) to Air Ministry, W.G.d. Lacon House, Theobalds Road, London, W.C.1, or to any Employment Exchange giving age, details of training, qualifications, full particulars of former posts held and cooles of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed. 5534

EASTERN ELECTRICITY BOARD

NORTHMET SUB-AREA
GENERAL ASSISTANT ENGINEER
(CLERK OF WORKS)
Civil Engineering and Building Section.
Sub-Area Engineer's Department (Ref. 1039)
Candidates should ave had a good general and technical education, should possess a sound knowledge of practical building and civil engineering construction and be capable of setting out and supervising site works.
Salary: N.J.B. Class N. Grade 16 (£940—£1,065)
Incusive of London Allowance.
The successful candidate will be required to contribute to a supervanuation scheme and may be required to undergo a medical examination.
Apply by letter to the Manager, Eastern Electricity Board, Northmet Sub-Area, Northmet House, Southgate, London, N.J4, by 17th March, 1961.

CITY OF CARLISLE
CITY SURVEYOR'S DEPARTMENT
PRINCIPAL ASSISTANT ARCHITECTS
Applications are invited from qualified Architects
for the above posts. A great deal of interesting
and sizeable work is in progress and projected.
Salary according to A.P.T. V (EL.310-21.489 per
annum) and staff houses are available.
Application forms obtainable from the City
Surveyor, 18, Fisher Street, Carlisle. Closing date
noon on March 20th.
H. D. A. ROBERTSON.

H. D. A. ROBERTSON

H. D. A. ROBERTSON.

Town Clerk.
6215

CITY AND COUNTY OF BRISTOL
CITY ARCHITECTS DEPARTMENT
Applications invited from persons with appropriate professional qualifications for the following permanent posts:

ARCHITECTS:
ARCHITECTS
Scale A. (21,360-21,365).
(b) SENIOR ASSISTANT ARCHITECTS
Grade A.P.T. V. (21,30-21,360).
(c) ASSISTANT ARCHITECTS
Grade A.P.T. V. (21,30-21,360).
(d) ARCHITECTURAL ASSISTANTS
Grade A.P.T. II. (2815-4960).
(e) JUNIOR ARCHITECTURAL ASSISTANTS
Grade A.P.T. II. (2815-4960).
(e) JUNIOR ARCHITECTURAL ASSISTANTS
General Division (starting salary at 18 not less than 2320 p.a. on scale rising to £690 p.a. for applicants with University School Certificate or good G.C.E.).
Applicants for the Senior Architectural posts must hold appropriate qualifications and have had wide experience in Housing. Education or other types of large public building work. They will be required to design and work on projects to completion. Applicants will be considered on their capability for design, experience, contemporary outlook and suitability.

The department has an interesting and varied programme of work including the design and construction of Colleges of Art. Technology and Further Education; Secondary Schools. Markets. Baths, Libraries, and redevelopment projects including blocks of dwellings up to 15 storeys. Facilities will be available for design and contract experience and good opportunities exist for men with drive and initiative to assist in works of major architectural importance.

QUANTITY SURVEYORS:
(g) SENIOR QUIANTITY SURVEYOR
Grade A.P.T. II (e546-£815).
Applicants for (g) and (h) should preferably be of R.I.C.S. Intermediate standard.
Housing accommodation will be provided, if necessary, at an economic rent. Assistance with removal expenses for all posts except (a).

The department works a five-day week.
Details and application forms, returnable by 20th March, from City Architect, Council House, Bristol 1.

COUNTY BOROUGH OF WIGAN
BOROUGH ENGINEER & SURVEYOR'S
DEPARTMENT
Applications are invited for the following permanent appointments in the Borough Engineer and Surveyor's Department:—
(a) PRINCIPAL ARCHITECTS, Grade A.P.T. IV.V (£1,140—£1.480).
(b) SENIOR ARCHITECT, Grade A.P.T. III.V (£950—£1.310).
(c) ASSISTANT ARCHITECT, Grade A.P.T. IV.V (£454—£1.310).
There is an interesting and varied programme of work in the Department.
Housing accommodation can be offered for the successful married applicants.
The point of entry to the salary Grades will be determined by qualifications and experience.
Applications, giving name, address, age, present appointment and salary, previous appointments and also the names of two persons to whom reference may be made, should be sent to the Borough Engineer and Surveyor, Municipal Buildings, Wigan, to be received by him by no later than Friday, 24th March, 1961.

ALLAN ROYLE,

Town Clerk.
Municipal Buildings.

Municipal Buildings Wigan.

BOROUGH OF ACTON

Applications are invited for the following appointments in connection with the Council's programme of redevelopment and new works:—
SENIOR ENGINEERING ASSISTANT, A.P.T. AP.T. AP. T. AP. T

SENIOR ENGINEERING ASSISTANT, A.P.T. Grade Grade X. Grade X. Grade IV. Grade IV. Grade IV. Grade IV. Candidates should have general experience of municipal works especially redevelopment, structural design and multi-storey housing. Appointments on A.P.T. Grades IV and V are subject to lossession of the appropriate qualifications. Starting salaries according to age, qualifications and experience. London Allowance (maximum 445 p.a.) is payable in addition. Five-day week. To assist successful applicants to obtain housing advances up to 100 per cent. Conditions of appointment and forms of application may be obtained from and should be relutined to the Borough Engineer, Town Hall. Acton. W.S. by 20th March, 1961. 6220 DRAWING OFFICE. Applications are invited

Acton. W.5. by 20th March, 1951.

Acton. W.5. by 20th March, 1951.

DRAWING OFFICE. Applications are invited from experienced Civil Engineering Draughtsmen for the designated post as FOURTH ASSISTANT ENGINEER. Candidates must have experience in structural steel and reinforced concrete design and detail work, also the preparation of working drawings for general building construction. Salary N.J.B. Class L., Grade 12 (Scale 8), £1,040-£1,65 per annum. Superannuable. Applications, on the standard form which may be obtained from and should be returned to the Area Secretary, South of Scotland Electricity Board, Glasgow Area, P.O. Box 6, 75 Waterloo Street, Glasgow, C.2, to be returned not later than Friday, 17th March, 1961. Please quote reference No. GE/9/61.

Please quote reference No. GE/9/81.

LANCASHIRE COUNTY COUNCIL
PLANNING ASSISTANT required at LIVERPOOL. Commencing and maximum salary according to qualifications and experience within range
ref46—£1,310 per annum.

Applicants should have an appropriate University
degree and/or be studying for or possess a recognised qualification in architecture, surveying,
engineering or town planning.

Applications giving age, qualifications, present
appointment (if any), experience, etc., and two
referees to the County Planning (S), East Cliff
County Offices, Preston, by the 20th March, 1961.

6223

COUNTY COUNCIL OF ESSEX

(a) SECTIONAL ASSISTANT ARCHITECT.

J.N.C. Scale B. Salary not exceeding £1.670.

(b) SENIOR ASSISTANT ARCHITECT. A.P.T.D.

Grade V, Salary not exceeding £1.480.

Commencing salaries according to qualifications and experience.

The continuing development of the County offers opportunities to design and supervise the construction of many types of public buildings—colleges, offices, residential homes, courts, police stations and schools.

Apolication forms from H. Conolly, C.B.E., F.R.I.B.A. County Architect, County Hall. Chelmsford (state post for which form is required), returnable with copies of three testimonials by 24th March, 1961.

6299

NEWCASTLE REGIONAL HOSPITAL ROARD.

returnable with copies of three testimonials by 24th March, 1961.

NEWCASTLE REGIONAL HOSPITAL BOARD EXPANSION OF ARCHITECTURAL DEPARTMENT

P. H. KNIGHTON, M.B.E. A.R.I.B.A. REGIONAL ARCHITECT ARCHITECT AS the Board is in the process of increasing its Architectural Department in Newcastle to deal with a programme at present totalling about 212m., applications are invited for the following (superannuable) posts which offer either a career of varied, interesting and rewarding work of a high standard, or an excellent stepping-off point for further advancement.

high standard, or an excellent stepping-off point for further advancement.

1. SEXIOR ASSISTANT ARCHITECTS

(£1,300 × £69(5) - £1,600).

Open to regristered architects with experience in the design and construction of major public buildings. Experience of hospital work desirable but not essential. Assistance with removal expenses if appointee at present in a lower-graded Health Service post.

2. ASSISTANT ARCHITECTS

(£995 × £35(1) × £45(6) × £50(2) - £1,310).

Applicants must have passed the R.I.B.A. Final Examination. For regristered architects increments can be given above the bottom of the grade in accordance with relevant practical experience.

Qualified but unregristered architects can enter the Architectural Assistant scale at a salary boint of £865 per annum.

3. ARCHITECTURAL ASSISTANTS

point of £865 per annum.

3. ARCHITECTURAL ASSISTANTS

(£625 × £30(8) × £35(1) — £906).

Inter R.I.B.A. and preferably some practical

experience.

4. ARCHITECTURAL DRAUGHTSMEN

(£475 × £25(6) × £30(2) - £685).

5. years' previous experience in an architect's drawing office and good draughtsmanship required.

guired. Evening study facilities available at King's ollege of Durham University in Newcastle.

Details of training, qualifications, experience, present salary, etc., with the names of three architectural referees, should reach the Socretary to the Board, Benfield Road, Newcastle upon Tyne, 6, by 24th March, 1961. Canvassing will disqualify.

EAST LOTHIAN COUNTY COUNCIL

Applications invited for post of PLANNING
ASSISTANT. Duties mainly on review of development plans and redevelopment schemes for small towns. Salary £550 to £1.150 with appropriate placing if passed Final Examination of Town Planning Institute. Superanuation. Applications with details of qualifications, etc., and names of two referees to County Clerk, County Buildings, Haddington, within 14 days. 6207

COUNTY BOROUGH OF GREAT YARMOUTH APPOINTMENT OF ARCHITECTURAL ASSISTANT
Applications are invited for this appointment in the Borough Engineer's Department at a salary in accordance with APT Grade II (£815—£960). Applicants must have passed the Intermediate examination of the R.I.B.A., and have had experience in public buildings and housing. The Council is unable to offer housing accommodation. The appointment will be subject to the passing of a medical examination for superannuation purposes, and to one month's notice on either side.
Applications, in an envelope endorsed "Architectural Assistant," giving names and addresses of two referees and stating age, training, qualifications, experience, present and previous appointments with salaries, must reach me not later than Thursday, 25rd March, 1961.
Canvassing will disqualify.
Town Hall.
Great Yarmouth.

Town Hall, Great Yarmouth.

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT—Applications are invited from Qualified Architects, Architectural Assistants (Non-qualified) and Draughtsment for the undernoted appointments at the County Buildings, Cupar:—
(a) SENIOR QUALIFIED ARCHITECTS—Salary Scale: £1,420,£1,700.
(b) QUALIFIED ARCHITECTS—Salary Scale: £2,530,£1,535.
(c) JUNIOR QUALIFIED ARCHITECTS—Salary Scale: £350,£1,550.
(d) ARCHITECTURAL ASSISTANTS (Non-qualified)—Salary Scale: £640,£975.
Candidates for posts (a), (b) and (c) should be Associates of the R.L.B.A. and for posts (a), should have considerable experience and have held senior positions. Posts (c) are particularly suitable for young qualified architects seeking to further the assistants of qualified with considerable experience. Posts (d) are appropriate the assistants of qualified with considerable experience. Hosts (d) are appropriate the assistants of qualified with considerable experience. Hosts (d) are appropriate the assistants of qualified of with considerable experience, all appointments are superiorized to a service of the considerable experience, and position and salary accompanied by copies of recent testimomals, to be lodged with the undersigned not later than 31st March, 1951. No canvassing.

MATTHEW POLLOCK, County Residence.

MATTHEW POLLOCK, County Clerk

County Buildings, Cupar-Fife.

Cupar—Fife.

SOUTH-EAST METROPOLITAN REGIONAL HOSPITAL BOARD HOSPITAL BOARD HOSPITAL PLANNING AND DEVELOPMENT

The Board are substantially increasing their Professional and Technical Staff to deal with the rapidly expanding Hospital Building Programme, and applications are invited to apply for the undermentioned posts which offer exceptional opportunities for gaining experience in the field of Hospital Planning and Development. Previous hospital experience desirable but not essential.

ARCHITECTS

SENIOR ASSISTANT: Salary £1,350—£1,650. APPLICANTS: Salary £945—£1,350.

Applicants must be Registered Architects having passed the requisite examinations. QUANTITY SURVEYORS

SENIOR ASSISTANT: Salary £1,350—£1,650. APPLICANTS: Salary £945—£1,350—£1,650. APPLICANTS SALARY £945—£1,350—£1,650. ASSISTANTS: Salary £945—£1,350—£1,650. APPLICANTS SALARY £945—£1,350—£1,650. APPLICANTS SOURCE SALARY £1,350—£1,650. APPLICANTS SO

DORSET COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ARCHITECTURAL ASSISTANT required,
Salary Scale A.P.T. II (£815—2860) for Intermediate R.I.B.A. Progression to A.P.T. III (£960— £1,140) upon obtaining Final Qualification.
Application forms from the Clerk, County Hall,
Dorchester, to be returned by 24th March, 1961.
6268

BOROUGH OF LEYTON

BOROUGH OF LEYTON
(in the County of Essex)
APPOINTMENT OF
JUNIOR ARCHITECTURAL ASSISTANT
Applications are invited for the appointment of
Junior Architectural Assistant Grade A.P.T. I.
2645—4815 per annum plus London weighting.
The successful applicant will be employed by
the Essex County Council and will work in the
School Architect's Section of the Borough Engineer and Surveyor's Department, Town Hall.
Leyton, E.10. Five-day week is operated.
Details and forms of application from the
Borough Education Officer, Education Offices.
Kirkdale Road, Leytonstone, E.11, to whom they
should be returned within 14 days from the
appearance of this advertisement.

6269

LINDSEY (LINCOLNSHIRE) COUNTY

ARCHITECT'S DEPARTMENT

North Lincolnshire is developing rapidly and the work in the Department is growing correspondingly, Vacancies exist for the following grades of ARCHITECTS JUNIOR ASSISTANTS:

A.P.T. III Salary £960—£1,140

A.P.T. II Salary £960—£1,140

Vacancies also exist for SENIOR QUANTITY SURVEYORS, Grade A.P.T. IV, salary £1,140—£1,310.

SURVEYORS, Grade A.P.T. IV, salary £1,140-£1,310.

Commencing salary within the grade dependent upon qualifications and experience. Five-day week. Post Entry Training Assistance for study, N.J.C. Conditions of Service. Canvassing will disqualify, and candidates must disclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Council.

Applications giving age, qualifications, experience, present post and salary and names of two referees to be sent to A. Ronald Clark, A.R.I.B.A., A.M.T.P.I. County Architect, County Offices, Lincoln, not later than 20th March, 1961. 6263

SALOP COUNTY COUNCIL

COUNTY PLANNING DEPARTMENT
TWO SENIOR PLANNING ASSISTANTS required, commencing salary within A.P.T. Grades
III-IV (1960-21,310) according to qualifications
and experience. Candidates must be A.M.T.P.I. or
equivalent or hold an architectural qualification
with planning experience. Staff accommodation
may be available; five-day week; N.J.C. conditions
of service; medical examination. Applications
with names and addresses of two referees to
County Planning Officer, Shirehall, Shrewsbury,
not later than 25rd March, 1961.

G. C. GODBER,
Clerk of the County Council.

HAILSHAM RURAL DISTRICT COUNCIL SECOND ARCHITECTURAL ASSISTANT Applications are invited for the above appointment in the Engineer and Surveyor's Department, at a salary within Grade A.P.T. III (£960-£1.40). A car allowance will be provided in addition. The appointment is superannuable and subject to the National Scheme of Conditions of Service. Candidates should be suitably qualified, and applications stating age, qualifications, present and previous appointments and experience, together with the names and addresses of two referees should be sent to the undersigned to arrive not later than 20th March, 1961.

Experience in Local Authority work is not essential.

Experience sential. Clerk to the Council.

Cortlandt, Hailsham, Sussex.

WEST SUFFOLK COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT Applications are invited for the post of ASSISTANT ARCHITECT within Grade A.F.T. IV (21,140-41,330 per annum). Applicants must be qualified Architects and preferably have experience in Local Authority work. The department can offer varied and interesting experience on Educational, Police and Health programmes.

programmes.

N.J.C. Service Conditions; post pensionable; medical examination.

A five-day week is in operation; housing accommodation may be made available.

Application forms obtainable from the County Architect, 13 Westgate Street, Bury St. Edmunds, to be returned as soon as possible.

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
SENIOR ARCHITECT'S DEPARTMENT
SENIOR ARCHITECT'S DEPARTMENT
Principal Assistant (Professional), £1,700 to
£1,990, required in the Special Works Division to
organise and co-ordinate a programme of modifications to buildings necessitated by the widening
and improvement of roads carried out by firms
of private architects. Applicants should be qualified architects with energy and drive.
Application form and further particulars, returnable by 25th March, from Hubert Bennett,
FR.I.B.A. (EK A/597/3), Architect to the Council, County Hall, S.E.1.

SOWERBY BRIDGE URBAN DISTRICT COUNCIL CHIEF ARCHITECTURAL ASSISTANT

CHIEF ARCHITECTURAL ASSISTANT
Applications are invited for the appointment of Chief Architectural Assistant at a salary in accordance with A-P.T. IV (21,140-£1,310). An Essential Users Car Allowance will be paid. Candidates must be suitably qualified.
The successful applicant will be responsible to the Engineer and Nurveyor for all the architectural work carried out by the Council who have an extensive building programme which, in addition to normal housing requirements, includes the building of houses for sale, redevelopment areas, and multi-storey Bats.
Housing accommodation will be available if required.
The appointment will be subject to the Local Government Superannuation Acts, and the successful applicant will be required to pass a medical examination.
Applications, endorsed "Chief Architectural Assistant," stating age, qualifications and experience, and giving the names and addresses of two persons to whom reference may be made, must reach the undersigned, not later than Monday, the 15th March, 1961.

Allan House,
Sowerby Bridge.

Allan House, Sowerby Bridge, Yorkshire.

BOROUGH OF ILKESTON

Applications are invited for the following

Applications are invited for the following appointments:—
ARCHITECTURAL ASSISTANT, Grades A.P.T. II-IV (£315-£1,310).
ARCHITECTURAL ASSISTANT, Grades General Division to A.P.T. II (£250-£960).
Commencing salary for each appointment to be fixed according to qualifications and experience. Housing accommodation available. Canvassing disqualifies.
Application forms and conditions of appointment obtainable from A. O. Marshall, Borough Surveyor & Water Engineer, Town Hall, Ilkeston, to whom they are to be returned by Monday, 10th April, 1961.

STEVENAGE DEVELOPMENT CORPORATION STEVENAGE DEVELOPMENT CORPORATION Applications are invited for appointment as ASSISTANT ARCHITECT in the Chief Architect's Department on New Towns' Salary Grade A.P.T. III. £950-£1.140; starting salary according to qualifications and experience. Applicants should be Associates of the Royal Institute of British Architects and have experience in design and construction of modern buildings. Candidates who are taking Final examinations shortly may be appointed in Grade A.P.T. II. £815-£960 and on qualifying be transferred to a higher vacancy. Living accommodation will be available in an appropriate case. Local Government superannuation: five-day week.

Applications giving details of experience and the names of two referees should be sent to the Chief Administrative Officer, Daneshill House. Danestrete. Stevenage, Herts, not later than 20th March. 1961.

CITY AND COUNTY OF NEWCASTLE UPON TYNE
Applications are invited from suitably qualified persons for the appointment of SENIOR QUANTITY SURVEYOR in the City Architect's Department at a salary in accordance with A.P.T. Division Grade IV (£1,140-£1,310 per annum).
Application forms and further particulars may be obtained on application in writing to George Kenyon, A.R.I.B.A., A.M.T.P.I., 18 Cloth Market, Newcastle upon Tyne, 1

JOHN ATKINSON.

JOHN ATKINSON. Town Hall. Newcastle upon Tyne. 1. 24th February, 1961.

NORTHERN IRELAND HOUSING TRUST ARCHITECTS

The Trust invites applications for the following

The Trust invites applications for the following posts:

(1) ASSISTANT ARCHITECTS on scales £950—
£1,300 (under review). Candidates must be Associates of The Royal Institute of British Architects.

(2) ARCHITECTIRAL ASSISTANTS on scales £450—£250 (under review). Candidates should state their qualifications.

Placing will be according to experience.

The persons appointed will be required to contribute to a superannuation scheme which allows for the transfer of benefits in local government schemes in suitable cases.

Housing accommodation may be arranged for married candidates.

Please apply not later than 31st March, 1961, giving full details of age, education, qualifications and experience, including present post and salary, to the General Manager, Northern Ireland Housing Trust, 12 Hope Street, Belfast 12.

Please mark envelope: (1) 33/90; (2) 33/91. 6194

BOROUGH OF SCUNTHORPE
(Population 53,000; Area 7,895 acres; R.V. £1,562,541)
ARCHITECTURAL AND PLANNING
APPLIATMENTS
Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—
(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. III/IV (£960-£1,310 p.a.).
(b) SENIOR PLANNING ASSISTANT (Redevelopment), Grade A.P.T. III (£960-£1,140 p.a.).

b) SENIOR PLANNING ASSISTANT (Redevelopment), Grade A.P.T. III (£960—£1,140 p.a.).

c) PlANNING ASSISTANT (Development Control), Grade A.P.T. II (£11 (£815—£1,140 p.a.).

Commencing salaries will be fixed in the appropriate grade according to qualifications and experience.

Applicants for post (a) should be qualified architects and have a good experience of Architectural practice and procedure but Local Government experience is not essential; for posts (b) and (c) previous experience in redevelopment and development control work respectively in an urban area is essential.

The population of the Borough continues to expand rapidly and an extensive programme of capital works is planned. Opportunity for valuable architectural and planning experience also exists in conjunction with a comprehensive Redevelopment Scheme now being prepared for the Central Area of the Borough.

Housing accommodation available, if required, approved removal expenses reimbursed in full, five-day working week.

Applications, stating age, details of present and past appointments, training, qualifications and experience, together with the names of two persons to whom reference may be made, should be sent to F. J. Bowyer, Esq.. Borough Engineer and Surveyor's Department, Laneham Street, Scunthorpe, on or before Friday, 24th March, 1961.

CITY OF SHEFFIELD
CITY ENGINEER AND SURVEYOR'S
DEPARTMENT
Applications are invited from suitably qualified persons for the following appointments on the staff of the City Engineer and Surveyor and Town Planning Officer:

(a) AREA PLANNING OFFICERS, Grade B (£1,480-£1,670 p.a.).
(b) CHIEF ASSISTANT (Special Works), Grade B (£1,480-£1,670 p.a.).
The person appointed to this post will be required to take charge of the Special Works Section which deals with redevelopment units landscaping, wayside gardens and features, and generally assist all other Sections of the City Engineer's Department where matters of design in association with amenity are involved.
(c) SENIOR PLANNING ASSISTANTS, Grade A.P.T. V (£1,310-£1,340 p.a.).
(d) SENIOR PLANNING ASSISTANTS, Grade A.P.T. IV (£1,140-£1,310 p.a.).
Candidates for posts (a) and (b) should have a Town Planning qualification and an architectural or other suitable additional qualification would be an advantage.

The commencing salary for each of the above posts will be in accordance with experience and qualifications.

posts with he in accounted qualifications.

Consideration will be given if required to assistance with housing accommodation and removal expenses in suitable cases.

Superannuable posts, N.J.C. Conditions of Service. Medical Examination.

Applications stating age, education and training qualifications, experience, present and past appointments with dates and salaries) and quoting the names of two referees should be submitted to the undersigned by the 24th March next.

JOHN HE'S.

Town Hall.

THE URBAN DISTRICT COUNCIL OF FELLING SURVEYOR'S DEPARTMENT APPOINTMENT OF ARCHITECTS Applications are invited for the appointments

APPOINTMENT OF ARCHITECTS
of:

Applications are invited for the appointments
of:

(a) CHIEF ASSISTANT ARCHITECT;
(b) ASSISTANT ARCHITECT;
(c) ASSISTANT ARCHITECT;
(d) ASSISTANT ARCHITECT;
(e) ASSISTANT ARCHITECT;
(f) ASSISTANT ARCHITECT;
(f) ASSISTANT ARCHITECT;
(g) ASSI

Council Buildings, Felling, Gatesbead 10. 6240

CITY OF SHEFFIELD

Applications are invited for the following posts on the staff of the Estates Surveyor, Mr. W. H. Rothwell, B.Sc., FR.I.C.S., PROPERTY ASSISTANT (REPAIRS), Grade A.P.T. III-IV (606)—£1,319). Qualification:
A.R.I.C.S. (Building) or equivalent.
Applicants must have had wide experience in the maintenance of urban properties of all classes, particularly of repairs, conversions and demolition, and including experience of contract administration. Experience of a House Patching Scheme is desirable.

and including experience of a House Patching Scheme is desirable.

PROPERTY ASSISTANT (REPAIRS), Grade A.P.T. II (£815-£960), Applicants should be experienced in the maintenance of urban properties, particularly repairs, conversions and demolitions and should have passed the Intermediate R.I.C.S. (Building) or its emitvalent.

commencing salary within the above scales commensurate with qualifications and experience. The posts are superannuable, subject to N.J.C. conditions of service and to medical examination. Applications stating name, address, age, qualifications, experience, previous and present positions with dates and salaries and the names and addresses of two referees should reach the undersigned not later than 18th March, 1961.

JOHN HEYS, Town Hall

Town Hall, Sheffield 1.

EAST LOTHIAN COUNTY COUNCIL
ASSISTANT ARCHITECTS
Applications are invited from qualified Architects for the posts of Assistant Architects in the Property and Works Department. Salary scale £850 to £1,150 per annum with appropriate placing, Superannuation, Persons appointed may reside in Edinburgh if desired or alternatively a house will be made available in the County if required. Applications, stating age and experience, with names and addresses of two referes to the undersigned within 14 days.

THOS. GIBB,
County Clerk.

CITY AND COUNTY OF
NEWCASTLE UPON TYNE
OTTY PLANNING DEPARTMENT
Applications are invited for the following vacant posts in an enthusiastic team forming the nucleus of a new Planning Department under Wilfred Burns. W. Rng., Dip.F.P., A.M.T.P.L., A.M.I.C.E., In addition to appropriate qualifications, candidates must be enthusiastic in the cause of planning and its importance in creating a modern environment.

The Department is currently engaged in preparing an extensive review of the Development Plan and a series of major redevelopment schemes which include substantial redevelopment of the City Centre.
REDEVELOPMENT DIVISION
1 CENTRAL AREA OFFICER, Scale "B" (£1,40-£1,570 p.a.).

The selected applicant will be responsible for the design work in this Central Area and in charge of the group preparing schemes for central redevelopment. Architectural qualifications are necessary.

PLANNING ASSISTANT, Grade II (£815—6960 p.a.).
PLANNING POLICY DIVISION

6960 p.a.) PLANNING POLICY DIVISION 3. ANSISTANT PLANNING OFFICER. Grade III/IV (6960-61.310 p.a.). 4. PLANNING ANSISTANTS, Grade I (£645—

4. PLANNING ASSISTANTS, Grade 1 (1994)

6315 p.a.).

Salaries at a commencing point commensurate with qualifications and experience.

The appointments are subject to the National Scheme of Conditions of Service the Local Government Superannuation Acts, and the passing of a medical examination.

Applications stating age, qualifications and experience, present appointment and salary, together with the names of two referes should reach the City Planning Officer, 2, St. Nicholas Buildings, Newcastle upon Type 1, by not later than Monday, 27th March, 1961.

JOHN ATKINSON.

Town Clerk,

Town Hall. Newcastle upon Tyne 1.

COUNTY BOROUGH OF BARROW-IN-FURNESS
BOROUGH ENGINEER & SURVEYOR'S DEPT.
SENIOR ARCHITECTS
Applications are invited from qualified Architects with suitable experience for two posts of:—
Sevior Architect, Grade 4. £1,140-£1,310.
The commencing salary will be fixed within the grade.
Housing accommodation available

Housing accommodation available, alternatively subsistence allowances will be paid. Removal ex-nerses reimbursed. Car purchase scheme in

penses reimbursed. Car purchase operation.

The Department works a five-day week and has an interesting and varied programme of schemes. Full details of the post, conditions of appointment and application forms may be obtained from the Borough Engineer and Surveyor to whom completed forms must be returned not later than Friday, 17th March, 1961.

LAWRENCE ALLEN.

Town Clerk.

Town Hall, Barrow-in-Furness

KESTEVEN COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
(a) ASSISTANT ARCHITECT'S, A.P.T. III-IV
(£960-£1,310).
(b) ARCHITECTURAL ASSISTANTS, A.P.T. I-III (£645-£1,140).

(b) ARCHITECTURAL ASSISTANTS, A.P.T. I. III (£645-£1,140).
(c) ENGINEER'S ASSISTANT (ELECTRICAL), A.P.T. I.II (£645-£960).
Full particulars of the above appointments may be obtained from the County Architect, County Offices, Sleaford, Lines.
Applications from suitably qualified persons, together with the names and addresses of two referees, should reach the undersigned not later than the 3rd April, 1961.

J. E. BLOW. Clerk of the County Council.

County Offices, Sleaford, Lines.

MALVERN URBAN DISTRICT COUNCIL
JUNIOR ARCHITECTURAL ASSISTANT
Applications are invited for the above appointment, salary Grade A.P.T. I.
Age, experience, present salary and two names
for reference, to be submitted not later than
Wednesday, March 15th, 1961.

J. BULMAN.

Clerk of the Counc

The Council House, Malvern. 23rd February, 1961.

Tenders Invited

Tenders Invited

36s. per inch; each additional line 3s.

CITY OF BIRMINGHAM HOUSING

MANAGEMENT DEPARTMENT

CLEFT CHESTNUT FENCING

The Housing Management Committee of the
Birmingham Corporation invite tenders for the
supply and delivery of approximately 100,000 yards
of 3 ft. Cleft Chestnut Fencing, 11,000 yards of
3 ft. 6 in. Cleft Chestnut Fencing and 45,000 Posts,
to be supplied during the twelve months commencing the 1st May, 1961.

The attention of persons submitting tenders is
drawn to the following points:

1. Delivery will be required in twelve equal
monthly instalments, but deliveries can, if it
suits the supplier, be made in advance.
2. Tenders may be accepted for quantities less
than the total amount specified, but such
tenders must be for not less than 20,000 yards
of fencing and 6,000 posts.

Forms of tender can be obtained from the
undersigned and should be returned by the 22nd
March, 1961.

J. P. MACEY,

J. P. MACEY. Housing Manager.

Housing Management Department, Bush House, Broad Street, Birmingham, 1

6193

Competition

Competition

36s. per inch; each additional line 3s.

ROYAL COUNTY OF BERKSHIRE ARCHITECTURAL COMPETITION NEW COUNTY OFFICES

The Berkshire County Council have promoted an open competition for architects for the design of new County offices and a new Council Chamber to be erected on a site adjacent to the present Shire Hall. Reading, at an estimated cost of £815,000. Premiums of £3,000, £2,000 and £1,000 will be awarded to the competitors placed first, second and third respectively.

Mr. Frederick Gibberd, C.R.E., F.R.I.B.A., M.T.P.I., F.I.L.A., has been appointed as Assessor.

M.T.P.L. F.L.B.A., has seesor.
Copies of the Conditions and Schedules of Accommodation may be obtained from the Clerk of the County Council, Shire Hall, Reading, during the period 20th March to 1st May, 1961, on receipt of a deposit of £2 2s. The latest date for submission of questions is Monday, 26th June, 1961, and entries must be submitted by 5.30 p.m. on Tuesday, 31st October, 1961.

E. R. DAYLES,

E. R. DAVIES, Clerk of the Council.

Shire Hall, Reading, Berks. 6232

Architectural Appointments Vacant

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

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

A SSISTANT required, at least Intermediate
standard, to start early summer. L. H.
Bond & R. W. Read, 44, Castlegate, Grantham,
Lines.

R ONALD 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, Pieasant offices. Apply 29, Chesham Place, Belgravia Soil.

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

\$2850-\$1.600 . ARCHITECTURAL ASSISTANTS required. Long term prospects. Non-contributory pension and life assurance schemes. Five-day week. Telephone or write: Ronald Ward & Partners, 29, Chesham Place, Belgrave Square, S.W.I. Belgravia 3361.

ners, 29, Chesham Place, Belgrave Square, S.W.1.
Belgravia 3561.

VOLVERHAMPTON. Norman & Dawbarn
require an ASSISTANT in their Midlands
Office. This position could afford useful experience of small and medium size jobs in a young
but expanding office, with possibility of later
transfer to London Office or overseas if desired.
Minimum of two years' office experience required
if qualified, four years if Intermediate. Excellent
working conditions, five-day week, three weeks'
annual leave, lunch vouchers. Write or telephone
7, Portland Place, London, W.1 (LANyham 8011),
or Heantun House, Salop Street, Wolverhampton
(Wolverhampton 27387).

DLAYNE & LACEY require experienced and
enthusiastic SENIOR ARCHITECTURAL
ASSISTANT for work on University project.
Salary range £1,200 to £1,500. Write 19, Queen
Anne's Gate, Westminster, S.W.1, or ring WHI
2552 for interview.

RCHITECTURAL ASSISTANTS require

£900 - £1,200

Starting range. Reviewed annually or more frequently if willingness and ability shown. Five-day week. Interview and removal expenses paid and assistance in solving any accommodation problem. Write full particulars to G, de C. Fraser, Son and Gearey, 27, Dale Street, Liverpool, 2. 5660

A RCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 918. co 7, Coptic Street, W.C.L. 5647

O PPORTUNITY for Intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding practice in Croydon. Apply to Donald Rowswell & Partners, 11/11a, George Street, Croydon, or felephone CROydon 4080.

phone CROydon 4080.

NORTH LONDON.—ASSISTANTS required about R.I.B.A. Intermediate standard. Wide variety of interesting work. Five-day week. Facilities for part-time day study. Apply C. E. Owen Ward, L.R.I.B.A., Midland Bank Chambers, Palmers Green, London, N.3. PAL. 1186/7, 5768.

OPPORTUNITY FOR FRUSTRATED INTERAND INAGINATION. UNABLE TO FIND POST OFFERING FREEDOM IN DESIGN OR CHANCE TO TAKE CHARGE IN PROJECTS. WRITE OR PHONE: NICHOLSON AND RUSHTON. 2. NEW SQUARE, LINCOLN'S INN. W.C.2. HOLBORN 2095.

TWO SENIOR ASSISTANTS required. Salary

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

JUNIOR ARCHITECTURAL ASSISTANTS required. Salary range £750—£1,250 p.a. depending upon experience. Write with fullest details of experience. Box 5602.

WE are about to commence planning unusually interesting projects in which a qualified FIRST ASSISTANT and a SECOND ASSISTANT are invited to join us in our new spacious offices. We are close to central transport facilities and within easy reach of London.

Appointments to be made so that planning can begin soon after Easter.

Anthony R. Dannatt, F.R.I.B.A.,

A. R. Dannatt & Son,

65a, Duke Street,

Chelmsford, Telephone 58121.

SEWCASTLE UPON TYNE. ARCHITECTS

AND ASSISTANTS required for varied and interesting projects, excellent working conditions, pension scheme, salary according to ability and experience. Write giving details of age, training and experience to W. B. Edwards & Partners, Cathedral Buildings, Dean Street, Newcastle upon Tyne.

ARCHITECTURAL ASSISTANTS required

A RCHITECTURAL ASSISTANTS required.

Recently qualified, Intermediate or equivalent standard. Excellent salaries offered, Pension and Life Assurance Schemes in operation. Five day week. Please write giving full particulars of experience to Sandon & Harding, A./A.R.I.B.A., 14, Lower Brook Street, Ipswich.

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

A RCHITECTURAL ASSISTANT, female, required for central office with varied practice. Five-day week. Salary £350. Write Box 6111.

A SSISTANT ARCHITECT required (male) for busy West End office. Salary £1,000. Write Box 6112.

URGENT. Staff Architect in West End willing to pay up to £1,200 p.a. for newly qualified ARCHITECT to run medium sized Contracts. Some practical knowledge essential. Five-day week. Holidays to be arranged. Please reply to Box 6113.

STAFF ARCHITECT in West End willing to pay up to £1,000 p.a. for ASSISTANT approaching Finals standard but with practical working knowledge to help in running medium sized Contracts. Five-day week. Holidays to parranged. Placase reply to Box 6114.

TANTS required by Ind Coope (East Anglia)
Ltd. Sound training and experience together with an interest in interior design essential. Salary range £600-£1,500. The Company operates a Pension Scheme with substantial widows' benefits in the event of death before or after retirement. Five-day week. Write, giving age, salary (at present, or required) and full details of training and experience to the Architect, Ind Coope (East Anglia) Ltd., The Brewery, Romford.

DBIGHTON & HOVE: Experienced ASSIS-

BRIGHTON & HOVE: Experienced ASSISTANTS in all grades required for work along the south coast.
H. Hubbard Ford & Associates.
67, Church Road, Hove, 3, Sussex. 6014

PART-TIME Architectural assistance, by day, evenings, or weekends, required in small W.1. office. State approximate number of hours available per week and hourly rate required. Box 6016.

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

\$21.000 \(\frac{\mu_2}{\ell_2}\) 2000 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.

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

- (1) Partner's Personal Assistant for general Architectural and administrative duties.
- Experienced Architectural Assistant/Architectural Braughtsman for main Brawing Office.

Five-day week, Pension Scheme, etc

Five-day week, Pension Scheme, etc.

State age, experience and salary required. 5492

A SSISTANT 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.

HOWARD V. LOBB & PARTNERS require ASSISTANT ARCHITECTS. Salaries would be between 2750 and 21,250 per year. Please write to 20, Gower Street, London, W.C.L. 3540 ENIOR ASSISTANTS required immediately.

SENIOR ASSISTANTS required immediately.
Salary by arrangement. Theo. H. Birks, 38,
Portland Place, London, W.I. LAN 7236. 1436

OOTH, LEDEBOER AND PINOKHEARD
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
1266. 3119

Intermediately. Salary according to ability and experience. Theo. H. Hirks, 38. Portland Place, London, W.I. LAN. 7235. 9739.

Intermediately. Salary according to ability and experience. Theo. H. Hirks, 38. Portland Place, London, W.I. LAN. 7235. 9739.

H. ELSOM & PARTNERS need experience need architectron of public and commercial projects. VICtoria 4304. 10. Lower Grosvenor Place, W.I.

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, Esg., A. R.I.B.A., Chief Architect., S.C.W.S. Ltd., Architectural Division. 76. Morrison Street. Glasgow, C.5.

Architectural Division. 76. Morrison of the considered o

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

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

Croydon.

Croydon.

MALL PROGRESSIVE AND CONTEMPOR

ARY LONDON OFFICE REQUIRES ASSISTANTS. GOOD OPPORTUNITY FOR PEOPLE
WISHING TO GAIN EXPERIENCE IN ALL

ASPECTS OF A VARIED PRACTICE. Box 5823.

ASPECTS OF A VARIED PRACTICE. Box 5823.

21.000-21.200
P.A. ABCHI-TECTURAL
ASSISTANTS required for the Architect's Office of
a large industrial organisation specialising in food
production. Intermediate standard with minimum
of five years' experience in industrial work. Knowledge of London Buildings Acts essential. 5-day
week: Pension Scheme; meal facilities, Sports
Club. Apply in writing to Box 6024.
ASSISTANT required for Architectural partnership in Norwich to work on interesting and
important schemes. A happy office in a fine
city. Salary range 2800 to £1,200. A. F. Scott
and Sons, 23, Tombland, Norwich.

ROAD 3 stairtreads surrounds HORTH fireplaces BOW RO kirtings cladding copings flooring shelves ABERLLEFENI paving SLATE & HALL cills MO8 UARRIES

ANCHESTER—Required: ASSISTANTS with progressive outlook for work on a wide range of interesting projects, including schools, houses and flate, churches, youth centres, industrial and hespital work. Pension scheme; bonus scheme; salary up to £1,200 per annum according to experience and ability. Apply in writing to:

Taylor, Young & Partners,

195, Oxford Road, Manchester, 13. 5966

A SSISTANT ARCHITECTS required immedi A stelly in expanding private practice, pre-ferably car driver. Pleasant office and working conditions. Five-day week. Scope for initiative and responsibility on varied and interesting works including domestic, commercial, industrial and ecclesiastical, over wide area of the country. Commencing salary according to experience and ability up to £1,000. Please apply giving fullest details to A. R. Laing, Deacon & Laing, 65 Gold-ington Road, Bedford.

VACANCIES exist in large provincial practice with offices in Peterborough and Spalding

▼ with offices in Peterborough and Spalding for the following:

(1) ARCHITECTURAL ASSISTANT, Male or Female, qualified, with few years' office experience. Able to work on own initiative and take responsibility. Salary up to £1,150 to euitable applicant.

(2) ARCHITECTURAL ASSISTANT, Male or Female, qualified, having recently left college, office experience not essential. Salary up to £900.

omes experience but essential. Sand.

1900.

(3) JUNIOR ASSISTANTS, Intermediate/Final standard with 2/3 years' office experience. Salary up to £800.

The work is of a varied and interesting nature, pension scheme in operation. Assistance will be given with accommodation in appropriate cases. Apply in writing with full details to:—

Raddle & Wilkinson, F/L/A.R.I.B.A.,
Long Causeway Chambers,
Peterborough.

PROM £1,000. EXPERIENCED ASSISTANT required to work in progressive office on wide range of interesting jobs from Churches to Pabs, and papermills to approved schools. Offices in pleasant surroundings. 35 hour week ending daily at 4.30. Phone Riley & Glanfield at CHAncery 7328 or write to 6, Raymond Buildings, Gray's inn, W.C.1.

A BCHITECTS IN LONDON require ARCHIstandard for interesting and varied projects.
Good salaries paid. Five-day week. Luncheon
vauchers. Box 5989.

ENIOR ASSISTANT required for busy small west End practice, able to take charge of and control various jobs. Salary and expenses by arrangement. Apply MUSeum 9693. 5962

RCHITECT required in Oxford Office to work on hospital programme. Five-day week. Write giving full particulars to W. H. Watkins, Gray & Partners, c/o Churchill Hospital. Headington, Oxford.

A BCHITECTURAL ASSISTANTS up to R.I.B.A. Intermediate standard required for work on traditional and prefabricated projects. Programme includes Multi-storey Flats, Schools, etc. Day release for attendance at recognised exhools. Canteen and Sports Club facilities. Apply, giving full details of experience, salary required, etc., to: Chief Architect, Messers. W. J. Simms Sons & Cooke Limited, Building & Civil Engineering Contractors, Haydn Road, Sherwood, Nottingham. Telephone:
Nottingham 66264.

BOURNEMOUTH BOURNEMOUTH
2900 Da. — £1,250 p.a.

EXPERIENCED ASSISTANT ARCHITECT
required for newly opened office. Must
be competent designer and administrator.
Interesting varied work, five-day week, luncheon
vouchers, salary according to experience and
ability. Write or telephone Gotch and Partners,
29, Richmond Hill, Bournemouth. Phone:
Bournemouth 20337/8.

WE are seeking the services of young ambitious ARCHITECTURAL ASSISTANTS in the £1,000 per annum range. This new and expanding organisation offers scope for both advancement and talent which is rewarded by a generous Bonus Scheme. Ability is considered as important as qualifications. Apply for selection to Box 5982.

QUALIFIED ABCHITECT and ASSISTANTS required urgently for work on Industrial and Multi-storey buildings.

B.S.P. Industries Ltd.

Boreham Wood,

Herts.

Herts. Tel.: ELStree 3311.

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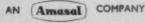
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Association of Vermiculite Exfolia-	101 1212	Frankipile Ltd. 70 0235 Nettle Accessories, Ltd.	7.2	1093
tors	92 0144	Furse, W. J., & Co., Ltd	7, 67	0435
Atlas Lighting, Ltd 52, 58, 59,		North British Linoleum Co., Ltd.	7.3	0829
Atlas Stone Co., Ltd.	12 1056	Gascoigne, Geo. H., Co., Ltd 94 0789 Norwood Steel Equipment, Ltd	31	0443
	132 0777	General Electric Co., Ltd 74, 75 0934		
Austins of East fram, Ltd.	102 0111	Gilbert-Ash, Ltd	117	1177
W-1 - Y-1 - Y-1	146 1225	Grecon Systems, Ltd		
	$\frac{146}{134} = \frac{1225}{0052}$	Greenwood's and Airvae Ventilat- Panel-Lastic Construction Co., Ltd.	136	0973
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Bennie, D. F., Ltd.		THE CASE MADE TO THE CONTRACT OF THE CONTRACT	97	0458
Blake Vitreons Enamelling, Ltd	45 1208	the first of the f	160	1175
Boot, Henry, & Son, Ltd	44 0821	Gyproc Products, Ltd	14	1474
Booth, John, & Sons (Bolton), Ltd.	64 0079 46 0081	the state of the s	17	0091
Boulton & Paul, Ltd.		The state of the s	135	0860
	151 0083	ment Assn	119	1246
Brady, G., & Co., Ltd	54 0085			
Bratt Colbran, Ltd.	127 1138	Harris & Sheldon, Ltd	125 [0795
Briggs, William, & Sons, Ltd	134 0088	Hally Co. M. M. Co. (Manually)		
British Lime Manufacturers	89 0752	Ltd	125	11402
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Broughton Moor Green Slate Quar-		Holophane, Ltd		1109
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Cafferata & Co., Ltd.	122 0126		156	1133
Canadian Government	98 0191	and the second of the second o		
	53 0132		730	1045
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Cascelloid	4, 5, 6, 5,	Stotts of Oldham	99	0602
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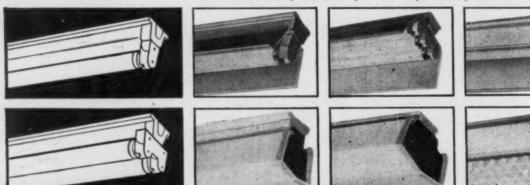


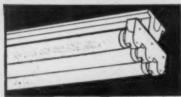
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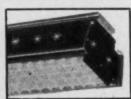
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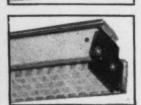
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