

THE ARCHITECTS' JOURNAL

January 19, 1961
Vol. 133 No. 3431
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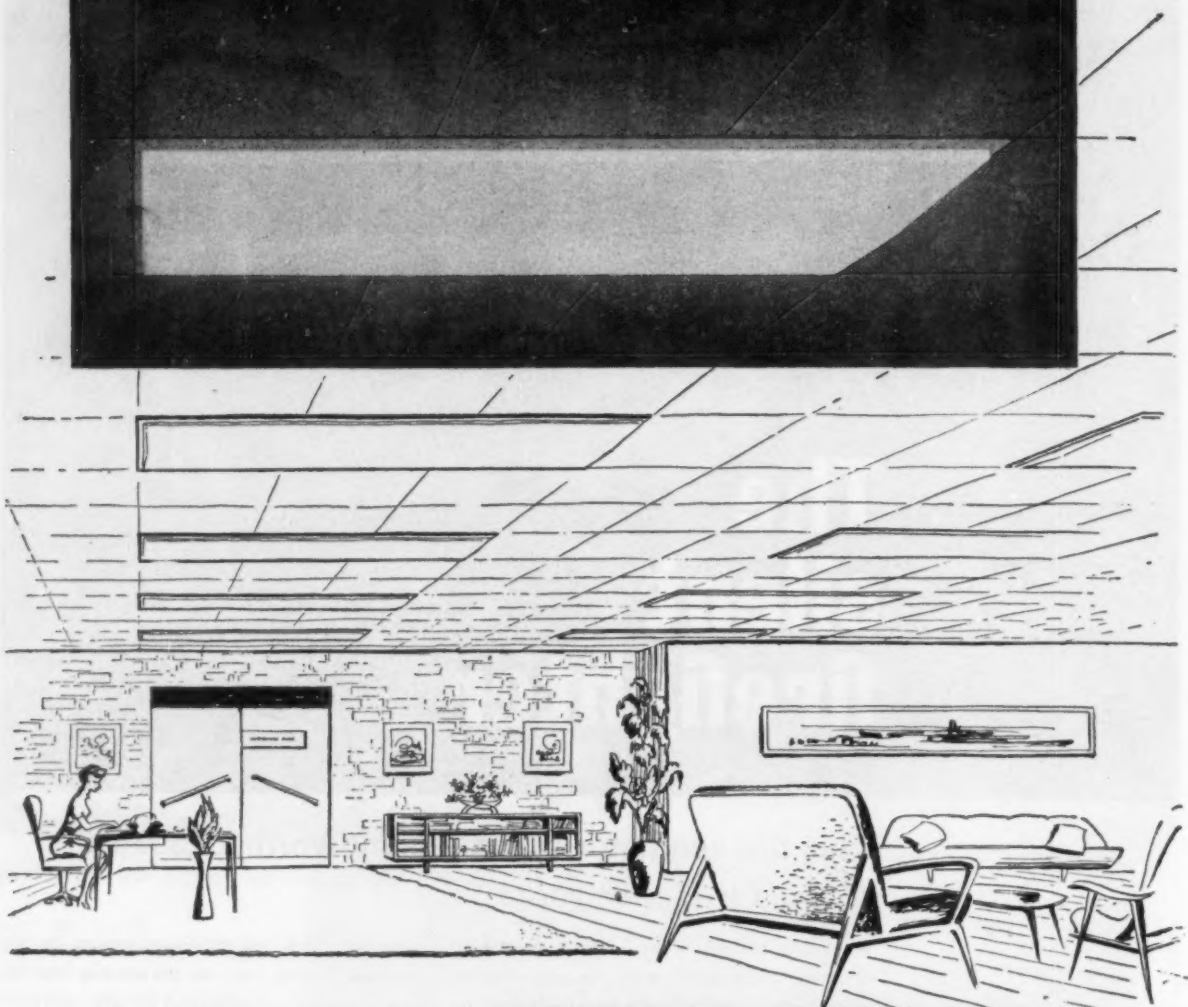
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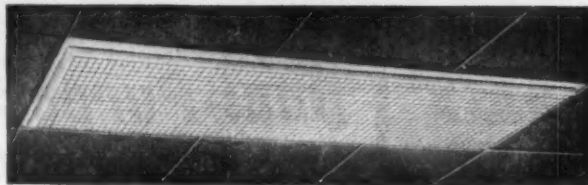
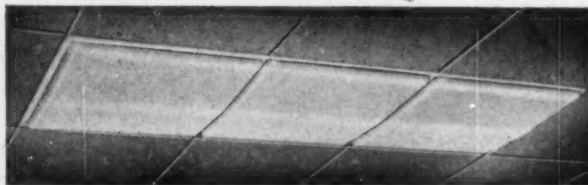
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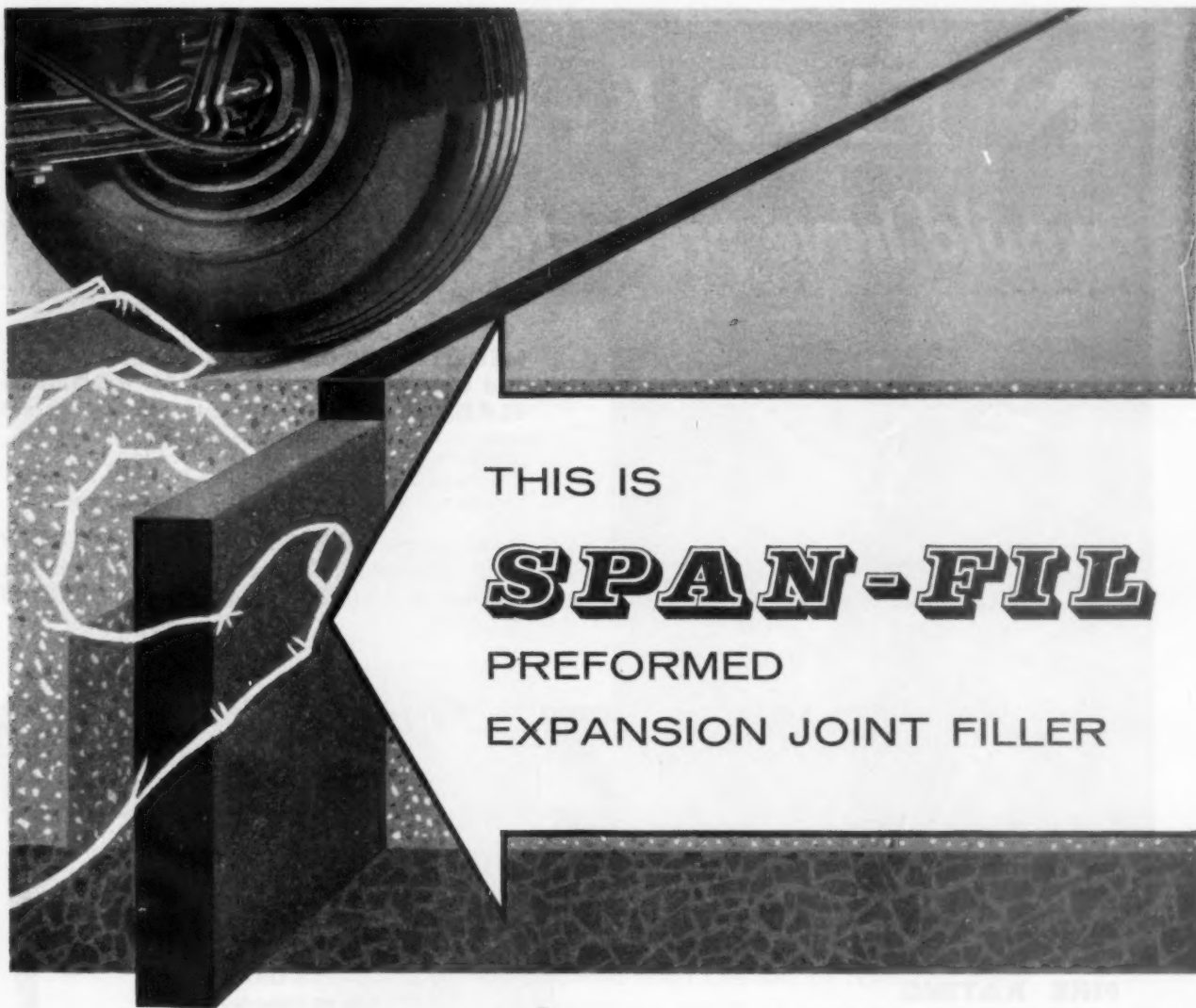


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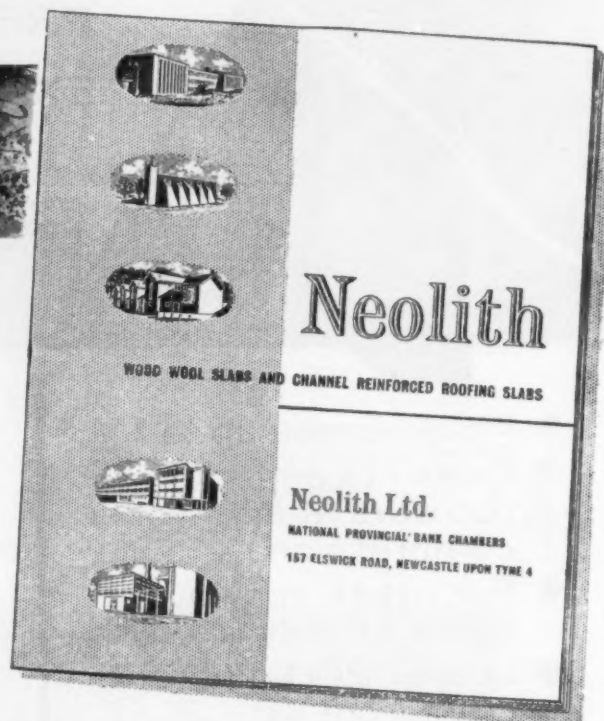
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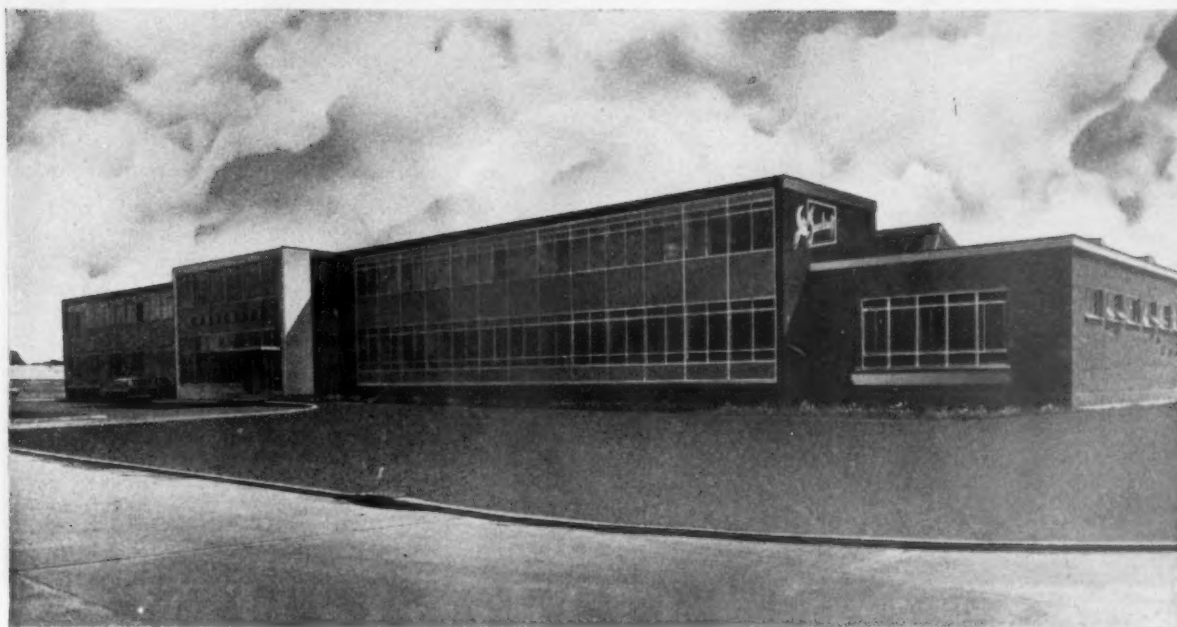


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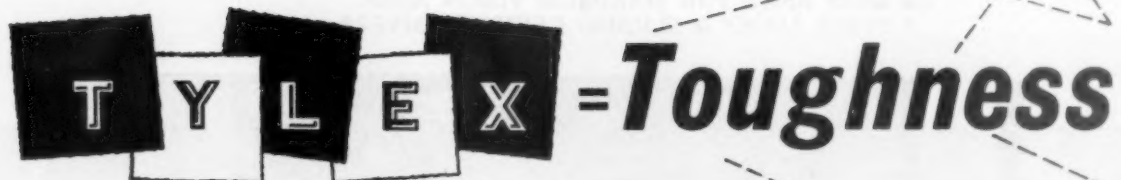
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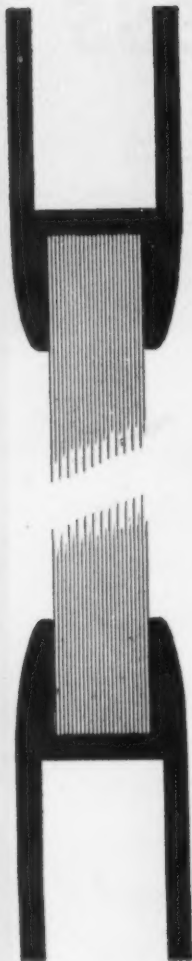
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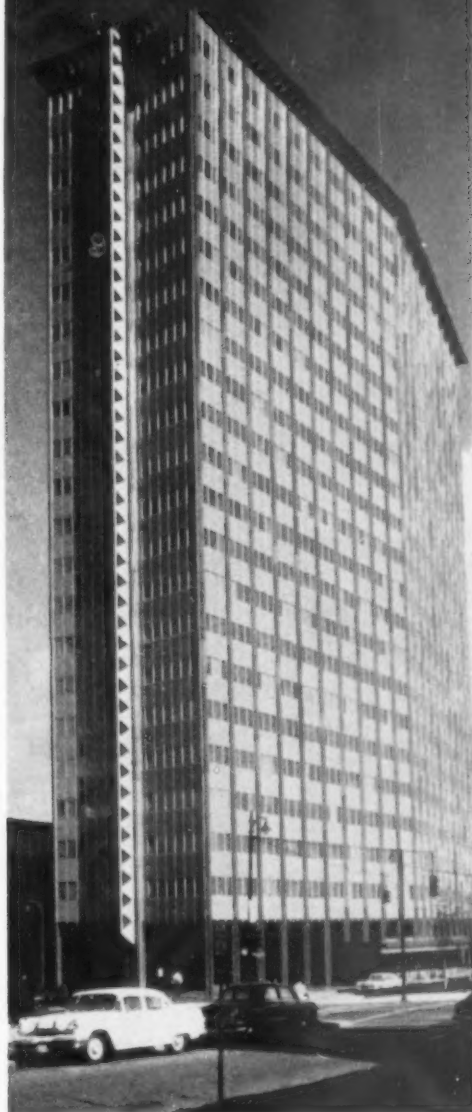
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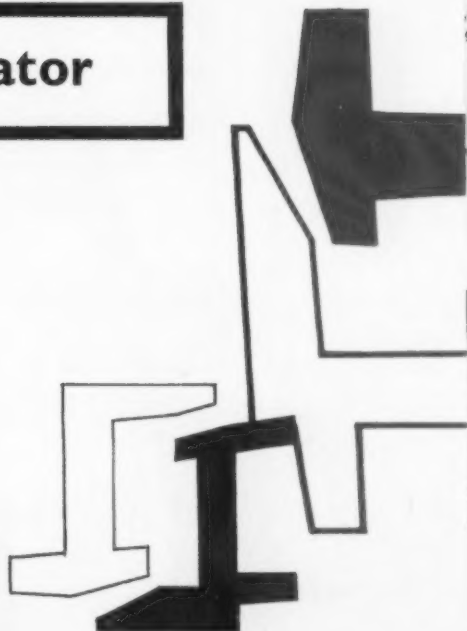
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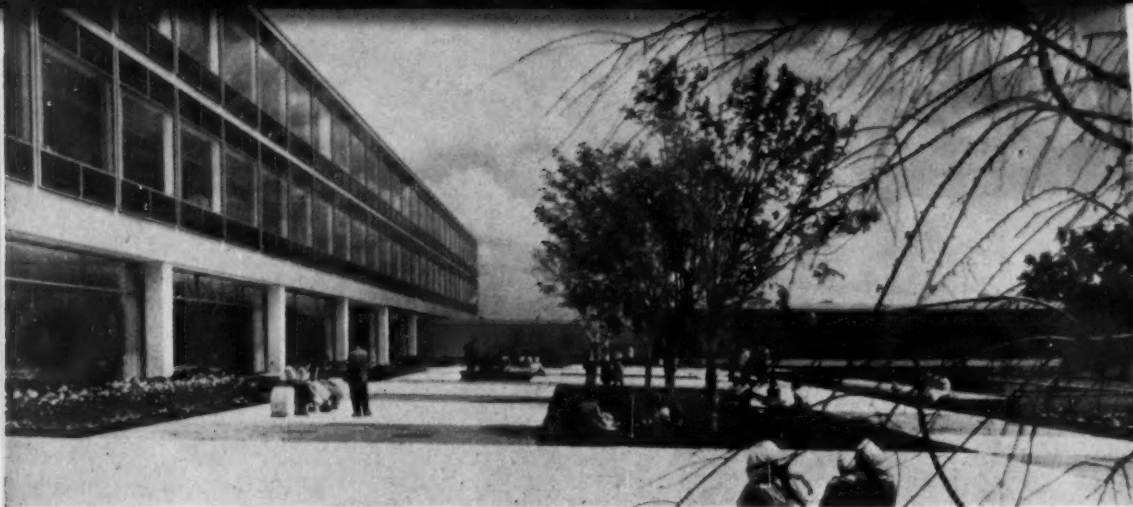
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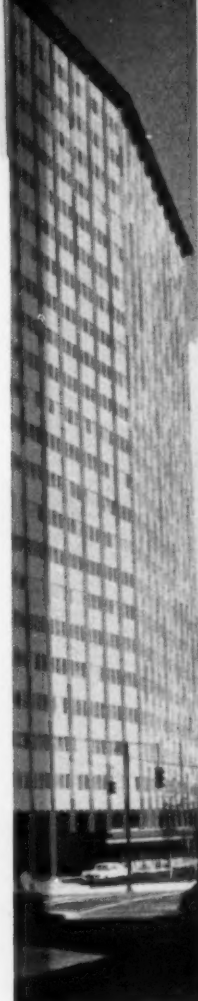
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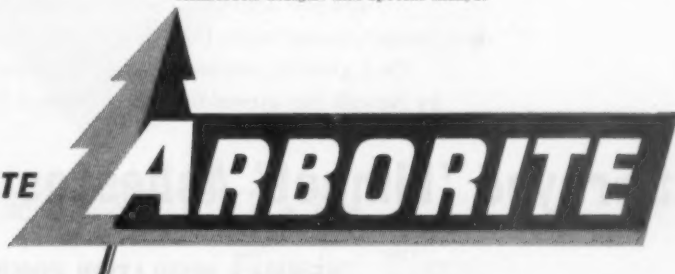
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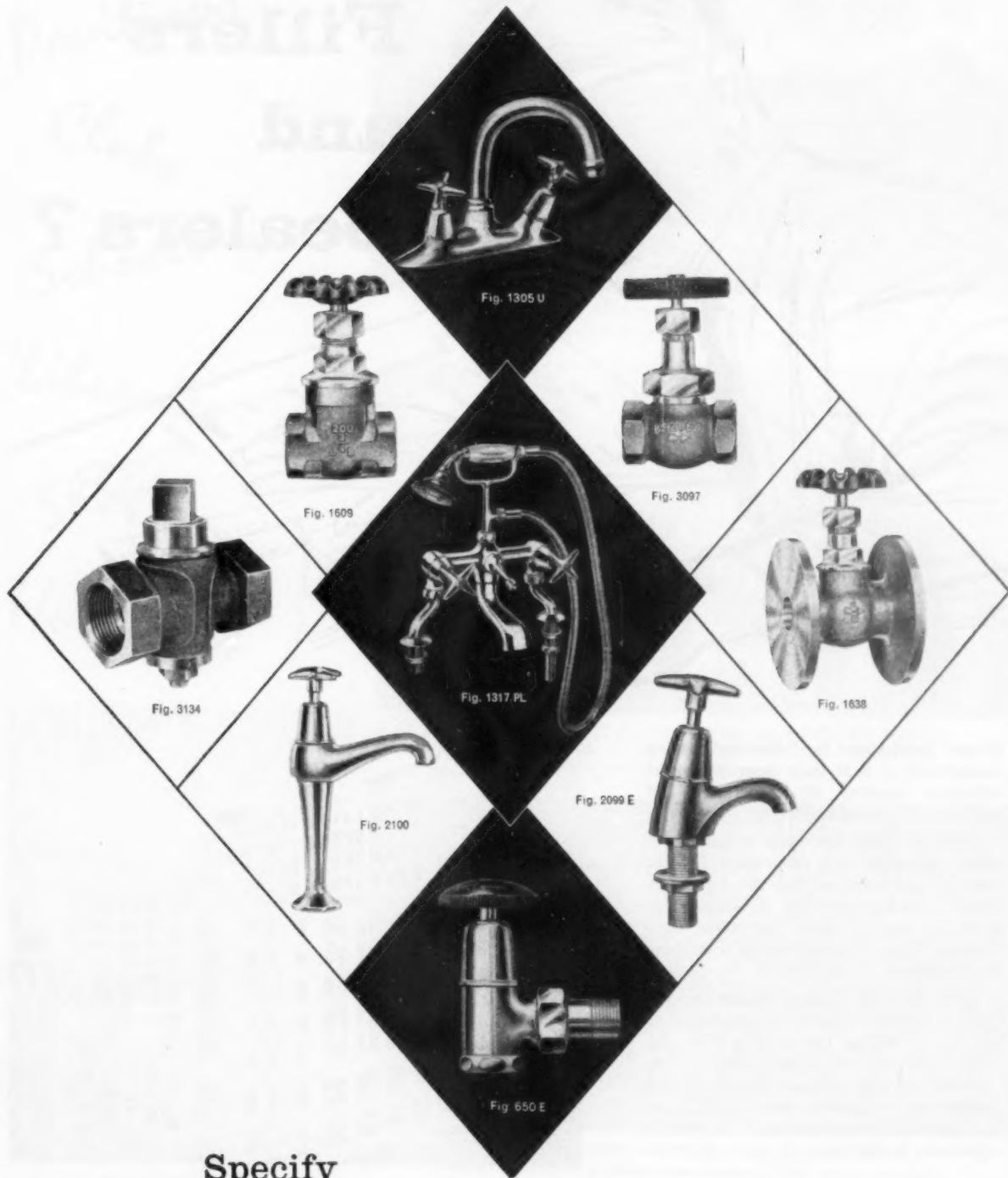
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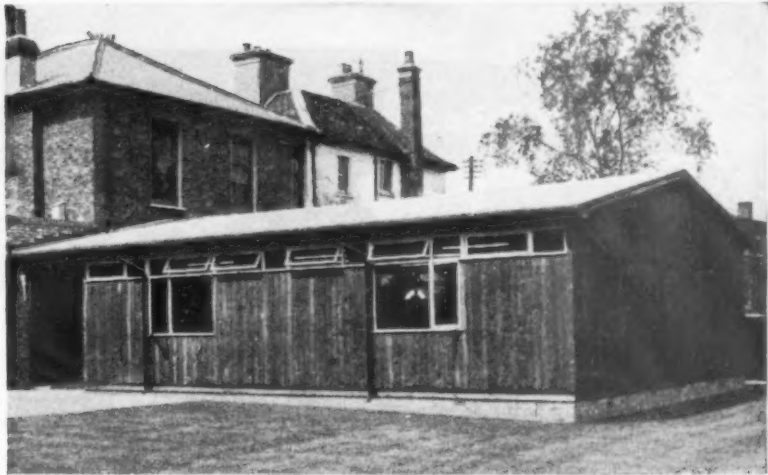
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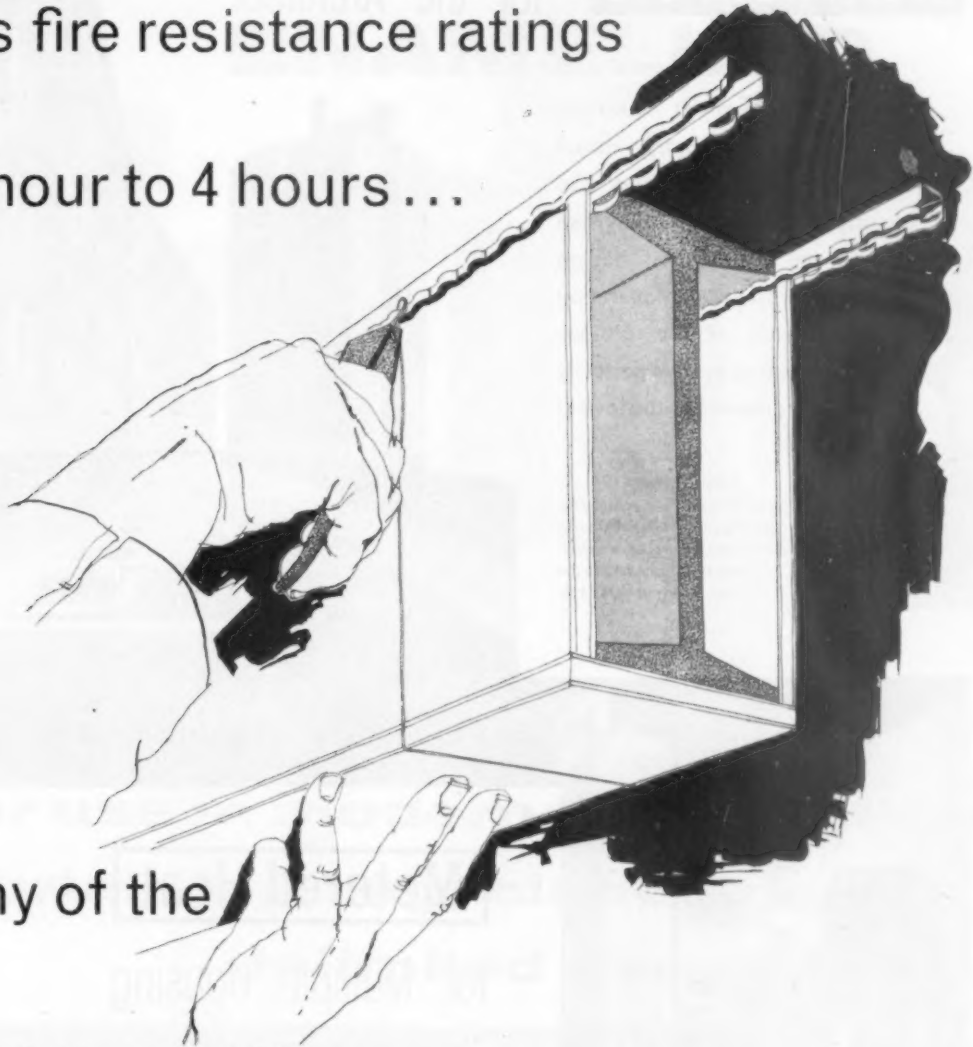
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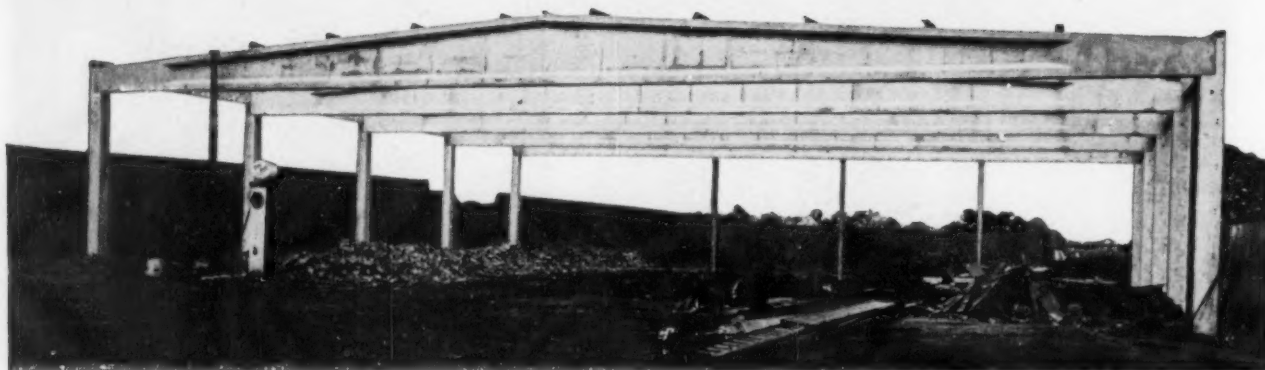
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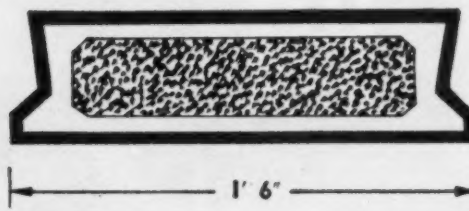
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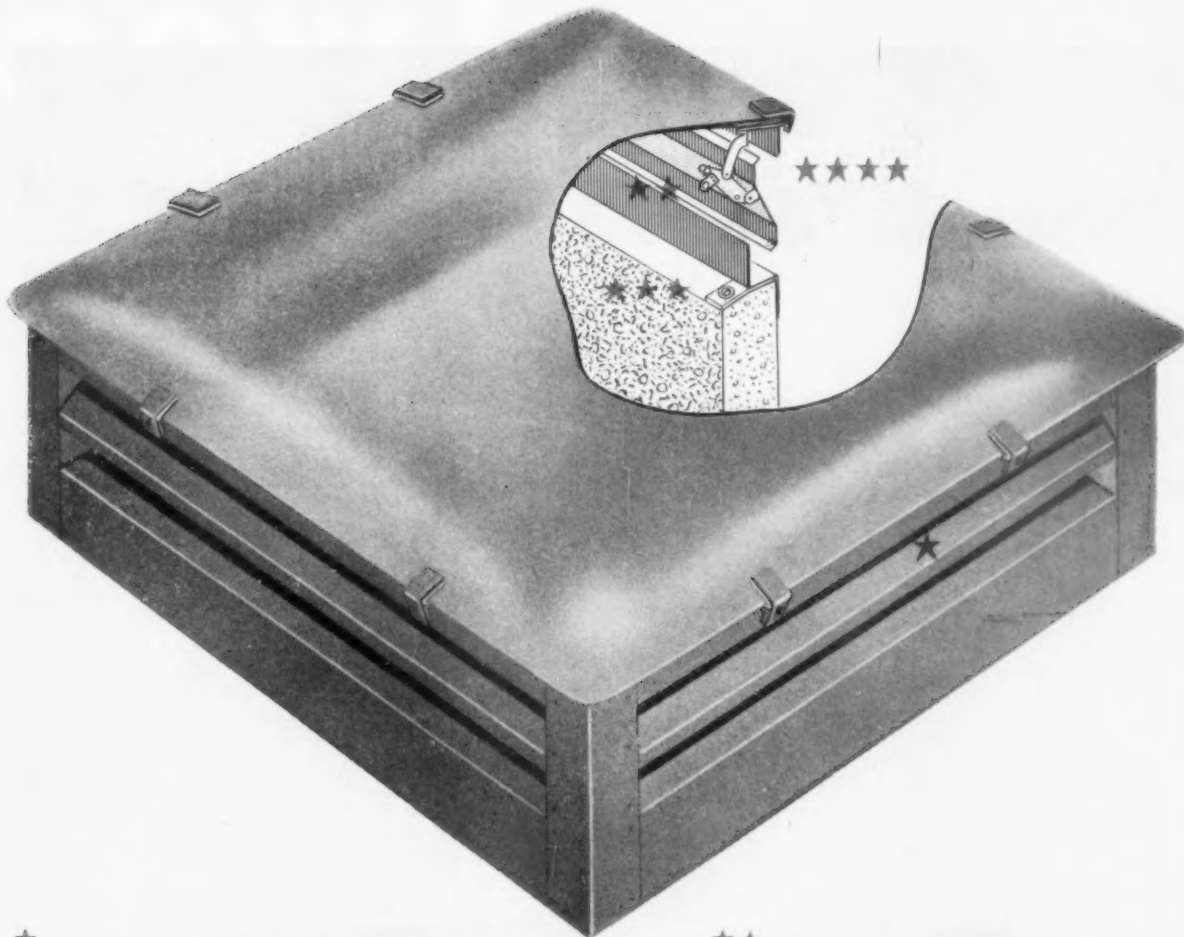
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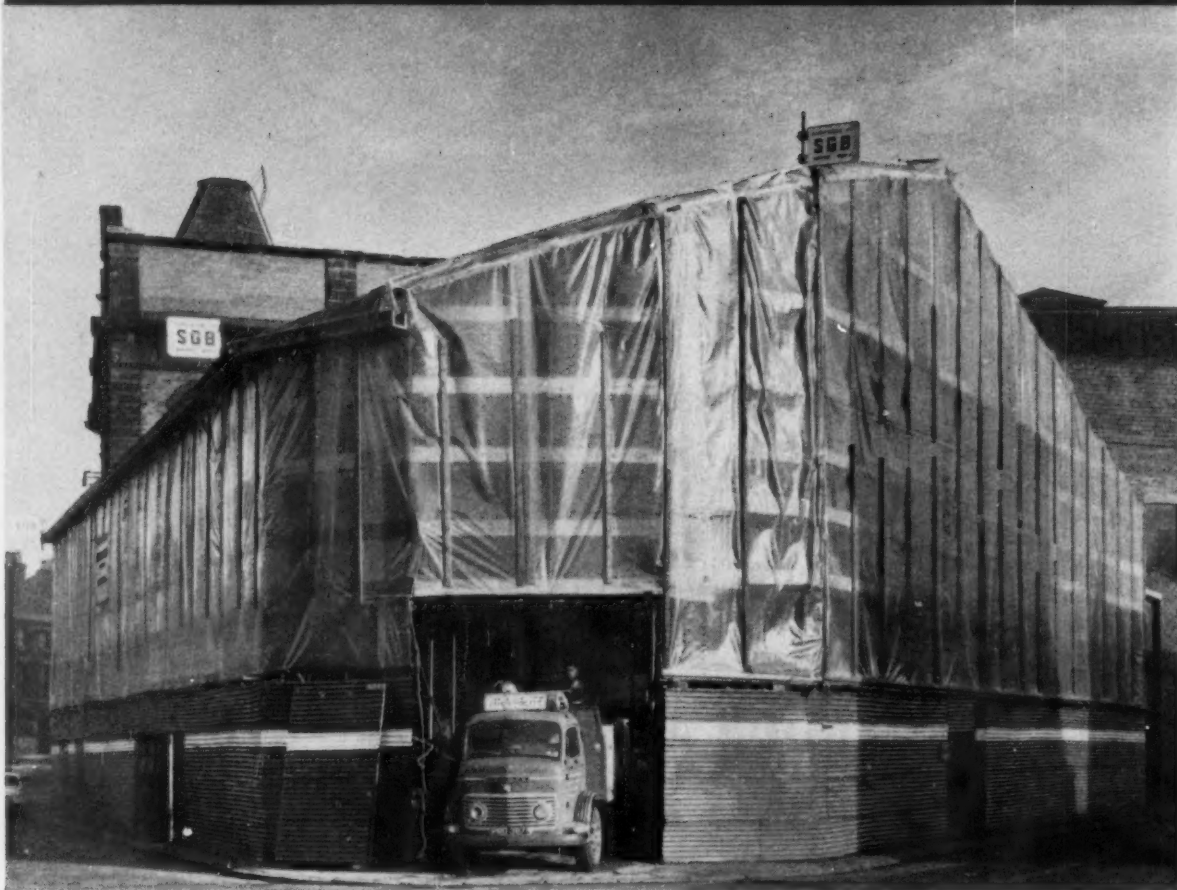


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GV17

'Visqueen' quickens tempo on Mecca Ballroom extension

(REGD.)



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Tubular Framework: Scaffolding (Gt. Britain) Ltd.*

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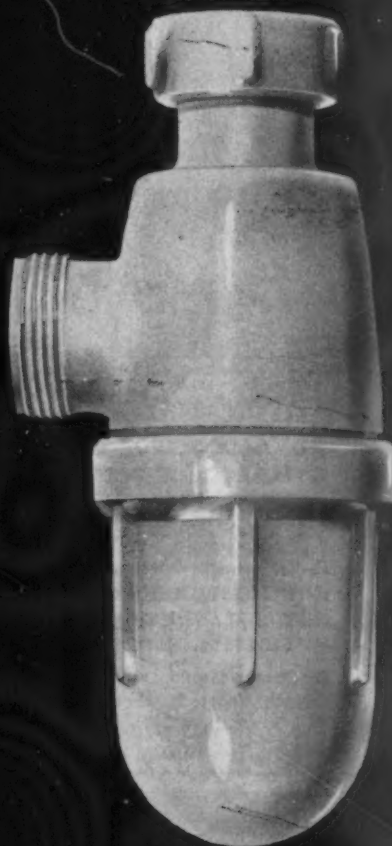
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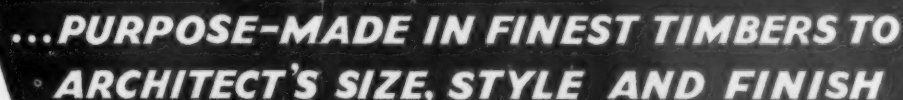
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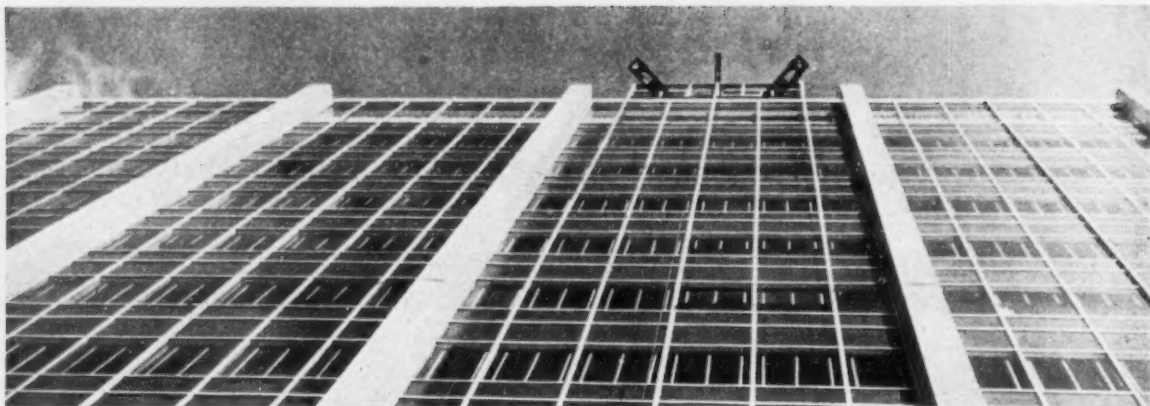
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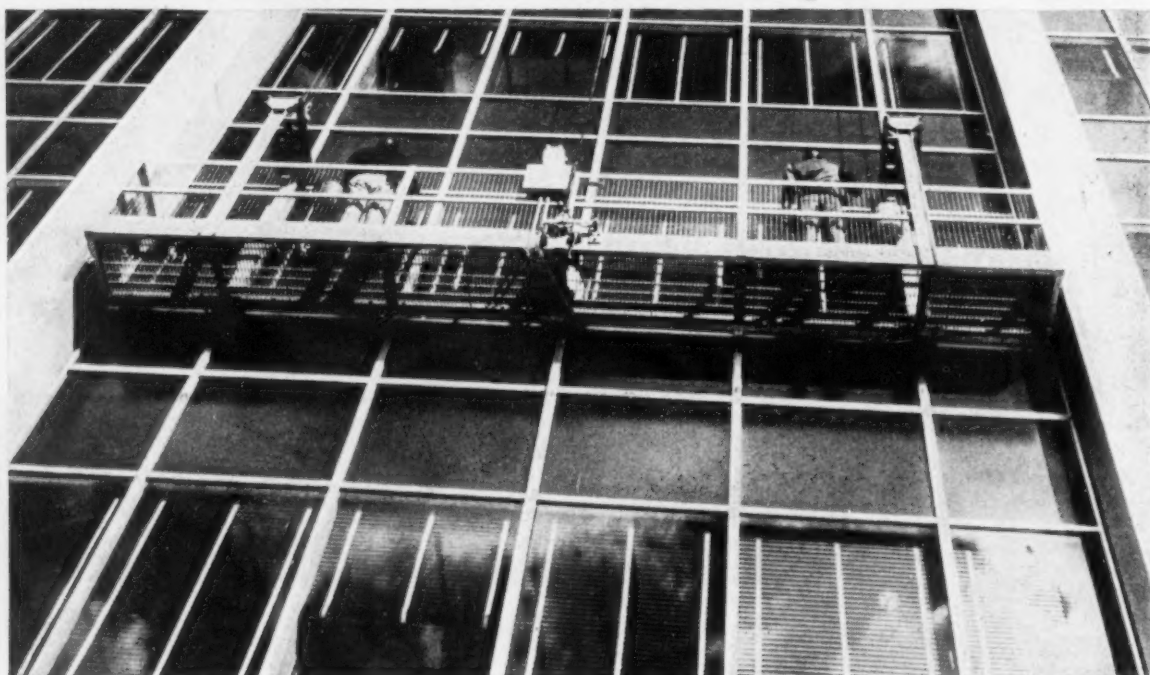
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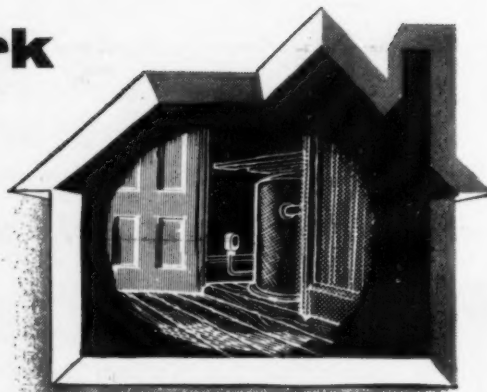
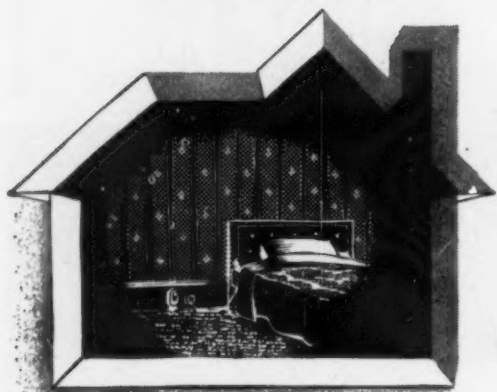
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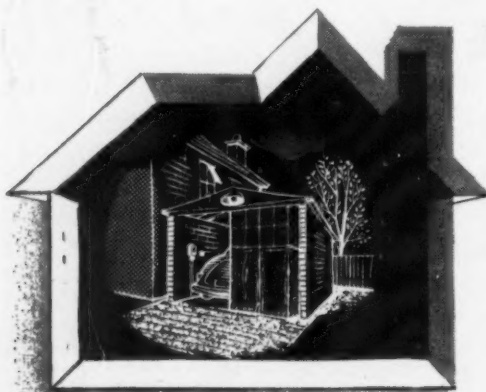
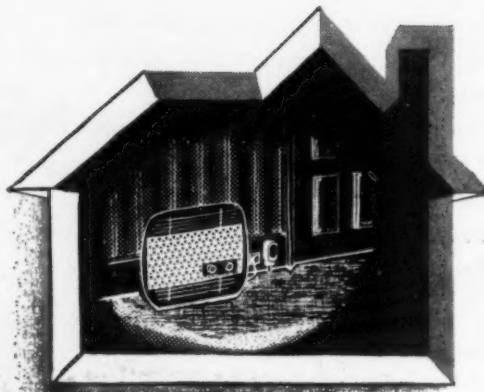
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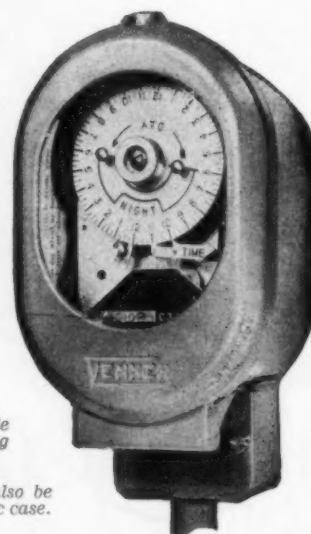


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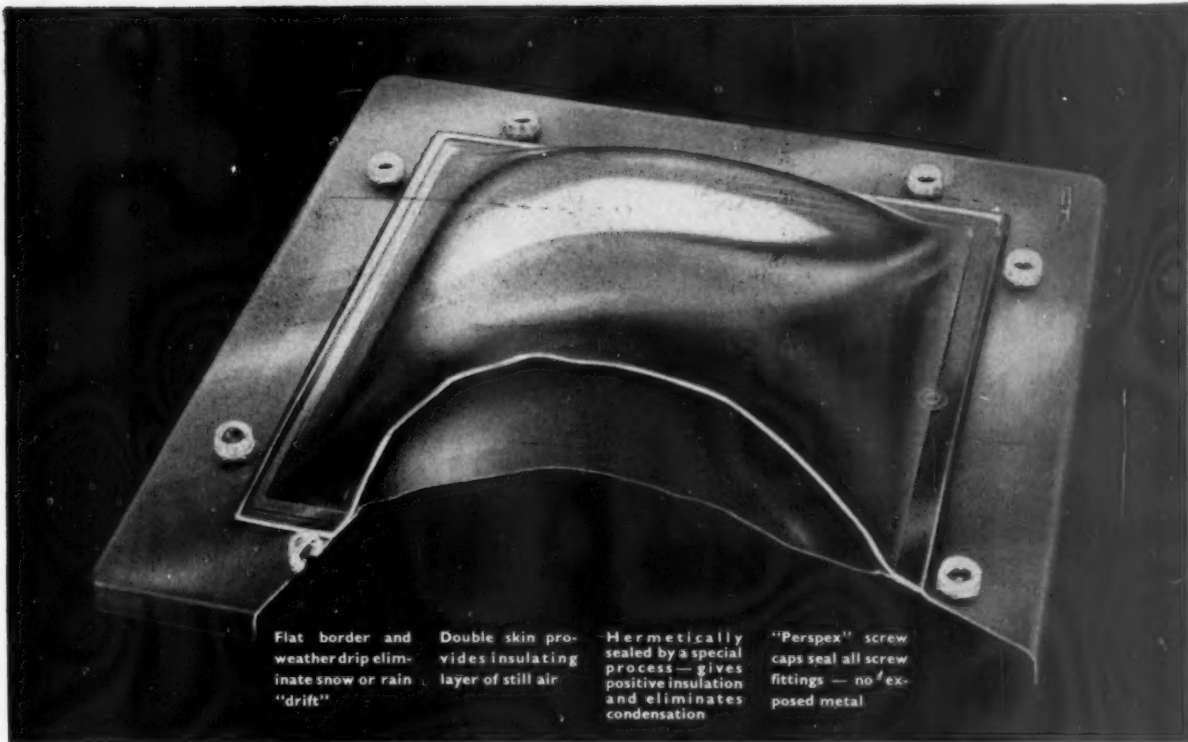
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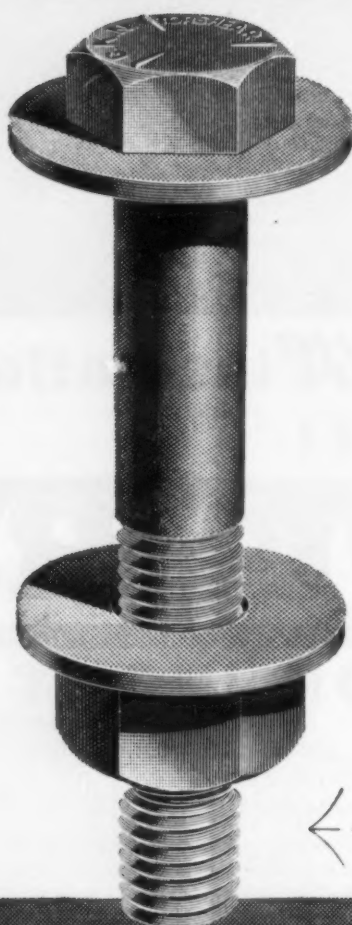
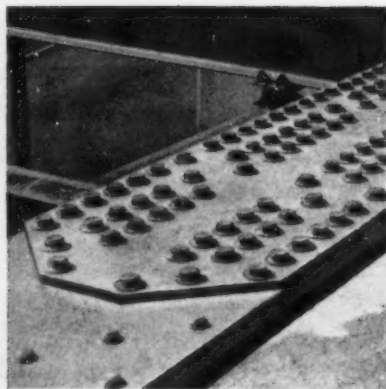
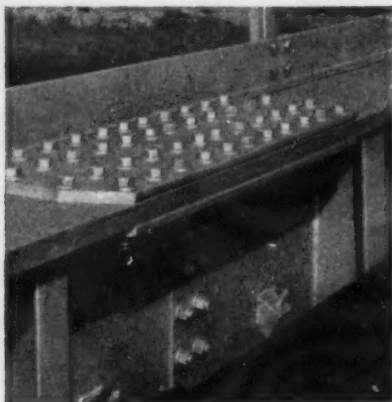


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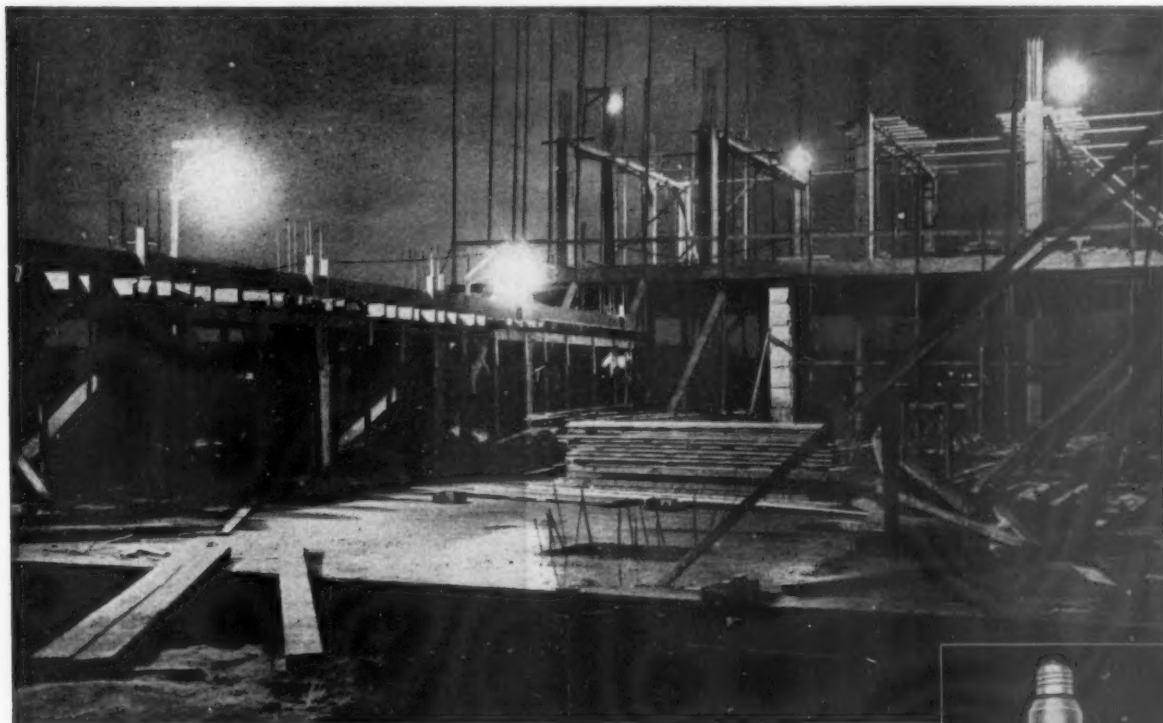
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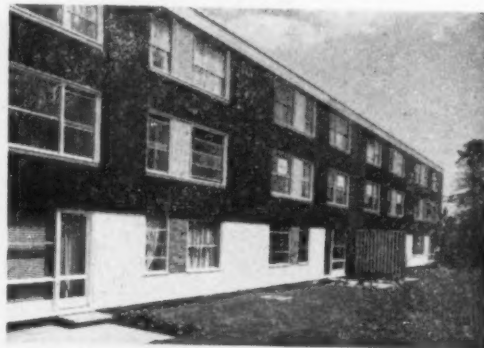
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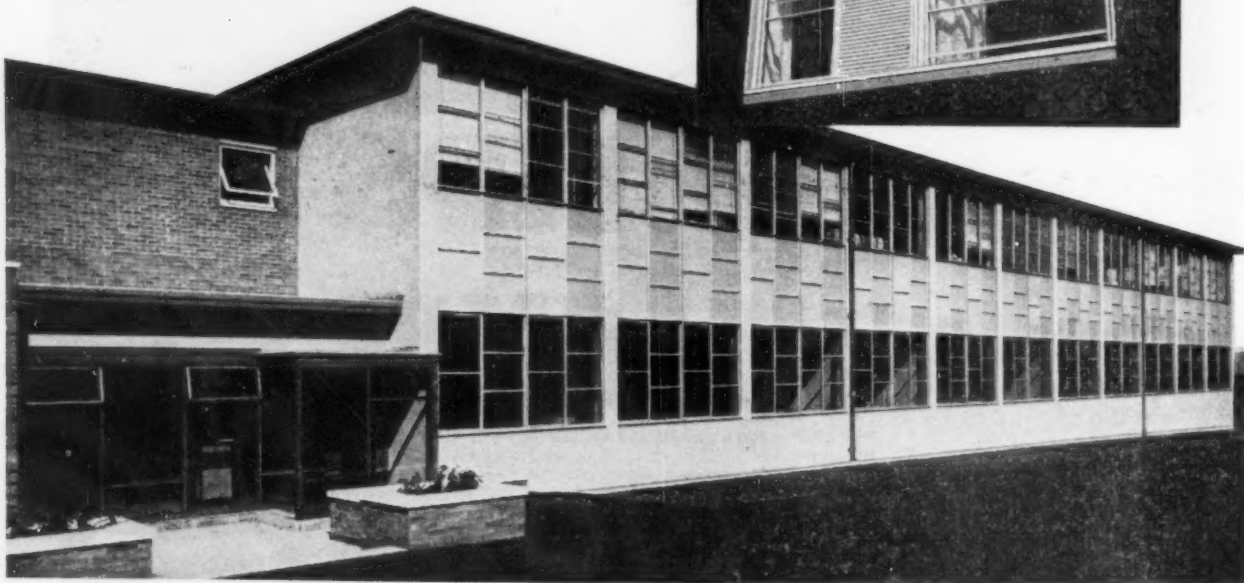
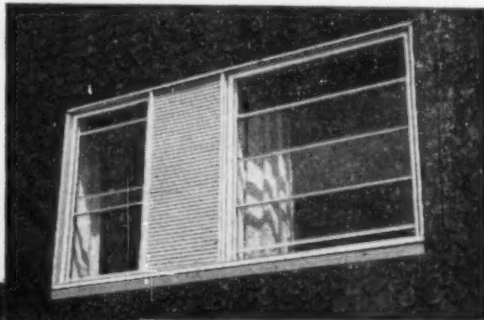
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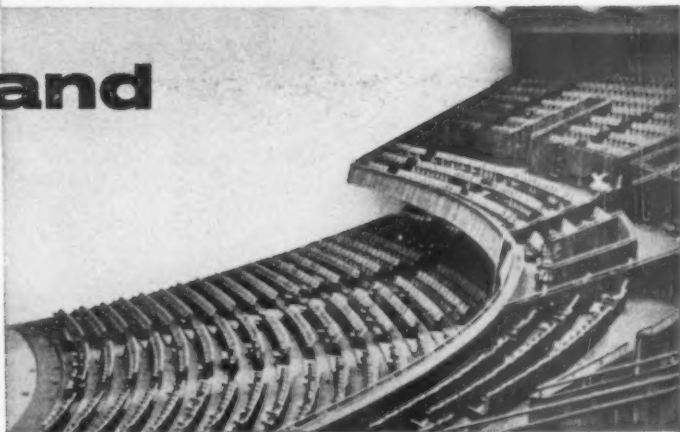
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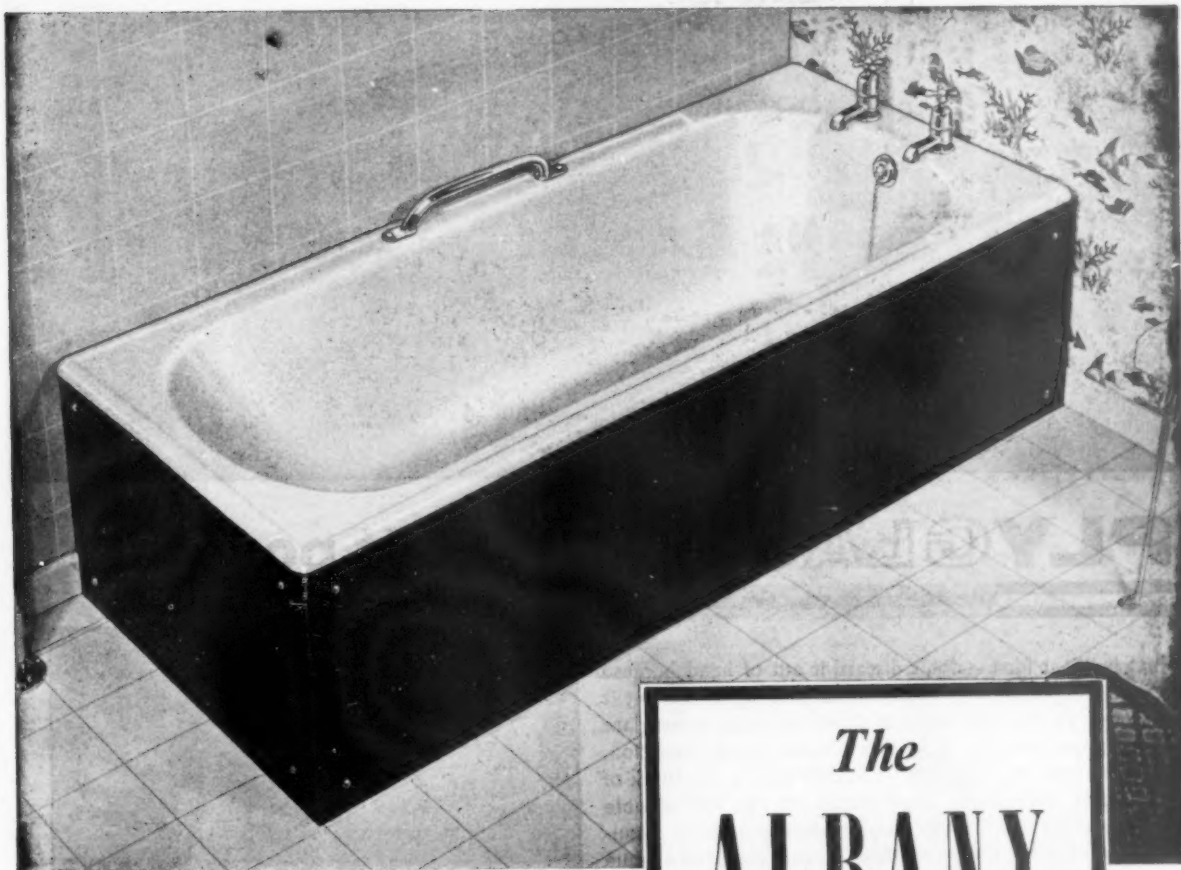
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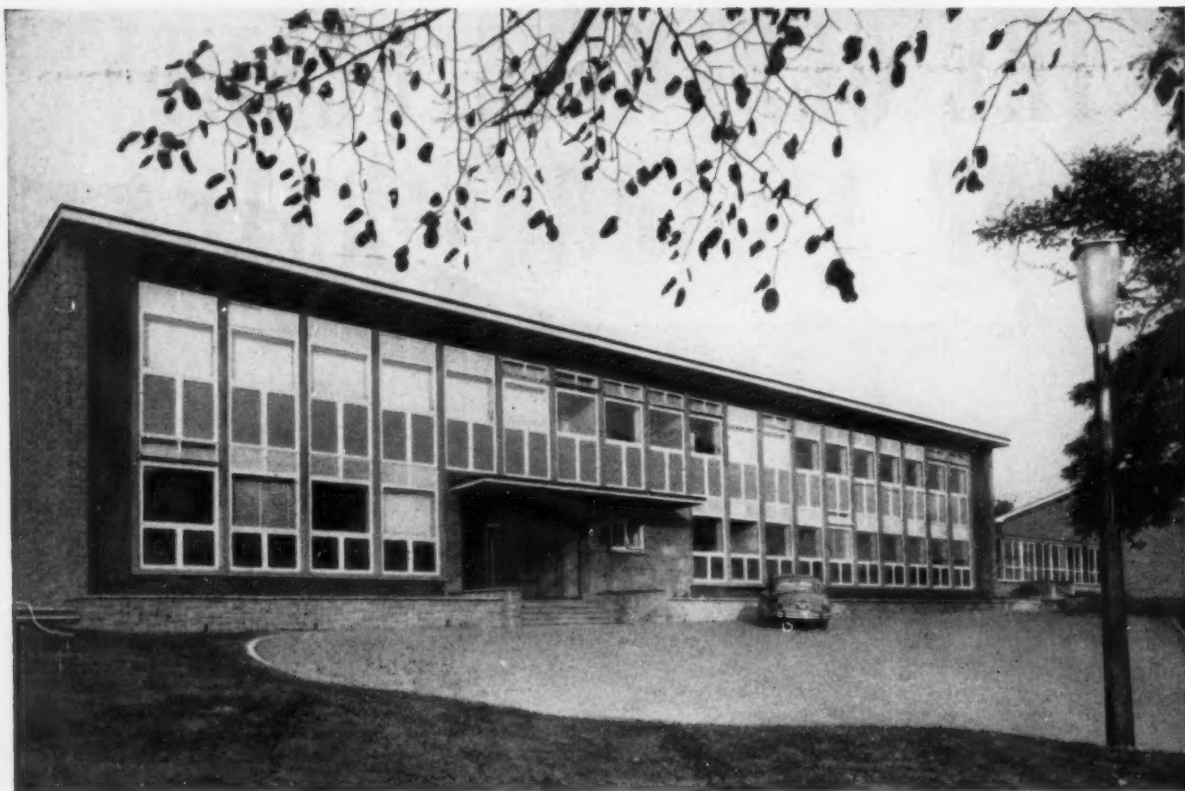
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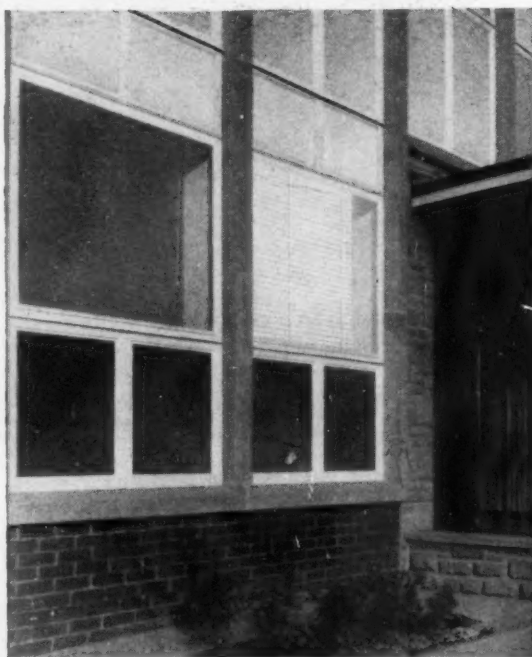
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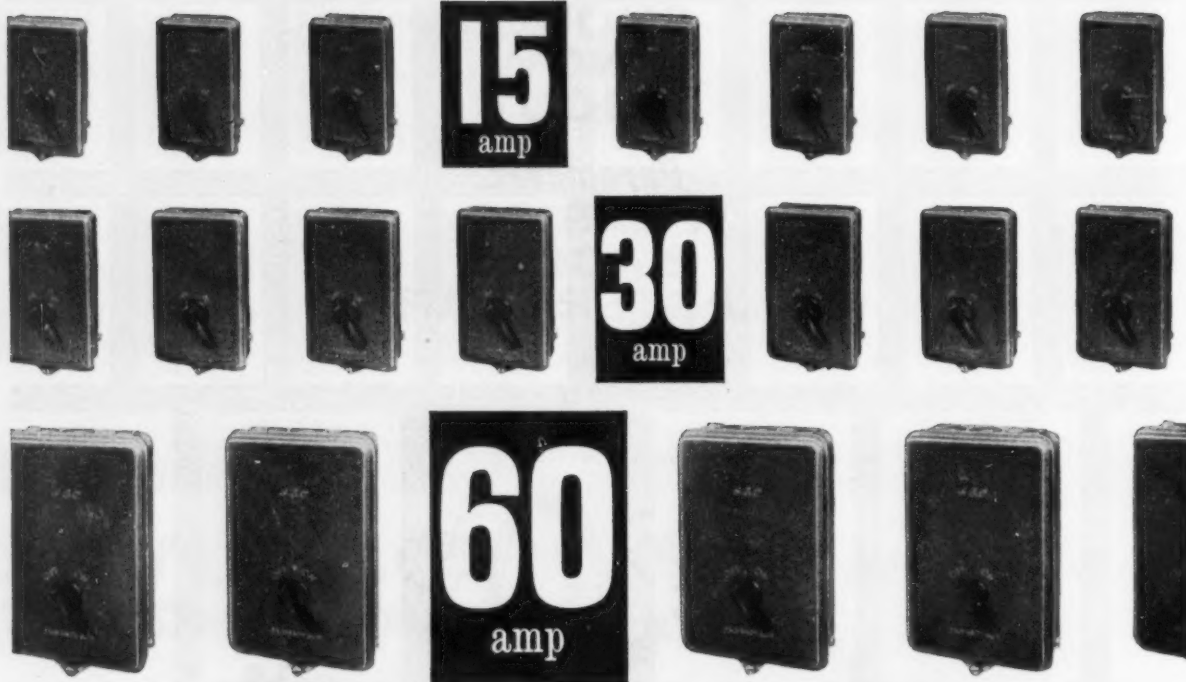
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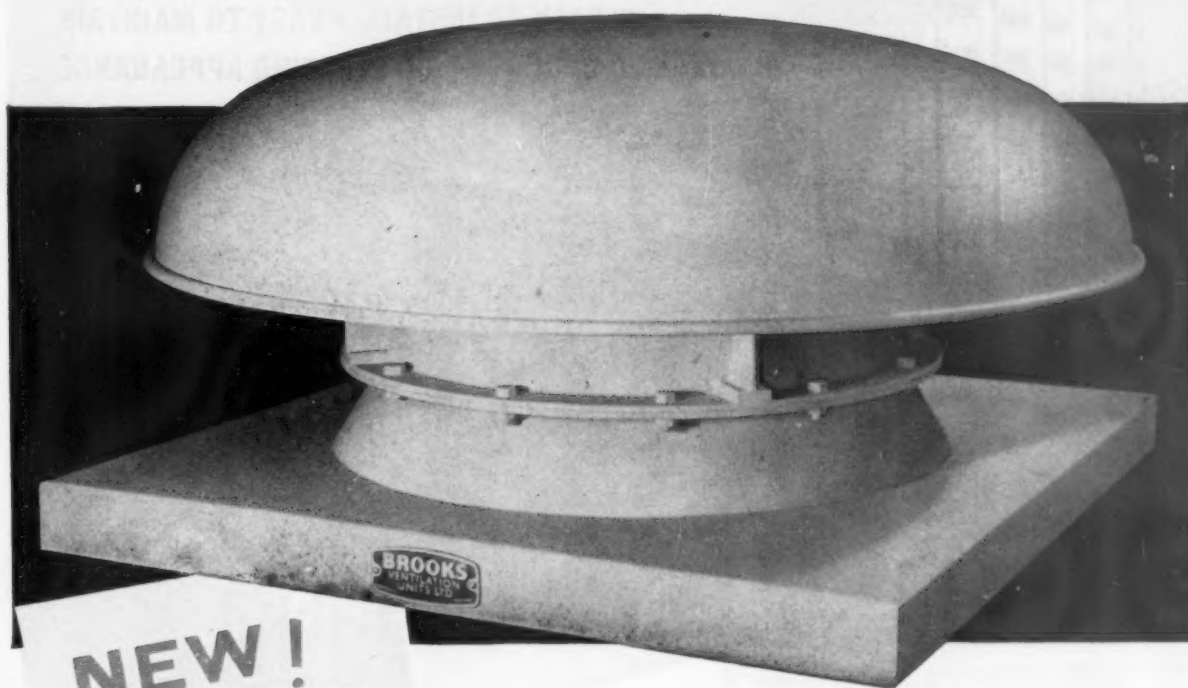
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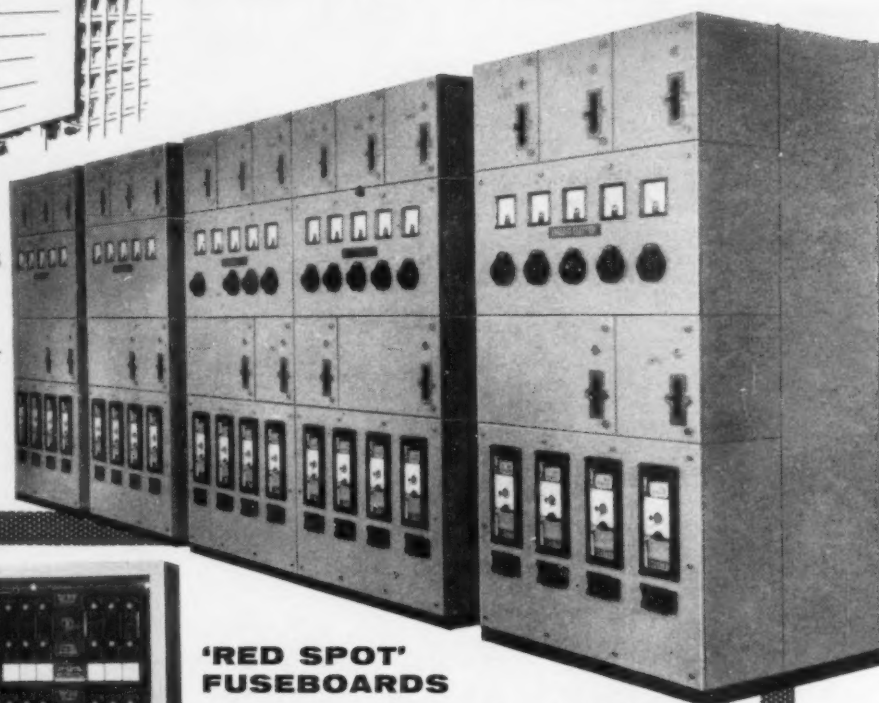
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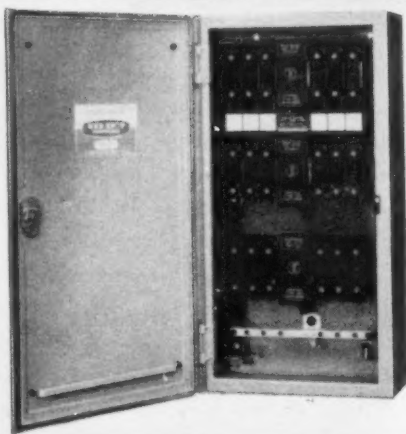
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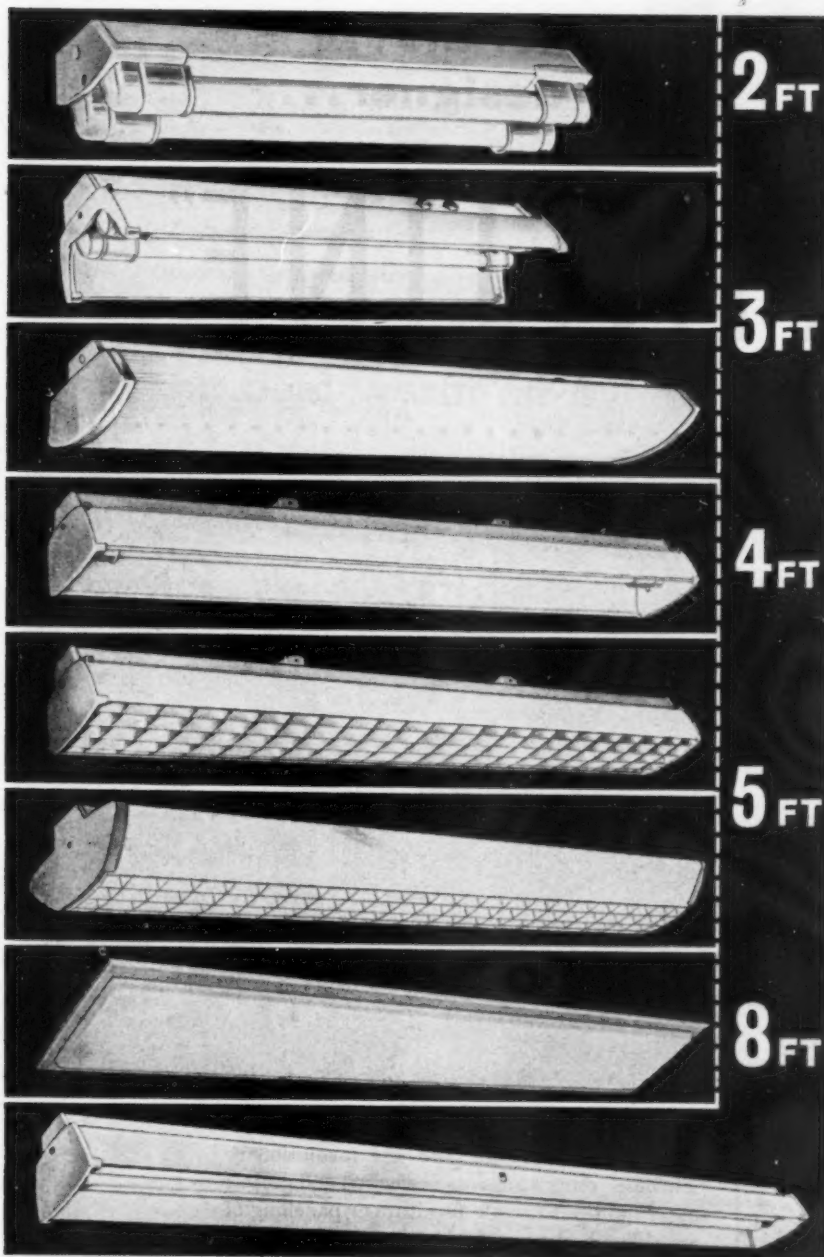
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In 1954 Crompton 'New-Range' fittings were the first to offer a variety of fittings built up from one basic unit giving hundreds of shapes and sizes.

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'PERMAWHITE'—VITREOUS—
'PERSPEX'

**Since 1954
over 500,000**

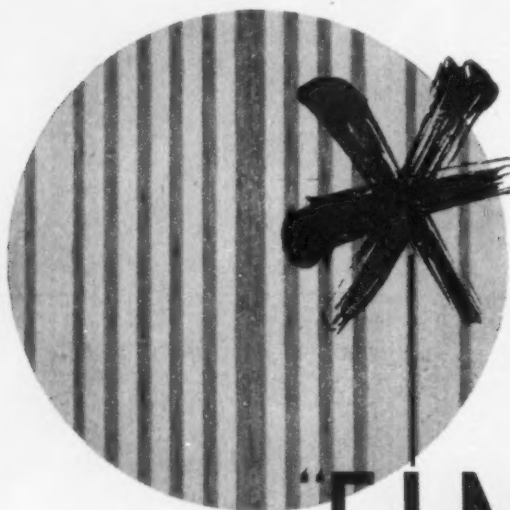
'New-Range' fittings verify the original Crompton ideas which are now accepted as the modern trend of British lighting design. For all-in features (adjustable fixings, push-outs, etc.) without extra charge, 'New-Range' provides perfection of construction and finish with economy of price. Ask for new price-lists.



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Wherever veneers are used the revolutionary 'Fineline' veneer presents perfection and greater opportunities to create furniture or panelling of matchless beauty.

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Warm air heating for MULTI-STOREY FLATS

has these advantages:-

- * Low plumbing and installation costs
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- * Very low operating costs
- * Hot water "thrown in"
- * Separate temperature control to each flat
- * Separate metering to each flat

...and the best warm air system is

Ductair

The DUCTAIR 22 unit consists of a small insulated cabinet containing a water-to-air heat exchanger and an electrically driven fan. In multi-storey flats the heat exchanger may be connected either to individual CIRCULYN C.70 gas heaters or to piping from a central boiler system. The gas heater can be fitted with a balanced flue or connected to a Se-duct. Space and water heating services can be metered for each flat even when the DUCTAIR heat exchangers are connected to a central boiler system.

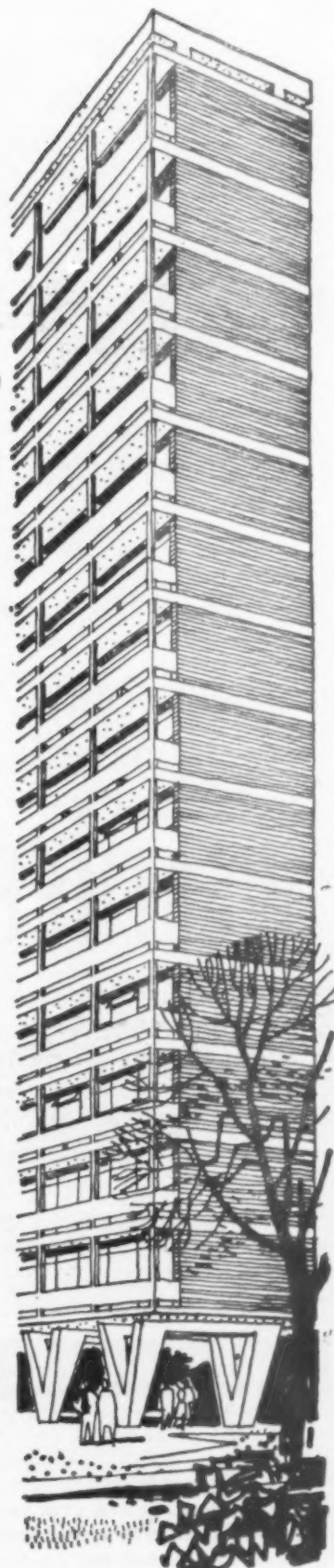
Costs naturally vary widely with the installation. However, assuming a 600 sq. ft. flat with 8 ft. ceilings the capital cost would probably be between £165 and £180, and the operating cost with gas at 13d. to 21d. per therm would be between 10/- and 16/- a week.

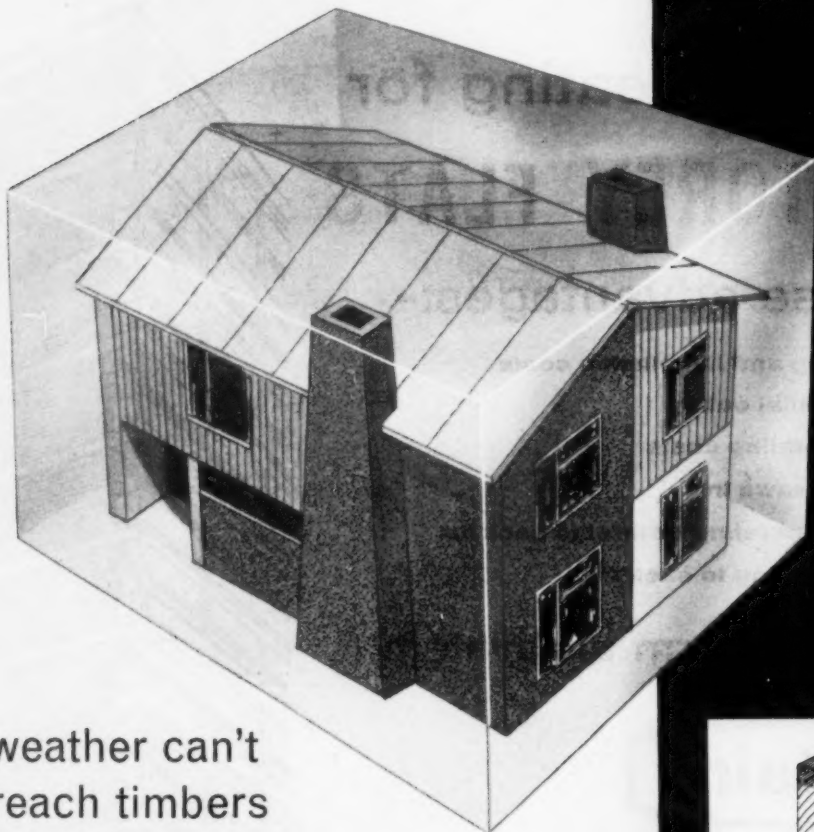
It has already been said that these low costs include hot water. Perhaps a point of even greater value in high flats is the ease with which the warm air can be used to provide a drying cupboard to cope with all the wash.

Write for data sheets and full technical information about Radiation DUCTAIR—the system that pioneered domestic warm air heating in this country. With our ten years' working experience we believe we have a unique service to offer anyone concerned with better heating for better buildings.

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WEATHERSEAL

Weatherseal gives outside timber 'glass-case' protection against rain, sunlight, fungi and bacteria. This long lasting liquid treatment actually *seals-off* the wood surface, forming an unbroken, impenetrable barrier that glows like a wax finish.

Re-treatment is extremely simple, no preliminary extensive preparation is required.

Even Western Red Cedar needs Weatherseal—to prevent discolouration from sunlight, smoky air and nail leakage.

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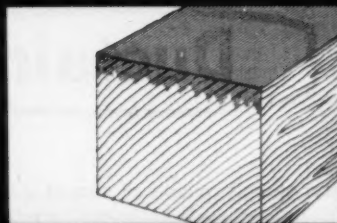
WEATHERSEAL

This preparation has been used with conspicuous success under difficult climatic conditions in South Africa for the past two years.

Write or phone for further information and free advisory service: (Dept. A.J.)

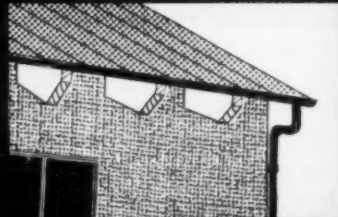
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High Street, High Wycombe, Bucks. Tel: High Wycombe 4214**

Also at: Norwich Union Bldg., City Sq., Leeds, Tel: 23188 and Nicol Place, Leith, Edinburgh, Tel: Leith 39166



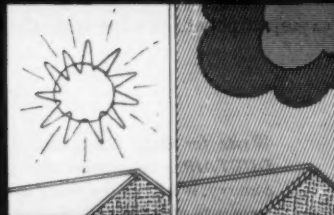
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Weatherseal sinks right into the pores of the wood, forms a *sealed-off*, watertight surface.



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End grain—timber's weakest spot—is no longer a problem when it's been Weathersealed.



DOES NOT PEEL OR FLAKE

The strongest sunlight, the heaviest rain cannot damage Weatherseal—or the timber beneath it.

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An unbreakable
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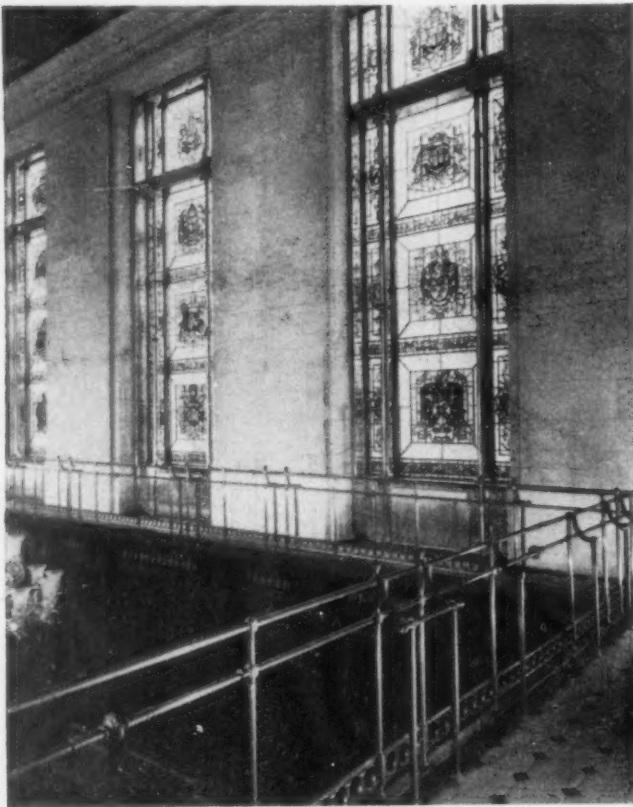


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Architects: A. E. Richardson, R.A., and
A. E. S. Houfe, F.R.I.B.A.
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handrailing and grilles, all in bronze.

Eastbourne Terrace Development.
Architects: C. H. Elsom and Partners.
Entrance screens and doors in anodised
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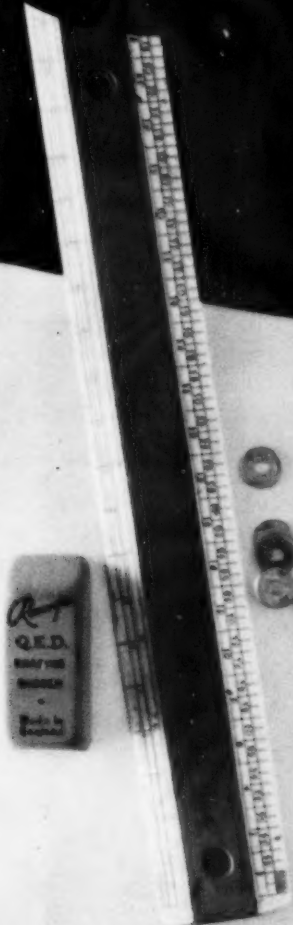
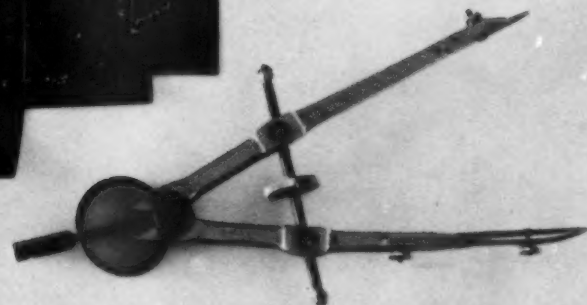
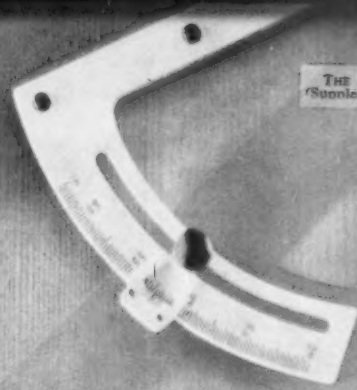
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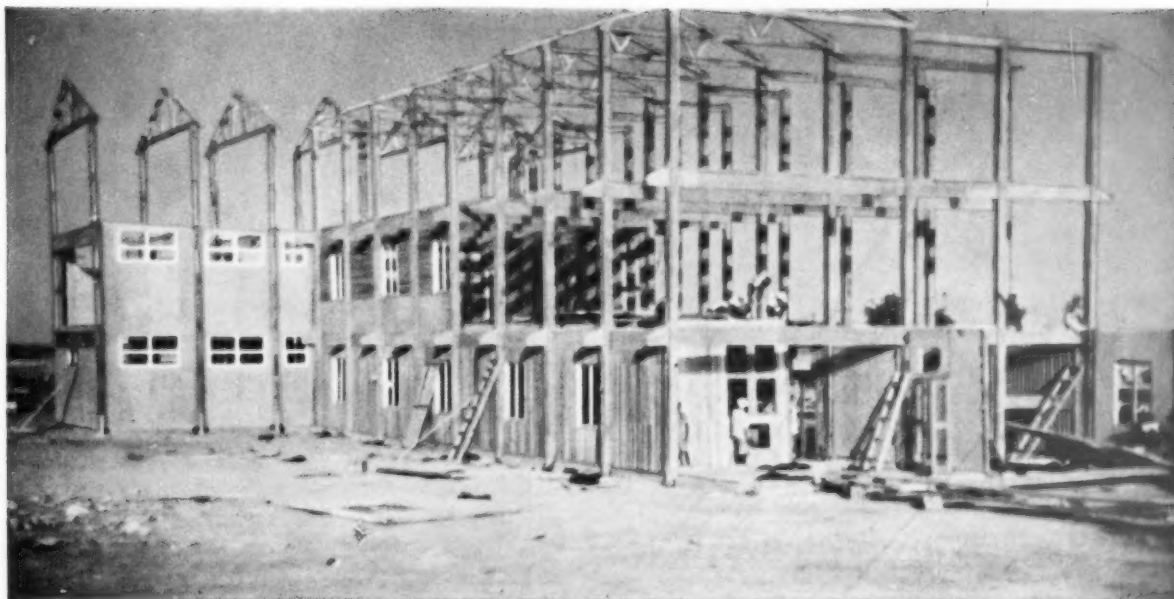
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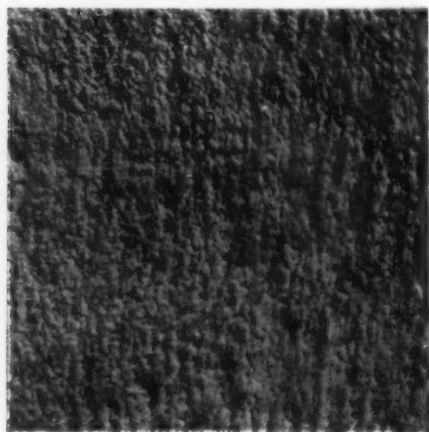
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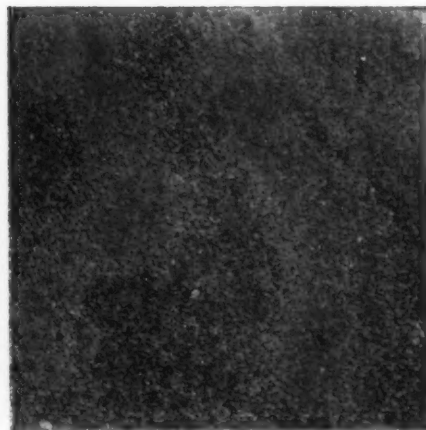
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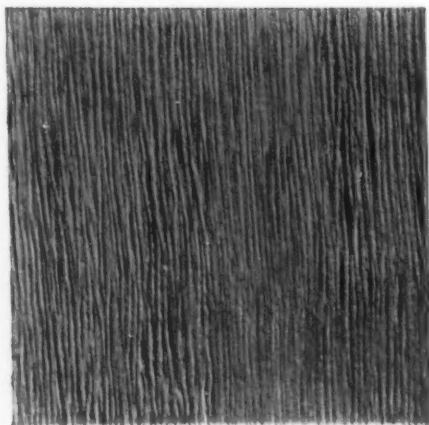
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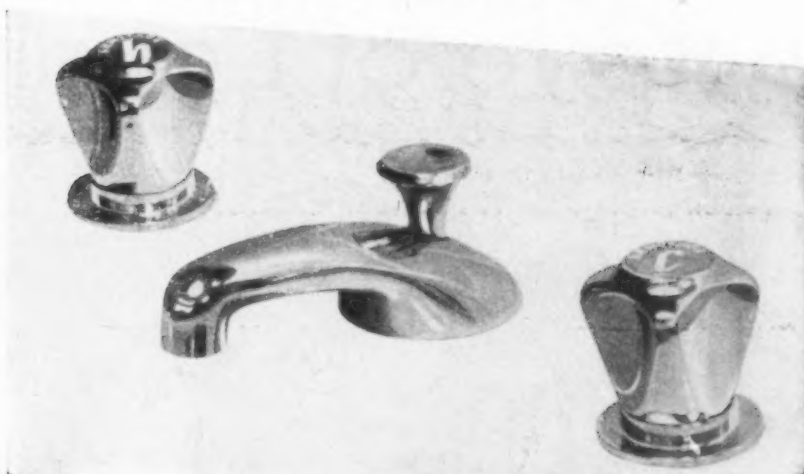


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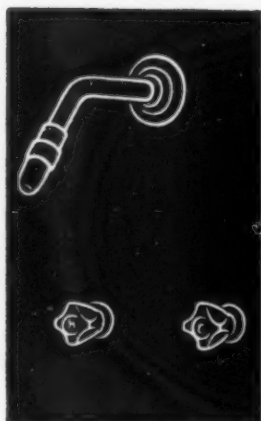
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nuastyle matching bathroom fittings

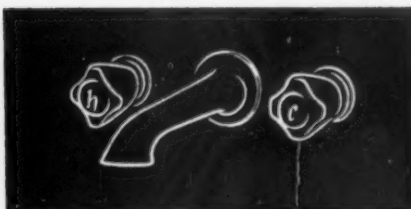
attractive
styling
quick cleaning
easy fitting
lasting quality



G1050 4" Washbasin mixer fitting with 1 1/4" pop-up waste. Inlets screwed 1/2" B.S. pipe, male, with centres 8" to 10". A truly serviceable and attractive adjunct to any modern bathroom.



D1611 Shower fitting with 1/2" hot and cold taps. Inlets screwed 1/2" B.S. pipe, male. Adds the final refinement to the bath.



D1032 Bath fitting with 1/2" taps. Inlets screwed 1" B.S. pipe, male. Bold contemporary design adds a luxury touch at reasonable cost.



B206 Bidet fitting with 1/2" hot and cold taps. Transfer valve to rim or douche incorporates 1 1/4" pop-up waste. Flush or douche at finger touch.

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Descriptive literature available in response to your request.

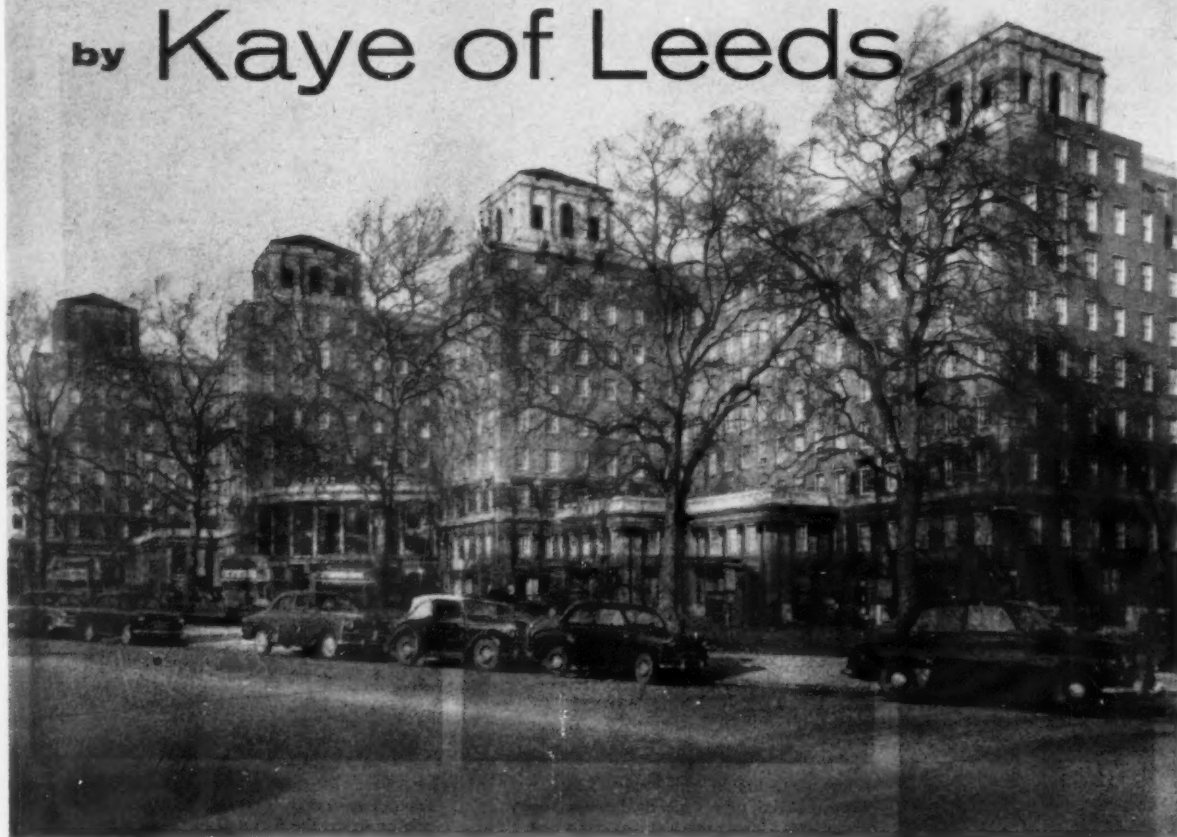
G1050 & D1032 available with the NUASTYLE NU-FLO, the mixer without back-flow.

designed to harmonise
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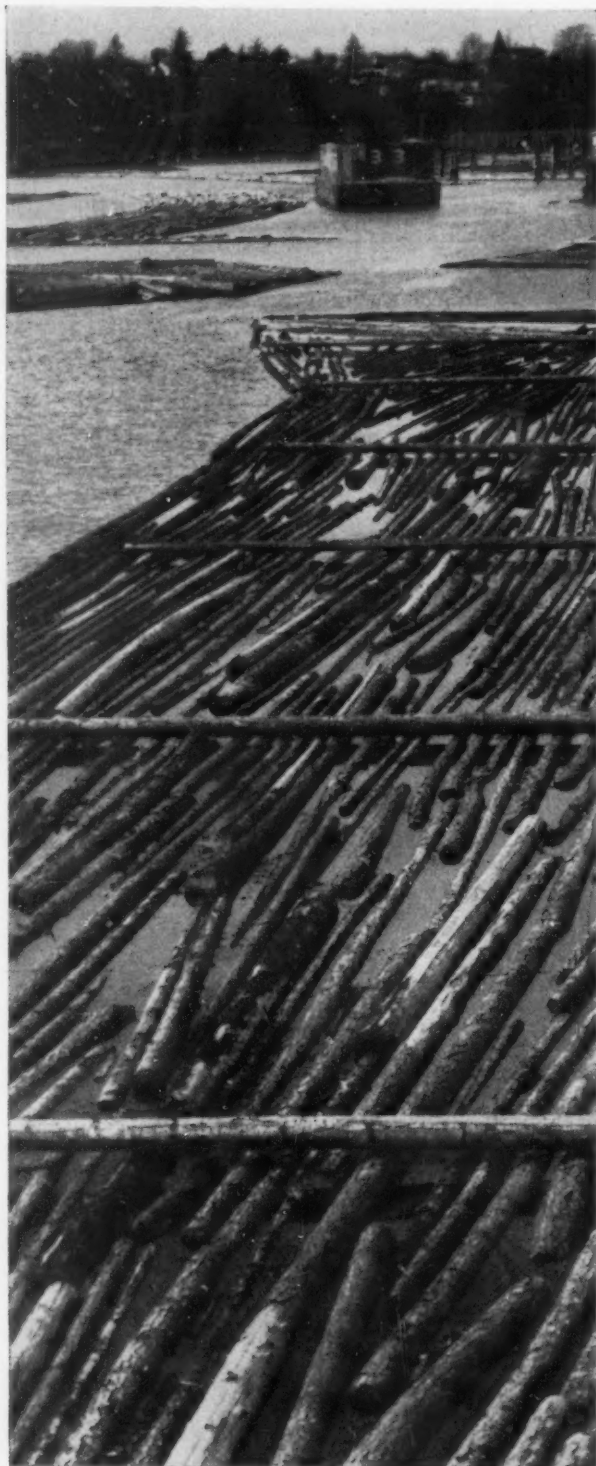


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- * Has simple on off push button operation, or continuous discharge at will
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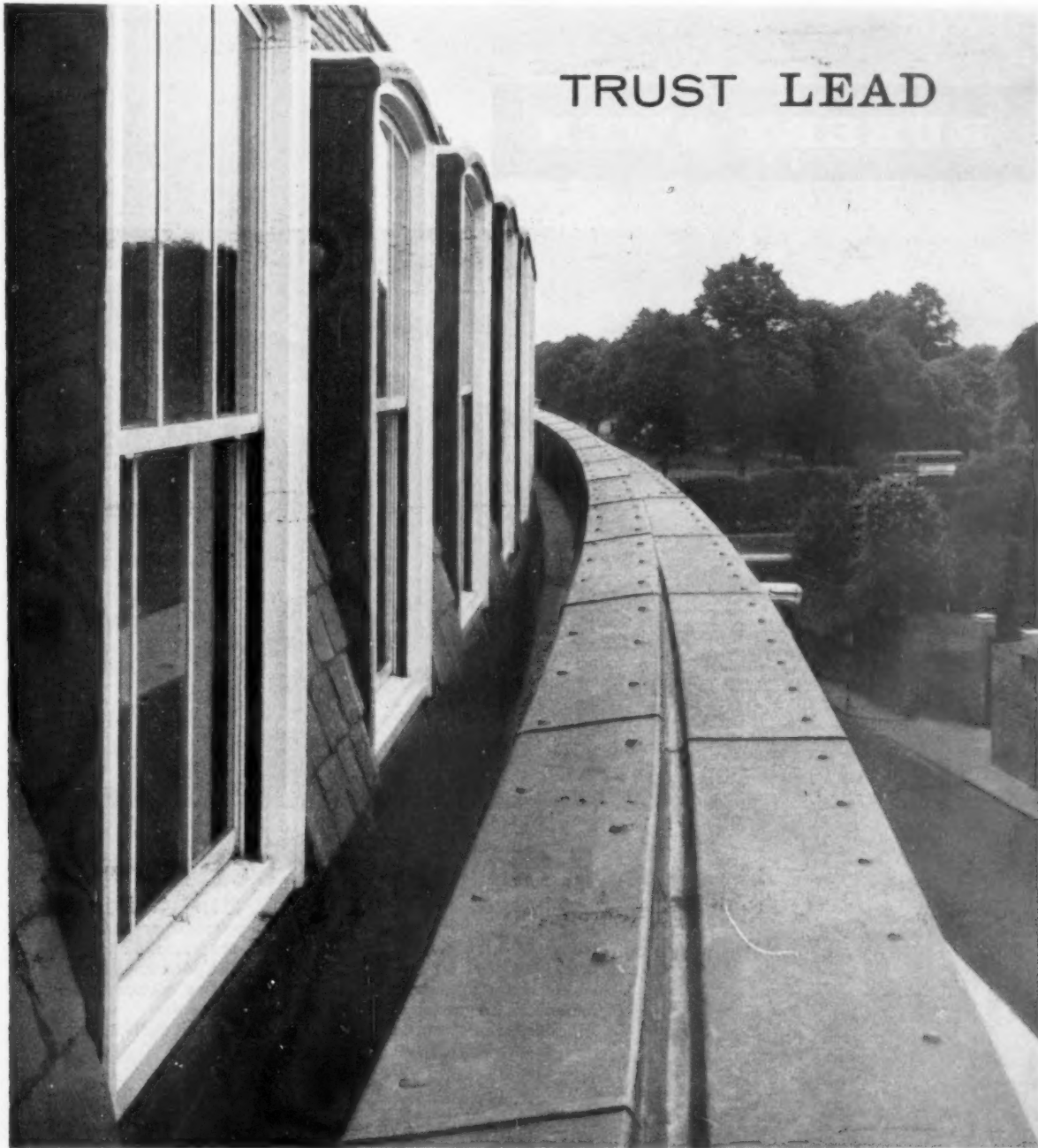


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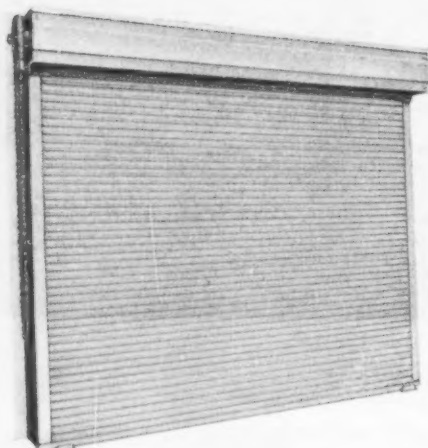
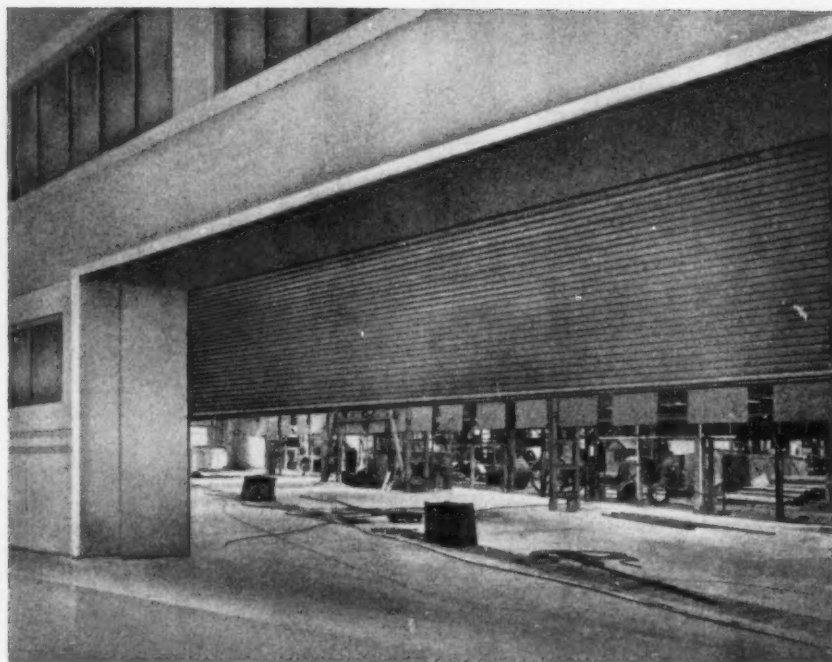
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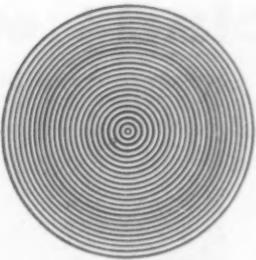
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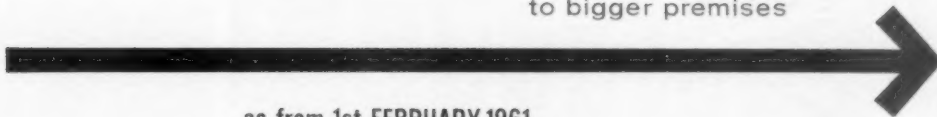
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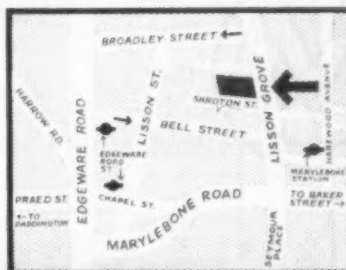
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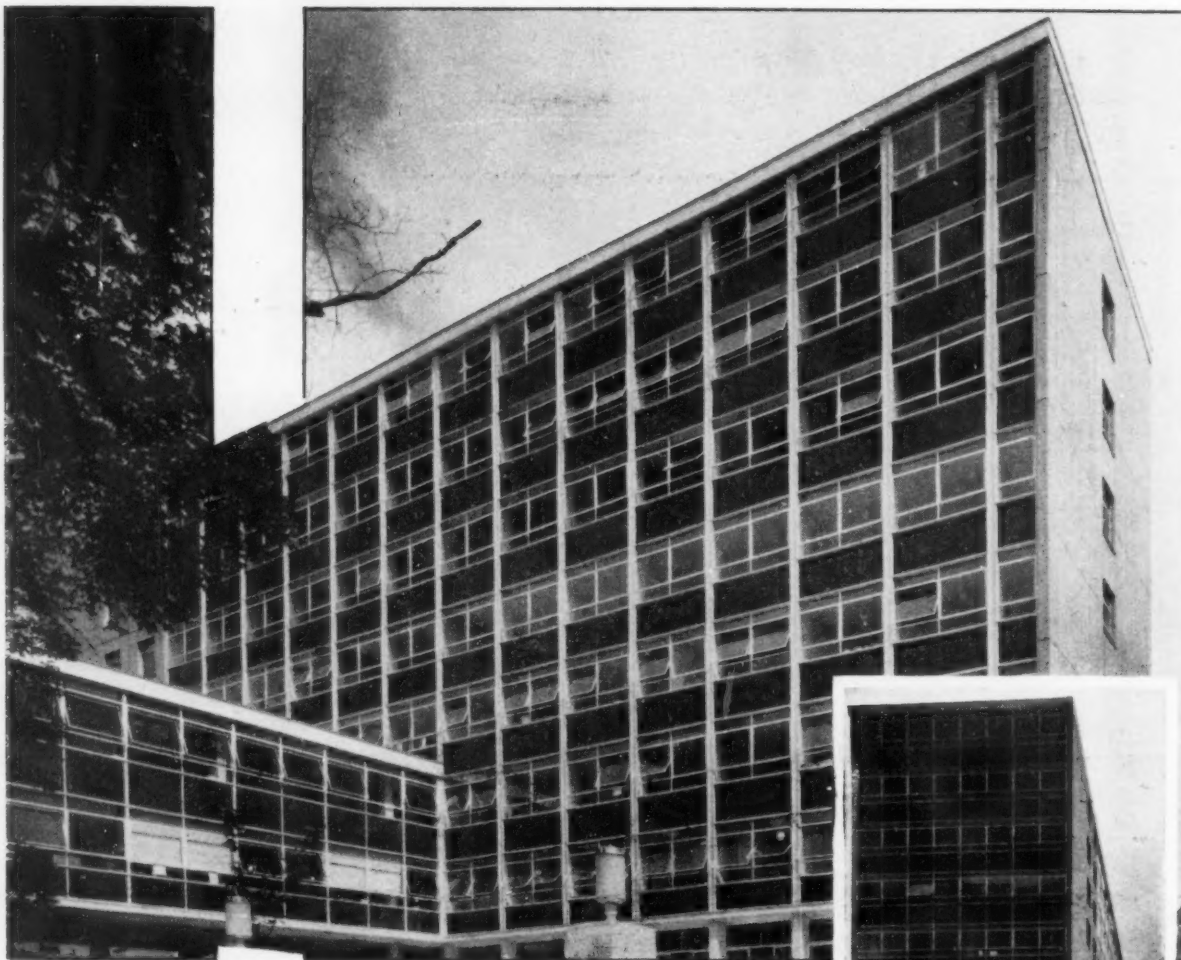
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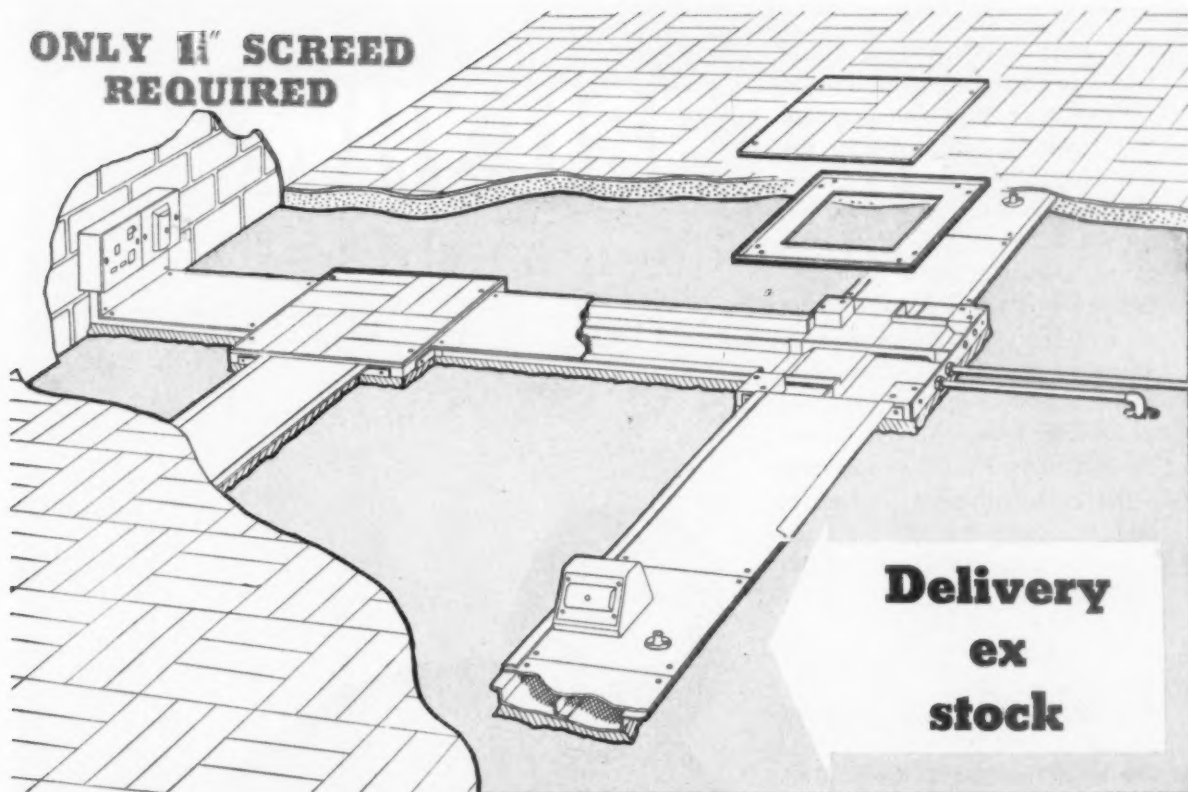
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GC 71

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schemes this new
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► CONVERSION of HEATING BOILERS to AUTOMATIC operation with **HARD COKE**

TO RAISE THEIR EFFICIENCY • TO SAVE FUEL & LABOUR

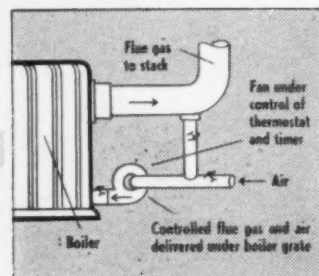


A G.A.P. Unit
is installed at
the Manor Hotel,
Scarborough.

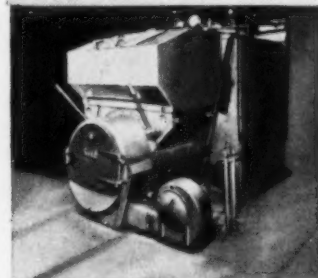
USERS OF SECTIONAL BOILERS should send for INFORMATION SHEET No. 3 which shows how these boilers can be converted to automatic operation resulting in greatly improved performance and considerable saving on fuel costs.

The ordinary cast-iron sectional boiler is cheap, it has a long life and is easily installed. Converted to automatic operation, which can be done quite inexpensively, its thermal efficiency may well be raised to over 80% with the further advantages of longer banking periods and greater flexibility in relation to heat requirements.

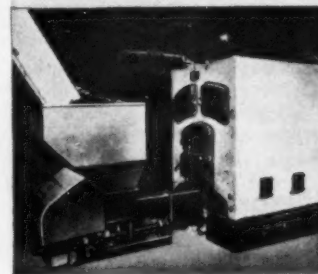
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G.A.P. Conversion Unit fitted to sectional boiler, thermostatically controlled, with time switch. An inexpensive unit for lower fuel costs and long banking periods.



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**TO THE BRITISH COKING INDUSTRY ASSOCIATION,
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Please send me Information Sheet No. 3, giving full details of boiler conversion.

NAME _____

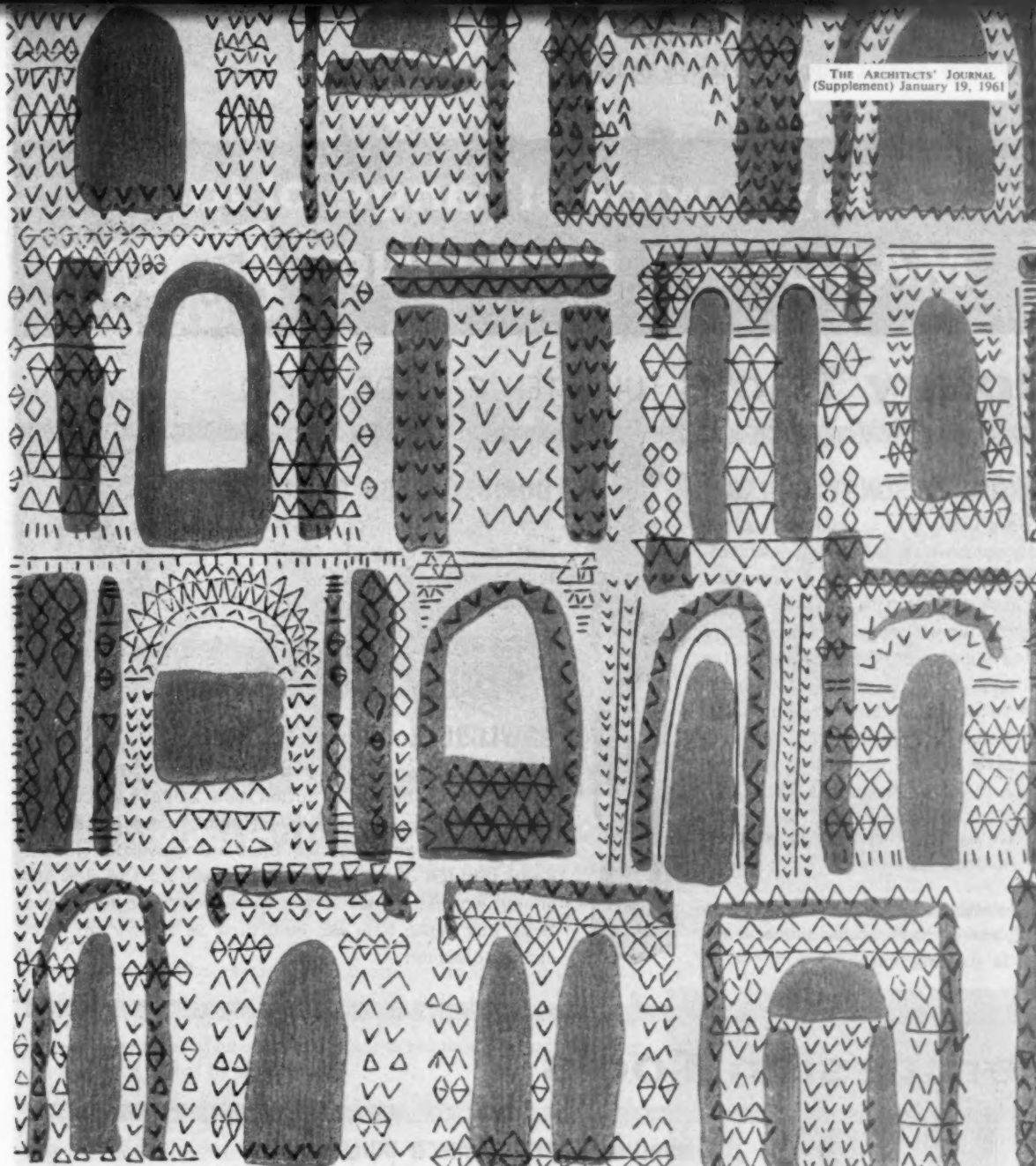
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A-3.



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INFORMATION
SHEET**

HCT 66



"Portal" designed by Terence Conran. M 1059 shown to scale.

A new collection of machine printed wallpapers has just been compiled by the London Office of The Wall Paper Manufacturers Limited 19/21 Mortimer Street, W.1. and is now available through wallpaper suppliers. Many prominent designers are associated with this collection among them Lucienne Day, Jacqueline Groag, Terence Conran, Joyce Storey and William Gear.

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Durium Drills give sensational cutting performances in brick, tile, cement, slate etc. They are silent in operation and have quite exceptional long-service capacity for withstanding the abrasive action of masonry that so quickly ruins ordinary drills. Patented rapid-helix flute forces out spoil and prevents clogging. Refuse substitutes—*only a genuine Rawlplug Durium gives such life and service. First resharpener FREE!*

For use in Wheelbrace or slow speed electric drill.

17 sizes 5/32" to 1" cutting diameter and 11 long series 1/4" to 1" cutting diameter for up to 16" drilling length.



DURIUM GLASS DRILLS

For use in glass, china, vitrolite, pottery, etc. For use in wheelbrace or slow speed electric drill.

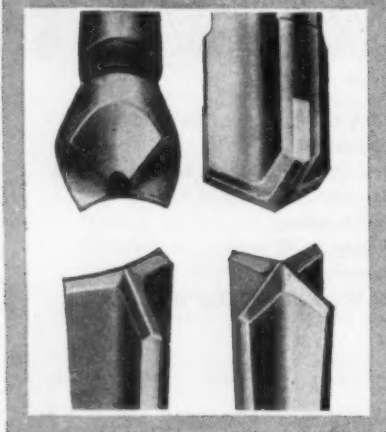
9 sizes from 1/8" to 1/2" cutting diameter.



RAWLCRETE CONCRETE DRILLS

Designed for hole boring in concrete, hard brickwork and tiles with portable rotary action tools. Four to six cutting edges (depending on size)—if one should be damaged the remainder will go on cutting. Spoil automatically cleared away through cored shank and ejected via the slot. By adding extension rods to the Extension Type Rawlcrete Drill, any depth hole can be drilled. 26 sizes 1/8" up to 2" cutting diameter.

Percussion Tools



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OTHER RAWLPLUG PERCUSSION TOOLS These include hardened alloy steel Triform drills for use in Kango Hammers; special rods and tipped bits for use in any make of self-rotating Pneumatic Hammer with a 1/2" Hex. x 3/4" chuck, and a very wide range of Stardrills, Wall Boring Tools and Tubular Boring Tools. Full details on application.

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CHEVIN CONVECTOR Mk IIIa

The Chevin convector makes better use of heat from fuel by using it three ways—radiant heating, convection heating and water heating. This is on no more than an ordinary open fire—i.e. $1\frac{1}{2}$ -2 cwt. a week in the winter.

Warmth for another room. If the convected warm air is returned to the same room it will fully heat a room up to 20 ft. x 12 ft. x 8 ft. By a simple arrangement of closable grilles the convected warm air can be discharged to an adjoining room or hall as required, leaving the living room to be heated by the open fire.

Hot water. The back boiler provides ample domestic hot water. Maximum output is 10,000 B.t.u./hr.: output under normal operation is 7,500 B.t.u./hr. which is equal to 8 gallons of water an hour raised from 50°F. to 140°F.

Overnight burning. The Chevin keeps in all night and has a simple economy air control to provide instantly the required rate of burning.

Installation is simple. The Chevin can be installed in a tiled surround incorporating independent convection grilles or with an interior frame incorporating concealed air inlet and outlet vents. A patented method of sealing between the surround and the convector body and between the flue adapter and the lintel speeds installation. There is easy access for flue cleaning and boiler servicing.

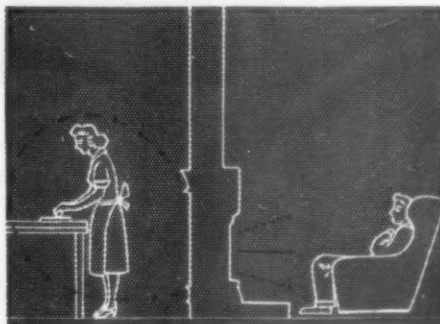
Ministry approval. The appliance is approved by the Ministry of Power and is included in the List of Recommended Appliances published by the C.U.C. and the Solid Smokeless Fuels Federation.

The Chevin is available in 5 wipe-clean colours in durable Lexos porcelain enamel. Prices from about £18 according to colour and the accessories required.

(Left). Installed with Chevin C Inset Fire and Interior Frame No. 37 (used only when convected warm air is returned to the same room).



Installed behind tiled surround with independent closable grilles and Chevin C Inset Fire with Overnight plate in position.



Radiant heat to main room, convected heat to warm adjoining room.



Full details are given in our data sheet available from
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***you counted these windows you
would find that there are 752
Rhodes Pulleys and Safety Sash Chains
that will never need renewal***

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London, S.W.1.

Contractors:
Toben Construction Co. Ltd.
London, W.1.

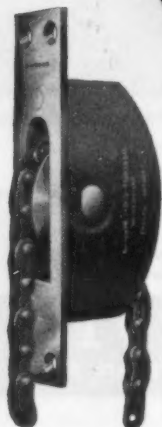


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Unaffected by climatic conditions, Rhodes Chains and Pulleys, fitted more than 50 years ago, are still giving service throughout the world.

Rhodes Sleeve Bearing Pulleys and Rustproofed Steel Sash Chain were specified for 13/15 Portland Place and 10 Duchess Street, W.1, illustrated above.



Rhodes No. 644 patent
Sleeve Bearing Pulley
with No. 44 Sash Chain.

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An installation of a Mather & Platt self-closing, folding armoured fire door, with rising hinges in a factory producing drawing office equipment. In the background is an armoured, sliding door.

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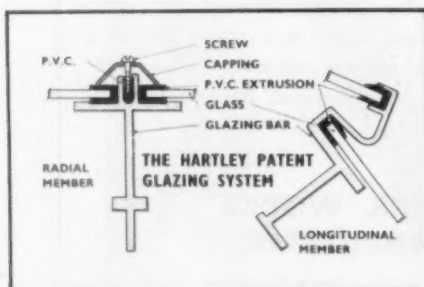
A66/1



Floral Conservatory, for the Rhyl Urban District Council.
212 ft. long x 43 ft. wide x 25 ft. high.

The **HARTLEY** Glasshouse range covers all needs

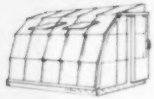
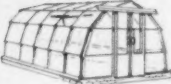

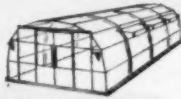
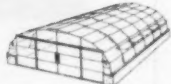
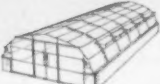
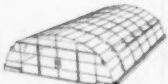
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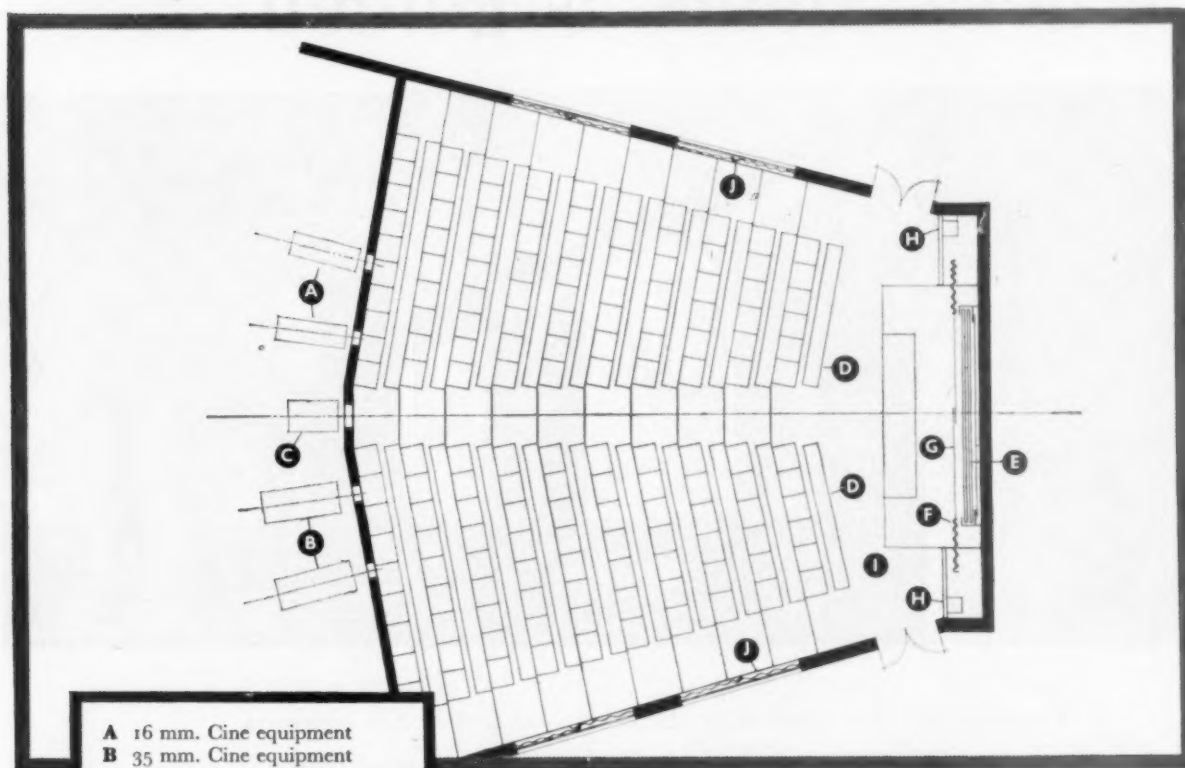
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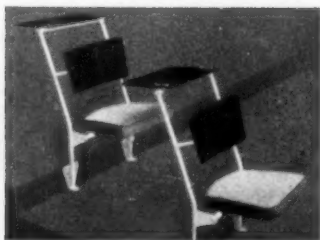
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- B** 35 mm. Cine equipment
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- D** Seating with built-in writing tops
- E** Electrically operated Chalkboard/Cine Screen unit
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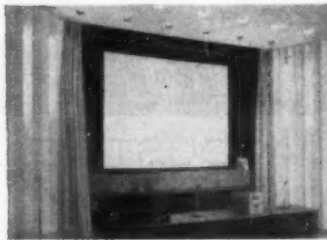
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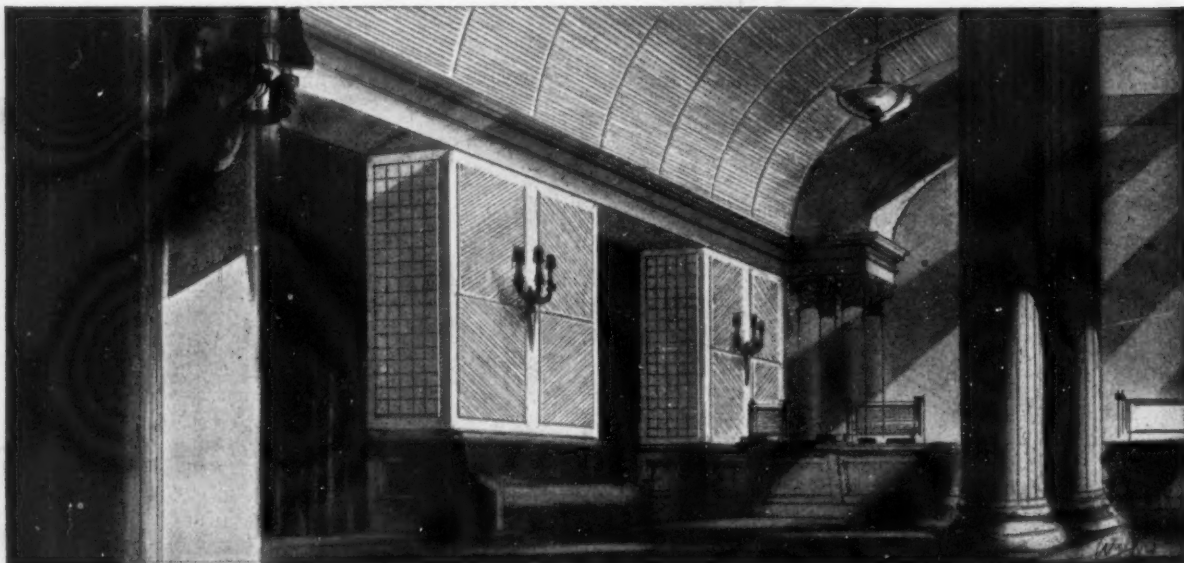
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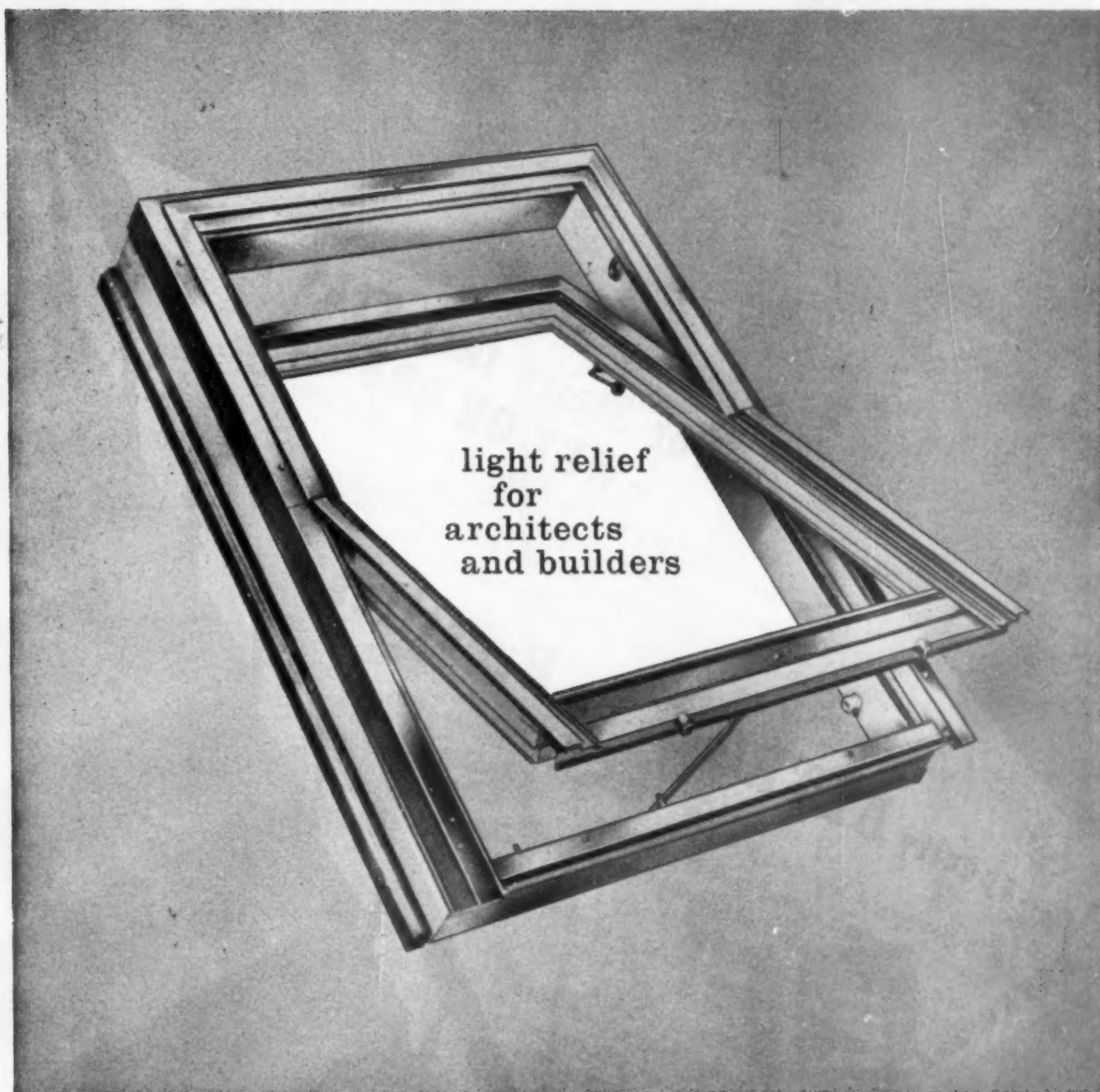
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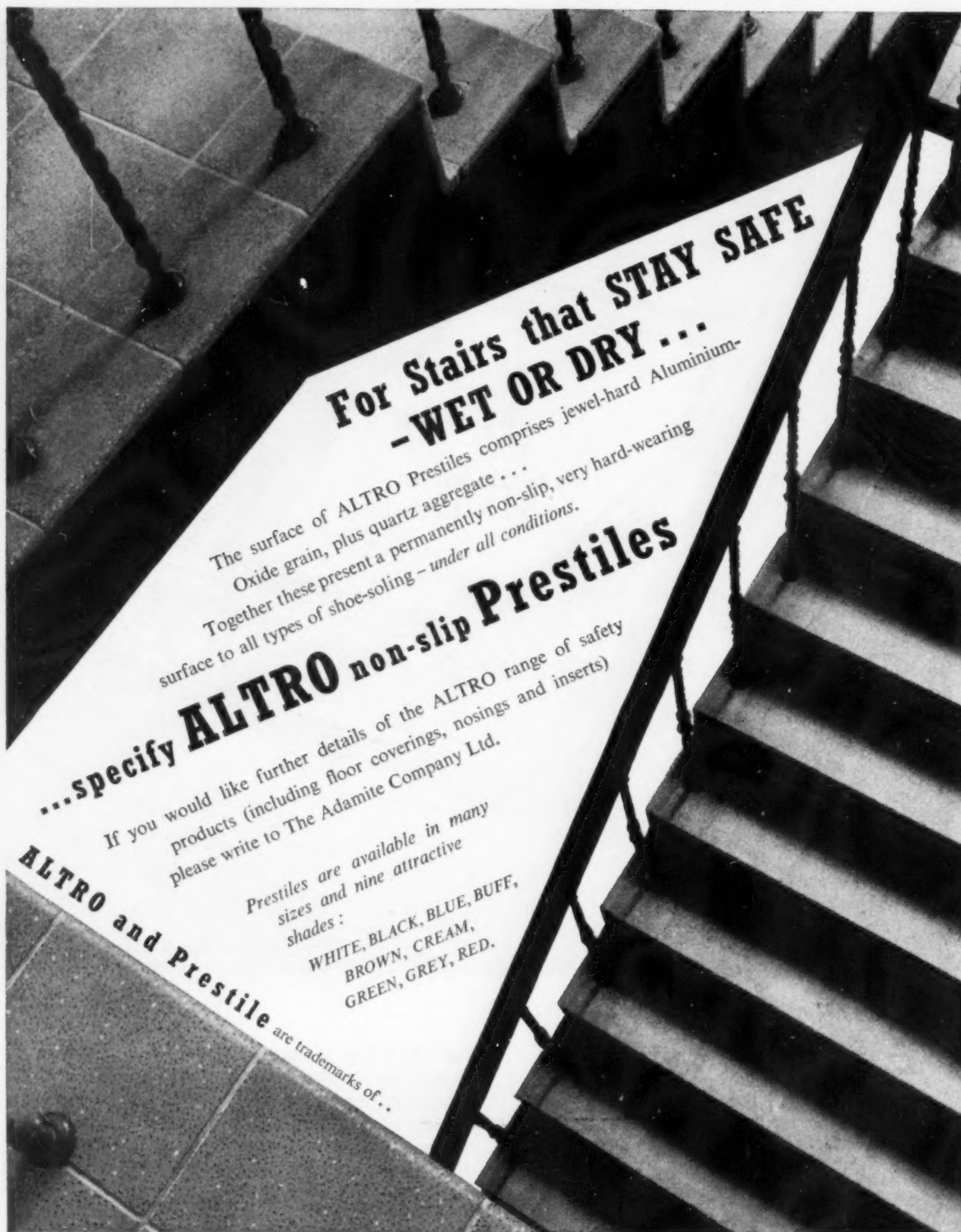
A complete specification is given on Architects' Journal Information Sheet 24.H1 and descriptive illustrated literature will be sent upon request to:

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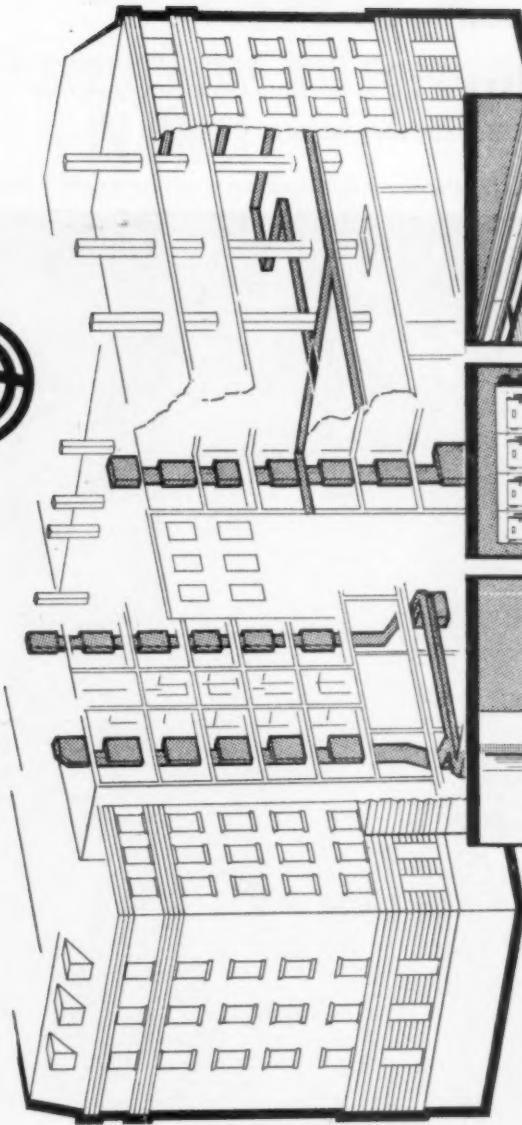
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POWER DISTRIBUTION FOR HOUSE



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All Trunking, Switchboards and Rising Mains were engineered and supplied by The Power Centre Company Limited. For all forms of Power Distribution consult Power Centre.

Architects: Messrs. Cotton, Bullard and Brown
Electrical Consultant:
E. A. Couzens, Esq.,
M.I.E.E.

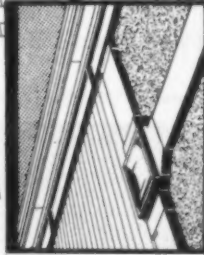
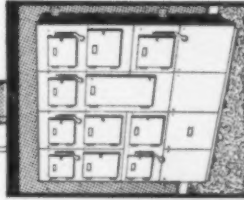
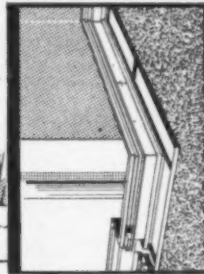


Illustration shows Underfloor trunking and Skirting trunking serving floor heating.



One of the 21 Switchboards in use in this building.

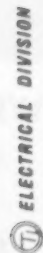


Section of Skirting/Floor Trunking in course of installation.

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WHEATLY



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WHEATLY & COMPANY LIMITED

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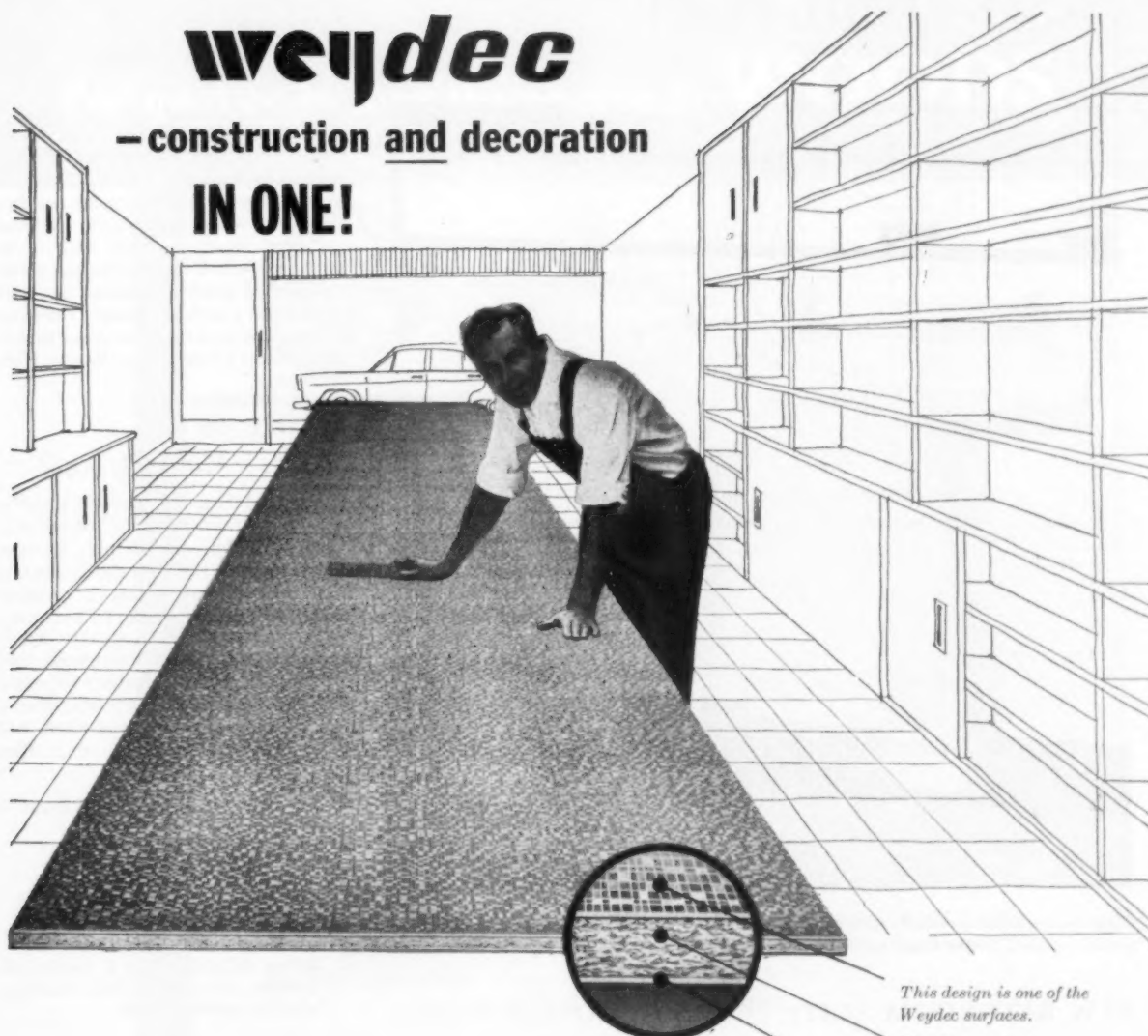
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Grams: WHEATLY TRENTVALE

WH104

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News from Hull



Clean lines, attractive overall appearance, low cost, vitreous china hygiene and durability are features of the Trimline Wash-basin and W.C. Suite.

NEW BATHROOM SUITE FOR LOW COST HOUSING

'Standard Trimline'

* ECONOMICAL

* WELL DESIGNED

A recent example of good design and good materials being used economically is the 'Standard' Trimline bathroom suite. Planned especially for low cost housing schemes the Trimline suite consists of a wash-basin, available on cast-iron wall brackets or a pedestal and a wash down closet coupled to a low level cistern. It is distinguished by a high quality of design not common in low cost sanitary appliances and is made from good quality vitreous china. Vitreous china has a high resistance to harsh treatment and is recognised by most Public Health Authorities to be more hygienic than other ware. This is because vitreous china is fired at such a high temperature. As a result it is a dense, non-absorbent material which

does not depend upon its glaze to make it watertight. As it is non-porous and non-absorbent it is impossible for germs to lodge and breed in it.

Architects Design Packaged Bathrooms

Several well known Architects and interior designers have been commissioned by Ideal-Standard to design bathrooms for a range of representative modern houses. The bathrooms are complete in every detail. Wallpapers, paints, carpeting, linoleum, lighting, heating, accessories and appliances are all specified in the plans and alternative colour schemes are suggested.

Helen Challen, ARIBA, MSIA, who was voted as having designed the most interesting and attractive living room in last year's Ideal Home small house project, and Robert Heritage, Des. RCA, MSIA, who won a Design Centre

award for furniture and submitted a successful design in the Ideal Home Competition, are among the designers of these bathrooms. The designers had to bear in mind that the overall cost had to be kept within given limits, and that the plans would possibly have to be adapted. Despite these difficulties a high standard of decor and design has been obtained at a realistic outlay. The plans will soon be available from Ideal Boilers & Radiators Limited, Ideal Works, Hull, on request.

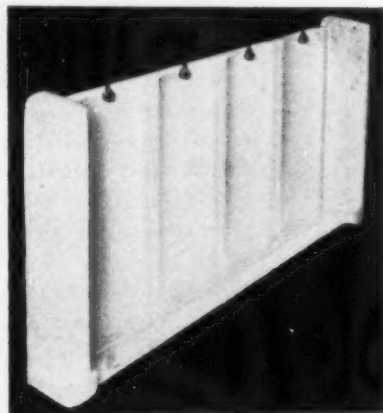
Making the 'Gents' More Pleasant

Instances of the many successful installations of the new 'Standard' Vitural slab urinals in public conveniences are now being reported. The most significant fact about the Vitural is that it is made entirely of vitreous china. This material—till now confined to smaller appliances—is non-porous throughout and so retains its hygienic qualities for many decades of use. In a urinal installation, this means normal cleaning alone will prevent unpleasant odours—even after many years.

A neat modern design, the Vitural is available in three basic forms:

- (a) Slabs 18" wide plus divisions
total width per stall 24";
- (b) Slabs 15" wide plus divisions
total width per stall 21";
- (c) Slabs 18" wide with no divisions
total width per stall 18";

In (c) the urinal has a continuous surface, each slab of china having a slightly concave shape.

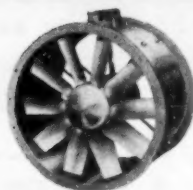


End screens are either free-standing or designed for fitting against or into an end wall. Floor channels and high level cisterns are also of vitreous china. The range of cisterns is from one to six gallons.

Vitural prices, which are very competitive, are available on application.

537

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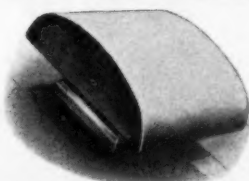
Ask for publication V1089.



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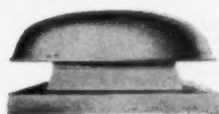
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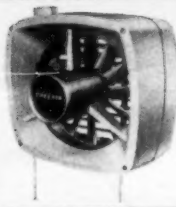
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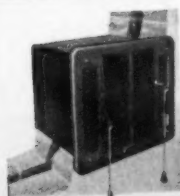
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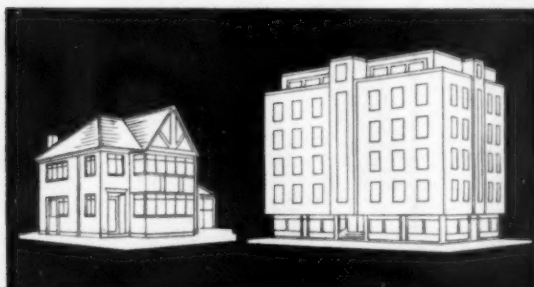
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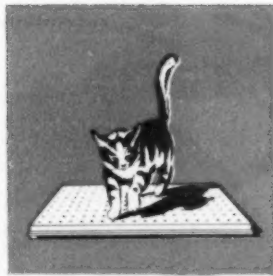
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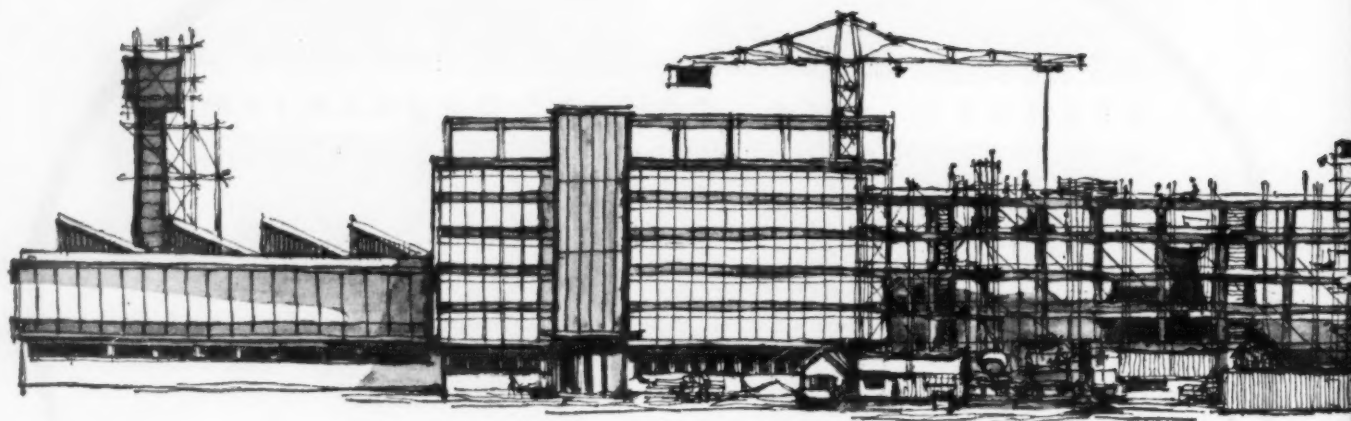
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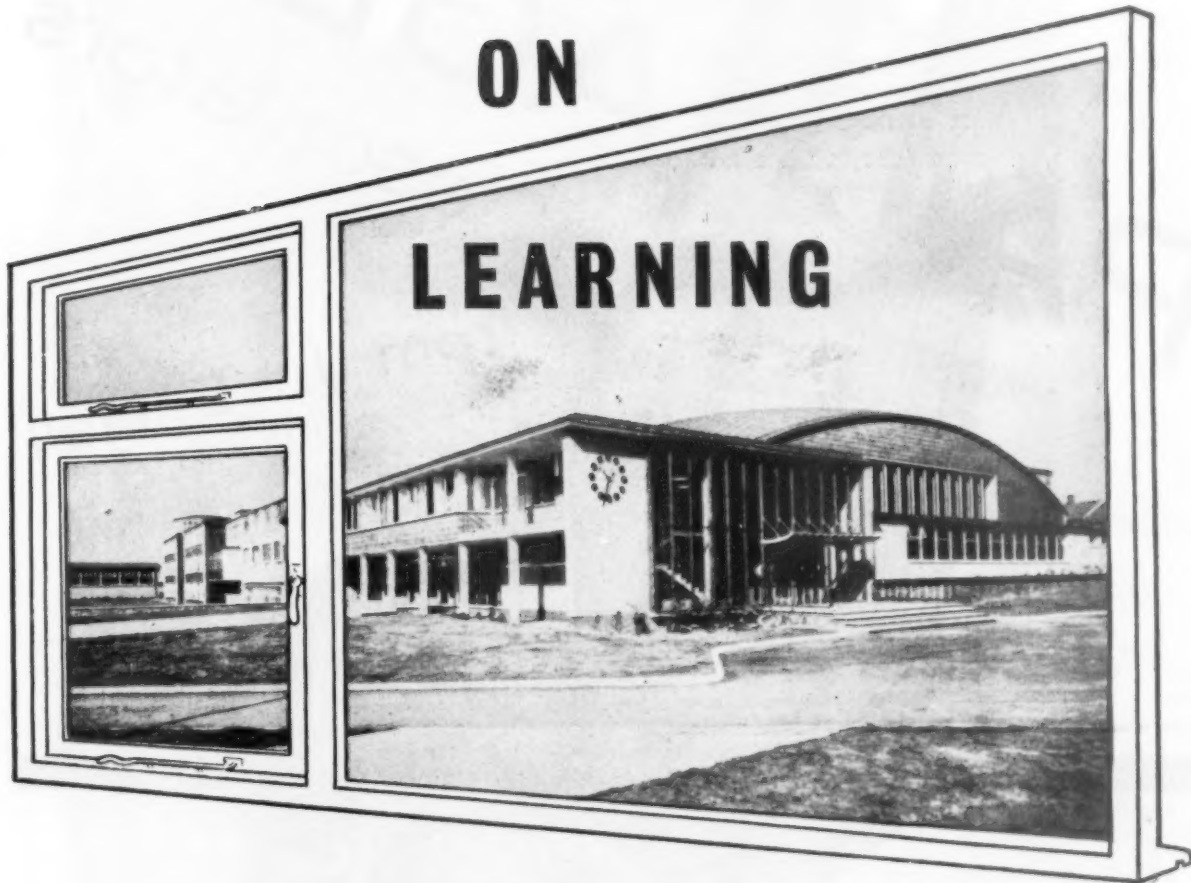


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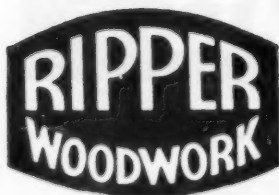
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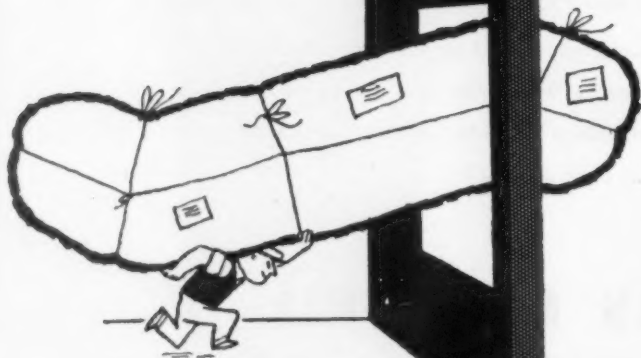
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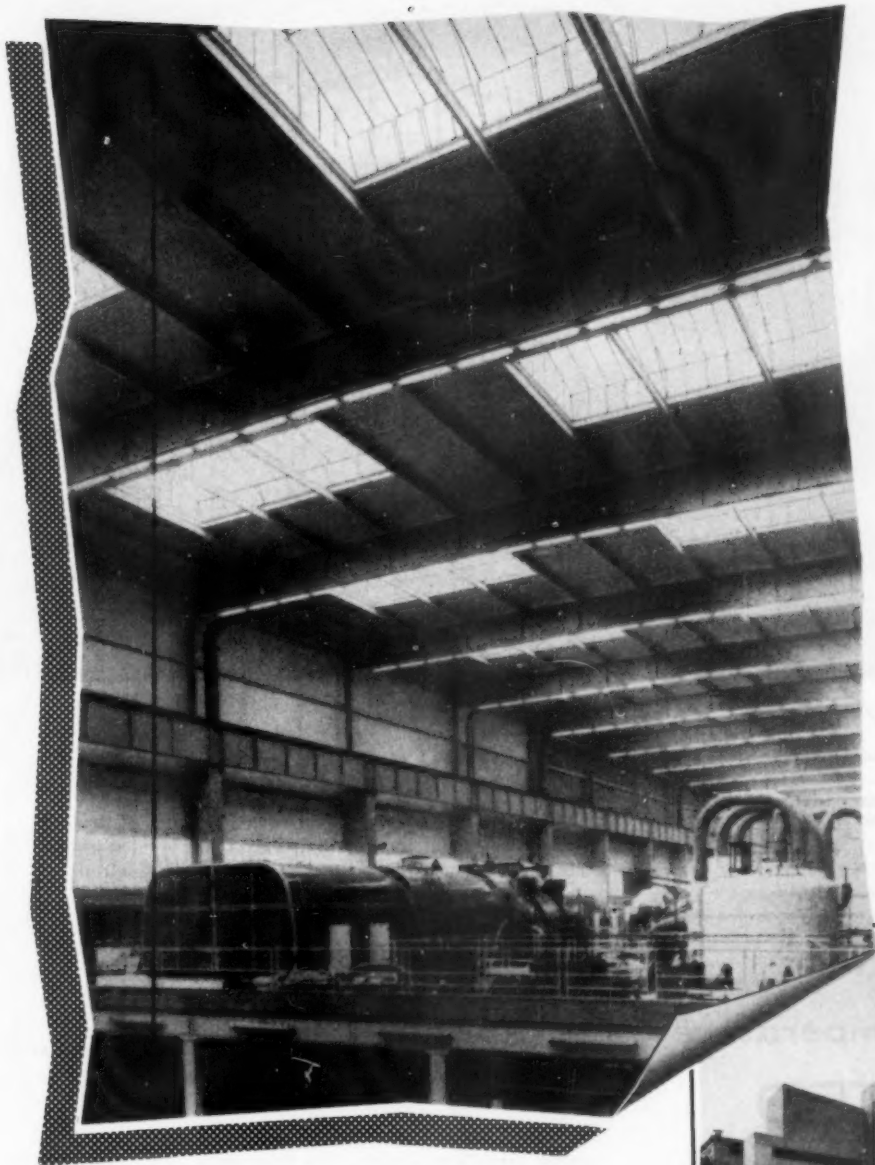
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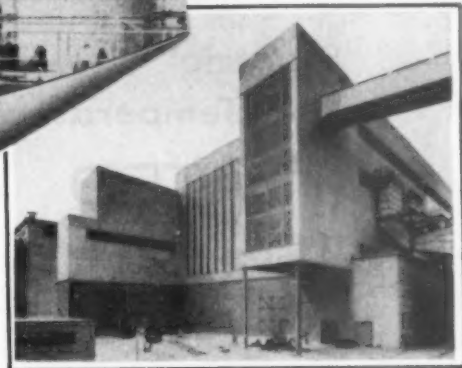
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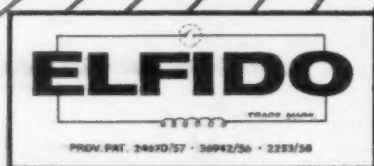
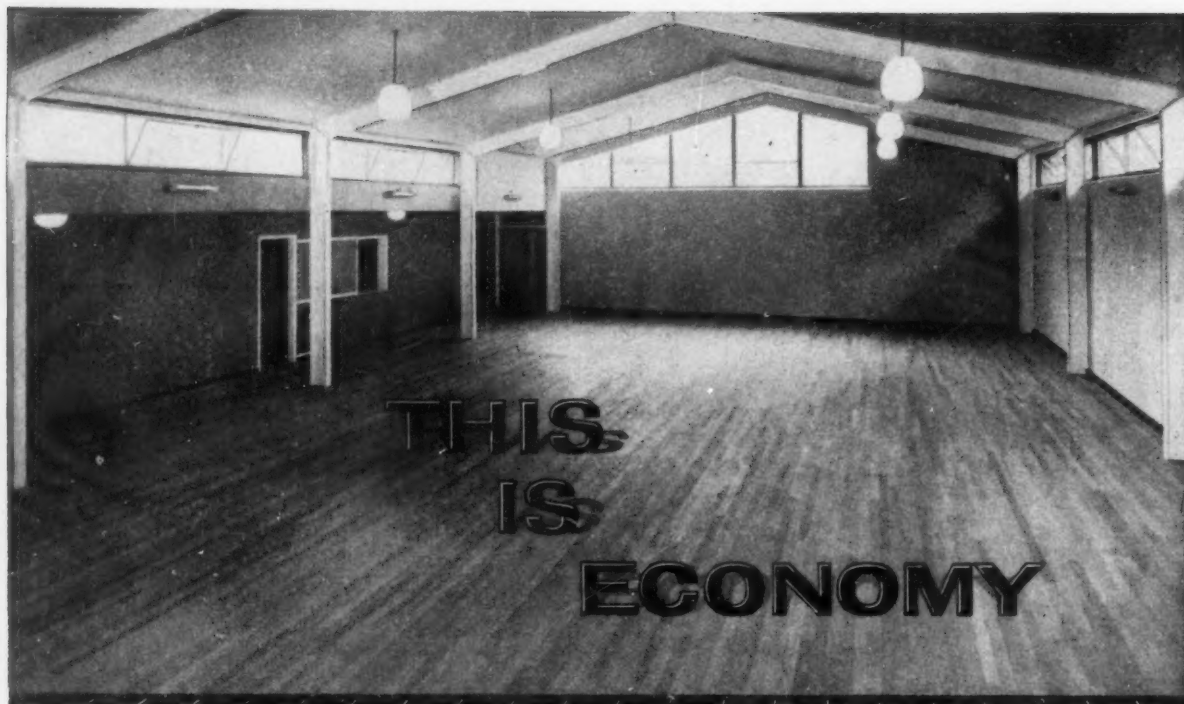
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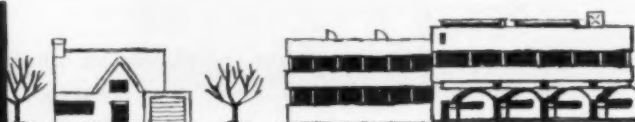
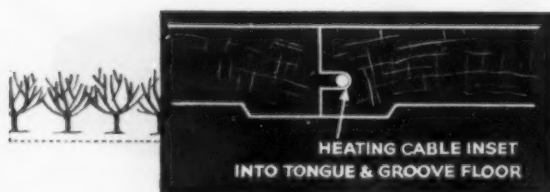
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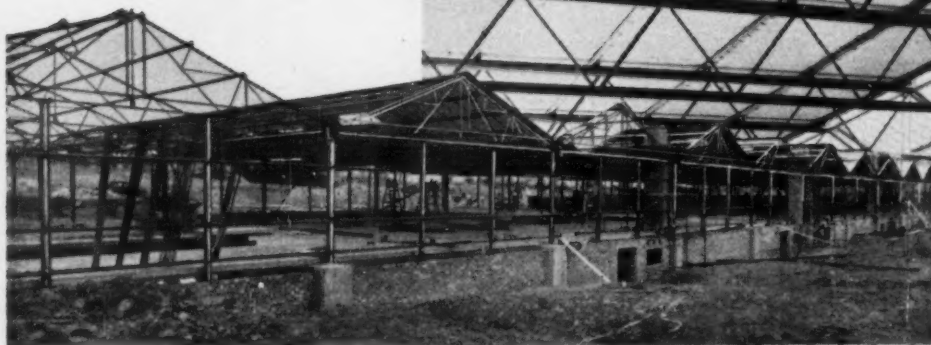
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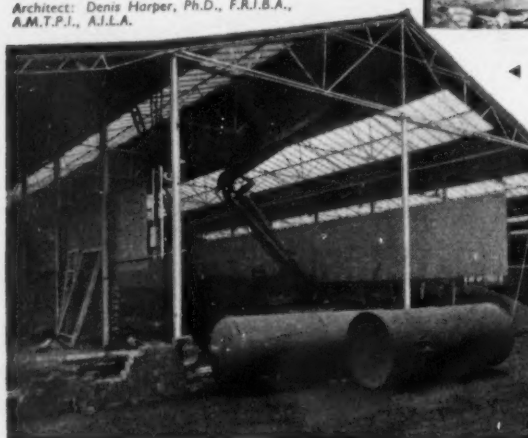
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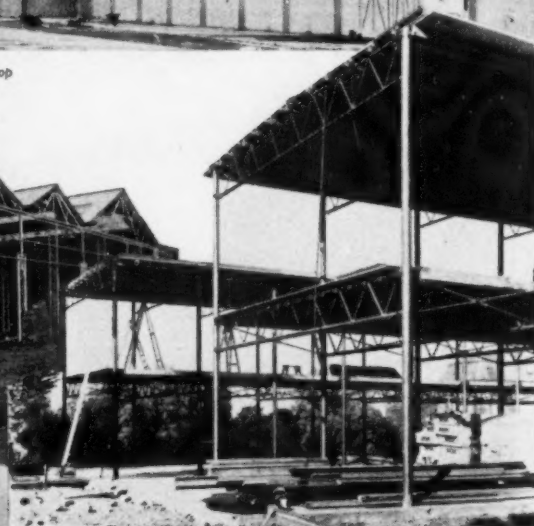


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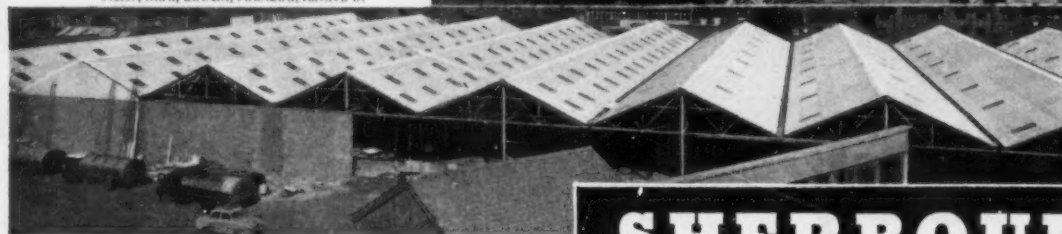
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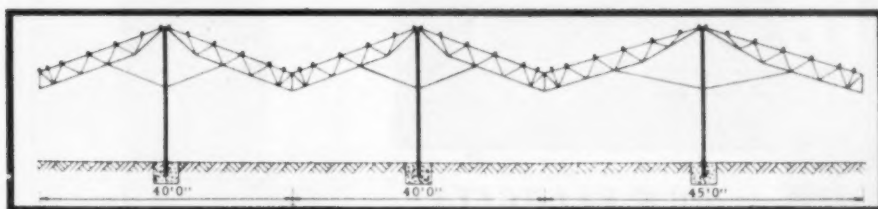
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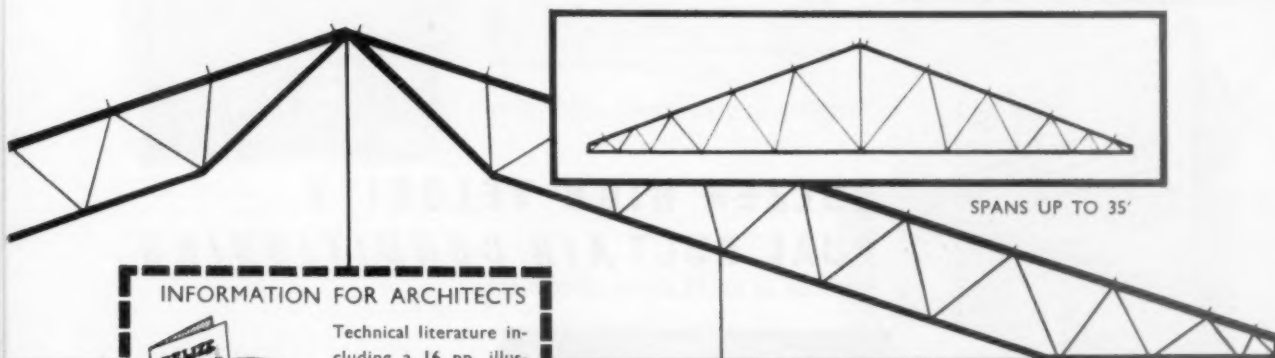
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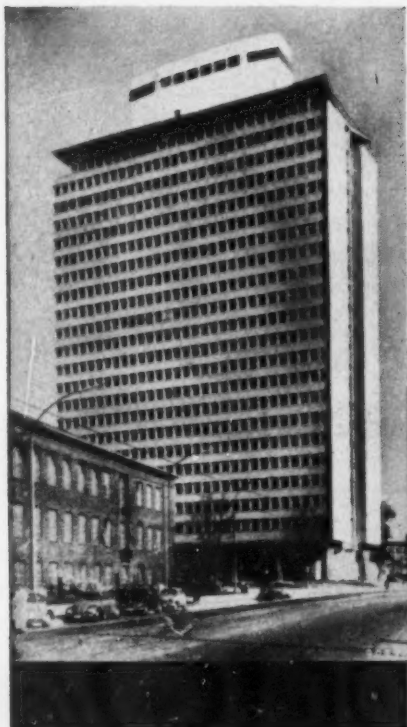
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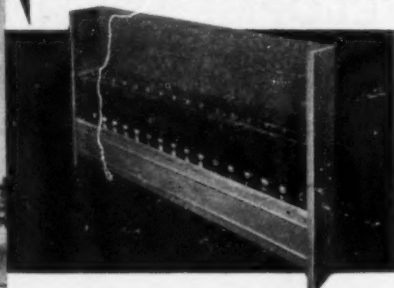
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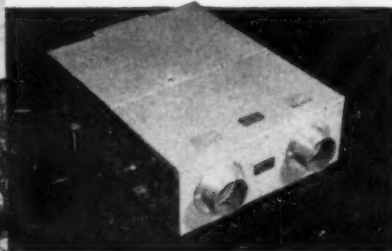


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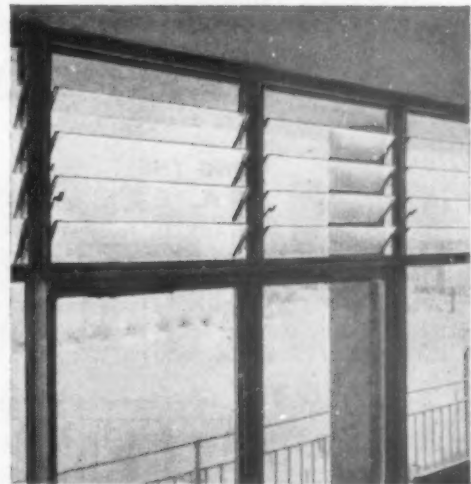
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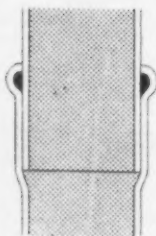
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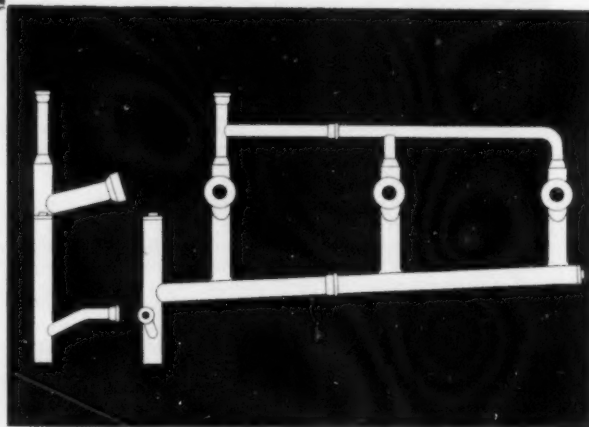
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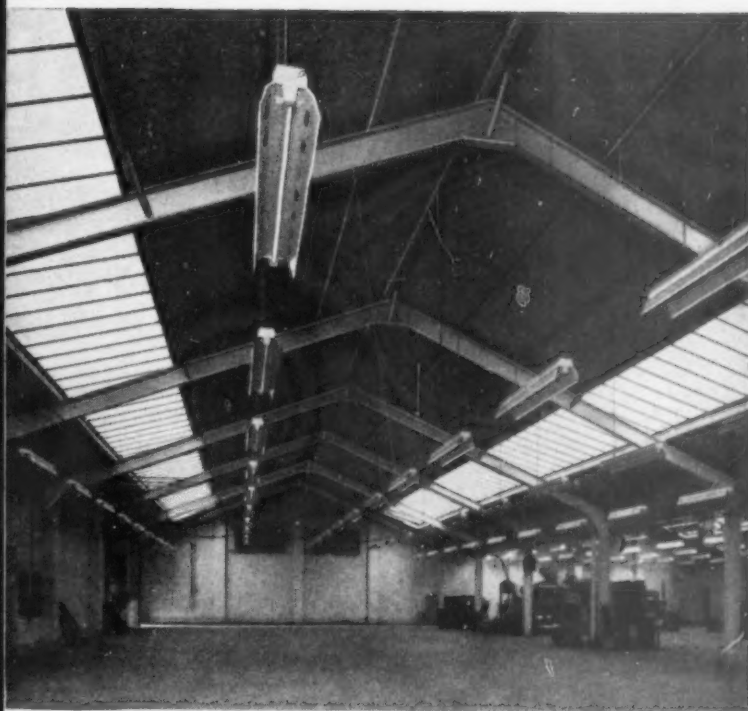


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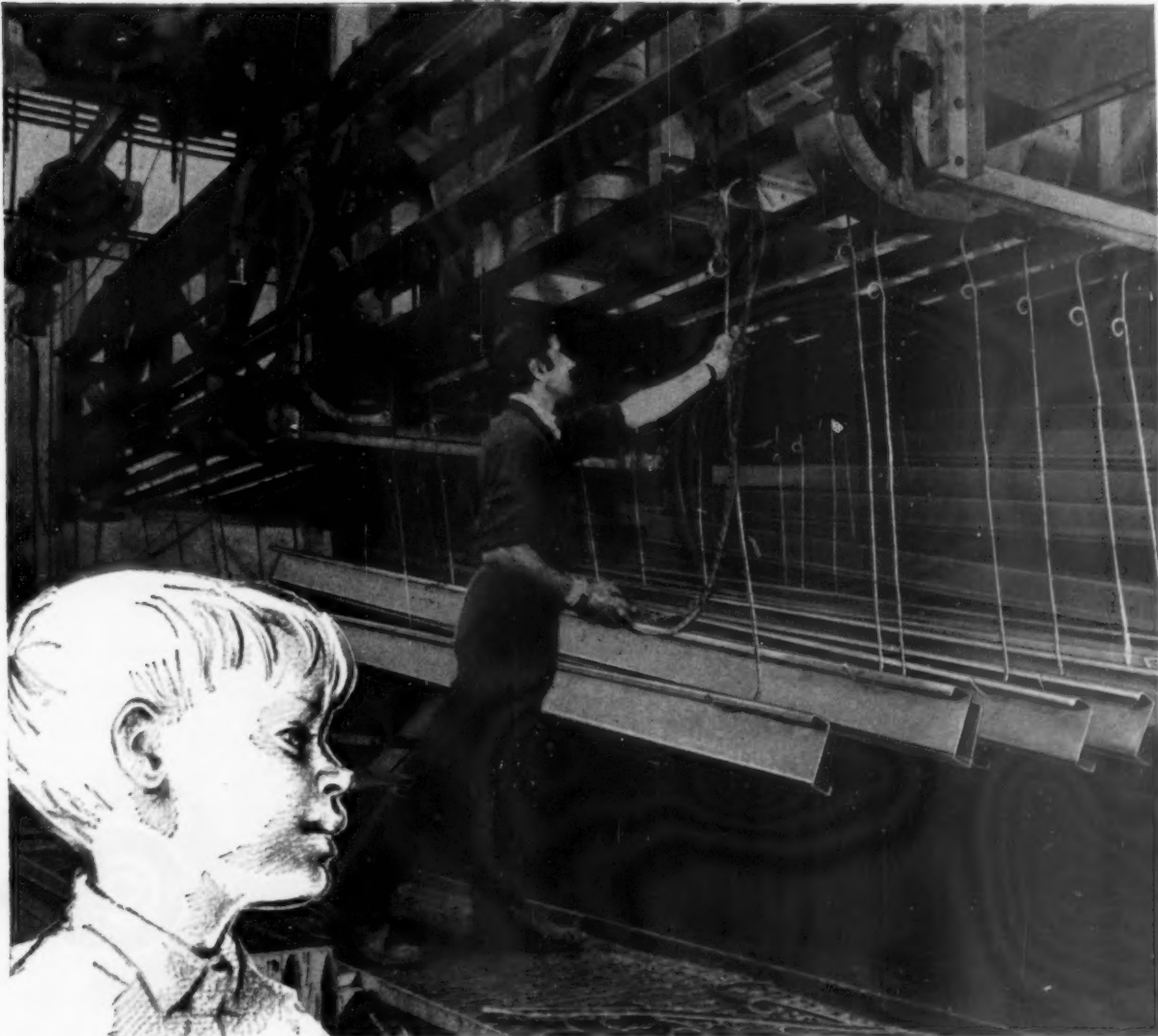
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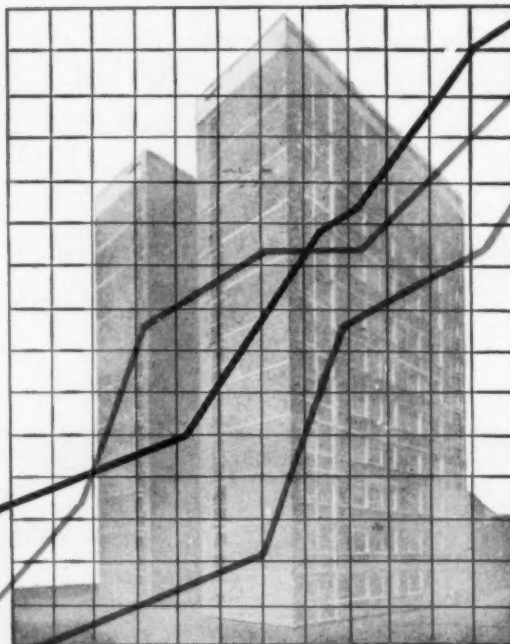
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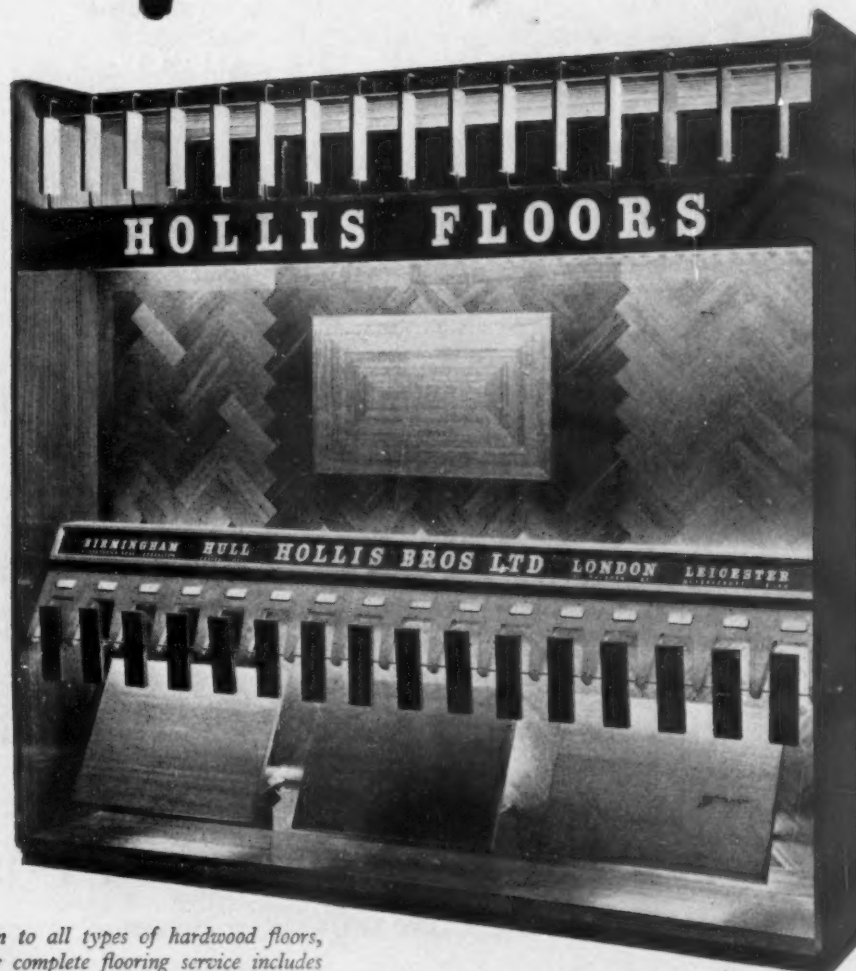


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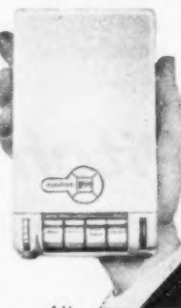
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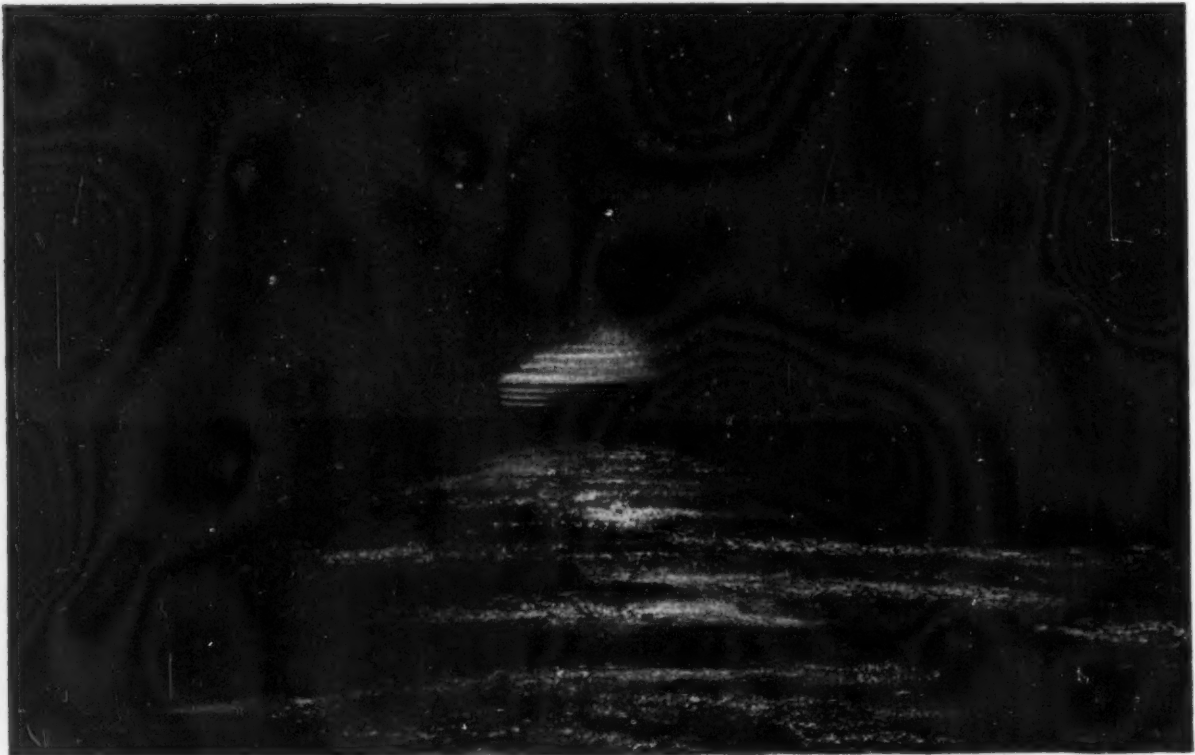
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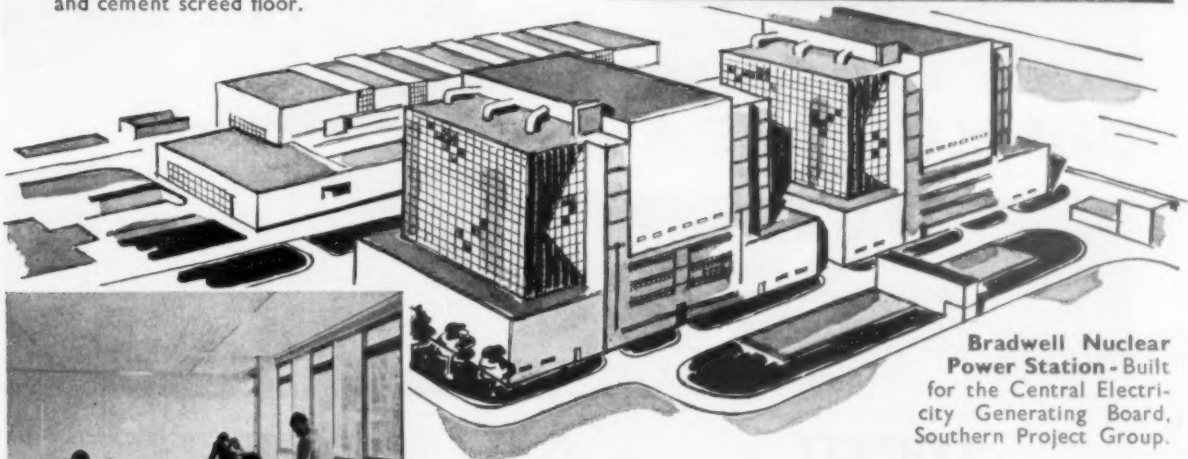


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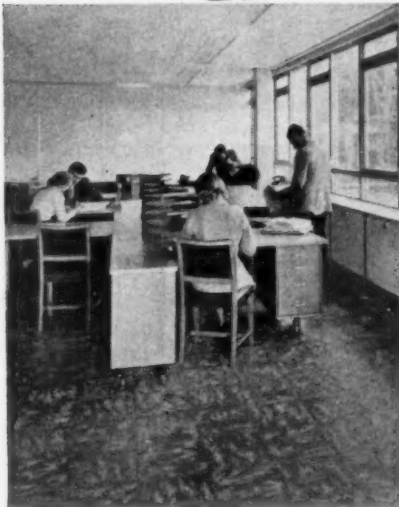
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(left) One of the Offices in the administrative block where over 660 yards of Poly-Flor 90 gauge tiles were laid in 220 man hours.

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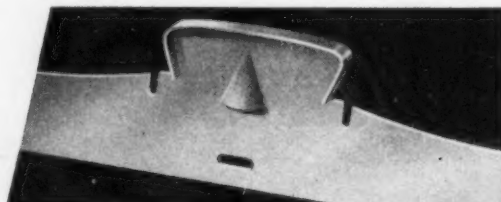


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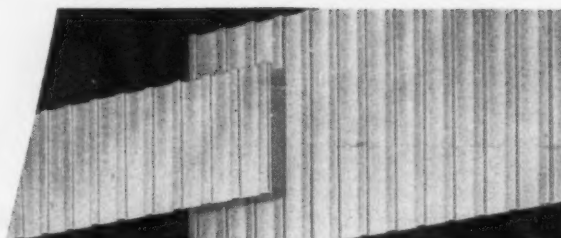
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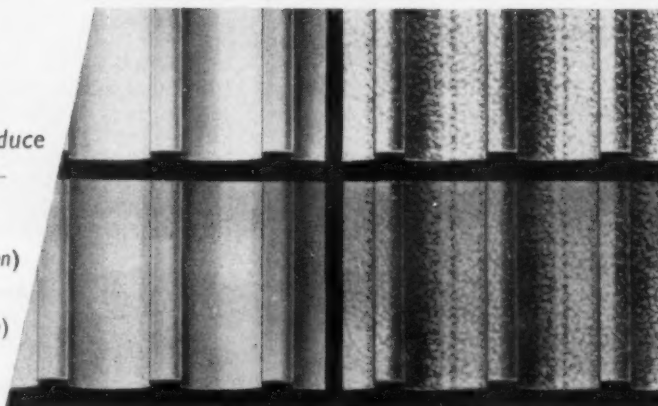


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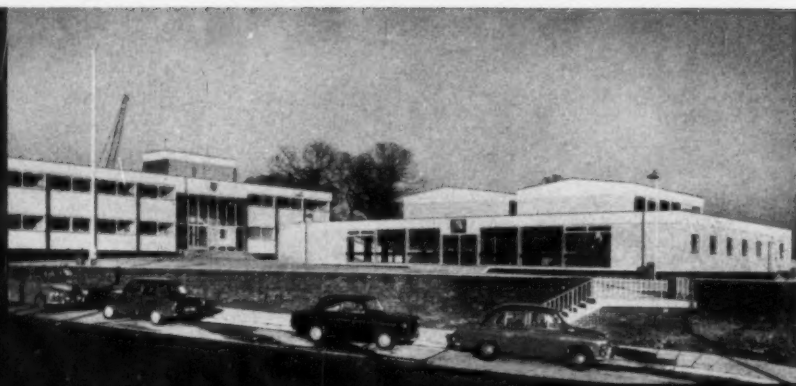


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*Austin Motor Co. Ltd., Engineers Office Block, Longbridge.
Architects: Harry W. Weedon, F.R.I.B.A., & Partners.



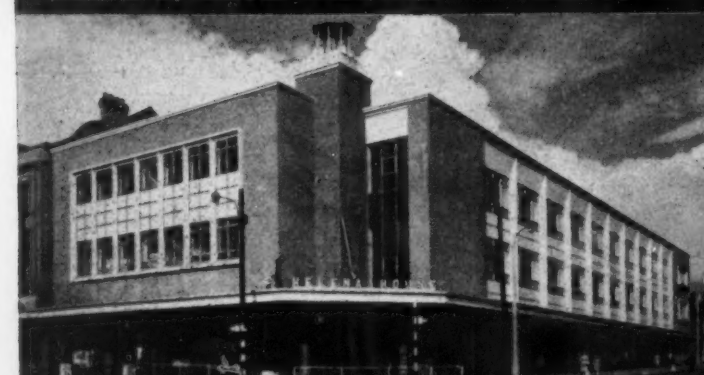
The Mansfield Building Society.
Architect: W. Richardson White, F.R.I.B.A.



University College of Swansea, Natural Sciences Building.
Architects: Sir Percy Thomas & Son, PP.R.I.B.A., A.R.I.B.A.



Multiple Shops, Stevenage New Town.
Architect: L. G. Vincent, A.R.I.B.A., Chief Architect, Stevenage Development Corporation.



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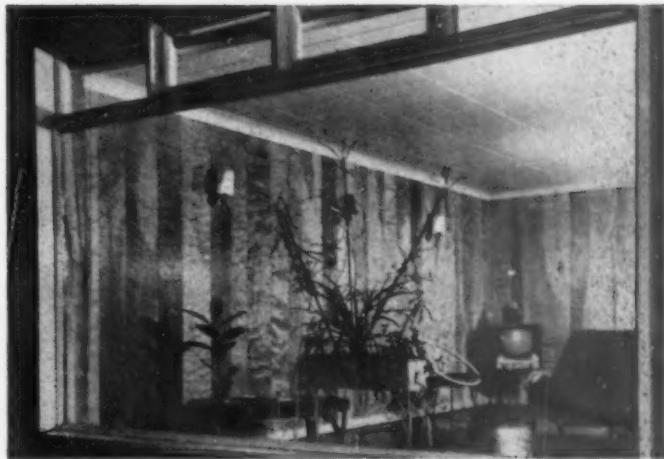
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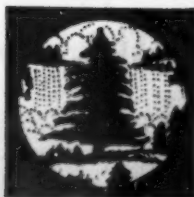
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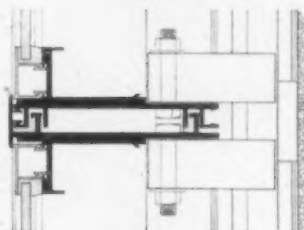
A new type of Wallspan makes its debut on the tower of Castrol House—a prefabricated Wallspan designed in collaboration with the architect that goes up more quickly than any curtain walling system yet devised. Williams & Williams developed it specially to fit in with a tight building schedule—18 months from start to finish.

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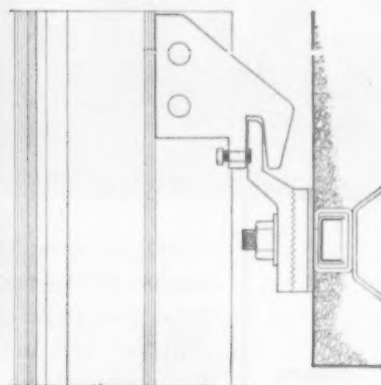
plied in complete prefabricated panels 2 floors high, with the double-hung windows already in place. Each panel is simply hung on to its fixing spigots, plumbed, then interlocked with its neighbour. The walls of the tower block were erected at the rate of 2 floors a week: the interior trades were able to move in and get on with their job fully protected while the floors above were still being clad.

The vertical section shows how the

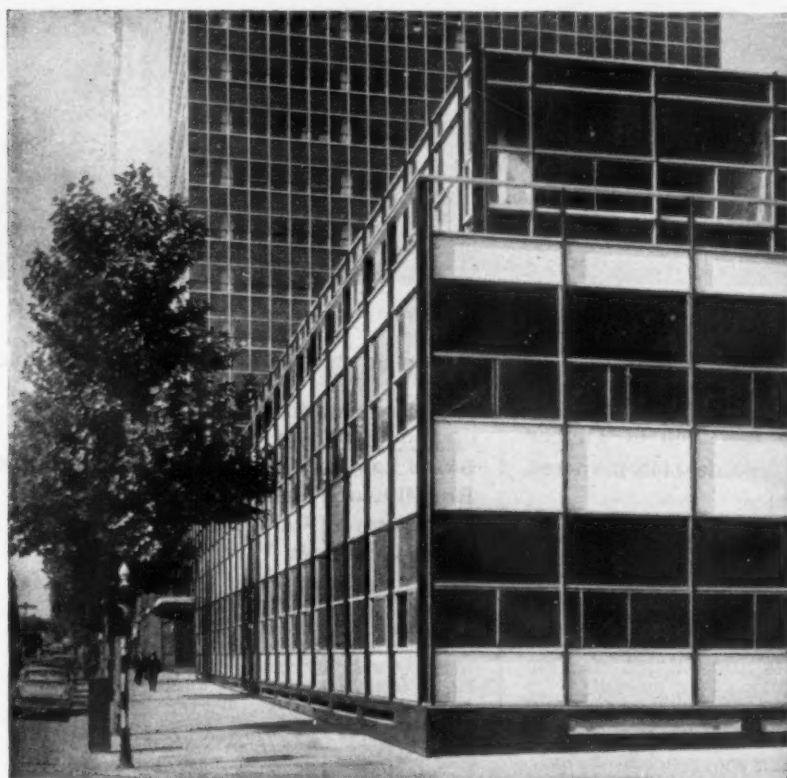
prefabricated Wallspan is literally *hung* on to the frame. It is curtain walling in the truest sense, and although designed in the first place specifically for Castrol House, the system is now generally available—a classic example of co-operation between the architect and the curtain walling specialists.



Horizontal section at infill level. Each half mullion forms the edge of a prefabricated panel. When the two panels are brought together, the joint is sealed with Thiokol mastic and an aluminium capping is then clipped on to seal the joint finally.



Vertical section showing fixing detail. As the floor slab is cast, bolts are built in ready to receive the fixing spigots. These are adjustable vertically and horizontally to allow for slight inaccuracies. Hooks on the Wallspan panels engage over the spigots and are kept firmly in place by compression bolts.



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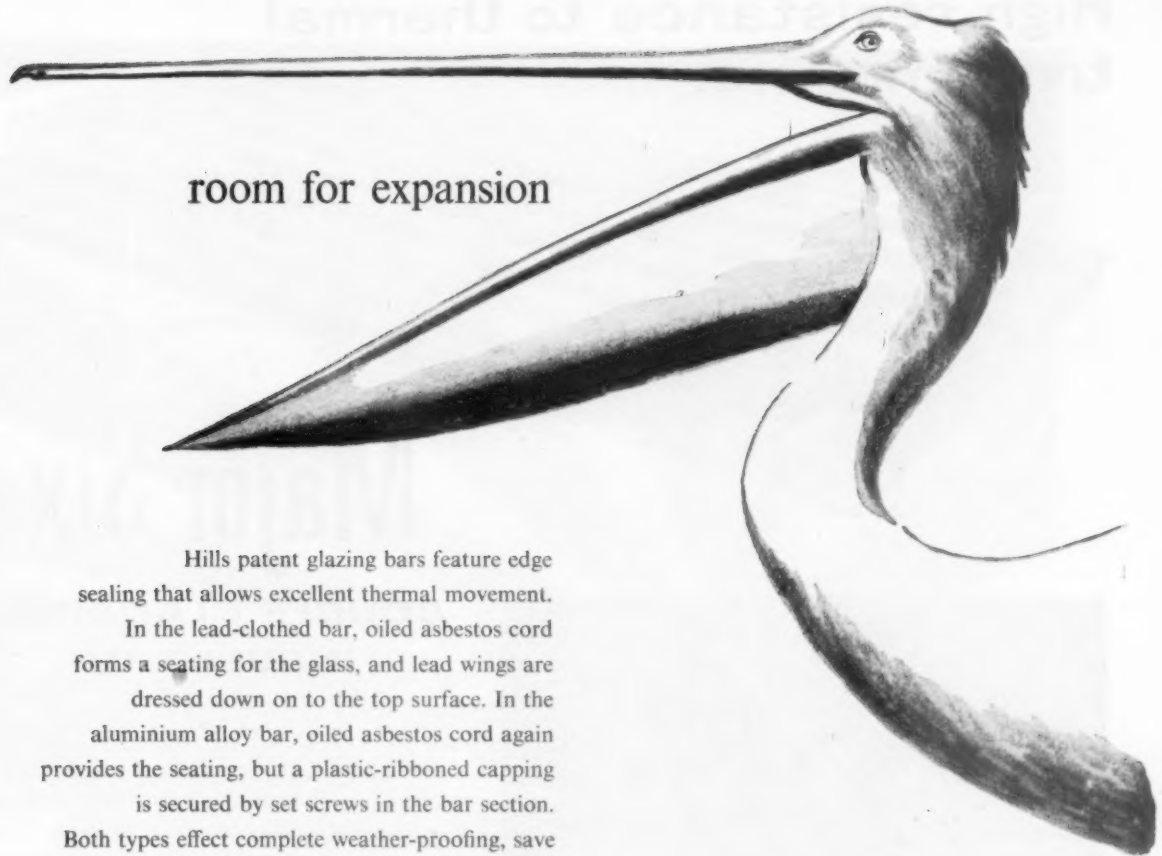
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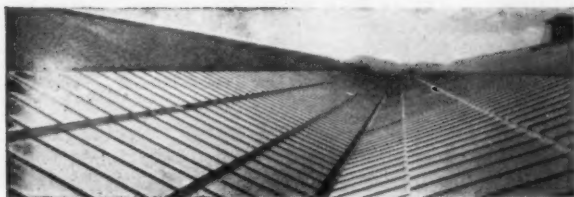
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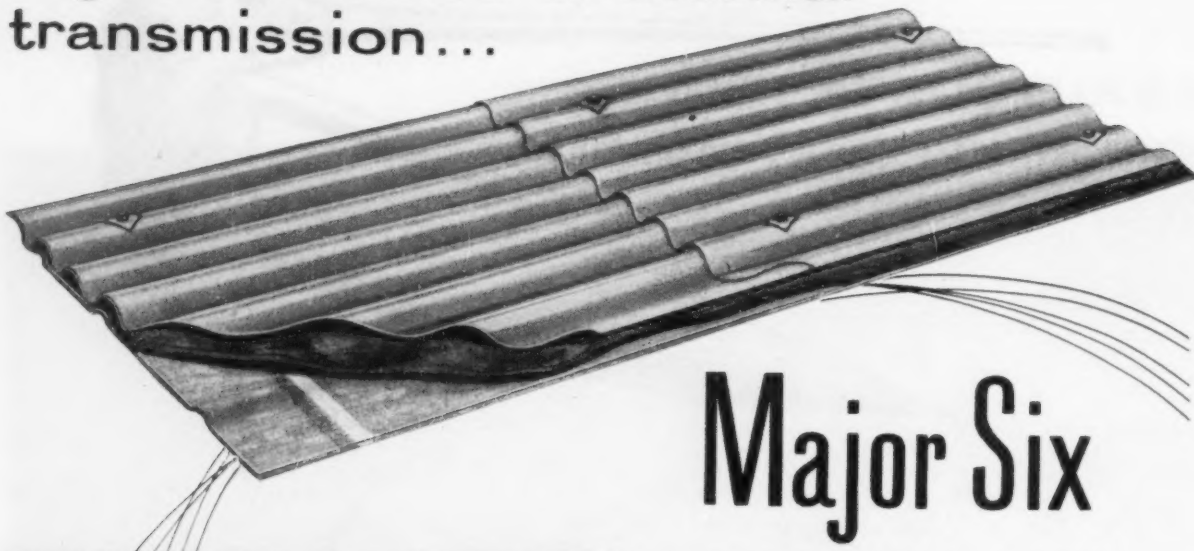


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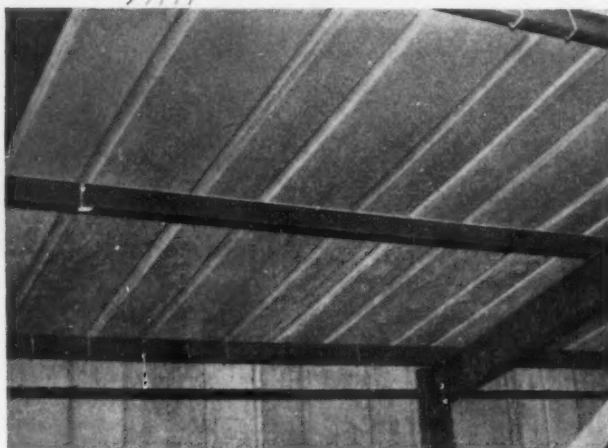
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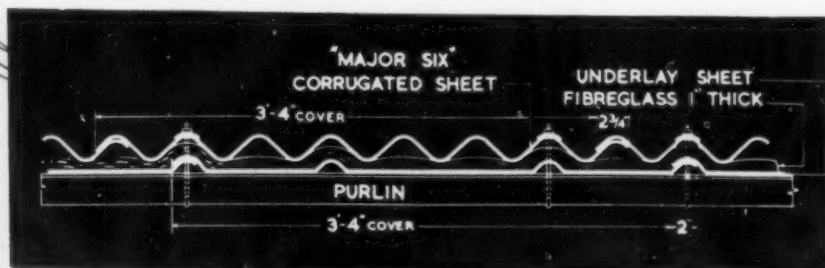
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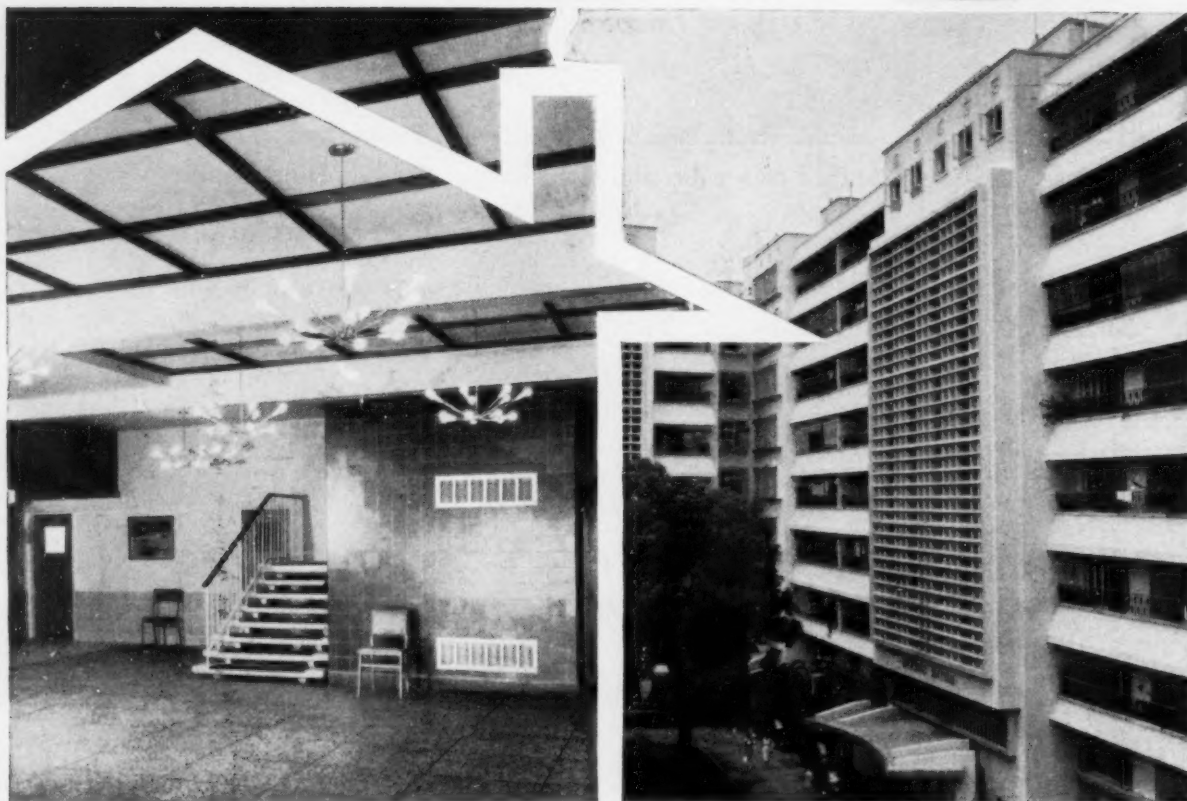
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The Architects' Journal

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of 1960**

JANUARY



ASTRAGAL, who always likes to be fair-minded, was glad to find the *Observer* insisting—though on different pages—that there should be not only more local authority housing but also considerably less as well. It is this sort of thing that gives liberal thought in Britain its peculiar strength. And if you think this has nothing to do with the arrival in London of a woman famous for rendering Chopin in the nude, you will agree it has just as little to do with Malcolm McEwen's appointment as chief information officer of the RIBA. Before he was anywhere near the place the Institute let out a piece of information that many people thought statistically revealing. In the annual students' competitions, 108 entrants had designed an opera house for a 16th century Italian gentleman and three had gone in for town planning. From the muttering in and around Portland Place it was clear that this was thought to be a symbol of our current malaise, though at the time of going to press I am unable to trace anyone who can remember exactly what this was supposed to be. We knew, anyway, that we should soon be prevented from evading it with pep pills and tranquillisers, which were to be put on restricted sale. Still, Mr. Heathcoat Amory had a good recipe for do-it-yourself stimulants when he opened the boat show. "It is sometimes most refreshing," he said, "to be knocked smartly on the head by a gybing boom." ASTRAGAL, who was lying very low while the witch hunters at the Piccadilly Inquiry tried to unmask him, spent a few quiet days listing the people he would willingly have refreshed with a gybing boom. The short list included a well-known speculator who had just said that a twenty per cent profit wasn't enough; John Latham, whose sculpted books were shown in all their sad desecration at the ICA, and Jack Pritchard, director of the Furniture Development Council, who seemed unhappily on the side of fashion design when he said that new furniture should "match the attraction of a new car." What sort of car? Maybe a Volga or a Moskvitch, both of which were soon to be sold to Britain. And the more cars the merrier, we reflected. Tom Margerison's talk at the RIBA had reminded us how much the world owed to Britain and its right hand drive. Something curious, he had said, was happening to our planet because so many people drove on the right hand side of the road and thus affected the length of each day.



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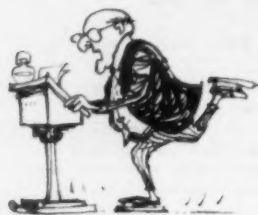
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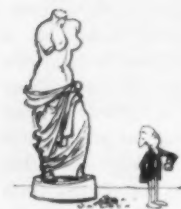
FEBRUARY



"Stop dawdling. Maudling," said the protest placards at a Jarrow meeting. How about a slogan for the Housing Ministry? Too many cooks, Brooke? Nicely appropriate at the moment, when parcels of "Just For Fun" land were being sold off to people anxious to acquire the caravan habit. A

nasty habit, but one that a new magazine called *Mobile Home* was keen to encourage—judging by its attack on architects as "experts in vaudeville jimcrackery." But this was no time to worry about the subtopian effect of wheeled suburbs. The country was in danger of being covered with unwieldy and unwheelable high buildings for which, as Robert Matthew pointed out, there was neither a planning policy nor government concern about the lack of one. As the Royal Parks threatened to grow high fringes (under the LCC's hit and miss approach) it was a relief to know the Ministry of Works was in favour of replanting large trees there. Like Hamlet's stepfather we would at least do greenly in this hugger-mugger, and if Arthur Ling had his way we would do even greener—by training *all* architects in landscaping. But however hard we trained we should never be able to see the subtle greens that had just been discovered by the British Colour Council and defined as Seaweed, Willow Haze and Rosebud. The month ended with the news that the "patio house" was no longer a glossy magazine dream, but something that 298 soldiers at Aldershot were going to have whether they liked it or not, and a reminder that the pantomime season was still on with the promise of "Sir Herbert Manzoni on ICE" (as president, we later discovered).

MARCH



That well-known Greek architect-planner, Dr. Constantinos Doxiadis—almost unheard of though no one liked to admit it—came to give his RIBA discourse armed with a theory about "Dynapolis" (ask me about it some other time), a slide of a butterfly's wing (most useful in illustrating the virtues of the pedestrian precinct) and a curious notion that architects *no longer* represented the People. "We must conquer space," he said, "by walking into space"—which, as every schoolboy knows, is the Greek way of saying we must separate motor-cars from people. Kent County Council were not listening because they had just devised a method of speeding up the traffic within a few feet of shoppers—a method that involved the demolition of only a very few mediaeval and Georgian buildings. And if architects were not listening either, who can blame them? They had just been reminded by the RIBA that they earned less money than doctors and dentists, and by the AJ that one way of earning more might be by giving a more efficient service. What other profession, they wondered, would so consistently make inaccurate cost estimates? The question was blissfully answered in the announcement that rocket weapons sometimes cost thirty six million pounds more than expected. As we recovered from this cheerful news, and the excitement of reading about the CoID's litter bin competition, we relaxed and enjoyed the sweet logic of most of the month's architectural gossip. The Ideal Home Exhibition was showing a dog-sized house door, designed—appropriately enough—for a dog. The Housing Minister, who had allowed a "lop-sided" bungalow to be

built, said, reasonably enough, that it was, after all, among a lot of other lop-sided bungalows. Gustav Metzger joined the movement to create modern art that would destroy itself before it was outmoded. And Eric Lyons was even brighter than right when he suggested that the Royal Fine Art Commission was really a detergent service.

APRIL



Mr. Brooke continued to be on good form. "All of us," he said, as he looked at the houses built to plans in the RIBA/Ideal Home competition booklet, "will like some of these better than others." What most of us disliked more than others was the fact that the prices of these

small spec houses were between twenty and sixty per cent dearer than the original estimates. An interesting experiment had failed, partly because of faulty guesswork and partly because too many people had forgotten the original intention of the scheme—to provide good modern architecture for the *low-cost* housing market. No wonder, we thought, so many people were suspicious of architects. Not that Lever Bros. were helping, with their strip cartoon suggestion that we ignored personal daintiness. Still, whatever our best friends might say, we felt a lively profession as we read that one of our members was using a helicopter as a tower crane—for two or three hundred pounds a day. Expensive? Maybe, but the AJ was pointing out at this time, in a criticism of the controllers of government building programmes, that the short-term desire to get the cheapest possible (and therefore traditional) building now often prejudiced our chances of getting cheaper non-traditional buildings in five or ten years time. You can't be too careful though with these new-fangled modern methods: before the month was out we were all deeply grieved by the American headline, "Patio Splits Two Zone House." Other news from abroad included China's claim that Everest was really Chomulunma and Vienna's enterprise in providing one joke a day that you could get on the telephone dial. At home, champagne came down, paper bags went up and a local authority asked landlords to provide "a list of tenants broken down by age and sex."

MAY



This was a sensational month in the planning world. Hot on the heels of the Housing Minister's decision to let Span build modern housing in Blackheath (which the LCC wanted to litter with bogus Georgian stuff) came his even more sensational decision about the Monico site in Piccadilly Circus. What the poor old man in the street made of all this it is difficult to imagine, but at

least he must have realised that "They" are not always against him. The Inquiry must have made a lot of people wonder where the architect comes into the picture. So the RIBA's touring exhibition, "The Architect in Your Life," started at the right time—with its crisp, clear statements that the architect puts together the past and the present, the dream and the reality—and that unborn generations will live within the framework of his vision. Mothers of the unborn generation got a nasty shock when they found modern paintings in their doctors' waiting rooms in Birmingham; and other mothers drew their daughters gently away from some of the more extravagant buildings that were hung, surprisingly, among the Royal

Academy's usual dreary selection. In Kent there was a loud humming noise no one could explain, and further round the coast Donald Gibson told the Torquay Health Conference that the houses of the last quarter were the slums of the future. It was time, he said, to build not just to keep disease away and weather out, but to give people an acceptable mode of life.

JUNE



Brigitte Bardot denied she was forsaking her peculiar art for the antique business. Almost as good a cause for celebration was the news that Mr. Cotton had brought Gropius to England to advise him. Mr. Kahn came over too and was awarded the distinction of having all the things he didn't say reported in a whole column of the JOURNAL. Back in America the Duke of Edinburgh opened a British trade exhibition which delighted Americans with that traditional British drink, warm beer. In the old country, at

Golders Green, a good old tradition was maintained by the Minister of Housing who said the show must go on at the Hippodrome (earmarked for offices). But in central London a long-established tradition was completely forgotten when the Trooping the Colour was performed without any fainting on the parade ground. There were the usual signs that architecture was still a highly-esteemed profession: Harrods asked for "labourers in the architect's department"; a Surrey estate agent advertising building sites said architects would not be objected to "in some cases," and Odhams killed *Architecture and Building*—an intelligent periodical it had probably acquired absent-mindedly. From Brighton came threats of the most alarming architectural prospects (which fortunately came to nothing); and from Manchester came newspaper reports of the profession's soul-searching—at the RIBA Conference—about its contributions to town and city redevelopment. And architects who thought they would never regard linoleum as anything but a depressing word were cheered by the appearance in this country of an American range with such names as Shangri-La, Starflight and Tuxedo Monotone.

JULY



laughter. But for some this was a solemn time. Had we, a newspaper article asked, been engaged in game fishing in Minnesota waters between February 1958 and July 1959? A busy architect can't always account for his actions within eighteen months or so, and it was possible that we had, in fact, landed a fish or two bursting with strontium 90 in its non-edible parts. But had we also eaten the non-edible parts? Probably not, we reflected, as we recalled that our most recent non-edible food had been served on the nicely-designed Midland diesel Pullman, which could hardly be said to touch Minnesota on its first London-Manchester run. Talking of travel—Sir David Eccles went to Milan to open the CLASP school; Professor Nervi came to Edinburgh for an honorary LL.D; Sir Basil Spence went to Manchester and spoke, misguidedly, about the virtues of the standard architects fees, and Ian Fleming went to the Hansa district of Berlin and told *Sunday Times* readers, in his bright way, that the buildings were like "upturned packets of fags." Somewhere in Surrey a rural district council

"The adhesion between tyres and the road," said the AA (the other one) "is now lower than at any time during the year." Most of us nearly fell out of our jammed vehicles with

had the original idea of asking for its eyesores to be "inoffensively grouped" and at a Civic Trust conference in London attempts were made to thrash out the problem of inoffensive grouping, not of eyesores, but of new buildings. No one of course, had the answer to the major question—how to induce private building owners to be bought out compulsorily or to join in a comprehensive building scheme. But the important thing was that such questions were now being asked more often and in more places. Almost at the same time as the Trust's published recommendation that "there should be more effective co-ordination between transport and planning authorities at all levels" came a succinct statement from the RIBA on its views about urban renewal, including the proposal that there should be a Minister of Planning. If the month ended with the usual signs of planning chaos there were, at least, signs that more people recognised the need to get rid of it.

AUGUST



Those of you who were not worrying about the shortage of georgian-wired polished plate glass, or being appalled by Edinburgh Corporation's plan to hand over sites for 9,000 flats on prefab sites to contractors, were probably feeling dismayed by the Government's official blessing on that poten-

tial slum—the wheeled suburb, or permanent caravan site. And it wasn't much comfort to discover, at the Radio Show, that pianos were "more streamlined than usual" or to find that the new offices on the Gaiety site were designed inside to match the exterior. As for the thought that Hugh Fraser intended to make a bid for the Highlands and to build a little Switzerland up north...! The mind boggled, and didn't recover after discovering, from American consumer magazines, that chocolate and nuts can lead to mouth ulcers, that some people become unconscious after drinking tonic water and that "sitting for any considerable length of time is likely to cause swelling of various parts of the body." Still, there is usually a bright side to every month, and it was nice to hear the Americans were producing polyester pouches filled with whisky ("just tear off the corner when you want a swig") and invisible armchairs made of clear plastic, described rather ambiguously as just the thing "for people who like unobstructed views." And how nice to think of those vigilant police constables in Rochester who were told, after several days of watching suspicious parked cars, that the owners had already gone to prison for even worse offences. Finally, ASTRAGAL remembers with particular pleasure that evening when he fell exhausted from the drawing board into an armchair and read what Dr. Mark (Statistics) Abrams had told the TPI Summer School: "Work," said the learned doctor, "is getting easier and leisure more vigorous."

SEPTEMBER



Misunderstood, that's us. In spite of the RIBA's bold poster telling the layman of our Honesty and Integrity the layman continued to get us wrong. Lord Taylor, medical director at Harlow, even warned readers of the *British Medical Journal* about us. ("The more the buildings cost the greater are

their profits.") We looked with envy at the building site in

London where television cameras had been installed to show operatives at work. Maybe we needed something similar. Or were we being too sensitive? After all, this was a time when people were thinking less of the serious things of life and more of the fun of games (Olympic)—games which featured demonstrations not only of athletics but of international hatred, xenophobia, bad temper, self-exculpation, slander and so on. And then, of course, people who could bring themselves to think of anything but Rome were busy memorising the names of those thirteen new African states or thinking (as people will) about their own problems. *Shop Assistants* in Bridlington wanted to be renamed "counter public relations officers"; *town councillors* at Grimsby were so upset because the tombstone they had given to a coffee bar owner was being used as a table that they tried to get it back; *doctors* belonging to the Medical Defence Union were worried because so many operations resulted in the wrong fingers or limbs being removed; *tally clerks* in London and Tilbury struck; and the new *traffic wardens* shuffled their way into the undisguised contempt of all *motorists* who continued, unbelievably, to drive motor cars around our crowded unplanned cities which needed the urgent attention of *architects* . . . which brings us back to where we came in.

OCTOBER



Lancashire County Council revealed that their road-building plan was sixty-seven years behind schedule, and in London motorists could not get to the motor show by motor because of the other motorists who had succeeded in getting there by motor. Architects who had been enjoying the *News Chronicle's* new interest in architectural criticism were

sorry to see the paper die, but were relieved to hear that Laurence Cadbury's chocolate firm was thinking of spending a million pounds on a factory in Germany. Gold, as you will remember, went up and so did whisky—in a bottle that came down again painfully close to Mr. Kennedy in Milwaukee. No one threw anything at the mayor in Middlesex who said he would like to see builders influencing architects on matters of style. Practically the whole of Henley was trying to do the same thing in a final attempt to stop Townmaker Ltd.'s distinguished building peeping above trees between the pleasant town centre and its ghastly outskirts. No doubt the people of Skelmerdale were equally put out by the Housing Minister's request for comments on the building of a new town there. But architects welcomed this as a hint of things to come; perhaps, after all, the government intended to have a proper policy for a series of new towns, and not just a number of town expansions. Meanwhile, attempts were going on to persuade people to live in the twentieth century by applying for standard grants to put bathrooms in their houses. And people living in the archaic standards of Her Majesty's prisons were delighted at getting up-to-date psychiatric treatment: they were asked to confide in a new kind of prison visitor—a tape recorder. Before the month ended Miss Jane Drew had some words of comfort for those of us who were feeling rather bewildered by the number of plays, films, television documentaries and newspaper articles about abortion, incest, homosexuality and lust. "Sex," she told an *Evening Standard* correspondent, "has nothing to do with a technical job such as putting up a building." At least we were safe in the office; and with a bit of luck we might never have to be reminded in our professional papers that penguins were associated with anything more sensational than early Tectonics.

NOVEMBER

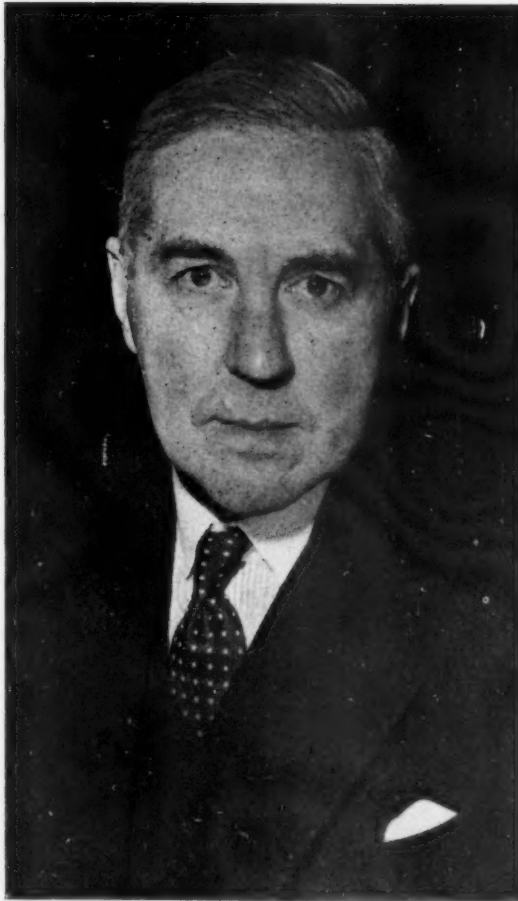


The big architectural news of the month came with the statement, by the Institute of Municipal Engineers, that 60 per cent of the country's three and a half million dwellings had been built under engineers "with distinction, business efficiency and economy." Architects, who were gnashing their teeth with envy at the thought of *anyone*—let alone an engineer—achieving such high-quality building, dutifully noted Yamasaki's request (at the RIBA) for "more serenity" in architecture. In London James Cubitt said pseudo-Georgian was better than bad modern, and in Moscow rebellious architects said that pseudo-classical was better than good modern. This, they said, was—wait for it—"out of character." If the extreme Left shared the fuddy-duddy views of the extreme Right, what—we wondered—was the Liberal policy on architecture? It seemed important to know because the party's HQ was offering a building service ("Let us quote you for your building, decorating and repair work; special terms for Liberals by Liberals"). The Oscar for the news story of the month should be divided equally between Lady Lewisham's signing of the pledge and the chaos caused by a motorist who ran into a hydrant, cutting off a town's water supply and bringing out waterworks men who accidentally cut through a cable, thus not only disrupting the telephone service but so fascinating two passing motorists that they ran into each other. Sir William Holford showed a trump-laden hand in his first PRIBA address and the Bishop of the Arctic displayed a distressing lack of humanity when he asked for more missionaries to visit Eskimos and bring them from the Stone Age to the Atomic Age. This came as a nasty shock: we had, after all, been vastly cheered, after the vindication of Lady C., by the absence of Eskimos from the furtive bookshop queues.

DECEMBER



This is the month which now begins, as you will have noticed, with Christmas nearly over (the decorations looking rather jaded, the special numbers of magazines already dog-eared) and ends with a holiday when everyone tries to recover good spirits in time for New Year's Eve. Those who greet the month, on principle, with anti-goodwill were delighted to hear that 300 architect-converted barges were to be strewn, with their neatly trellised gardens, along the Basingstoke canal. And how nice it was to know that one-million-pounds' worth of offices going up in the Harrow road were to come down again in seven years time to make way for a road. And what splendid feud for thought there was in the continued bickering between architects and engineers! But even ASTRAGAL caught a little of the Christmas spirit and ended up coining bon-mots (though cursing, in heavy traffic, the not so *bon* MOT). This feeling of benevolence (engendered partly by the sight of an architect talking gibberish on BBC television, in a desperate bid to be "uninhibited and muscularly free") came just in time to spare my undeserving nephews from the latest thing in plastic rocking-horses—designed by a German who thought children ought to have modern art thrust upon them. Readers of the JOURNAL—still wondering what they had done to deserve the festive attack on their wallets—were reminded that architect Francesco Lombardi was spending the first of 15 inexpensive Christmases in prison. Whatever else might be wrong with our profession we didn't live in a country where buildings could be capable of collapsing and turning us into criminals.



MESSAGE FROM HENRY BROOKE,
MINISTER OF HOUSING AND
LOCAL GOVERNMENT AND
MINISTER FOR WELSH AFFAIRS

I welcome the opportunity of sending good wishes for the New Year to the "Architects' Journal" and all its readers. As Minister of Housing, my debt to the profession is an obvious and never ending one; here I want to speak particularly of the links between your work and mine as the Minister responsible for town and country planning. Some people think of planning as all negative: simply a business of stopping people from building where they please and how they please. It is not. The protection of the countryside and the improvement of our towns are positive duties. I look on green belts not just as barriers to the further spread of overgrown built-up areas, but as essential parts of the make-up of our cities that threaten to be too large—a kind of space for breathing in. For modern

town and city life, green belts are not luxuries but necessities.

A price must be paid for necessities. Part of the price of green belts is acceptance of higher densities for development in the large towns, and elsewhere too. In a small island, green belts and sprawl cannot live together. This is where the architect comes in, for higher densities—given proper treatment—need by no means impose lower standards. In to-day's need for intensive use of valuable and scarce sites, while retaining privacy and a sense of openness, I see a massive challenge to the ingenuity and professional skill of British architects.

The New Towns are helping to relieve pressure within the green belts. Over 80,000 houses have been built in the original twelve for which I am responsible and their success is now assured. I have proposed a New Town in Lancashire, and at this moment I am considering possible sites for another in the Midlands, both of them intended to supplement what the local authorities are doing to provide for inevitable overspill from the large cities.

We all make mistakes from time to time—architects as well as Governments. We neither of us can hide them. The nineteenth century brought this country great good and great wealth, but some of its mistakes are with us yet. They were the mistakes of men who thought they saw opportunities and used them badly.

Do not let us—perhaps through carelessness, perhaps through conceit—make new mistakes now which the twenty-first century will curse us for. The future appearance of England and Wales will depend so largely on how the opportunities for your profession are taken. I hope you agreed with my decision to inaugurate, in conjunction with the Royal Institute of British Architects, a new competition for awards for good design in housing. Good design matters so intensely not only in housing but in all types of building, and equally vital to the future is the proper setting of buildings in their surroundings. All this can be achieved only by striving for high standards and by educating the public not only to expect good architecture but to demand it.

You belong to a profession which is fortunate in always having fresh opportunities for the creative imagination and in having, too, centuries of great past architecture, world wide, from which there is always something more to learn. You and I are both entrusted, for a time, with tasks of trying to make this land of ours more useful and more beautiful. We need the support of one another against those who do not care.

Henry Brooke

MEN OF THE YEAR

Pile, William Daniel. For persuading the Government to depart from precedent and produce the £30,000 which resulted in there being a British contribution at the Milan Triennale.

Buchanan, Colin. For his superb handling of the Piccadilly enquiry as Ministry inspector, and for his subsequent transfer to the Ministry of Transport as Research Officer.

Hutchings, David. For his work in ensuring the preservation and improvement of the Stratford on Avon Canal.

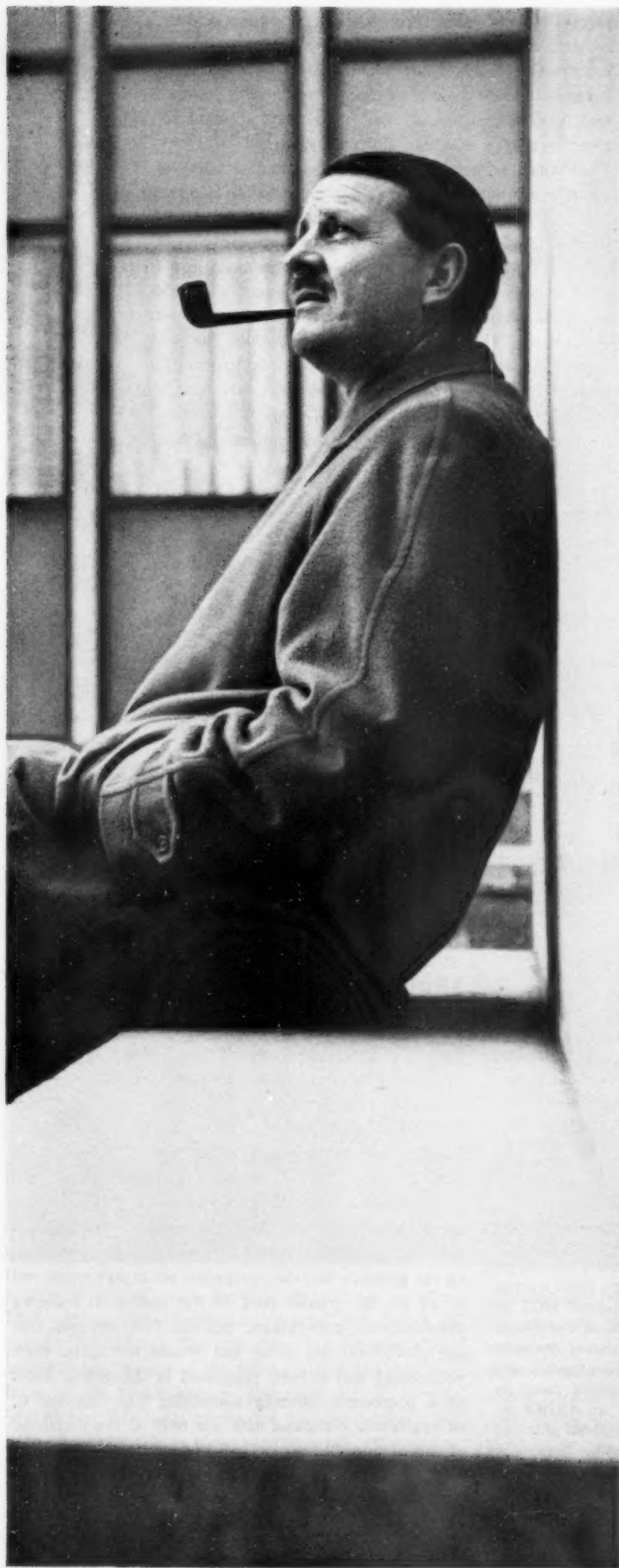
Milne, Joan. For being the efficient statistician of the RIBA who has given the Institute's statements an authority and conviction they have not had before.

Stanmore Society Architectural Committee. For showing how local architects can set the pace in the redevelopment of their home towns.

Smith, Dan. For being a town councillor who sees the advantages of regional planning new towns and comprehensive redevelopment and gets them put into effect.

Morton, John, Lupton, Tom, and Hancock, Tom. For pioneering high densities and tall buildings in speculative housing, and for thinking big about Oxford.

Above are ASTRAGAL's choice for the Men of 1960. On the following pages their views on appropriate subjects are printed, together with biographical notes and photographs (except for Councillor Dan Smith) by Sam Lambert. As usual, there are others to whom ASTRAGAL lifts a varying respectful hat. He makes a deep obeisance, of course, to the authors of that Milanery triumph, the CLASP school: Dan Lacey and Henry Swain who, with their pioneering fellow-architects, are past holders of the title "Men of the Year." And he doffs it also to: Oliver Cox for taking over development work in the MOHLG; and to Frank West, deputy architect of the LCC for insisting that architectural quality had priority over financial return for the Elephant and Castle site; to Grenfell Baines and Clifford Culpin for working hard to improve competition conditions; to Bristol students for showing their near-moribund city councillors that something could still be made of the place; to BASA for failing to peter out like most student organisations; to William Allen for reminding us of our professional responsibilities; to Arthur Ling, city architect, Coventry, for a successful essay at stage-set designing in the Belgrade Theatre; to R. M. Douglas for lifting concrete slabs only ten years after the Americans showed how; to the CCA for proposing the standardisation of bridge beams; to the architect-advocates of frank criticism who are still prepared to have their buildings illustrated in the JOURNAL; to Design Research Unit and Derek Phillips for co-ordinating the design and lighting, respectively, of the new liner *Oriana*, and finally, on a note of personal relief, he touches his forelock to those powers who decided not to rebuild Dartmoor.



WILLIAM DENNIS PILE

WILLIAM DENNIS PILE, an assistant secretary at the Ministry of Education, was, until the beginning of 1960, joint head of the Architects and Building Branch (with Anthony Pott). Was asked by the Milan Triennale organisers to arrange for a British contribution to last year's Exhibition on the subject of home and school; thought this an opportunity to put wares on show. With £30,000 from Treasury (blood out of a stone) planned CLASP school seven hundred miles away, to be built in six months—and then transferred to other duties, leaving colleagues to do the work. ("Would not have been possible without a real sense of partnership between central and local government resting on years of close understanding.") Has never enjoyed himself so much as years spent working with architects. ("They have an essentially pragmatic approach, a readiness to take imaginative risks.") Is now working in the Teachers Branch of the Ministry on an expansion programme for teacher training. Pile was born in Northumberland, in 1919. Father was a civil engineer, who worked on the construction of Singapore docks. Lived in Malaya first four years, came back to school, Royal Masonic at Bushey, and Cambridge where he read English (wartime rugby blue). During war hankered after being a don, but after war set his sights on UNESCO; applied for temporary job at Ministry of Education, working as part of the UK Secretariat, carrying out UNESCO programmes and projects. Became permanent civil servant and in 1951 transferred to work in Cabinet Offices. Returned to Ministry of Education, joined the Architects and Building Branch and in 1955 succeeded David Nenk as joint head. Married, with girls of 10 and 5 and boy, 8. Lives at Sevenoaks, Kent, in house which is one-third Jacobean and one-third Queen Anne, with fine set of 19th century Birmingham early-curl cast-iron railings. As an eight-to-eight commuter finds relaxing time frantically short. Reads three newspapers a day, likes modern novels, Bach on the piano, good conversation, an occasional cowboy film, steam radio (mostly music), gardens with flowers.

TOP OF THE BILL

W. D. Pile writes:

The British School exhibit in the Milan Triennale seems to have passed off quite well. If our new schools really are, internationally, in the gold medal class, it is worth asking why and how.

The Italians paid Britain a great compliment both in making school building one of the two subjects of the 1960 Triennale and in offering "top of the bill" rating and facilities for any exhibit we cared to enter. I have no doubt about their reasons. They saw in Britain's approach to school building an answer to their own problems. More particularly, since the Triennale is essentially about Design for Designers, they believed that our post-war school building record was a decisive illustration of the role of the creative designer in an industrialised welfare society; design to a social end. That, I think, is the why of it.

How did we come to acquire this agreeable reputation? I would give these reasons. First, because over the last ten years at any rate there has been a very high morale among all concerned with educational

building; a will to build at least the 2,000,000 new school places in time and to be the only country in the world to win the battle of their bulging school population; a determination to keep standards as high as possible without being unrealistic and costs as low as possible without being reckless; a deliberate pursuit of value for money. Second, because central and local government quickly found a mutually satisfactory *modus vivendi*; it is unthinkable that we could have come through this major post-war administrative operation successfully without a real and constructive partnership at what might be called the managerial level. Third, because, at the technical or operational level, enormous pains have been taken, and not just lip-service paid, to achieve team-work between educators, administrators, architects, quantity surveyors, builders, manufacturers and suppliers; managerial partnership and operational team-work are easy catchwords, but deucedly elusive realities. Fourth, because somehow there has been a pervasive honesty about the purpose of school building—to give the child and the teacher the best answer to their needs that available money and skill can devise and not merely to give opportunities for architectural showmanship, structural virtuosity, phoney "styling" and "décor." Lastly—and this is doubtless a layman's view—because, whatever else one may think about the building professions and trades, they clearly contain resources, sometimes underground and often

latent, of real talent, imagination, inventiveness and empiric courage. I think school building particularly has found a way of tapping these resources and, by harnessing their power to that of systematic research and scientific analysis, has generated a form of creative energy that can shift big loads.

The Milan school was a practical demonstration of what, rather inadequately, I have just tried to express. Milan was not really a challenge, because lots of schools like the Milan school are going up every week all over the country. But it was an opportunity for a cross-section of the man- and brain-power available to school building in this country to wave the banner *pro ceteris*. The particular people who did the job should be mentioned; among good local authority friends, Dan Lacey, Henry Swain and Edward Mason of Nottinghamshire; among Ministry colleagues Anthony Pott, Derek Morrell and Leonard Gibbon and, among others, James Gardiner and the contractors, City Display Productions Ltd. Behind this particular team lay, of course, the special facilities and verve of the C.L.A.S.P. Consortium. And behind them, the pioneer work of several other local education authorities and industrial designers, and the ideas of many individual architects, educators and administrators. The fundamental point is that all these people and organisations are facing in the same direction—the future. This to my mind made possible, and explains, the success of the Milan venture.

COLIN BUCHANAN

COLIN DOUGLAS BUCHANAN, qualified civil engineer, architect and town planner, until July one of the five principal inspectors at the MOHLG, now seconded to the MOT as Urban Roads Planning Adviser (for two years in the first instance). Has just moved office to Ministry's new HQ at St. Christopher House, Southwark. Will attempt to survey the long term problem of motor traffic in urban areas and see how we can hope to combine the utility of the motor vehicle with civilised surroundings to live in. Born in 1907 in Simla, India. Father was a mechanical engineer (water supply, mainly in India); grandfather a civil engineer. Came to school in England, studied civil engineering at Imperial College, qualified 1928, went to the Sudan, expecting to make a career in public works. This career terminated by slump and for a year he was jobless in England. Won Charles Hawksley prize from MICE, which helped during bleak period. Joined planning consultant Langstreth Thompson in 1933, for next three years worked on regional planning in Essex. In 1935 joined MOT as divisional road engineer based at Exeter (road and bridge schemes in the south-west). Was in RE's during the war, again working on roads and bridges (magnum opus, a pile bridge across Nile at Juba—eventually carried away by large floating island). After war qualified as ARIBA by private study in 1947. Became a MOTCP regional planning officer 1946, in Reading and later London. Became a principal inspector six years ago. Married, with three children, eldest girl an orthoptist at Radcliffe Royal Infirmary, Oxford, one boy at Cambridge, another at prep. school. Lives at Wokingham in house designed by himself. Main hobby his workshop. Builds extensions to house by

own labour. Has built 14-ft. caravan and toured all over Europe with it (too many people doing it now). Drives a Humber but rarely ventures into London with it. Author of a book *Mixed Blessing—The Motor in Britain 1957*.

ARCHITECTS ARE TOWN-REBUILDERS

C.D. Buchanan writes:

There are grounds for regarding the Great War as the effective termination of the 19th century, with the 20th getting into its stride in 1920. That puts us at this moment roughly half-way through—forty years back to 1920 and forty years on to the third millenium. It is a moment at which to pause and consider. Looking back over the architecture of the last forty years I doubt whether anyone would say there is much for the profession to be proud of. This can be excused on the grounds that the profession never was employed at all on the greater part of the enormous building developments undertaken, but the fact remains that the profession did exist and would not have been overlooked had it been registered in the public mind as a profession offering something too valuable to be neglected. We stand now not only at the threshold of the second 40-year period, but at the beginning of what is certain to be a great and critical period of urban rebuilding, and in my view it is essential that the profession should be both conscious of its responsibilities and accepted by the public as having



a contribution of quite peculiar importance to offer. This contribution extends far beyond the design of individual buildings. The task ahead is town rebuilding, and if it goes wrong in the third dimensional relationships of the buildings then the fault will lie largely with the architectural profession for not having risen to the occasion. There is no need to argue the case for quality in urban environment in a country where the vast majority of the population live in towns, but we will not get quality against the public's massive indifference unless the profession generates a real fire in its belly about it. The particular flair the

architect can offer to town planning derives from his training and skill in designing settings for human beings to live in; I see no fundamental difference between harnessing this skill in the arrangement of rooms in a house and harnessing it for the arrangement of buildings in an urban area. Just as an architect designing a house seeks to reveal possibilities hitherto unsuspected by his client, so, I believe, is it the responsibility of architects to set the pace in urban design, to define the ideals and values to be observed in these motorised times, and to lead people to understand what the towns of a great urban nation

ought to be like. The New Towns have revealed that spirited ideas are not lacking and that they find a readier response with the public than might have been expected, but in the first moves in the much more difficult task of rebuilding existing towns the situation is already bedevilled by the crumbling of uncertain, half-hearted objectives under the pressure of commercial interests. The crucial danger is that redevelopment will go on in dribs and drabs here and there, in such a way that all the splendid opportunities presented by comprehensive development for creating civilised environments and dealing with traffic are missed, and missed for the best part of a century. If this happens, much blame will attach to the architectural profession.

DAVID HUTCHINGS

DAVID HUTCHINGS, qualified architect, became the National Trust's agent, manager and organiser for the 13-mile-long Stratford-upon-Avon canal. HQ office is at Lapworth, Warwickshire (joins the at-present non-navigable upper reach of the Avon with the Grand Union canal). Canal with its thirty-five locks, six aqueducts (which would cost more to close down than to rehabilitate) is on five-year lease to National Trust, with option to renew. Former depot has been reopened, new wharf built at Lapworth. Hutchings and army of enthusiast helpers impatiently awaiting signal from MOT to begin full-scale rehabilita-



tion, which will include replacing most lock gates in the cut (canal). Signal in turn awaits news that £22,000 has been raised, which MOT will match pound for pound (almost), and without which complete job cannot be done. Work will take three years, or more. Canal income will be derived from sale of water, lease of buildings, fishing rights and tolls from commercial and pleasure craft (mainly raw materials to manufacturing firms at Stratford-upon-Avon). Hutchings is 33, was born near Birmingham. Sampled architecture—mainly bomb damage repairs before brief period in Royal Artillery 1945-48. Joined Birmingham School of Architecture, 1949. Non-cultural student activities included piloting first post-war civilian party overland to Athens, in ancient Morris 8 (through Yugoslav minefield and involving pawning of passports in Paris). During third year finally compelled to quit digs owing to series of misunderstandings (drawing-pin heads in gas meter, etc.). Attempted purchase of windmill and disused railway station, finally bought narrow boat hull for £50 (from vendor who bought it for 2s. 6d.) converted it and lived on it till last April. Finals a tight thing, but examiner interested in boats too—thesis "An Inland Waterways Boat Building Establishment." Became member of Inland Waterways Association Midlands Branch Committee, was chairman of the IWA National Rally of Boats, 1957: became director of IWA Ltd. Has played active parts in rehabilitating or preserving Stratford-on-Avon Canal, Coventry Canal, Stourbridge Cut, Dudley Tunnel, etc. Now lives with wife Joan, a painter, and children Ellen Palyphin, Job Telford and Gabriel Brunel, dogs Bert (common) and Creosote (Stafford bull-terrier) two cats and twelve chickens (they await a donkey called Brindley) in a once condemned barrel-vaulted canal cottage (circa 1815), with previous home tied up at the garden gate, just below the first lock.

THE ARCHITECT AND THE WATERWAYS

David Hutchings writes:

It is agreed by most disinterested observers that but for the work of the Inland Waterways Association, founded by Robert Aickman in 1946, the greater part of the surviving national river and canal system would have been closed to traffic in the last ten years. The British Transport Commission, which, since nationalisation, has controlled about two-thirds of that system, has only by constant vigilance and incessant energetic campaigning been deterred from completing the abandonment policy favoured by the former railway companies in their unfortunate capacity of navigation authorities. As the waterways system still extends for more than 3,000 miles from Ripon to Godalming, from Bristol to Lancaster, and as the Association began with only six members the achievement may well be regarded as unparalleled. Now the Government announces an independent waterways authority, the main objective of the Association's campaign.

The Association has a philosophic basis which should be of interest to every architect.

It believes that the beautiful should be useful and the useful beautiful. It is opposed alike to mass-production-squalor and to the railed-off "beauty spot." It is the property of boats—and waterways—that almost

all are beautiful, and the most serviceable often the most beautiful.

Similarly, the Association offers an alternative to the concept, surely now outdated, that work must be unwelcome slavery, and leisure dissipation. Navigating a boat is fun, and cruising down a canal contributes significantly to keeping that canal navigable.

At few other points in modern life is it possible so effectively to work for attitudes so vital to the artist who takes art seriously.

And, as well as the philosophy, there is the heritage. Mile after mile after mile of simple delight: function equating with beauty for nearly the last time on this scale. The waterways were built by such great masters of design as Telford and Rennie (as well as the astonishing, primitive James Brindley), by contemporaries of the Adam brothers and John Nash. The only good coming from the neglect into which the navigations have fallen is the preservation of so much early splendour: in the most exact sense, an education in itself. But a great inheritance of waterside structures is now being rapidly and ruthlessly destroyed. All over the country the Commission is bashing down the buildings—including exquisite Telford cottages and splendid Industrial Revolution warehouses—it refuses to let or sell. The real need here is for an enlightened entrepreneur who will take over all the structures that the Commission does not want (and could, therefore, hardly charge much for, the alternative being a bill for demolition); recondition and modernise them with care; and return them to their original function or—with much profit—to the clamorous throng who, as the Association well knows, want nothing better than to live in them.

Finally, in these days of economic difficulty, when vast areas of countryside are being gouged and devastated and spread with concrete, and village greens are becoming wastes of tarmac, when our towns are being torn apart by road improvements or shaken to their foundations by the weight of wheeled traffic, the Association is urgently concerned to stress the fact that water transport is by far the cheapest—and the safest—for a wide range of goods. By narrow canal a load of 50 tons or more (the loads can be greatly increased on the wide waterways) is propelled by a small diesel engine; nor, contrary to common opinion, is delivery slow, since the canal boat although it may not move fast, yet does move, often from dawn to dusk, whilst the goods truck spends most of its life stationary or being shunted.

The canal boat, much cheaper in the first place than a much smaller lorry, lasts thirty or forty years to the lorry's ten. Maintenance costs are negligible. The boat pays no rates or taxes and often houses a family rent free. It positively improves the track it runs on by keeping down weed growth.

Our motor-deafened, dazed, and stifled nation is in no state to forgo the advantages of canal transport. Architects, therefore, should join the Inland Waterways Association; because it unflaggingly—and in many ways successfully—upholds the ideas by which their spirits live.



JOAN MILNE

JOAN MARY NICHOLSON MILNE, an economist, has been head of the RIBA Economic Research Department since she joined the Institute in 1957 (where do architects work, types of office? For how much building work are architects responsible?). Last October she became deputy secretary to the RIBA Board of Architectural Education. Together with a team of one of two architects (Michael Austin-Smith or Andrew Derbyshire) and management consultant, is in the process of visiting some seventy architects' offices in England and Wales to collect data for report, to be produced in about June, on—amongst other things—the changing needs of architectural education. Occupies fifth floor office in new wing, two shades of green, two indoor plants, poster of Assisi and numerous charts. Came to RIBA, because she was attracted by the human side of the job (likes architects more than architecture—they have a social conscience, put aesthetics before business, even if it means losing money). Miss Milne was born in 1920, in Streatham, one of eight. Father a local GP from Aberdeenshire. One of four sisters to go to Cambridge (Newnham), read mathematics and economics. In 1941 drafted into Ministry of Economic Warfare (worked on Bombers' Baedeker—guide to important industrial targets). Seconded to SHAEF at Versailles in 1945 for economic intelligence work on conditions in Germany; then transferred to Foreign Office (German section), where she tried—unsuccessfully—to become a diplomat. Between 1948 and 1951 was an administrative

officer with newly-nationalised South-Western Electricity Board in Bristol (drafting the Board's annual report to Parliament, planning the introduction of standard electricity tariffs and so on). Decided against provincial life and returned to London in 1952 to work until 1957 in the Board of Trade Statistics Division (responsible for production statistics about the chemical and film industries and, for a time, about the building industry; was for 18 months secretary of the Committee on the Censuses of Production and Distribution, under the chairmanship of Sir Reginald Verdon-Smith (head of Bristol aeroplanes)—a fascinating experience). Lives in a flat near the Castrol building in Marylebone. Likes Scottish dancing, opera (Berlioz and Verdi), ballet. For last three holidays has joined Jack Merriott's painting (in oils) trips to Mediterranean villages.

FROM STATISTICS TO EDUCATION

Joan Milne writes:

The start of a new job is always exciting; at first it appears overwhelming in its complexity, then gradually one breaks it down into manageable components or stages, and begins to look for the relevant facts. I was lucky enough to join the RIBA towards the beginning of the pioneering work by Richard Sheppard's "Ad Hoc" Committee in search of facts that might help to evaluate the profession's problems. Until three years ago, it was anybody's guess what

proportion of new building work was handled by the profession, how many private practices there were, their size and location, the proportions of qualified and unqualified staff they employed, the average time taken to get a building started on the ground, and so forth. There is still a wide range of approximation about much of the data that have been collected—with surprisingly ready co-operation from the profession—but one hopes it has helped to paint the backcloth against which the profession's problems can be viewed. Facts are, of course, no substitute for judgment but they help to define the extent of the problem in hand and, through a study of past trends, to forecast the possible future effects of changes in policy.

Statistics collected by postal questionnaires are, however, liable to be somewhat skeletal in form, and need clothing, with personal knowledge and experience if one is to appreciate their full significance. This we are now having the opportunity to do, through personal visits to up to seventy architects' offices. This comprehensive survey of the organisation, staffing and costs of offices, by a team financed by the Leverhulme Trust, will be a full-time occupation for some of us until the early summer. It will throw light on the profitability of the RIBA Scale of Fees for different types and sizes of offices and of jobs, and the extent to which both profitability and the service given to the client could be improved through better manage-

ment and greater technical competence. It will also show more clearly the work that has to be done in an architect's office, and what kinds of staff, professional and non-professional, are needed in order to get the best out of the architect.

It is this staffing aspect which is of particular interest to me in looking forward to my new job with the Board, and especially the light which we hope it will throw on the question of the "second category," the "two-tier" profession, the class of architectural draughtsman/technician/technologist (archislave (?)). The very confusion over nomenclature suggests that we are not all talking about the same thing. The survey should enable us not only to find out what the present position is, but also to look into the future and try to see how the pattern might develop over the next decade or two. So far the facts suggest that there are some 10,000 unqualified people in architects' offices (both public and private) of whom only half are *bona fide* students in course of training. The rest have either given up training or have never started. Presumably they are doing a useful job as things are. As things will be or should be in the future, will such people still be needed in significant numbers? If the answer proves to be "yes," should not their function be clearly defined, and a proper course of training and recognised status provided for them?

STANMORE SOCIETY ARCHITECTURAL COMMITTEE

RICHARD MORLAND BETHAM, H. MARTIN LIDBETTER, JAMES R. H. THURSTAN and REGINALD HAROLD UREN are all practising architects, who in their spare time form the architectural sub-committee of the Stanmore Society. The Society (about 150 members, annual subscription 7s. 6d.) was founded in February, 1959, with

objects of stimulating public consciousness and appreciation of the history and character of Stanmore and encouraging the preservation, development and improvement of features which go to make pleasant and convenient conditions in which to live. To this end the sub-committee has produced the Stanmore Plan; main proposal, to turn the shopping street into a pedestrian precinct, by an ingenious method of diverting traffic round the village centre. The committee of the society includes an architect, engineer, solicitor and business man. It is hoped that 1961

Left to right, James Thurstan, R. H. Uren, Lord Chorley, Martin Lidbetter and Richard Betham barring traffic from Stanmore Broadway.



will see approval of plan by Middlesex County Council and active plans made to create precinct and develop piece of land to north of village (fortunately belonging to the county), with society playing active part in control of development. The president of the Society is Lord Chorley, who is a member of the council and executive of the NT, honorary secretary of the CPRE, president of the Sheffield and Peak District branch of CPRE and vice-president of the Commons Preservation Society. Born in 1895, has lived in Stanmore since 1930. Now lives in scheduled 17th.-18th. century building, formerly the home of local brewers. Richard Betham, whose brainchild the Society is, was born in 1912. He is in private practice, with office in Gray's Inn, London; has lived in Stanmore since 1947 (formerly Hampstead Garden Suburb) in the garden flat of a converted 50-year-old house of the early Garden City style. Countless journeys from centre to perimeter of Greater London have induced thought on urban redevelopment and related subjects; have formed background for interest in the future of Stanmore. Early childhood in HGS also an influence; can remember shock of realising that suburbia was the norm—HGS with its Unwin and Lutyens authorship, the exception. Martin Lidbetter, born 1914, also in private practice with office in Gray's Inn. Interested in design of schools, churches, offices and shops: is at present engaged on new Salvation Army international headquarters in the City. Has been appointed surveyor to committee responsible for upkeep of Friends' properties in London area. Recently designed and built own open plan house in Stanmore. James Thurstan, born 1921, is deputy to the chief architect, Public Works, Accra. Took town planning diploma after qualifying. Lost interest in town planning because he felt there was too much officialdom about it. Works closely with town planners in Ghana. Home is in Hatch End, near Stanmore (an Edwardian house of no particular architectural merit). Friendly with founder members of the Society, interested in general problem of Stanmore's redevelopment. Reginald Uren, born 1906, in New Zealand, in private practice in London since 1933; awarded the London Architecture Bronze Medal 1935 for Hornsey Town Hall, which was won in open competition, and the London Region Housing Medal 1954 for flats at Southall. Member of the RIBA Council as New Zealand Institute of Architects Representative; member of Court of Tybers and Bricklayers' Company; recent work includes Sanderson's building in Berners Street and the new John Lewis in Oxford Street. Has lived in Stanmore since 1937.

THE STANMORE PLAN

Martin Lidbetter writes:

There may well be some general interest in the procedure we are working out at Stanmore. Every place has its own characteristics, and those of Stanmore at the present time are unusual but probably not unique. We can analyse these characteristics briefly as follows: (i) a time of intense redevelopment; Stanmore is bisected by the London Green Belt, so that pressure for increased densities is high; at the same time redevelopment is relatively easy on account of the size of the gardens of so many of the existing large houses. (ii) the general increase in traffic everywhere is here intensified by the proximity of the London-Birmingham motorway; Stanmore is directly in line between M1 and West London. In this situation Harrow Corporation has prepared timely plans for new roads, and

these official proposals have helped us in making our plan; not least because they make it clear to everyone that big changes are imminent anyway.

(iii) one feature in which we are particularly fortunate is the existence of open ground (a disused nursery garden) in a vital position close to the main shopping street. This allows us to put forward a plan which necessitates little demolition of existing buildings.

Stanmore ten years ago was a community with many genuine village characteristics and some of these remain; but piecemeal development, the pressure outwards from the centre of London, and the prevalent outlook which still sees road widening and roundabouts as synonymous with improvement, all threaten to reduce it to a meaningless place name on a suburban road, distinguished only for having a worse traffic block than most.

It was when it first came to appreciate fully this present situation that the Stanmore Society decided that some positive action should be taken. It resolved, with the concurrence of the Middlesex County Planning Officer, to make use of the presence within the Society of three architects with a good deal of experience in these matters, a solicitor experienced in local government, a senior civil servant, a manager in one of our largest industrial concerns and others—all people who had the necessary experience and qualifications not only to conceive the idea, but to make it practicable, and to see that the economics were right. In short, to prepare a plan which would be something practicable—not a pipe-dream but an idea that could be carried out. It did not feel that the public were quite so apathetic about outdoor design as we are today so often led to believe, and this is now being borne out by facts, as considerable, and enthusiastic, local support is being given to the idea. The major task of the Society for a year or two to come will be to co-operate with, and help, all those interested in carrying it out, whether they be public authority or private developer.

The plan which has been evolved takes all traffic out of the present main shopping street, and provides new routes and parking spaces on either hand, at the back of the existing shops. In doing this it entirely removes one persistent traffic junction problem, and allows the whole of this street to be seen afresh as a shopping precinct for pedestrians only.

Secondly it creates a site admirably suited to the building of offices in blocks of varying height, on the lower side of an existing small municipal park; this part of the plan can contribute a substantial sum to the cost of the other parts of the scheme.

Finally the plan links together by footways the shopping centre and the park, which are at present isolated from each other to the detriment of both. It knits the whole together so that the office quarter, the park, and the shopping precinct will all constitute a new diversified and arboreal urban centre, an enlargement of the old village to keep pace with the enlarged and still enlarging population. We see this as the one way in which a one-time village can retain its individual existence through these times of extensive rebuilding.



COUNCILLOR DAN SMITH

COUNCILLOR THOMAS DANIEL (DAN) SMITH has represented the Walker Ward on Newcastle City Council for the last ten years (leader of the Labour Party Group). Manager of Smith's Decorators (Newcastle) Ltd., founded in 1947 and now employing 175 men in the north-eastern counties. Born at Wallsend-on-Tyne in 1915. Father was a miner. Started work as a painter's apprentice at the age of 14, attended night classes on painting, decorating and art. Married 1939, wife Ada his keenest critic. Three children, Gillian 13, Jocelyn 8, Clifford 4. Likes Beethoven and more, recently Bartok (learning to play the piano); Constable's paintings, Velasquez' "Water Carrier" (paints Lakeland landscapes), watching tennis, cricket and football, debating and political discussions. Runs a Jaguar.

SETTING THE PACE ON TYNESIDE

T. D. Smith writes:

The recent laying of the foundation stone of Newcastle upon Tyne's new civic buildings by the Lord Mayor was an outward expression of a determination to make the City of Newcastle upon Tyne the spearhead of a tremendous drive to ensure the future prosperity of the three-rivers country and to make it one of the most advanced regions.

Conscious of the changing pattern of industry within the country—and even more important, within Europe—we now seek to exploit the unfolding opportunities, using our advantages of traditional skill and initiative which, in the past, have enabled us to play a leading part within the national economy.

While fighting hard for a fair allocation of new industry and for the opportunity to build any new "Cunard Liner," the long-term prosperity of the region demands a much more fundamental approach to the basic economic problems which confront us. The reorganisation of the North-Eastern Industrial Development Association to include representatives of the various planning authorities seems to me to be an important step in this direction.

Already established within the City, the University of Durham (soon, we hope, "The University of Newcastle upon Tyne") is making its presence felt, as the almost completed Physics block of Sir Basil Spence points its black slate finger into the eyes of North Tynesiders, compelling their observation and comment on the creations of the modern architect. The expansion of this University to enable it to cater for 6,000 students presents not only a challenge but a great opportunity to the consultant architect and the architects of the individual buildings. A University which contains within its own teaching establishment a School of Architecture, of Planning and Fine Art must blaze the kind of trail which sets the highest of examples not only to the local authority but to those commercial enterprises which are shortly to undertake extensive redevelopment. There are always signs that their tremendous possibilities will be fully realised and that the completed University precinct will make a major contribution to the new City Centre.

Adjacent to the University, the first confident steps

are being taken to create a "University" of Further Education. The vision of a twentieth-century northern City wall comprising University and Further Education buildings, within which the commercial centre will be redeveloped, is now fast becoming an accepted conception. The staffs of the various City Corporation Departments work with skill and enthusiasm to bring these possibilities to fruition, co-ordinated under the newly appointed Planning Officer. The present programme of Further Education buildings, with commencing dates, is:

Rutherford College of Technology, Stage V;
College of Engineering; College of Science; 1961-2
Students' Hostel.

College of Commerce; College of Art. 1962-3
This gives some indication of the early commencement dates of this vast new educational precinct, the impact of which will soon begin to make itself felt within the City Centre, creating unique architectural and planning opportunities, of which full advantage will be taken.

The commercial centre is, of course, the most complex of all operations, and is being tackled by our newly established Planning Department. Discussions with people who are to be affected have already assured us of a large measure of agreement and support. We are determined on the introduction of multi-level solutions to ensure the safety of the pedestrian from vehicular traffic, and we see it as an exciting challenge to combine the varied interests of private enterprise with those of the planners, architects, engineers, lawyers, surveyors, sculptors and public relations experts into a mighty effort to end the traffic chaos, provide safety for the pedestrian both within and without the City's shops, and a happy planned environment where space is recognised as well as the importance of buildings. Each of these clearly defined functional areas we wish to develop as distinct in character from each other whilst ensuring some unity within each by the use of certain selected materials with each architect attempting to express himself within the varied zones.

Along with these developments the first steps have been taken to establish a Regional Arts Council with its Arts Centre within the City. The Libraries are pressing their plans for a new Central Library, while the Laing Art Gallery are preparing an extension of their present facilities.

There is increasing pressure for a new airport, and proposals for the development of a new Municipal Sports Stadium are beginning to take shape. It is hoped that sporting facilities will be available to the youth of this region giving unequalled and unrivalled opportunities both for training and performing.

Who knows, in the near future, we may be able to stage inter-varsity sports in Newcastle upon Tyne? Nowhere else in the country do better opportunities exist for the architectural profession, and if they can capture the spirit of adventure and enthusiasm which is now beginning to sweep the city, then we may rest assured that the name of Tyneside will not only be famous for its industrial achievement but will become a centre of tourist trade. Why not join us?

JOHN MORTON TOM LUPTON & TOM HANCOCK

JOHN MORTON and TOM LUPTON are directors of Townmaker Ltd. which they set up in 1959 as a company for the initiation and development of building and planning schemes. They are architects by training (though both have resigned their associateships); they are furniture makers, and both are partners in the architectural group, Morton Lupton, which was founded in 1959. The enterprises are based on Wallingford, out of the chaos of London, where they can live a few minutes from their work yet carry out work normally associated with "a London Office". The architectural practice is led by TOM HANCOCK and now has five architects, an engineer, a furniture designer, two secretaries, and the Sfb system. Currently working on Paradise Row, Henley, two churches, a synagogue, and a complete public school. A garage showroom (just completed and soon to be published) will indicate the standard of their work. The practice has associated offices in Copenhagen and Milan (Claus Bremer and Anne-Marie Rubin, and Francesco Gnechchi), providing for an exchange of information and services, staff, and forming the basis of an international practice. LM Furniture Ltd. was founded in 1952 with works in Wallingford. Now engaged in production of well-built, high quality furniture (Oriana, Bootle Town Hall, Plymouth Civic Centre, etc.). Employs thirty men on a democratic working and profit-sharing basis and now has permission to build new factory to allow for further expansion.

Townmaker is now very actively engaged on the initiation and carrying out of enlightened development work—first exercise on "urban infill", Priory Mews, now approaching completion near the centre of Wallingford—five town houses and four studios in a walled garden (AR. July 1959). About to commence urban cluster on 7 acres at Henley, density 90 p.p.a., with a fifteen-storey tower which is already famous and the subject of conflicting feelings among local inhabitants. Scheme approved and commended by the Minister in September 1960 (AJ 17/11/60). The scheme for Oxford, published as the pamphlet:—"Oxford—proposals for the Future City", was produced during 1959-60 to form the basis for negotiation with the City to develop the new Gloucester Green, a pedestrian deck over a three-storeyed car park; and the perimeter blocks—"the inhabited city wall"—forming the river frontage in their St. Ebbes proposals (AJ 4/8/60). The Townmaker plan was strongly advanced at the recent Roads Inquiry in Oxford in the belief that its basis of "linear city" planning provided the solution of the traffic problem and the means whereby the city could be satisfactorily planned and developed in the future.

MORTON, born 1919, trained at Saltley College and School of Cabinetmaking, Birmingham, before the war. Military service 1940/46, carpenter, sergeant R.E., camouflage officer and R.A.F. pilot. Returned to A.A. in 1946. Awarded R.S.A. travelling bursary in furniture design and made study tours Denmark/Sweden 1947 and Italy/Switzerland 1949. After qualifying in 1949 worked for Russell & Goodden on "Lion and Unicorn" pavilion F.O.B. 1951. Prizewinner in News Chronicle House Design Competition 1953. Together with Tom Lupton initiated and prepared an exhibition of University Architecture "Living and Learning" 1958. Resigned R.I.B.A. 1960, likes to travel and is interested in social and political affairs. Was a borough councillor.

LUPTON, born 1920, studied architecture at Cambridge. Spent war years in R.E.s mainly construction work in

Burma and India. Returned to Cambridge for one year, transferred to A.A., where he first met Morton. After qualifying worked in Norwegian furniture factory, then joined Russell and Goodden, worked on "Lion and Unicorn" pavilion. In 1951 set up in private practice and designed F.O.B. Press and Radio Club Bar. Moved to Wallingford in 1952, resigning from R.I.B.A. Interests include building own house, music, playing violin, reading and feeding.

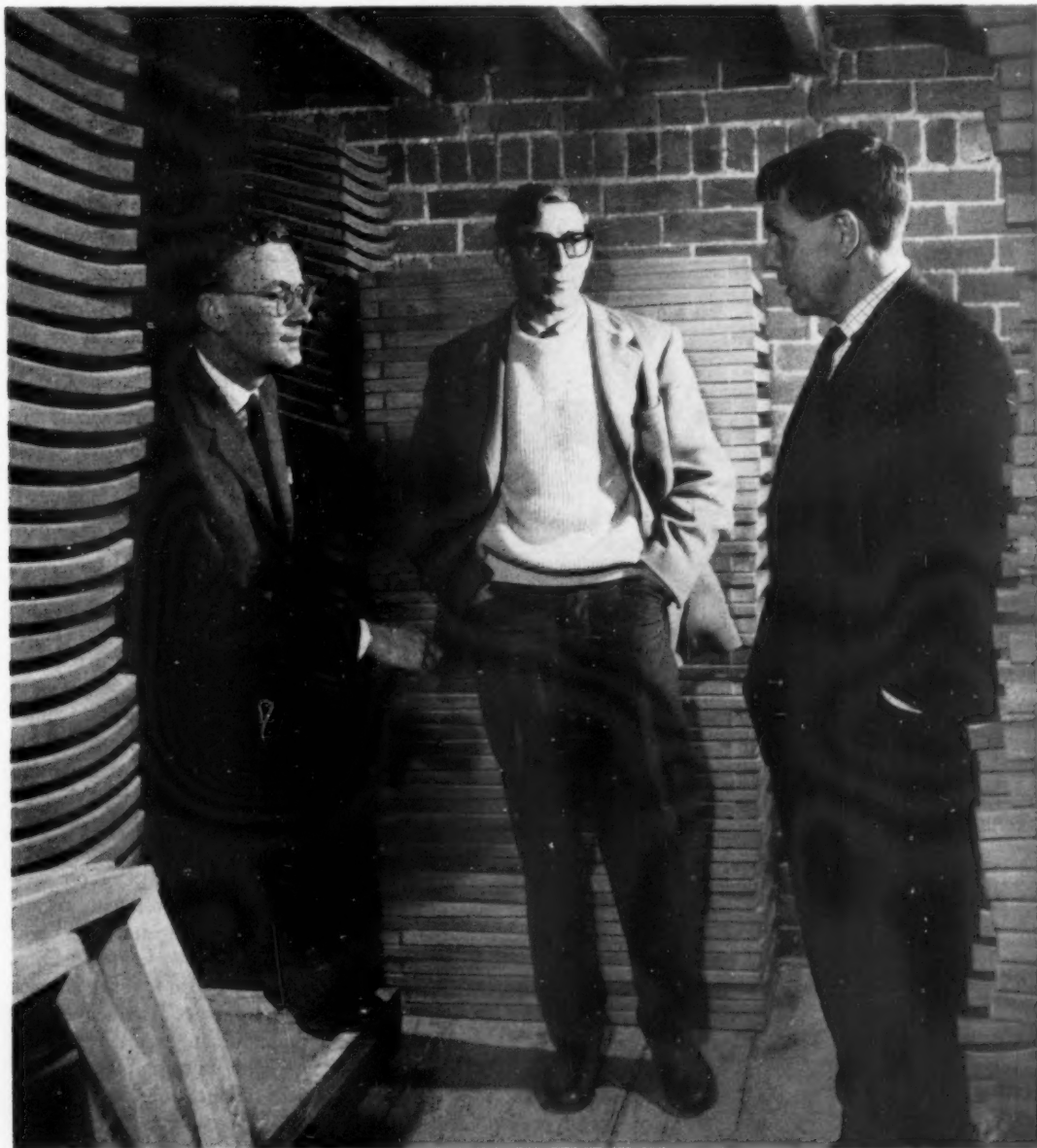
HANCOCK, born 1930, spent National Service in R.E. (Ski school and mountain warfare training in Austria). In 1950 went to Leicester School of Architecture, awarded Diploma with Distinction. Between 1955 and 1958 in private practice, Leicester. Prepared imaginative plan for central area renewal and the new Civic Centre. In 1958 made extensive studies in Italy and Sicily; worked for short, frustrating period at Harlow New Town and then joined Morton and Lupton. Designed Henley scheme and the Oxford Plan. Was highly commended in the Liverpool Cathedral competition. Likes sailing, skiing, music and study.

A PATHETIC RECORD

John Morton writes:

It is now obvious that we have not made the country we had hoped for after the war. Except for MOE, CLASP, Coventry, Cumbernauld and a few other isolated examples, our record in architecture and planning is pathetic. Not only visually and socially pathetic but failing also to meet the functional requirements of the developing affluent society with its great pressures of population and motor traffic. The need is for imaginative planning and comprehensive redevelopment of the highest order, yet most of our environment is being created for commercial reasons only and subject only to the negative control of the planning law. In this situation we believe that positive and direct action is required so that our particular professional skills can be used to the full.

Left to right, Tom Lupton, Tom Hancock and John Morton

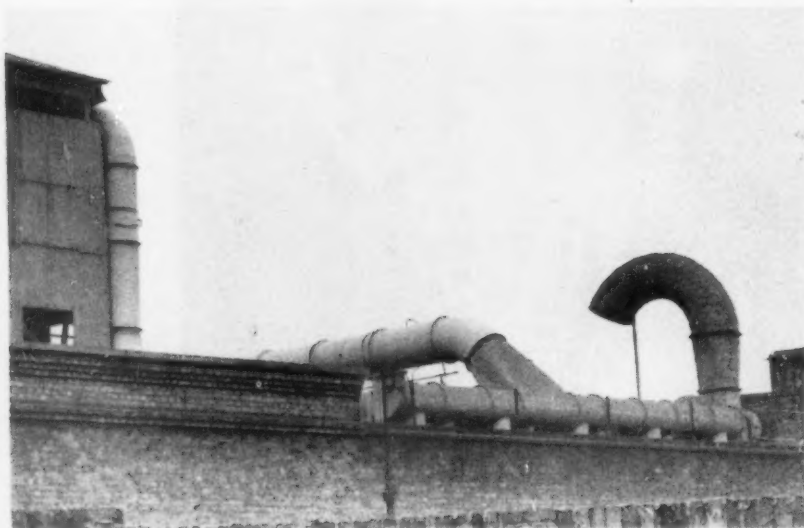




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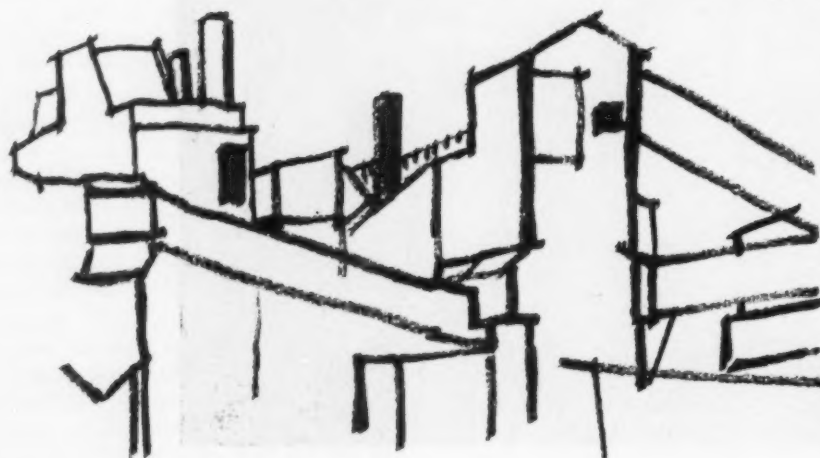
SPACESCAPE, GASCAPE AND ESCAPE

by Michael Cassidy and Tim Murgatroyd



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Buildings are read as shapes, whether we like it or not: shapes in function and shapes in space. The design process, rational, romantic, international or regional, is expressed in form. Buildings speak, shout, whimper or pulse with the vocabulary of form. That form should and generally does follow function is a true but inadequate statement. Extreme rationalists have claimed that "follows" involves by logical necessity a single solution to any given problem, but any given problem can be interpreted in as many different ways as there are architects to solve it. The programme is the thing. But even when practical requirements are provided for by careful programming, the architect has still, sometimes, some important purely aesthetic or formal decisions to make regarding the *shape* of his building and the symbolic aesthetic effect it will have.

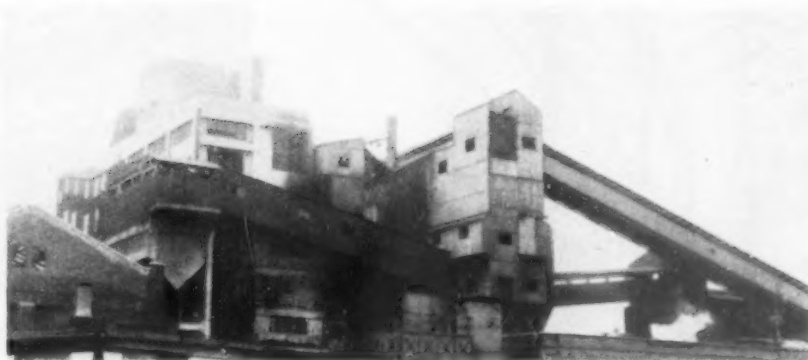
His attitude towards shape may be influenced by many things. It is now possible and perhaps desirable, to regard shape, and the effect that shape has upon people, as a compartment of the function of the building: to plan for spatial effect (not space attractive or seductive, but space meaningful in terms of visual psychology) with uncompromising and self-conscious rationalism. Another factor influencing shape-decisions is the site. The resurgence of regionalism (the solu-

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tion of individual problems within individual environmental contexts) has made it imperative for the architect to be able to perceive the formal and functional quality of any place within which he must build. While the Athens Charter and CIAM generally sought to impose sociologically and technologically advanced environments regardless of place and tradition regionalism seeks to continue and enrich that tradition—to develop rather than to deny.

The task in which the renewal and development of place is most urgent is that of urban renewal. The photographs and sketches that follow illustrate various kinds of urban form all involved in some way with urban public services and transport, and all with pronounced aesthetic content.

They are offered not so much as examples of a great forgotten architecture that must be preserved, but as shapes and images of public utility resulting from an apparently accidental and naive Victorian functionalism: not so much as sculptural forms to be aped in every school, housing scheme or factory, but to remind us that *shapes are fun*.



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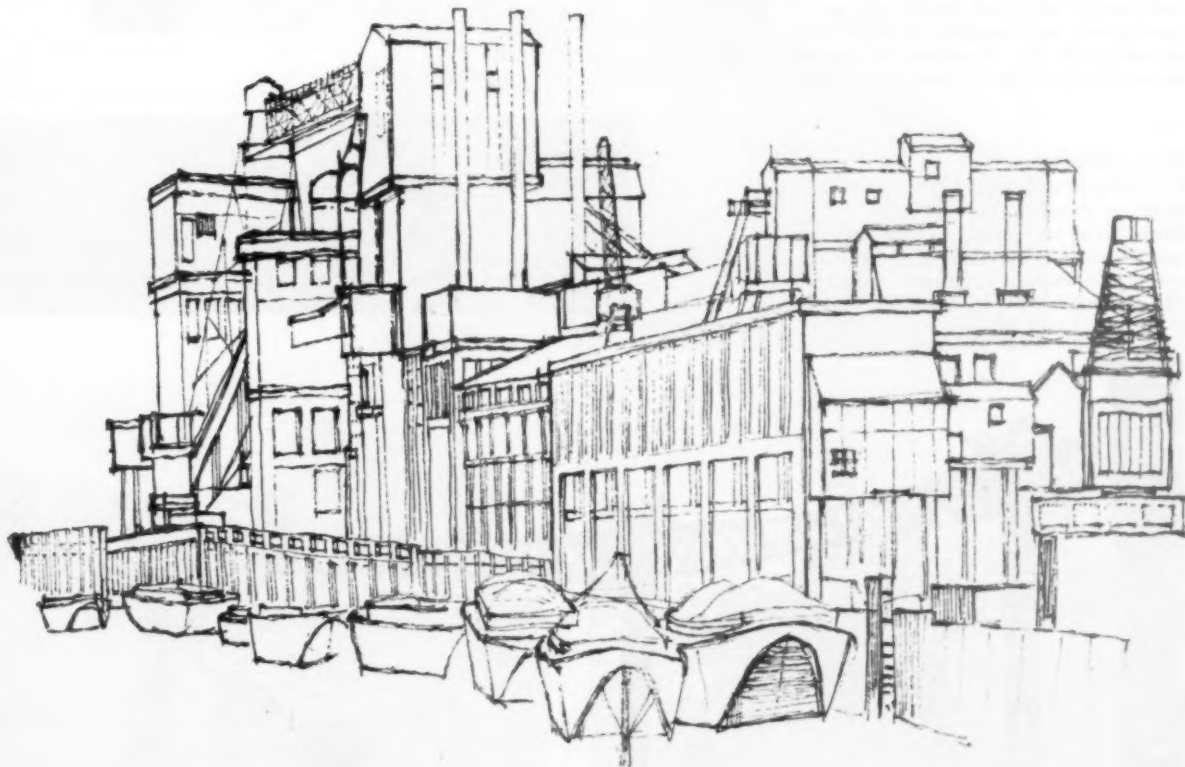
GASWORKS

Vauxhall: a strident example of native engineering genius in anonymous architecture [1, 3, 4]. In spite of the sulphuric smell, Vauxhall gasworks is a refreshingly straightforward example of random functionalism, comparable in its brash grandeur to the walls of Carcassonne, and Durham Castle, etc. The articulate industrial grain of the structure presents us with a mine of visual entertainment to challenge any work of modern sculpture. One feels that if modern architecture is to be censured and prosecuted [by Professor A. E. Richardson, for example] for indecent exposure, Vauxhall could be the test case: here, as nowhere else, are the bowels of architecture. The industrial process the building contains

is not neatly packaged in a cool glass box, it invites "participation," challenges us to take an interest in its motions and workings. The Kafkaesque quality of the big industrial plant is offset by the friendly small scale extract ducts [2] at Vauxhall. Machine forms more usually found aboard ship than in buildings.

Brentford gasworks [5] represent the machine aesthetic in the Grand Manner, more refined and clarified than Vauxhall, the movements of the overhead cranes, conveyors and so forth contrast effectively with the ponderous coal barges in the river below. The extensive use of doubled pitched roofs invites a reassessment of these "conventional" suburban house roof shapes in terms of abstract form.

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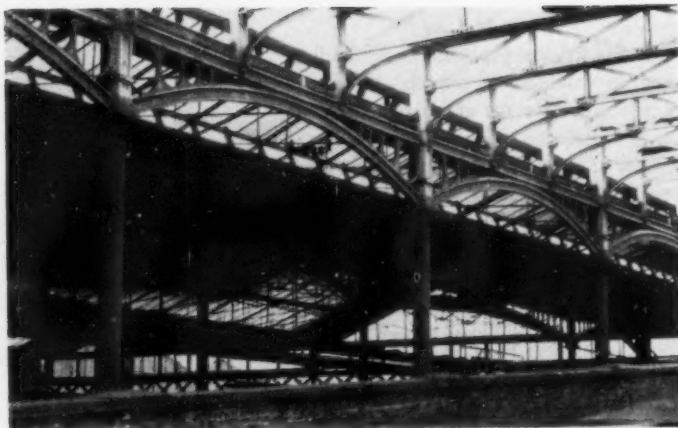


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EUSTON STREET

The romantic tracery of Euston Station [6] the roof echoing the platform curve—the wide curve of mechanised transport. The trolley looks, in contrast to the passively infinite sweep of the roof, active, tough and business-like.

The cast iron aesthetic of the Euston roof [7] already straining towards a horticultural art nouveau, but simple and clear in the expression of main and subsidiary structure. The cars-only entrance to the station [8] must be one of the few segregated routes in London.



7



8

10



ST. PANCRAS

A slum doorway in St. Pancras [10] is quite worthy of Victor Horta.

Gasholders at St. Pancras [11]. Three tangentially touching cylinders of iron stanchions and lattice work, each containing a gasholder. The caps on the inside of the cylinder [9] look

9



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like technological gargoyles by a rationalised Paolozzi. The gasholders move independent of one another, so that they are continually forming different shapes—a flexible sculpture of fantastic proportions motivated, like Nicolas Schöffer's monster, by remote control. Surely a potential exhibit at the I.C.A. this year. The stanchions are delightfully punctuated by barbarous Roman capitals and dossierets, and the lattice work by patriotic, mass produced roses [9, 11].

New materials and new aesthetic [12] glass faced St. Pancras Station in the background, corrugated asbestos cladding, a steel bridge and an r.c. lamp-post contribute to a technological landscape.

Air conditioning plant for the London Underground, South Lambeth Road [13] makes use of concrete, brick and tone. The "open" human scale of the brick control shed and the non-human scale of the "closed" concrete drums illustrate the kind of symbolism inherent in materials. The "fortifications" of the stone wall separates the street below from the plant symbolically as well as physically.

[14] should be familiar to all London architects who keep their eyes open—the duct from Lyons St. Giles Circus Corner House—writhing like an angry snake across buildings from an alien culture.

Photographs Nos. 2 and 6 to 14 by Tim Murgatroyd. Photos and sketches 1, 3, 4, 5 by Michael Cassidy



11



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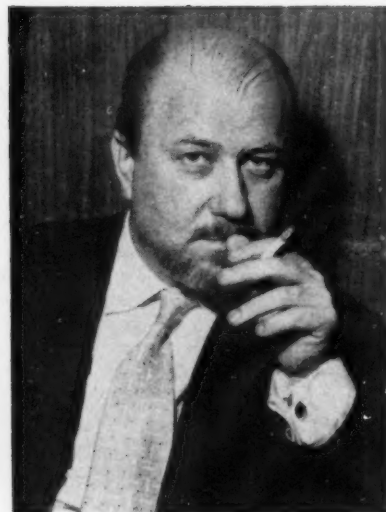
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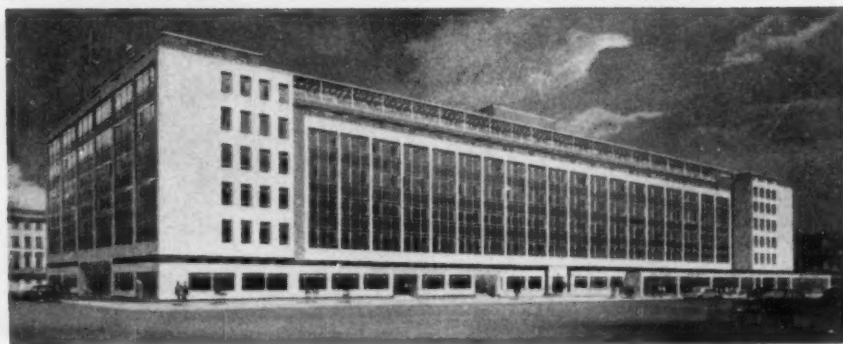
MEN
BEHIND
THE
CHANGING
FACE
OF
BRITAIN



S. H. Chippindale, chairman of Arndale Property Trust



Felix Fenston, director of many property companies, including City Centre Properties



100/110 High Holborn and Red Lion Square development, designed by Dyneley Luker & Moore, and (below) A. T. V. House, designed by Lewis Solomon, Kaye & Partners. (Estate agents D. E. and J. Levy)

A great transformation of the centres of our cities is in progress, most of it the work of Development Companies, many of which sprang up after the war to seize the opportunity for new building provided by the blitz. Many had hoped the local authorities, armed with the new Town and Country Planning Act, would rebuild the post-war cities in a balanced, comprehensive way: the chaos that has resulted from the free-for-all is now deplored by everyone, including developers themselves: the buildings that have resulted have often raised mediocrity literally to new heights. Many architects (and frequently in this *Journal*) condemn them—many of the most prosperous architects

design them, and financially they are a huge success, creating thousands of square feet of office space and bringing in millions of pounds rent to the companies who created them. Whatever may have happened to our car industry, the boom in office blocks continues: we even export developers to America now.

We thought it was time our readers met some of these developers, the men who are deciding—much more positively than either architects or local authorities—what our cities will look like for the next fifty years. So we sent Sheila Lynd to interview some of them, to discover how they work, the know-how which has made them successful, and their



Joseph Levy, senior partner of D. E. and J. Levy Estate Agents



Sir Charles Robert Bignold, chairman of Norwich Union Life Insurance and Fire Insurance Societies



R. A. Parry, director of City and Town Buildings Ltd. and Second Covent Garden Property Co.



Left, Norwich Union's new headquarters in course of construction in Norwich, designed by Sir Thomas Bennett (of T. P. Bennett and Son); right projected new market at Shrewsbury, designed by David du R. Aberdeen for Second Covent Garden Properties

attitudes to architecture and architects. Five interviews with a varied and representative selection from among the interviewed tycoons follow, illustrated with some of the work chosen by each as examples of new buildings they are glad to be associated with.

One fact that comes out of almost every interview, apart from the magnificent self-confidence of these successful businessmen, is their alarming lack of confidence in architects as a whole and almost total misconception of the nature of architecture. Even when speaking with warm approbation of the architects they themselves employ, nearly all regard the architect as the man who draws the

elevation when the planning of a building is complete, who puts the cover on the beehive. Town planning equally appears to most developers as a purely negative obstruction to the achievement of completion dates. Some clearly see the need for comprehensive planning—in Piccadilly for example—and are ready to co-operate in putting up the buildings required by the plan. One suspects, though, that the use of planning in such areas is seen rather as a good way to rationalise site ownerships for the convenience and profit of the big men who acquire them, than as the means of producing a humane environment to live in. The report of the first interior, with Mr. Chippindale, starts overleaf.

S. H. CHIPPINDALE from Bradford—the man who can get Woolworth's to move



S. H. CHIPPINDALE, chairman of the Arndale Property Trust, of Bradford, is the man at the back of the new shopping centres going up in many of the northern industrial towns, and he describes the first of these developments where the local authority has cleared about eight acres of slums and he is putting up a shopping precinct on up-to-date lines, as, "putting new life into Jarrow."

"We had to sell the idea to the county authorities," he said, "only part of the area was zoned for shops. We wanted the whole site for commercial purposes and we persuaded the authorities to agree. This shopping centre is to provide for two or three large department stores, and about 100 shops, built round a pedestrian square. "There was a long wrangle at first," said Mr. Chippindale frankly, "the Chamber of Trade was very concerned at the outset at the local authority handing over to a commercial concern—they wanted to be sure the local man would have a chance."

Although only the first phase of the scheme is yet completed, it already smells of success: Arndale Properties are making a film of the whole job as they go along, with which to stimulate other local authorities to let them do likewise. "It is having repercussions throughout Tyneside," said Mr. Chippindale. "We can show this negotiated deal with the local authority in relation to design, layout and finance, and can claim that they couldn't have quoted the rents we have if they'd built it themselves. Shops are available in the centre for £350 to £500 a year."

A shopping centre does not consist of the shops,

A pub is part of the shopping centre at Shipley, Yorks.



there are other things to it which Mr. Chippindale describes as "unproductive but essential. The whole thing has to be alive with colour and light attractive," he said. At Jarrow they are having "fountains, flowers and a bit of sculpture," and he would have liked a clock tower, but his architects (Shingler and Risdon) have settled with the local authorities for a clock on a bracket and a central pool.

"We are replacing 90 per cent of the town's shopping," he said, "although when we started the very name of Jarrow made the multiples shudder. We feel that the repercussions of having a proper shopping centre can go much wider—an industry looking at a town to open up and finding a well-conceived shop-



90 per cent of Jarrow's shopping is being replaced

ping centre there is more likely to see it as a good proposition. We think these shops will help in bringing more varied industry to Jarrow."

"What was decisive in getting the shopping centre agreed?" I asked, "and why, if a good shopping centre was so vital to the town could not the council get approval for doing the job themselves?" Mr. Chippindale replied with a triumphant twinkle: "What was decisive was getting Woolworth's to come in, and that's something the local authority couldn't have done."

Getting Woolworth's to move from the old shopping area, without which the whole of Jarrow's shopping facilities could not have been concentrated in Mr. Chippindale's eight acres, was in fact considered to be a miracle. "They came in because they have learnt from experience to trust my judgment," he said.

There is a Woolworth's now in 25 shopping centre schemes of Mr. Chippindale's in the north of England. "You've got to have one or more magnets in any scheme," said Mr. Chippindale. "Marks & Spencers, British Home Stores, The House of Fraser and the other great popular department stores are such magnets and must support such an enterprise if it is to be successful: when they do, success is certain. So you have to get them in, although, of course, the bigger the firm the less profit for the developer. Naturally they need the inducement of favourable terms to come in. It's the smaller shops supporting the development that pay off. But then they need the magnet, to bring the customers."

Mr. Chippindale went on to talk about the architec-

ture of these developments. "Of course, we are very concerned about the responsibility we take on in these schemes," he said, "since they are of a lasting nature. Our general approach is allied to economics but we are more determined than ever to take less return to give a higher class result.

"We are not keen on 'contemporary' architecture. We feel that kind of approach is unsuitable in some of our locations, but in a completely new town the idea might appeal. We work very closely with the architect, and give him an exact brief of accommodation. But our sort of job is very much a structural engineers' job because of the size and spans and what must be a flexible development. The architect is concerned with elevational treatment, and above canopy level the 36-ft. unit elevation can be designed in advance. We're very much in favour of canopies—at least 8-ft. wide, but probably 12 ft. would be better, which means having supporting columns. We have had to educate some shops about this."

Since starting on Jarrow, Arndale Property Trust has launched a series of new shopping centres up north, at Shipley (where the scheme includes a clock tower and two-level covered market and has "really hit the whole district"), at Spennymoor, at Blaydon, the latter including Council offices. At Drumchapel, Glasgow, the Trust has won a limited competition to build shops serving 45,000 people; in a Leeds suburb they are combining shops with maisonettes.

At Accrington they "persuaded the local authority to do a deal; we promised to get in Marks and Spencer if they would let us do a shopping centre" and Mr. Chippindale got them. "Remember," he said, "the end product is far more important than the ground rent the local authority gets. Apart from the increased rateable value, one can't value in terms of money the impact such a development will make." In Doncaster they are providing a shopping precinct close to the bus station, on a local authority site, with car parking for 450. "By the way, we provide car parking in all our schemes, though the Jarrow people were amused at our providing a car park at all."

One thing makes Mr. Chippindale feel sore—if a local authority "picks his brains" by inviting a scheme and then proceed to build for themselves. His company doesn't normally tender for schemes, believing that the scheme should be considered before the terms are considered.

Asked if there was any limit to the number of schemes his company was prepared to tackle, Mr. Chippindale replied cheerfully, "We wouldn't let any scheme go by, however much we were committed at the time, if we thought it was a good scheme." And how does he recognise "a good scheme"? Sometimes he hears of a good site, sometimes he approaches the local authority with a scheme; sometimes the local council suggests a site he doesn't like, and he finds a different one. Then it is up to him to find his "magnets" and the iron filings line up in the inevitable way.

"Planners go in for research," said Mr. Chippindale cheerfully. "We rely on experience. You've got to have a flair." No wonder he is sometimes called "The King of the North."

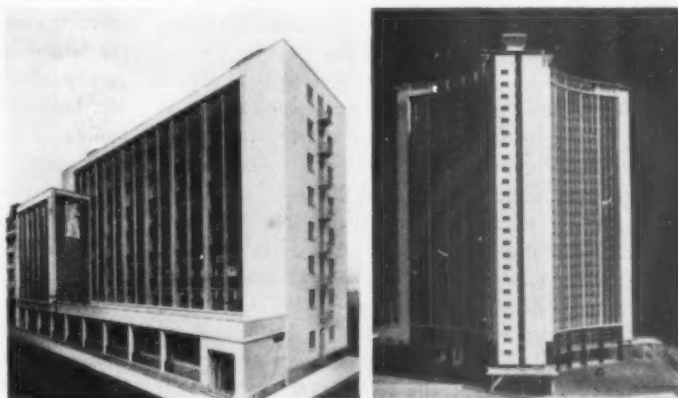
FELIX FENSTON—has pangs when he pulls down old buildings

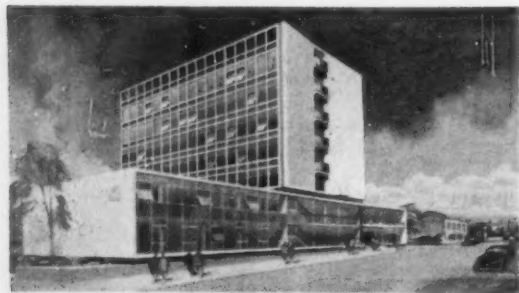


Felix Fenston, whose companies have built some of the largest and most important new offices in post-war London—Navigation House for the P&O, BP House, Woolworth's headquarters in Marylebone Road, Dunlop House on the site of the St. James's Theatre are some examples—is not created in the image of a powerful and hugely successful businessman, but looks more like a good part for James Robertson Justice, stout, bearded, friendly and shy—or perhaps just cautious.

"There's been such a high demand, in London, since the war," he said, "by firms requiring really large space—say 350,000 sq. ft. of offices—that I don't think it has taken much 'know-how' to supply that demand: just an opportunity to acquire the sites, and of course the ability to calculate the return. We cost analyse our buildings very closely always, and I would say you need to be able to build so that you can let at 25s. a sq. ft., even if in the state of the market and the place where you are building you can get 35s. or more." "I hope we have put up some pleasing buildings," he said, "one I like is a block of offices we've done at this end of Putney Bridge. I hope I exercise architectural control. We don't have staff architects but employ a number of well-known ones. But I don't think any British architects yet have built anything to touch the United States. Their curtain wall buildings are really magnificent."

Longbow House, designed by Joseph F. Milton Cashmore and Partners (left) and Empress State Building, designed by Stone Toms and Partners both for City Centre Properties Ltd.





Putney Bridge Approach House, designed by R. Seifert and Partners for Approach House Co. Ltd.

Five years ago Mr. Fenston founded the building firm of Kyle Stewart, and it is this firm that built Dunlop House on the site of the St. James's Theatre. Asked whether he felt any pangs at pulling this down, Mr. Fenston said frankly, "Yes, I did feel a pang. But the place was offered for sale, it was coming down anyhow, and I didn't consider there was any point in my not buying it.

"I suppose the only practical answer is compulsory purchase by the authorities of interesting, historic buildings if they come on the market.

"Nevertheless I do regret the terrible loss of old buildings in London: we have lost two chances of rebuilding the City properly—after the war, and after the fire, when we didn't adopt Wren's plan: if only we still had his street plan, what a difference that would make!" He went on to "think aloud" about architecture, and the place he believes the developer should play in achieving more good building.

"My interest in architecture has grown with the growth of what my other bearded friends call contemporary architecture and I have watched, and am watching, with great interest the ingenuity of architects and planners in dealing with all the complex problems of building development.

"Many of the problems are quite new to the architect and I must say that the British architect is keeping pace with his colleagues on the Continent and even America. There is room, however, for a bolder approach to the comprehensive development and I would like to see the architect and the authorities getting together on an even closer footing and agreeing freer and livelier schemes.

"The tendency to limit buildings to the 100 ft. high level is now, fortunately, a thing of the past and the opportunities for comprehensive development taking in large areas with a high building as a central feature and low or open development at ground level should not be missed. I am happy to see that recently far-seeing Local Authorities are encouraging tall buildings. This, of course, helps developers to equate the high market value of sites with building space and the question of road improvement and pedestrian precincts can also be dealt with in an overall scheme.

"As a developer, I am, of course, interested in the market value of all the various properties with which I am associated and this means a careful watch on economies and efficient planning and use of site. On this point, I have generally found that schemes that

have been designed with the maximum site use turn out to be extremely interesting from an architectural and town planning point of view. On such schemes one seems to return to the wonderfully interesting medieval cathedral close.

"There appears to be a lack of the 'explorer' amongst British architects who might take the risk of departing from set principles, either traditional or contemporary, and make full use of reinforced concrete and the variety of materials available today, which has enabled South American architects to produce the showpiece of the world at Brasilia and has enabled Swedish and Danish architects to erect interesting varieties of buildings which get away from the monotony of repetitive architecture.

"The developer is often criticised as the one responsible for poor post-war architecture. I think there may have been occasions when we might be partly to blame, but we were all struggling then—developers, architects and planners.

"The competition is still very keen to produce better buildings and we find that occupiers have become more and more critical over the past years.

"Today the architects and planners are also more critical and the result is producing good, and in some cases, great architecture. Some of the most outstanding buildings have been erected by developers."



JOSEPH LEVY—the development-stimulating estate agent (his letting board above)



Nobody has played a larger part in transforming the centre of London since the war, in particular in the rapid proliferation of great blocks of offices than Joseph Levy, B.E.M., senior partner of the well-known firm of estate agents, D. E. & J. Levy. Founded by two brothers in 1939—could anyone have chosen a more inauspicious time?—today the firm is one of the largest and most development-stimulating estate agency businesses in London.

Mr. Levy does not see his job merely as a matter of finding landlords for tenants and tenants for landlords, but as an active entrepreneur, whose knowledge of the state of the market, the demand for office space, the requirements of successful firms for larger and more prestige-symbolic buildings, makes him an ideal adviser and collaborator for the developer, the building contractor and the large scale tenant.

He can claim to have been vigorously associated with four million square feet of new office accommodation in London since what he described as "the long-

awaited day of November 10, 1954, when the Government declared its policy of allowing the free development of office buildings without licence restrictions. That day, London's face lift was resumed."

Among these new office blocks are six of Charles Clore's City & Central Investments' developments, also Vogue House, Hanover Square, the A.E.A. headquarters in Lower Regent Street one of the first London office blocks to have a complete air-conditioning and refrigerating system, the new Estate House in the Haymarket on the site of the old Gaumont Theatre, the Gresham Street building for the GPO, the ATV House in Gt. Cumberland Place, and two blocks nearing completion in Cannon Street and Gresham Street, E.C.

During the war the three Levy brothers all worked full-time in Civil Defence, carrying on their business in their spare time. It was clear to them then that there would be a property boom in the city when the war was over, and foreseeing what opportunities for development there would be, and how land values were likely to soar, they urged clients to buy sites then, even though development must be delayed for years. Mr. Levy divides the post-war period into three: first came "the period of the Lessor scheme," under which office buildings were allowed to be completed for initial leasing by the Ministry of Works on behalf of other government departments, providing office space for evacuated departments to return to London. Those with sites available got off to a good start.

"Then came the period of priority licences, enabling public companies of importance to the export trade to build new headquarters. And then the great day in November '54 when licence restrictions ended." From that Mr. Levy dates what he calls "Development Phase One," during which 70 large office buildings have been completed. It is to be followed, inevitably and triumphantly by Redevelopment Phase Two, lasting till 1970, which will include two schemes larger than any hitherto completed: one is on the five-acres of the Vauxhall Bridge gas-works site, already cleared for action and destined to provide 600,000 square feet of offices. A town planning consent has already

been obtained for a television centre here, and the scheme includes extensive road improvements including a flyover and roundabout at Bridgefoot, by Albert Embankment.

The second large scheme is for the comprehensive development of a nine acre site bounded on the south by Euston Road and the west by Hampstead Road, which again is to be combined with a big road widening scheme including an underpass, which was drawn up and submitted to the LCC on the initiative of Mr. Levy, in consultation with the architects, Lewis Solomon, Kaye and Partners.

The road improvements, of course, are carried out and paid for by the LCC, and Mr. Levy explained how the developer works in with the local authority on this: "We buy the whole site with gross coverage from the LCC," he explained, "and they help us by issuing compulsory purchase orders on the front that's wanted for widening. Then we actually build on the site, less the strip of frontage, it may be 50-ft. wide on a 1,000-ft. frontage—and we donate that strip to the local authority. I reckon that we may enable the local authority to save £1 million on a road improvement scheme in this way—to say nothing of increasing the rateable value of the site by five or six times."

Asked why developers found it worth their while to make this arrangement he explained, "We get the help in buying the land, and a developer always wants to build up to maximum height."

The architecture of roads, Mr. Levy went on to say, was really "more important than the architecture of buildings. If the road pattern had come first in the City after the blitz we wouldn't be hearing all this talk about over-development in central London today. Nobody can stop firms wanting to be represented in the City or the West End," he said. "The shortage of office space there is tremendous. Today I could place a million square feet that I haven't got, without moving from this office."

The answer, he believes, is "to pull down the acres and acres of low standard buildings still in the area and replace them by modern office blocks with work-

Vogue House, Hanover Square, designed by Yates, Cook and Darbyshire and let by D. E. and J. Levy and Healey and Baker. Right, Trocoll House, Gresham Street, by Ellis Clark and Gallannaugh



ing conditions which will attract staff." He believes that buildings "are going a lot higher" and that soon "there won't be a big building in the centre that isn't completely air-conditioned: we are building with air-conditioning now, and we're not treating it as an extra in spite of the expense."

He believes that if the Bill on office standards becomes law it will produce a cataract of demolitions and a mountain of new building.

On the subject of Piccadilly, this generally good-natured man becomes quite angry. As agent he has been concerned in the acquisition of several sites in the area, and he bitterly deplores the hold-up of the comprehensive development of the whole area.

"This is such an important part of London," he said—"perhaps the most important part of England—that the land should have been compulsorily purchased years ago, so that the planning authorities could organise the logical combination of sites, and having made allowance for necessary road improvements, including fly-overs, underpasses and extensive underground garages, the sites could then have been redeveloped by private enterprise, preference being given to freeholders who held large parcels of land. The whole scheme would have to be spread over a 10- to 15-year period and it ought to have been worked out years ago. As it is, I doubt if I shall ever see it completed."

He wants to see the redevelopment not merely of the Circus but of a wide area of old, dilapidated property, including parts of Soho, though he would like the atmosphere of Soho retained as far as possible. Again "the redevelopment of such important sites would more than cover the compensation the authorities would have to pay under compulsory purchase orders, and tying the land together in a comprehensive site would substantially increase its value."

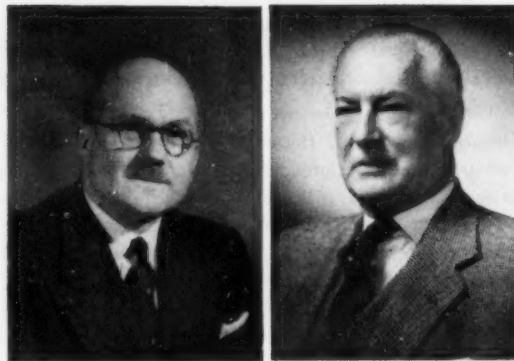
Estate agency has not always been the stimulant to development that it is today: "The blitz changed it," he said. "Today, we come in from the start. Investors get a lot of money—there's a takeover bid and they sell out; then if they don't understand property they come to people who do for advice. We get the site, bring in the architect, the quantity surveyor, get the development started, and then we come in again and place the building."

Experience has taught Mr. Levy that "it always pays to buy the best sites." Sites fronting important roads, dominating the surrounding neighbourhood are the ones that bring in important companies and full rents. In seeking out what he calls "Key Sites"—the term has become a sort of trade mark of the Levy association—he has no use for the odd corner in the back street. "The site is the most important single factor in property development," he said. He has become an adept at the piecemeal acquisition of bits which, added together, will make a site large enough for development on a worth-while scale.

And he contemplates the replacement of old London with a cheerful confidence that new buildings are better than old and if you lose a theatre or a restaurant in the process it is easy to provide another one within the bounds of the development which will give

far better modern facilities, including large underground garage space.

At a recent sumptuous coming-of-age party for the firm, he told a story which nicely touches off his outlook: he received the OBE for his civil defence work and went with his wife to Buckingham Palace. As they were coming away, she remarked, "what a beautiful sight." "But I doubt if the King would sell," replied Joseph Levy.



SIR CHARLES ROBERT BIGNOLD—he belongs to Norwich (left), and right, Norwich Union's estates manager, J. W. DRAPER

It was really the blitz that turned the Norwich Union's investment policy into a major property development company. Until the war this great insurance group, comprising the Norwich Union Life, its sister Fire Society and now the Scottish Union, was concerned with quietly investing its clients' premiums in various categories of investment—Stock Exchange securities, mortgages and house purchase loans together with a fair proportion in real estate by the purchase of ready-made investments. This latter form was regarded as a good long-term investment, and with the added advantage of providing a hedge against inflation and come up smiling at death or maturity.

It was only after the war, when German bombs had cleared so many wonderful sites in our city centres and competition for existing property became so acute that the Norwich Union began to find difficulty in acquiring enough ready-made buildings at the right prices that the directors became interested in the idea of buying and developing sites themselves under the supervision of the Society's estates manager, Mr. J. W. Draper, and his qualified staff.

Since then the Norwich Union has constructed some £30 million worth of new property, and is now building at the rate of £4 million a year.

"We started in Plymouth—in fact we were one of the first commercial developers to start building there after the war," said Mr. Basil Roberts, the General Manager, whom I met with Mr. Draper in Norwich, the city where the organisation was founded in 1797 by one Thomas Bignold. Here the Society's staffs number nearly 2,000 men and women and towering new offices to house them are being built near the centre of the city. (See photograph, p. 95.)

"Now," continued Mr. Robarts, "we are building in many overseas countries—in fact these investment activities follow automatically wherever we have insurance funds to invest, which means that with life insurance branches in seven countries and fire insurance in seventy, we are building all over the world."

"Naturally the Norwich Union looked first for development sites in the bombed towns," said Mr. Robarts. "When we find what we think will be a suitable site we bring into the discussion the local authority, the quantity surveyor, the architect and the letting agent right from the start. We believe in team work until the whole scheme for that particular development has been worked out; then we give our architect a free hand to see it through. We aim at a high standard of both building and finish for we realise that a good scheme is a good advertisement for the Norwich Union, and we are also very jealous of our name as a good landlord." Some rents in post-war developments have been reduced where final costs are less than those anticipated at the time of fixing the tenancy. In seeking tenants for new developments they have stood out against the idea of differential rents as a bait to bring "magnet" firms into their shopping developments, believing that this practice creates ill-will among the smaller tenants.

One of the earliest post-war jobs and one the directors most enjoyed doing was the rebuilding of Serjeant's Inn, a complete reconstruction of buildings destroyed by enemy action, carried out in "a style to blend happily with Georgian neighbours." Mr. Robarts described this as "a prestige job and a labour of love."

Today the Norwich Union is mainly associated with large high blocks of offices or sometimes flats, which create problems of scale—and nowhere more so than in Norwich itself where the sheer expansion of staff has compelled the directors to celebrate the 150th anniversary of the original Life Office by developing extensive areas in the centre of the city which some people feel dominate the older buildings round about, despite the efforts of the architects to try to get "a happy balance."

"We have found the erection of modern buildings presents more problems in Norwich than anywhere else," said Mr. Robarts—and perhaps one reason is that the directors are all Norwich men who are proud of the city and anxious not to spoil it; yet the size of their business, while one of the things that maintain the town's prosperity, is such that it is almost bursting the city at the seams.

"The alternative to building up is to build outwards," said Mr. Draper, "and that would mean spreading ourselves over a large part of the central area. All expanding businesses in central Norwich face this problem. This is a fine old city with a very wide range of architecture and we always have to decide whether to try to match the existing older styles or to use a modern idiom, whether to build to the scale of the surrounding buildings and to spread out or to build up. Over the years we have done both, but for our latest extensions to headquarters we decided that the only thing to do was to go up."

Mr. Draper considers that too many architects refuse to face the fact about building today: "I consider

Norfolk House, Croydon, designed by Howell and Brooks, consultants, T. P. Bennett and Son



architects are too much in competition with one-another, all aiming for individual differences instead of being concerned with establishing a style.

"What a developer wants the architect to produce is something which is pleasing to look at and on completion will let—it must be functional. Obviously in these days you construct the frame in steel and concrete, the next stage is to clad it and with the great advancement of the many new materials cladding has become an interesting problem.

"The fact is that when you thoroughly study the requirements of a development—in particular the need for flexibility—certain standards emerge. For example, there is really only one answer to the question as to what is the optimum width for an office block. The total floor area must provide a big enough lettable area for a tenant requiring a large open space but at the same time the layout must be capable of sub-division into offices in which every square foot of space can be utilised. These criteria, in our view, give a necessary width of 38 feet, that is room for a 16-ft.-wide office on each side of a central 6-ft. corridor. It is true that this does not leave much scope for individual character and design, though you do what you can by means of careful choice of materials. You let offices by the square foot and as all businesses are fighting rising costs, you simply dare not waste a single foot, or the tenant will be asking 'Why should I pay for these extra square feet in my office, which I don't want?'"

A 16-ft.-square office is in fact the basic unit on which the Norwich Union—and probably most firms who build offices for letting—base their designs, the tenants taking space in multiples of 256 sq. ft.

"We are very much alive to present-day traffic problems," said Mr. Draper, "and we would not normally consider building any office block where some provision for car parking could not be included. But we like too, to co-operate with the local authorities in providing extra amenities—if a site calls for some open space for example, we provide that; at Solihull we hope shortly to begin a comprehensive scheme, in co-operation with the local authority, for a completely new shopping centre, which will include a pedestrian precinct in which all the street furniture will be designed specially for the site.

A rapid tour of the city (we even darted through the cathedral and the cloisters) gave me a strong sense of how very local in feeling these Norwich Unionists are; they may be building offices in Sydney and South Africa, but clearly they belong to Norwich—or maybe Norwich belongs to them? That what they build, however, is as international and rootless as if they lived in a sputnik in the stratosphere, is just a fact of life ruled by the 16-ft.-square office on each side of a 6-ft. corridor.

The development of central areas and shopping sites is Mr. R. A. Parry's strong point. A director of City and Town Buildings Ltd., a development company which is a wholly-owned subsidiary of Second Covent Garden Property Co. Ltd., he outlines his know-how with a kind of frank, friendly toughness, saying, "It's not what I, my company, the architect,

planner or local authority like that matters, but what will Mrs. Smith with £3 or £4 in her purse think of the shops provided for her. When all's said and done, the customer pays."



R. A. PARRY—builds shops to suit Mrs. Smith

Mr. Parry has a nose for a good development site and when a small site with possibilities is offered, with, say, 30 ft. of main street frontage, he and his colleagues set to work to acquire the adjacent properties also, to enable them to plan a major scheme including such necessities as rear service and access areas and parking for tenants and shoppers.

"Before acquiring a site one has to visualise who the tenants are likely to be," said Mr. Parry. "For the scheme to be successful one must provide accommodation of a suitable size for the 'magnets'—in other words if you can let your key shops to a big multiple firm, the rest will be leased without difficulty.

"When one looks at a site in the first instance one doesn't think of the type of construction, or the design of the shops or offices, one's mind starts clicking as to who will occupy the units. A quick look round the town tells you that some well-known chemist, grocer, fashion store, for instance, really must have larger premises to meet present-day standards. Then one plans accordingly and can offer the ideal sized store for the chemist, supermarket or similar user. Needless to say, one has to be fully aware of the areas, heights, floor loadings, etc., these large users require, before one can make an offer that will be seriously considered.

"Leases to tenants vary as to term, but always a full repairing covenant is included: this means that the property must be constructed of first-class materials throughout, ensuring that the tenant will not have to pay out large sums of money during the term of the lease, which is often for a period of 42 years."

Mr. Parry went on to explain the basis on which rents for shops are decided. "Many people imagine," he said, "that rents for shop premises are based on a percentage of costs—the site and the building. This is not the case: shop rentals are based on the rentals operating in that particular street, or that part of the street—and usually the person selling the site is fully aware of that!" he added.

"One of the main difficulties in acquiring large sites, is purchasing the freeholds of the last two or three plots, where one is usually held to ransom.

"Shop rentals are usually governed by proximity to nationally known stores, so if one can secure one or



Shops at Swindon, designed by Fewster & Partners . . .

more of these for a particular object, one is assured of a successful development. In other words—Mrs. Smith will be a happy customer!" Post-war shopping developments in this country are generally planned for specialist shops—shoes, fashion, furniture, food, and so on, and Mr. Parry believes that the public in general prefer these to a department store.

He went on to talk about the planning of shops and the importance of fronts, interiors and displays in attracting the public. "Many people make the mistake of going for standard design," he said, "the same presentation for Bond Street, Oxford Street and Kilburn High Road. Are the shoppers in these thoroughfares all the same type? Of course not. Presentation should be based on the type of shopper using the street, be it expensive, popular or cheap."

A well designed shop should draw the customer in, inviting him to have a look round without giving him a sense of obligation to buy. Never have a step between pavement level and ground floor level, is one of Mr. Parry's rules: "If a variation of level occurs, this should be ramped so that shoppers can stroll into the

lobby or arcade without feeling they are stepping on somebody's ground," he said. "Doors should always be open, the display so designed that it leads people in.

The planning of a shopping development is clearly a highly specialised business, and Mr. Parry's company almost always prepares rough layouts of its proposals and discusses preliminary requirements with local and county authorities. This information and detail is then passed on to the appointed architects for finalising the plans and obtaining all necessary approvals.

"Difficulties are experienced at times with some of our professional friends," said Mr. Parry, "due, frankly, to their lack of knowledge and experience on shop layouts not of construction methods. However, these are overcome in due course. Another problem that crops up with shop developments is that when your building is two-thirds complete, a tenant will decide to take three units, and then all have to be reconstructed as one; however if such possibilities are foreseen at the planning stage, they can be overcome with a minimum expense."

I asked Mr. Parry whether he came up against difficulties with planning authorities, or with the Royal Fine Art Commission, for instance, particularly when developing large areas in the heart of old towns.

"Difficulties on general design are encountered with local authorities, county planning officers and in some cases with the Fine Art Commission," he said, "and these delays cost my company a considerable amount of money. But we can normally, after discussion and a little co-operation on all sides, iron out the difficulties. The treatment of elevations demanded by official bodies sometimes doesn't meet with our approval, but we go ahead in order that the development as a whole need not be further delayed.

"Delay causes considerable embarrassment for us because normally lettings have been arranged and shops or stores planned to suit the requirements of tenants, immediately the site has been acquired. Major shop users have a very tight programme of expansion and each unit is included in this programme based on a particular date (given by us), and the company's finances, publicity, stock requisition, staff and so on all allocated accordingly. So you can see what difficulties delays cause."

Thinking of the devastation sometimes created by the development of new shopping areas in the centre of old cities, the sad sights (or sites?) at Bath and Bristol, the successful rage of the people in Bury St. Edmunds, I asked Mr. Parry how he tackled the difficult problem of fitting the new in with the old, when the old is full of character and worth preserving. He agreed that it could be "most difficult," but insisted that "where possible elevational treatment of our development is such that they blend with local buildings of character. Usually a happy medium is agreed."

He went on to cite the example of the development of Shrewsbury Market Hall, where his company had commissioned David Aberdeen, in association with Lionel Gregory, to design the new building. "We consider that they did a very excellent job," he said, "which we feel blends in with the general trend of treatment in the locality." (See p. 95.)

. . . and at Christchurch, Hants, by Lionel E. Gregory



1961—a survey

In the pages that follow we give the AJ's survey of some of the more important and significant events of the coming year. This includes research projects which are likely to prove fruitful, technical developments which may materialise, issues which are likely to be under discussion within the profession, conferences and exhibitions that will be held, and interesting new buildings at present on the drawing boards or under construction.

A Acknowledgement

We would like to offer our most grateful thanks to all those who have contributed material to this survey.

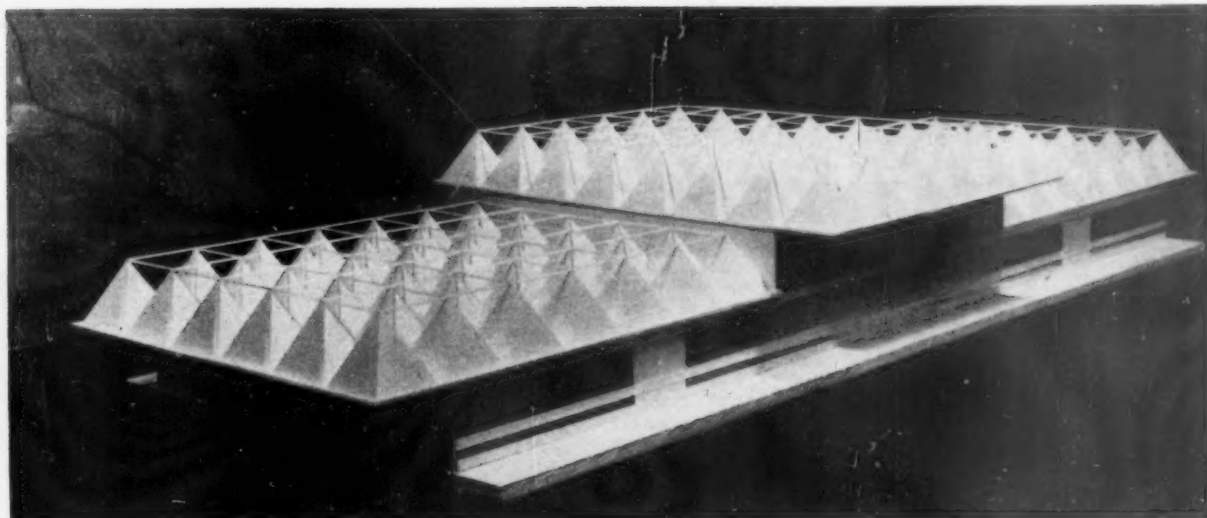
Administrative reform

One of the major issues in planning which, it seems, will come to a head in 1961, will be whether the present administrative structure needs to be reformed to create larger units. We already have two indications of the trend in this direction. First was the report of the Royal Commission on the possible revision of the structure of the London area. Second, we have had the report of the Bow group, one of whose suggestions was that the type of larger unit proposed by the Royal Commission should be generally adopted throughout the country, so that the conurbations can be handled and controlled as single entities. Whilst the creation of bigger administrative machines may in some respects be regretted, particularly since small local interests may suffer as a result, there is no doubt that the major problems of the big urban areas can only be tackled in a comprehensive way. One lesson, however, is already emerging in the London area. This is in regard to the proposal that the

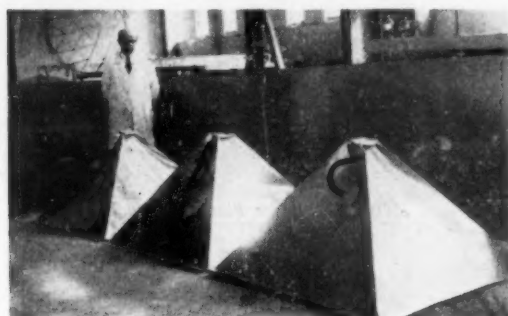
existing boroughs should be amalgamated into larger units. Since the publication of the Royal Commission's report, there has been no very clear statement from the Government as to exactly how or when such a change may be implemented, and as a result the architectural staffs of the boroughs are naturally plagued with uncertainty as to what their futures may be. Such disservice to these architects and the programmes of building that they have been carrying out might well be avoided in the future if other such changes are on the way.

Aluminium

New structural forms using aluminium are in process of development and testing work has recently been carried out by Dr. Makowski at Imperial College. The pyramids shown on the opposite page are prototypes forming part of a roof structure designed by Dr. Makowski for the Hotel Bristol, Lagos (Architects' Co-Partnership). The pyramids stand upside down in the roof (*i.e.*, with their points downwards) and their apices are connected by a grid of aluminium tubes. A similar structure, also designed by Dr. Makowski, is being used for the temporary building (architect, Theo



Model of roof for the IUA temporary building and (below) aluminium pyramids after test



Crosby) which we illustrate above, for the coming IUA Congress in London. The only difference is that the IUA roof has the pyramids the other way about, with their spikes pointing upwards. This is less sound structurally, but the architect preferred it so.

Architectural Advisory Panels

The Central Panels Committee, which is under the chairmanship of Clifford E. Culpin, announces that there will be a conference of the Architectural Advisory Panels on March 9, when there will probably be a review of Panel policy. Because of the increase of Panel work, Mrs. J. M. Joyce has been appointed as part-time secretary.

Arts Council

Coinciding with the IUA congress in July, the Arts Council are arranging an exhibition in their gallery at St. James's Square under the title "Architecture Today." Arranged by Trevor Dannatt, it will be a selection of buildings in this country completed in the last ten years. The series of Arts Council exhibitions at the Tate Gallery during the year is likely to include one on the works of Toulouse-Lautrec (March-April), the first major exhibition of Daumier (June-July), a retrospective collection of Max Ernst (September-October) and at the end of the year a commemorative exhibition of the work of Epstein.

Other Arts Council exhibitions in London during the year will include a collection of national art treasures from Korea (March-May) and Italian Renaissance bronzes (June-September), both at the Victoria and Albert Museum.

B BASA

A new executive takes over this month, led by Chris Musson as the new president, with Ken Claxton (Plymouth) as secretary, treasurer Jeremy Hodgson, assistant secretary Brian Gough (Liverpool), editor Michael Cassidy (Bartlett), publicity officer Tim Murgatroyd (Hammersmith), and ordinary member Adrian Sansom (RWA, Bristol). Chris Musson was educated at the County School, Penarth, where he took both science and arts subjects. His education, he says, stopped on entering the Welsh School of Architecture, Cardiff, which involved a first year course in classics and archaeology (now a favourite hobby); education started again on joining BASA and organising the questionnaire on schools which caused some embarrassment to the reactionary. He qualified last June and is now working in a private office in London.

The new BASA executive plans in February to visit as many architectural schools as possible. They hope to meet staff and examine the facilities available as well as to discuss educational problems in general and the work of BASA with students.

A conference at York in the autumn will seek to finalise BASA research on the education of the architect. Particular emphasis will be placed upon the problems of finding an educational system capable of responding to the needs of a rapidly changing culture. In the meantime, a full report of the BASA Oxford conference, together with the association's recommendations to the RIBA will be published shortly in book form.

The association believes that good buildings are rare, and that the need for better architects (by which they mean better *educated* architects) has never been so urgent. BASA's long term aim thus remains the improvement of the standards of architectural education, and in the current year they will press for:

1. The establishment of post-graduate research fellowships wherever possible, with emphasis upon research into environmental needs and the related functions of architects, sociologists, economists and scientists in the tasks of urban and rural renewal. This work should be co-ordinated with other research organisations so as to give a large-scale directive and to avoid duplication.
2. The establishment of courses for teachers in architecture (similar to those already held at York) on problems of teaching method, assessment of ability, etc.
3. A standard of entry into the schools which takes account of the fact that architecture requires the broadest possible educational background. This is at present practically impossible to achieve because of the restric-

tive and premature specialisation in secondary schools; headmasters should allow a more flexible choice of subjects for those contemplating entry into the profession.

4. Postponement of consideration of any scheme for a two-tier profession until the results of the RIBA's research into office procedures etc. have been published.

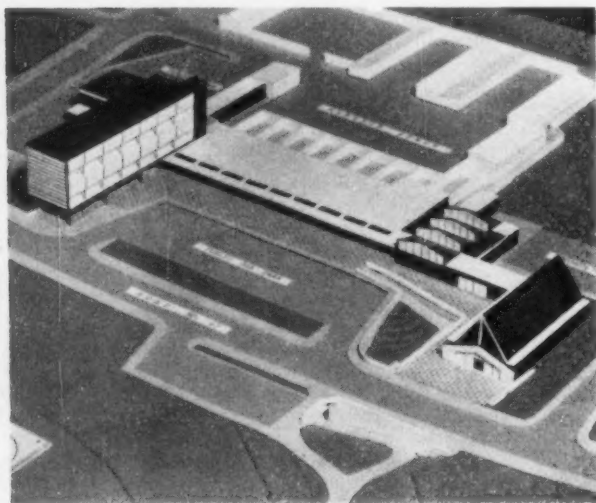
5. Funds collected from students as examination fees and subscriptions *in excess* of expenses in the organisation of exams. to be allocated to educational research and services, travelling scholarships etc.

6. The use by the RIBA of its powers of recognition to improve school facilities as well as purely educational standards. Minimum standards should be introduced for library and workshop facilities.

7. The introduction in schools of a teaching method which has as its primary aim the bringing out of the best in each individual student by making him constantly aware of his surroundings and of his own capacity to change them.

Basildon

The scheme for the Lee Chapel North neighbourhood centre, at present at working drawing stage, comprises a group of buildings forming a social and commercial centre for a surrounding population of about 9,000 people. It will consist of nine shops, a public house, a church, community hall, together with a block of 14 maisonettes, 56 garages, and a Corporation maintenance dépôt. In due course the centre will be linked by means of road underpasses to the footway system for



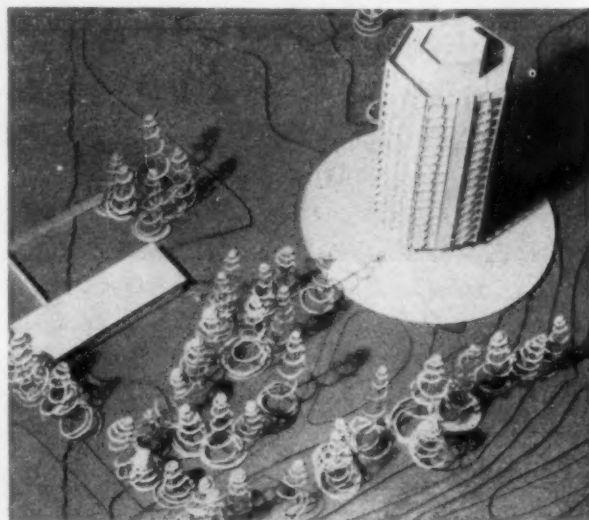
New neighbourhood centre at Basildon, Chief Architect-Planner, A. B. Davies

the neighbourhood, which is entirely independent of the roads. There is also a cycle track which runs from north to south through the area, just to the west of the centre.

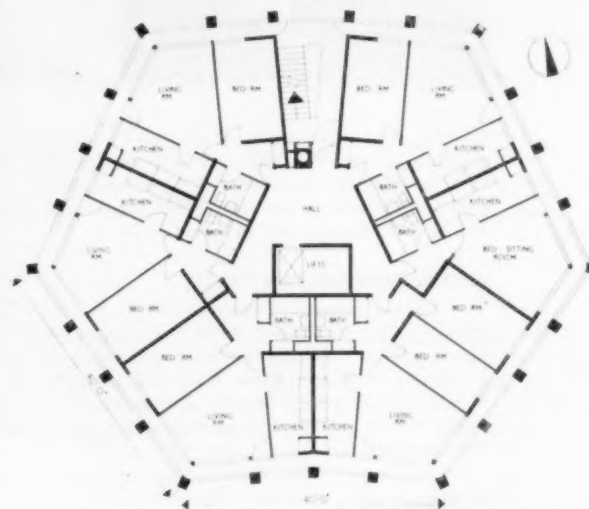
Bracknell

This tower block, designed by Ove Arup and Partners, will visually be the focal point at Easthampstead dominating the green. Bearing this siting in mind, the scheme excludes cars both physically and visually from the green and the immediate surroundings of the block. Car parking space, one per flat, will be provided under the entrance terrace, excavation for this semi-basement being reduced to a minimum by building an artificial embankment around the area, both features being carefully related to the existing contours. Easy access is provided to the base of the flats for furniture vans, refuse carts, etc., and at garage level in the central supporting

core provision is made for lifts, lift hall, refuse chamber, switch room, pump and break tank rooms. Before finalising the plan a variety of different plan forms were tested, and the hexagonal form with six flats per floor was found to be the most economical. The detailed plan of the typical flat has been arranged so that all rooms with standard equipment such as bedrooms, bathrooms and kitchens are rectangular on plan. The designers feel, however, that there are advantages in the irregular shape of the living-rooms. Not only does it provide longer solid



Model of tower block at Bracknell



Typical upper floor plan of flats in tower block

wall surfaces on which to centre hearth and table, and create a more definite separation between the dining and sitting areas, but it results in a large view window at the end of the room. Due to the lack of suitable fire-fighting equipment in the area, an external gallery is provided at each floor level round the full perimeter of the block. This gallery has a number of additional advantages, including the reduction of problems of weathering and staining of the outside face; it provides a visual extension to living-rooms, giving a sense of security on the upper floors, establishing the scale of the outside of the building while giving aesthetic unity to the block by this three-dimensional treatment. Work is due to start on site in the spring.

idea hard; Norfolk, for example, is programming up to six schemes a year. The Trust foresees that the movement will consolidate in this way, and plans are in hand to give it a further powerful boost during the year. Apart from the actual results achieved, the educational effect of this programme is clearly considerable.

Second will be a big drive for the removal of eyesores of all kinds, from rusty iron bedsteads on the roadside to abandoned aerodromes. To date about fifty sites in rural areas have been cleared by volunteer labour, and this year will see the urban equivalent of this work through the various national youth organisations.

Third, the Trust will continue the support and formation of local amenity and civic societies. At the end of last year there were 315 on the Trust's register, with new societies being created at the rate of about one a week. The Trust sees in these the growth of informed local opinion which it hopes gradually to shape by regional and county groupings to accord more closely with the administrative areas of the planning machine. These societies will continue to be served by the distribution of the Trust's Bulletin, and by financial assistance in the more important cases.

Fourth, the Trust's scheme for triennial awards for good development of all kinds will come into its stride in 1961, when it will also apply to the London Boroughs.

Lastly, the Trust will continue the fight for the improvement of the centres of cities and will continue to give help on all types of problems from the small ones, such as preservation, tree planting and street lighting, to the big planning issues of traffic and central redevelopment. Beyond all these policies the Trust will keep its detailed programme flexible so as to be ready for sudden emergencies. "It is in any case," they say "inadvisable to publicise your rockets until they are in orbit."

Concrete

Concrete has attracted a considerable and very diverse research effort—an effort which is ever increasing. It is only possible here to mention a few of the major items of research and these are grouped under three headings: Design methods and testing, Site practice, and Products and materials.

Design methods and testing

Under this heading perhaps the most interesting long-term project is the decision of the C&CA to order an electronic computer for their research station at Wexham Springs. This will enable them to carry out a number of analytical investigations which hitherto they have been unable to tackle.

One of the major developments is the use of models to determine the stresses in a structure. Complicated structures which do not lend themselves to mathematical analysis can be analysed relatively simply by model techniques, and the C&CA is devoting considerable effort to such work. They are setting up a models testing laboratory at their research station at Wexham Springs and have already carried out tests on models of several important structures. The dome for the new Smithfield Market is the subject of a present study, and Southampton University is carrying out model tests on the roof of the Sydney Opera House.

Another interesting development in this field is the evolution at Birmingham University of a method of using plaster models for testing. It is intended that these models should be capable of being made and tested in the drawing office to give a general picture of the mode of behaviour of a proposed structure.

Concrete hyperbolic paraboloid shell roofs have attracted considerable attention over the last year or two and the C&CA has been carrying out both theoretical and experimental work on their design. A research report is shortly to be issued on this subject. Southampton University is carrying out work on the

ultimate load design of prestressed concrete triangulated frameworks.

Just as X-rays can be used to reveal the bone structure in the human body, gamma-rays can be used to reveal the presence and position of reinforcement in concrete. The C&CA has developed the use of gamma-rays for this purpose and this technique is now commercially available. It has also been found, however, that the back scatter of gamma-rays from concrete gives some indication of the quality of the concrete, and this is being exploited in the development of a technique for the non-destructive testing of concrete.

Site practice

Relatively little is known about the pressure exerted by concrete on the formwork when the concrete is being placed and vibrated. To obtain reliable experimental data concerning this, work is being carried out at the Royal College of Science and Technology, Glasgow; the results of this when available should be of considerable assistance in the design of formwork.

When designing the concrete mix for a particular piece of work it is essential to know the variation which can be expected in the results of compressive tests on the control cubes. The C&CA is carrying out an extensive survey of the results obtained on a large number of sites all over the country where various degrees of control were exercised, and the results of this survey are given in C&CA Research Report No. 10 to be published in the very near future. Meanwhile at Queen Mary College a method is being developed for obtaining the 28 day strength of cubes in a matter of 24 hours, by boiling the cubes. Obviously some form of accelerated test which can predict the 28 day strength so quickly would be of enormous advantage in controlling the quality of concrete on the site.

Products and materials

Mention has already been made of the work of BRS on lightweight reinforced concrete. This is unquestionably the most important development in concrete as a material: most of the major contracting firms in the country are doing work on it (among them Costain, Cubitts, Laing, McAlpine, and Wimpey) and research is also being undertaken at the University of Leeds. Prestressed concrete also continues to attract attention: work is being done both at Leeds and at University College, London, on bond stresses in this material. At Queen Mary College a programme is under way on the use of fibreglass as reinforcement.

During the past few years the C&CA have been doing intensive work on the weathering properties of different aggregates when used as facings to concrete slabs used on vertical surfaces. A similar investigation is now to be made of the wearing properties of concrete pavings. Research and development is also to be done on housing estate roads and fair-faced concrete blocks.

Colour and Lighting at B.R.S.

In lighting, the main interest will continue to centre round Permanent Supplementary Artificial Lighting in Interiors (PSALI—see the AJ of October 8, 1959), the scope being widened to include not only schools and offices but also hospitals and factories.

The 101 colours, evolved by BRS and published by BSI as B.S.2660 6 years ago, have been a resounding success both in the trade and among paint users. For some time now BRS have been engaged on the more difficult and delicate task of evolving sub-ranges of self-coloured materials which will be related to the 101 colours. So far ranges have been worked out for asbestos cement, ceramics, vitreous enamels, rubber tiles, p.v.c., melamine sheet, linoleum and vinyl. Special attention is to be paid during the coming year to materials for obtaining coloured facings on bricks.

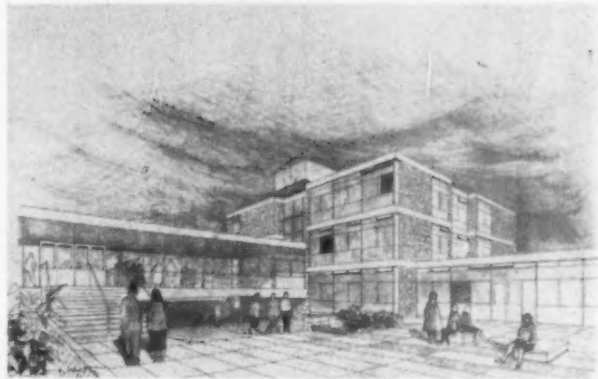
Cooking

One of the latest technical developments in the gas cooker which we shall see more of is the thermostatic hotplate, which can be used to regulate the temperature of a liquid in a saucepan (i.e. keep it at a temperature below boiling) and so is very useful for making sauces. So far, one cooker with this device has been put on to the market by an appliance manufacturer. The main effort on the gas cooker, however, has been to make it cleaner, faster and self-lighting. Up to now the emphasis has been on making the parts easy to get at and simple to clean, but new design features are on the way which ensure cooler, smoother surfaces from which cooking dirt can be removed easily.

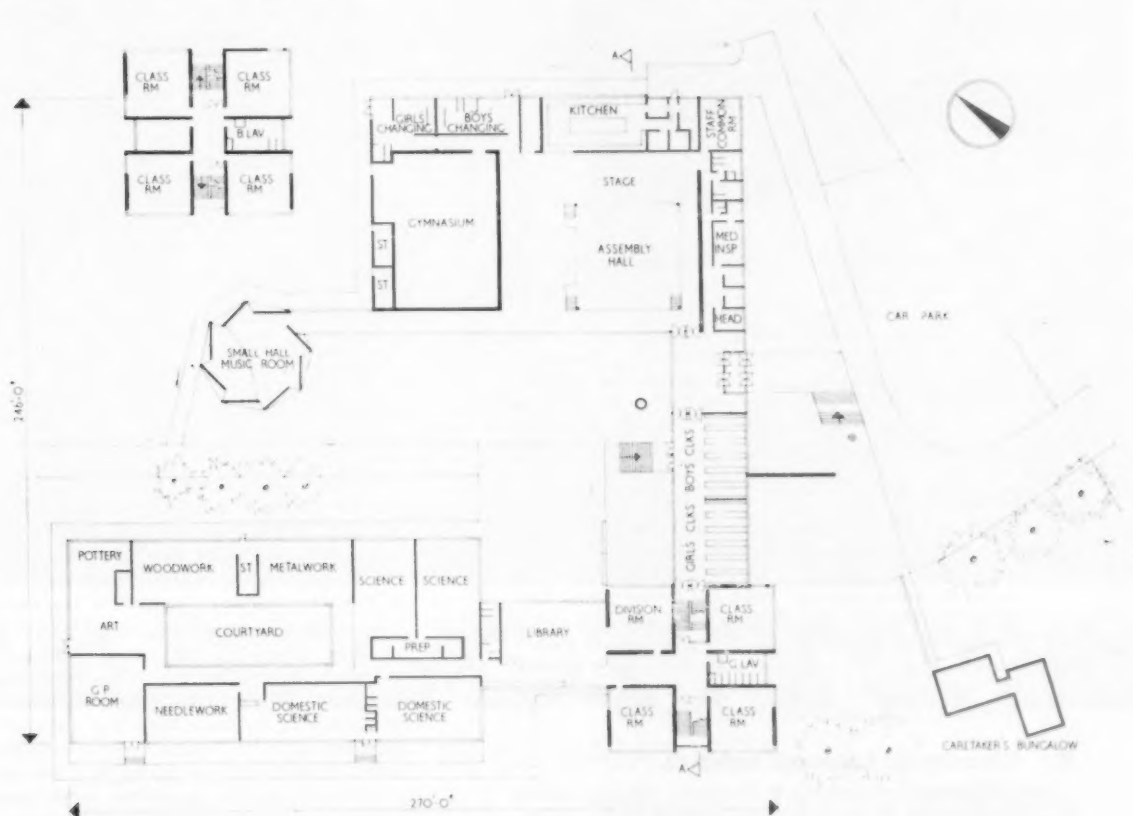
Cornwall

Among the many projects in the building programme of Cornwall County Council (County Architect F. Kenneth Hicklin) is the three form entry secondary school at Penryn. It has been possible in this scheme, which is now under construction, to provide a dining area within the costs limits, and to project out the music room as a completely separate unit to minimise noise interference with the rest of the school.

an instrument of cost ascertainment. An investigation by BRS is being carried out to test the assumptions behind the cost planning.



Perspective of main entrance and (below and inset, left) ground and upper floor plan of school at Penryn, Cornwall now under construction

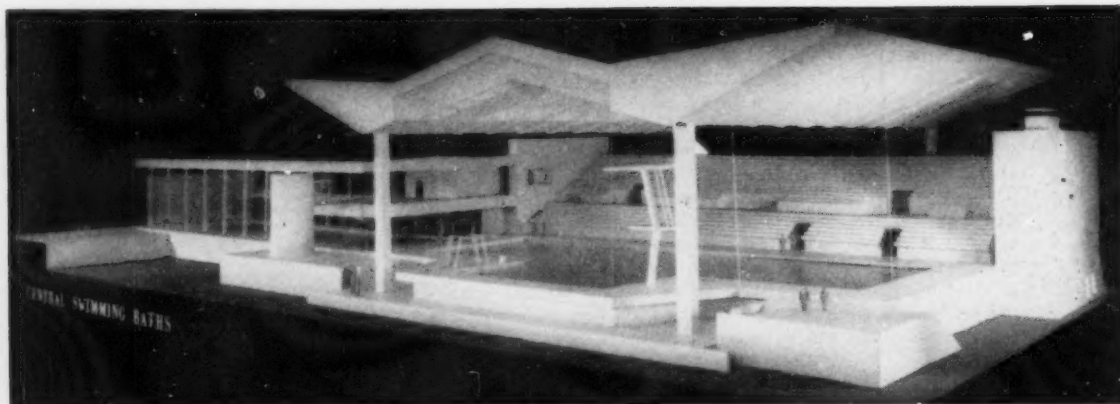


Costs

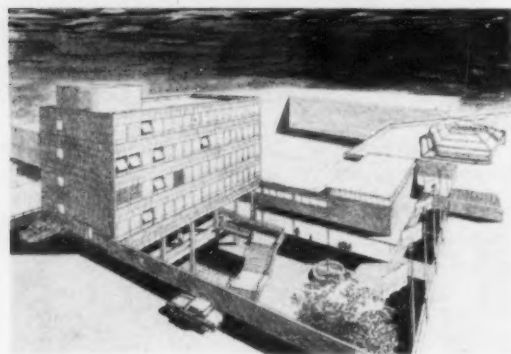
The BRS investigation on the cost of flats is being continued. The original investigation had necessarily to be confined to tender prices; it is now proposed to extend it to actual costs of construction and, further, to make special studies of such items as lifts, electrical work, claddings and finishes. Another cost study is concerned with a comparison of the prices of nurses' hostels with two- and three-storey domestic buildings which are similar both in structural type and in their use category. Up to now cost planning has been developed as a tool to help the designer to control expenditure. Although it has proved of value, certain differences in the builders' approach to cost can sometimes make it unreliable as

Coventry

Among many projects in hand during the current year at Coventry (City Architect and Planning Officer Arthur Ling) is the new Central Swimming Baths which will start on site later this year. The final phase of the Lanchester College of Technology will also get under way. Due for completion in 1961 is Shelton Square, which is part of the central pedestrian shopping area. This year will also see the coming into operation in the city of a Building Information Centre. This will be built round the Technical Information Library which already exists in the Coventry Department of Architecture and Town Planning. It will be available for use by private architects, builders and others concerned with



Swimming baths and (below) Shelton Square shopping area, Coventry



development in the city and has the active support of the London Building Centre. While not attempting to maintain an exhibition of all materials and components like a full-scale building centre, its aim will be to provide a local service of technical information on building matters. It is being regarded by the London Building Centre as something of a prototype for the kind of small information centre which might be set up all over the country to supplement the regional building centres.

D Design Centres

There will be an exhibition of street furniture at the Scottish Design Centre in Glasgow from January 23 to February 18. At the Design Centre in London there will be an exhibition entitled "Week-end Living" from February 27 to April 8. The Design Centre Awards for 1961 will be made in May, to up to a maximum of twenty designs. This year's selection panel will consist of Mrs. G. Schrieber, Mrs. J. Patrick, J. M. Richards, and Neville Conder, chairman, Whitney Straight.

E Education for Landscape Architects

The Institute of Landscape Architects will be tackling the problems of recruitment and training for the profession. The special committee set up some time ago under the chairmanship of Arnold Weddle has now submitted its report to the ILA Council and this will be published shortly. In the meantime there is a good chance that a Chair in Landscape Architecture will shortly be established at one of the Universities.

In addition, there is the possibility that post-graduate courses will be established at various Universities with syllabuses for two or more years. The ILA see this regional pattern of training as the opportunity for Universities to study the landscape characteristics peculiar to their localities, while developing aspects of design complementary to the specialities of their own graduate courses.

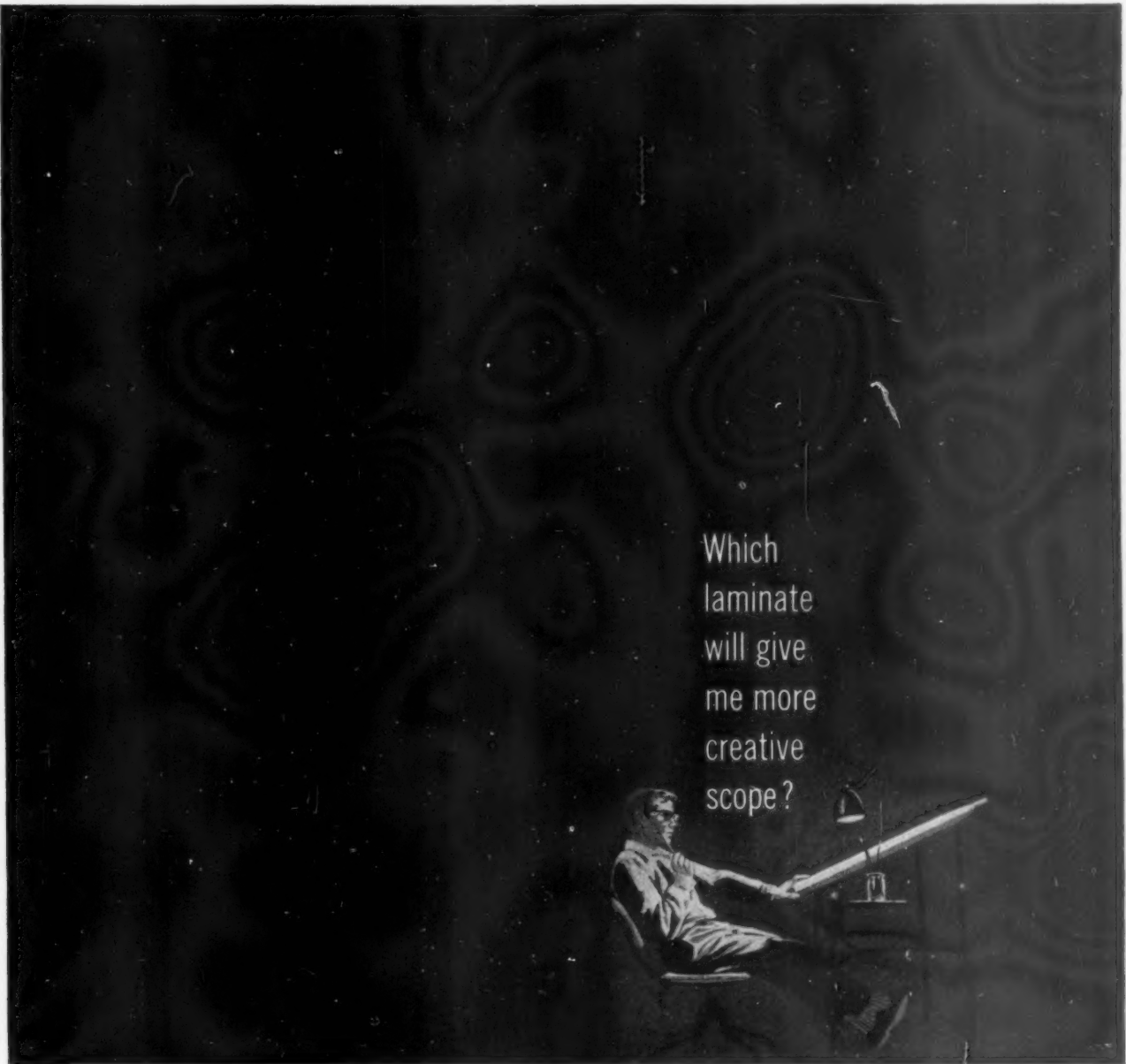
Electrical Heating

Naturally the application of heat rather than its production is currently the subject of research and development because electrical heaters are 100 per cent efficient in converting electricity to heat and the problem of trying to increase efficiency does not arise.

Probably the most interesting development is the erection of two pairs of test huts; one pair in the south and the other in the north of the country, and the huts are being used to make comparisons between the calculated and the actual heat losses during bad weather and over a complete heating season. In each case one of the huts acts as a control. They will also, however, be used during the earlier stages of the test programme for investigating how performance of electric floor warming varies with the thermal capacity of the walls, to compare the heat storage in a ground floor with cables at different depths, the effect of wall and floor insulation, the variation in the heat needed to warm a known building intermittently by direct electric heating and by "off peak" electric floor warming, the variation in the heat required with varying climatic conditions including the effect of the previous day's weather. It is hoped that by duplicating the experiments in the two localities the effects of weather differences between the north and south of the country will be shown. While there is evidence that under closely controlled laboratory conditions the heat input necessary to maintain thermal equilibrium in a room is equal, within reasonable limits, to that computed in the ordinary way, there is at present very little available evidence for buildings exposed to the weather.

The results may soon be published of the comparative tests on heating existing school buildings by electric thermal storage block heaters and other methods that have been carried out in co-operation with the Ministry of Education. In these tests four pairs of schools in different parts of England were instrumented. One school of each pair was heated by a hot water radiator system and the other by electric block heaters and the schools in each pair were of approximately similar size and construction. The annual fuel costs of the electrical installations were higher than for solid fuel though lower than for oil firing. But the total annual cost, including capital charges, depreciation, fuel and labour costs, and allowances for repairs and maintenance, was approximately equal in the case of electric heating to that of solid fuel and less than oil heating. Assessments of comfort conditions showed no decisive difference between the electrically heated and the other schools.

It has long been recognised that electric floor warming and block storage heating installations give satisfactory results in practice with lower loadings than are indicated by conventional calculations and the reasons for this apparent anomaly will continue to be investigated by a



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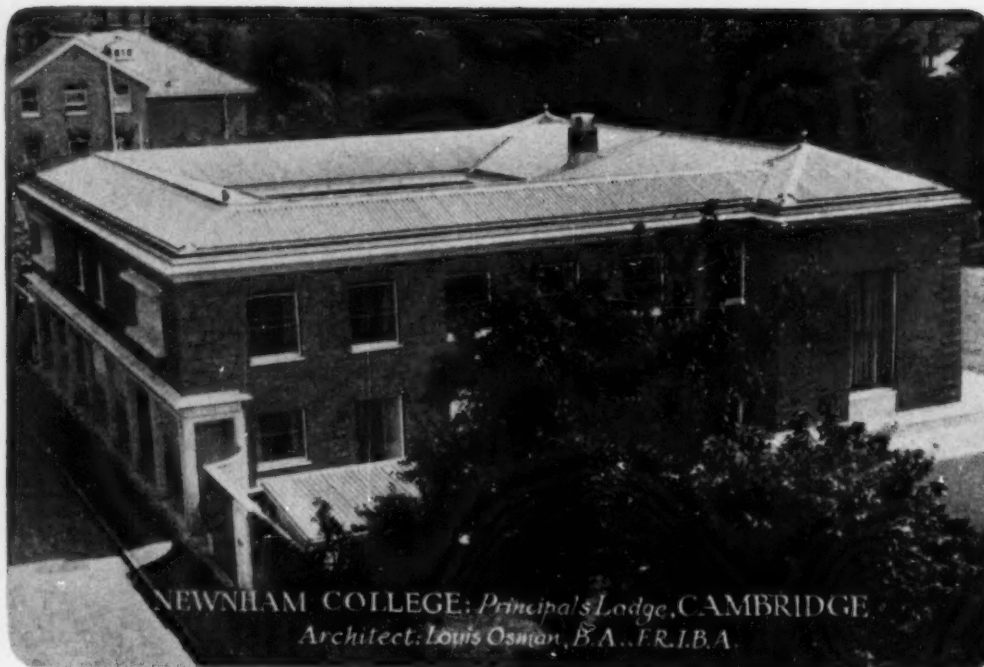
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special Committee set up by the Heating & Ventilating Research Association. Experimental work has been carried out on six existing buildings and it is confidently expected that the results of these experiments and the deliberations of the Committee will lead to the framing of a universally acceptable method of calculating installed loadings with "off peak" electric heating. Studies have also been made of the upward and downward flow of heat from electrically heated suspended floors with various finishes and arrangements of insulation, and work is being carried out with new types of block storage heater which will widen the scope of their usage and give better flexibility of control.

Exhibitions

Among the important exhibitions during the year will be the following:

Furniture, Earl's Court	January 30-February 11
International Carpet, Linoleum and Floor Covering, Earl's Court	February 27-March 3
Ideal Home, Olympia	March 7-April 3
Electrical Engineering, Earl's Court	March 21-25
British Trade Fair in Moscow	May 19-June 4
Building and Public Works, Castle Bromwich, Birmingham	June 14-24
International Construction Equipment, Crystal Palace	June 15-24
Building and Public Works, Belle Vue, Manchester	July 5-15
Russian Trade Fair, Earl's Court	July 7-29
Heating, Ventilating and Air Conditioning Equipment, Olympia	September 26-October 6
Engineering Materials and Design, Earl's Court	November 13-18
Building, Olympia	November 15-29

F Flues

In tall buildings the gas flue will continue as a problem for study. The introduction of the Se-duct some years ago greatly helped by enabling appliances on different floors to be connected to a single duct. Development work on the Se-duct will continue and it now seems likely that conditions of use can be defined where the cross-section of the duct can be reduced by, say, 30 per cent. Experience is also being obtained on the fresh air intake at the foot of the duct. At present, intakes must be placed on two different sides of the building to avoid the possibility of negative pressure; but it is thought that this may prove unnecessary.

G Gas Heating

The gas industry, spurred on doubtless by competition from oil and electricity, is very active in research and development. In space heating the move away from the uni-directional gas fire, first evidenced in the convector fire, is being carried a stage further by the inclusion of an integral thermostat which regulates the fire according to the temperature in the room and by the development of the totally enclosed gas fire. This last results in greater heating efficiency and an even more precise control of room ventilation, giving from 70 to 75 per cent thermal efficiency when closed, where the present radiant/convector gas fire gives an efficiency of 60-65 per cent on a comparative basis. One version of this new type is already on field trial and gives a bright, radiant appearance even when turned down to low rates.

The gas industry has increasingly accepted electric controls and electric fans, e.g., in selective warm air heaters. Looking ahead, a fan may be incorporated in appliances to give a wider distribution of convected air and possibly an additional small fan to permit smaller flues to be used in dealing with the combustion products. The insertion of a fan in a flue produces an effect analogous to the insertion of a pump in a hot water

circuit, and experiments have shown that this could mean a substantial reduction in flue diameter and simplify termination.

The introduction recently of two part tariffs by most Boards has placed gas in a strong position in the domestic central heating field. One modest advantage which gas can show as a means of heating small bore circuits is that the boiler itself can be wall mounted, thereby freeing floor space. One model has so far been adapted to this use.

Gold Medal

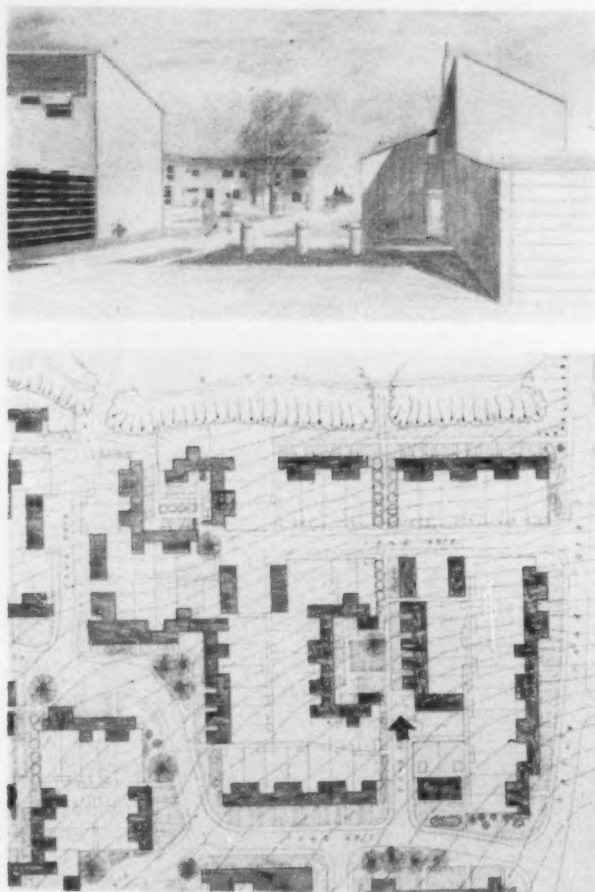
Her Majesty the Queen has awarded this year's Royal Gold Medal for Architecture to Professor Lewis Mumford. The medal is usually presented in the spring, but since Professor Mumford is attending the IUA Congress, the presentation will be made on June 27, at the RIBA at 6 p.m. A disciple of Patrick Geddes, he is perhaps best known through his many books, especially his masterly study *The Culture of Cities*, and *Technics and Civilization*. During the year his latest book *The City in History—its Origins, its Transformations and its Prospects* will be published. Through his writing he has, of course, gained an international reputation as an authority on town planning, and exerted a powerful influence on current trends in this and other fields.

H Harlow

With a continuous programme of housing as at Harlow (architect-planner Frederick Gibberd, executive architect Victor Hamnett), there are opportunities for the consistent development of new ideas of planning and layout. In the two schemes illustrated, Area 68 North (Woodcroft) and Area 66 (Willowfield), two principles have been developed; first to relate the scale of the housing groups to the space they enclose, and second to develop a system of roads serving these groups which inhibits fast through traffic. In the Woodcroft project close attention has been paid to the detailed design of the squares, not only to achieve overall dimensions which are in scale with the houses that surround them, but also to take account of changes in level, surface pattern and the modelling of façades. The organic layout that results includes an intricate network of narrow pedestrian ways, which open out into interesting pedestrian squares throughout the area. The layout at Willowfield, although based on the same principles, has a quite different character because it is a mixture of single-storey houses and taller blocks of two and four storeys. The massing of single-storey development is hardly definitive enough in creating open pedestrian squares, and for this reason such housing has been placed on both sides of narrow pedestrian ways aimed at giving the same feeling of intimacy and enclosure. This mixed development also gives a greater freedom of layout for both the buildings

Housing at Willowfield, Harlow





Perspective and block plan of housing at Woodcroft, Harlow

and the open spaces they enclose, but the same attention as with the other scheme has been given to questions of detailed design. Those concerned in the design of these schemes include: for Willowfield, A. J. McCowan and G. Brimicombe; for Woodcroft, D. L. Dyer and B. Pendergast; for both schemes the planning co-ordination is by R. Turner.

Heating and Ventilation

For the architect, the heating event of the year will almost certainly be the publication of the long awaited report by BRS on the heating of flats. This may be regarded as the counterpart for flats of the Abbots Langley investigations into the heating of semi-detached houses. The survey work was completed eighteen months ago; since then there has been a considerable amount of analysis to do, and consultation with the various fuel industries to ensure that the results are presented in such a way that they will be of maximum value to all concerned. As might be expected, the results will not show a clear-cut preference for one fuel over the others. What they will show is that there is not the same scope for fuel saving by the use of intermittent heating as was found, for instance, in field work on schools. This is due in the main to the greater thermal capacity inside flats and to smaller cooling losses outside.

The BRS field surveys on the acceptability of internal bathrooms are nearly complete and it is likely that the work will be extended to the acceptability of internal kitchens. Data have been obtained in rooms with both mechanical and natural ventilation.

Further attention has been given to the precise definition

of "U" values following the introduction of legal standards of thermal insulation for factory roofs. The "U" value was originally conceived as a design tool and not as a method of defining a statutory requirement. BRS and BSI will continue working on a standard method for calculating the "U" values of different forms of construction.

Off-peak electrical underfloor heating is at present a subject of uncertainty as it is not possible to apply to it the normal design procedures practised by heating engineers. This in turn reflects the present situation of electric underfloor heating which has been developed by the electrical industry outside the sphere of influence of the heating engineer. Sooner or later it must be handled by the profession and, to make this possible, BRS will continue collaborating with the IHVE in the search for a satisfactory design method.

The last subject under this heading is metering. In local authority housing particularly there is a strong case for giving the tenant control over his heating and hot water expenditure. A recent system of central heating using metered warm air is now the subject of a special BRS study.

The Institute of Heating and Ventilating Engineers are organising an international conference in London from September 27 to October 4 to coincide with the exhibition at Olympia of heating, ventilating and air-conditioning equipment. Detailed plans are in hand, including the finalisation of the list of speakers; this is being carried out by an organising committee under the chairmanship of Mr. J. R. Patterson of G. N. Haden & Sons Ltd.

Hertfordshire

During 1961, in the 14th year since the opening of this country's first prefabricated school at Cheshunt, and with well over 200 new post-war schools completed or under construction, Hertfordshire will be fully engaged on its largest annual programme of school building. This includes 14 new primary, eight secondary, four colleges of Further Education, and a heavy programme of work in extending and remodelling of older schools and other education projects. Building work for other County services also continues to expand, and includes Welfare Homes, Health Centres, Libraries, Police and Fire Stations, and new County Headquarters for both the Constabulary and the Fire Service.

As in previous years, the major part of the "schools" programme will be built by utilising component-prefabricated systems continuously developed in the Department, including multi-storey versions of the original 8 ft. 3 in. frame which has now reached an advanced stage comparable with certain popular foreign motor-cars.

In 1957, after several years of systematic investigation of systems based on the 40 in. module exploiting steel, concrete and timber frames, involving a number of school and similar projects, it was decided that this dimension had serious drawbacks for school planning, particularly in the case of colleges of Further Education which were then becoming an important part of the building programme. A programme of development was begun using a 2 ft. 8 in. basic planning module. The dimensional approach accepts the base module of 4 in. and allows the use of various preferred dimensions, such as 1 ft. 4 in., 2 ft. 0 in., 4 ft. 0 in., 5 ft. 4 in., for walling, windows, partition and ceiling systems; larger combinations are used for stanchion and beam spacing. Four large colleges of Further Education, two secondary and four primary schools were allocated to this development programme. Eight buildings now in use confirm in practice the advantages of this approach. It is now proposed to relate all future building to this dimensional basis.

The development policy also envisages the extension of

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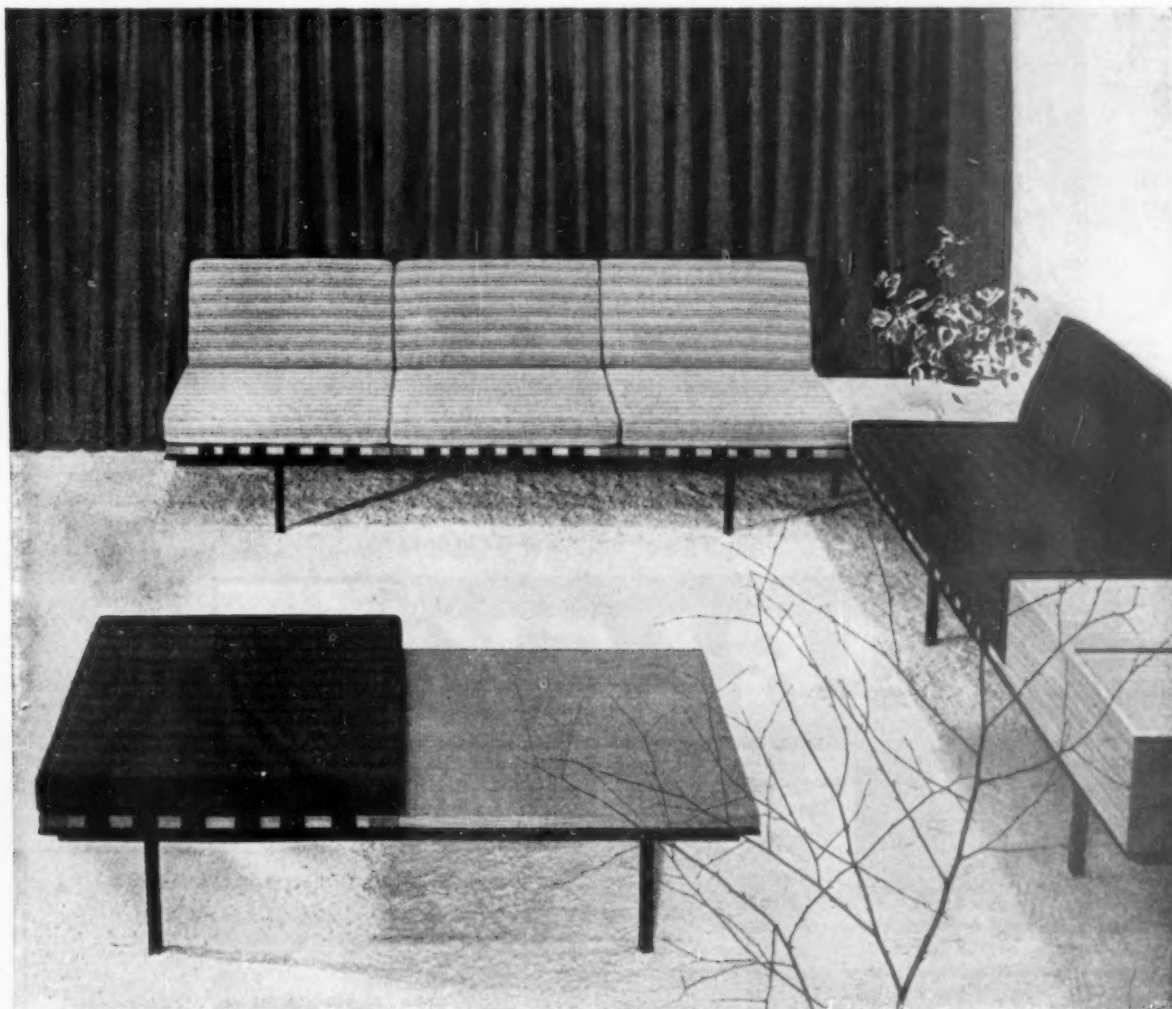
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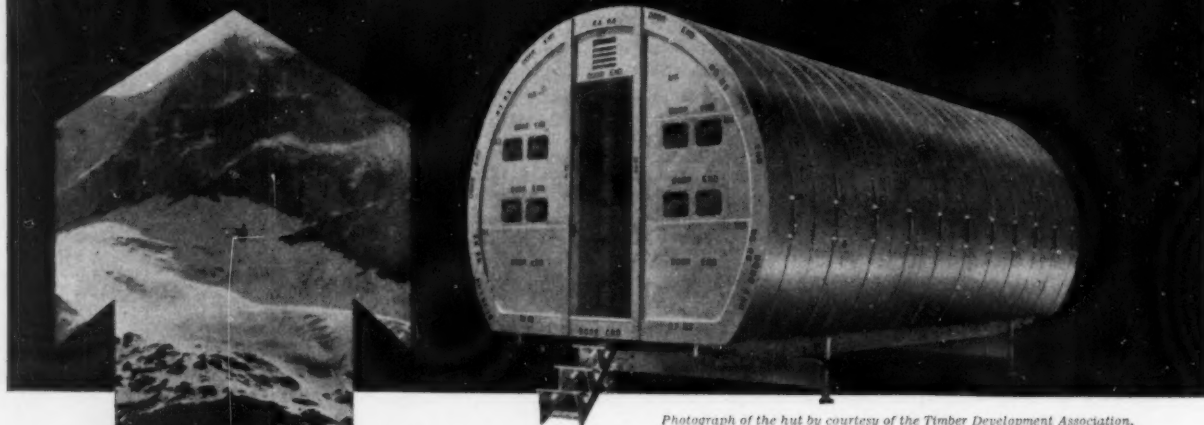
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Photograph of the hut by courtesy of the Timber Development Association.

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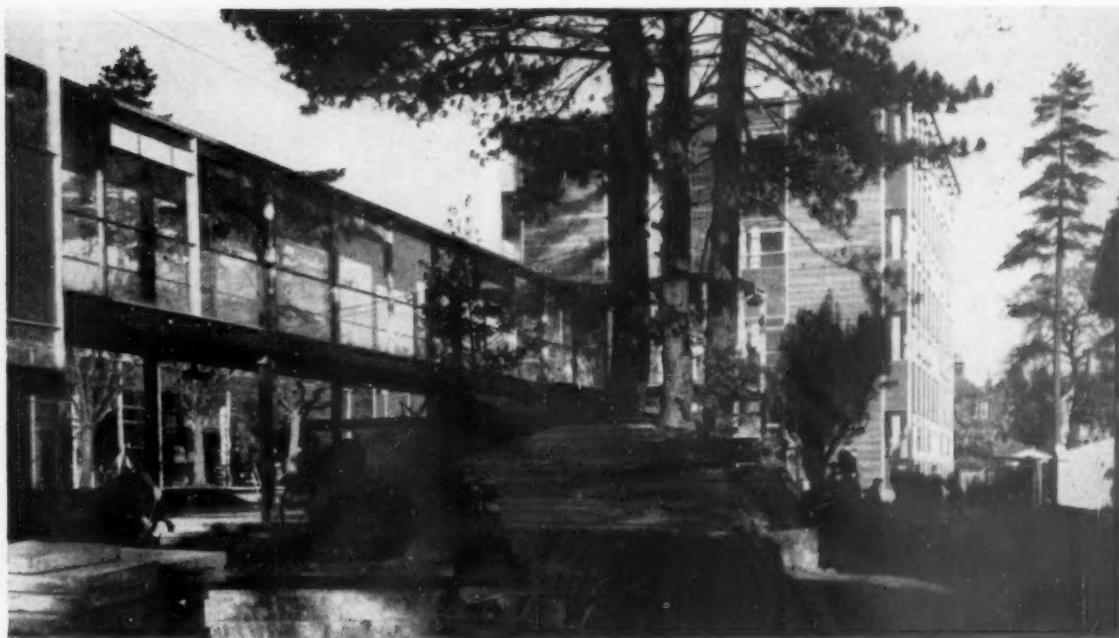
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One of the first Hertfordshire buildings built on a 2 ft. 8 in. module, the St. Albans College of Further Education

the system to enable the comprehensive range of dimensionally related components to be used with concrete frames for taller buildings or those requiring heavier floor loadings. The method will also allow the use of loadbearing crosswalls in suitable cases, such as smaller buildings or extensions of existing schools; the feasibility of this has already been successfully proved in practice. To enable the interchange of the structural support element without complicating other components, the frame grid will continue to be offset from the planning modular grid, this having proved to lead to considerable simplification in both design and construction.

All development work is closely related to the cost planning techniques based on Elemental Bills of Quantities which have been standard practice in the office for several years. This is now being reviewed with the aim of increasing the use of mechanised methods, and the possible use of a computer is under investigation.

Housing Centre

The Housing Centre Trust are organising a half-day conference on January 31 at the Housing Centre on the subject of "Old People's Housing." In May they are arranging a week's tour to Sweden to visit housing developments in the Stockholm area, including Vällingby and Farsta. And for their annual conference, to be held in County Hall, London, from June 21 to 23, they have chosen the title "The right accommodation at the right rent and price." Six papers will be given; the speakers already announced include D. V. Donnison of the London School of Economics and L. G. Clarke of the Kingsway Housing Association, Ltd.

Incinerators

The Gas Council is investigating the use of gas-fired incinerators for burning refuse in situ in blocks of flats. A pair of incinerators has been installed experimentally in a block of 14 flats, the installation of two being necessary so that when one is in action the other is open to receive rubbish. It is thought that it may prove more economical to burn refuse on the spot than to collect it in the usual way, and it has been shown that gas firing makes it possible to do this effectively, smokelessly and without odour.

Industry

There is every sign that the output of the building industry will continue to grow in 1961. Perhaps the most important fact about last year was that despite the recession in the country's general economy, the building industry remained almost completely unaffected. This is proved by the latest figures released by the MOW for the third quarter of last year, which showed that the value of work done by contractors was £41 million more than for the same period last year, an increase of over 6 per cent. And in his speech at the Quantity Surveyor's Dinner the Minister, Lord John Hope, said that forecasts for the current year were that this trend would continue.

Where is impetus for all this coming from? The MOW figures make it quite clear. In this same quarter the work done for private developers showed an increase over the previous year of £14 million for housing, £18 million for factories and £6 million for other types, whilst the public sector actually fell by £8 million.

This continued growth of activity will inevitably result in an increase in delays on sites due to shortages of labour and material, and to further increases in costs. Admittedly the recently announced wages agreement whereby hourly rates will rise by only 1/4d. an hour in February may have some steadying effect, but this stability will only last until the first week in October, when there will be a rise of 6d. an hour, and the working week will be reduced from 44 to 42 hours. In any case on many sites contractors will have to continue to pay "over the top" to attract sufficient labour in some of the skilled trades which are in heavy demand, particularly joiners.

The main question which will have to be settled this year is how long this spiral of increased activity and rising costs can be allowed to continue unchecked. It is clear that the most hectic activity is coming from the property developers in urban areas, and that owing to the system of taxation in this country the capital appreciation which represents their profit remains untaxed, and that as a result they are not particularly interested in holding down building costs. This year some positive attempt should surely be made to smooth out the building industry's rate of production so that the present feverish activity is not replaced suddenly by a sickening slump.

I.U.A.

Undoubtedly the most important event of the year will be the sixth Congress of the International Union of Architects in London from July 3 to 7. The organisers have already received over 600 registrations. Based on expert advice, and a study of the rates of enrolments for other similar international gatherings, it has been estimated that this present size of registration is the equivalent of a total in July of 1,500 to 1,700 members. This is very good news, since the organisers have courageously budgeted the economics of the Congress on a 1,500 enrolment, in comparison with the 1,000 plus at Moscow last time. Indeed, if the enrolments continue apace, and the 2,000 mark is reached, it will then become a question of whether any more people can be accommodated, especially at the RIBA gala evening, which in any case looks like being a tightly packed affair. In view of this possible over-subscription, if you wish to attend and have not yet enrolled, we suggest that you get in touch with the organising secretary of the IUA Congress at the RIBA as soon as possible. In the meantime arrangements are going ahead. In the next few weeks we may expect to hear further details of the design by Theo Crosby for the special temporary building (see Aluminium) for the IUA exhibition on the South Bank. At the same time the preparations are going ahead for the work of Congress on the theme of "New techniques and materials—their impact on architecture." The papers from the three main speakers, Henry Russel Hitchcock (USA), Nervi (Italy) and Jerzy Hryniewicz (Poland) have been circulated to the various national committees of IUA for their comment; the national comments will be printed with the papers and issued to all those attending before the Congress opens.

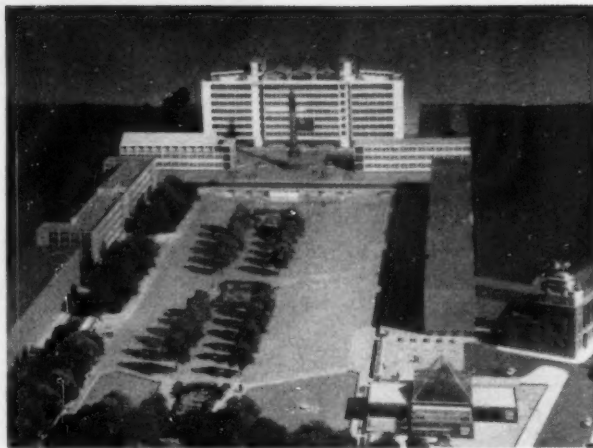
The programme for the Congress will include an opening plenary session at the Royal Festival Hall in the afternoon of Monday, July 3, and on the three following days the Congress will be divided into three groups which will meet in the mornings to discuss each of the three main papers in turn. These meetings will be held in the Festival Hall, the National Film Theatre and County Hall. There will then be a closing plenary session in the Festival Hall on Friday, July 7. Generally there will be afternoon excursions, and receptions and other functions in the evenings, culminating in the gala affair on the Friday at the RIBA.

J Joint Fire Research Committee

From the point of view of the architect, the work of the Fire Research Station will centre round four main problems. The first is the sizing of roof vents in unpartitioned buildings. Though a roof vent enables a fire to burn more fiercely, it is established that the escape of smoke and heat is of decisive advantage, but little is known about the application of this principle. The second study is the calculation of safe separation distances between buildings with various façades and window openings. The third study is of the movement of smoke and gases in buildings to enable escape routes to be planned. The fourth study is of curtain walling. Work done previously has suggested that the back-up wall is an ineffectual barrier against the passage of fire from one storey to another outside the building, but an alternative safeguard is still being sought.

K Kingston upon Hull

The long-term scheme for the redevelopment of the Queen's Gardens area will continue during the year. Stage one of the technical college at the end of the square was completed in 1956, and the large nine-storey block is now up to roof level. The design by Frederick Gibberd includes the creation of a piazza, which has



Queen's Gardens, Kingston upon Hull

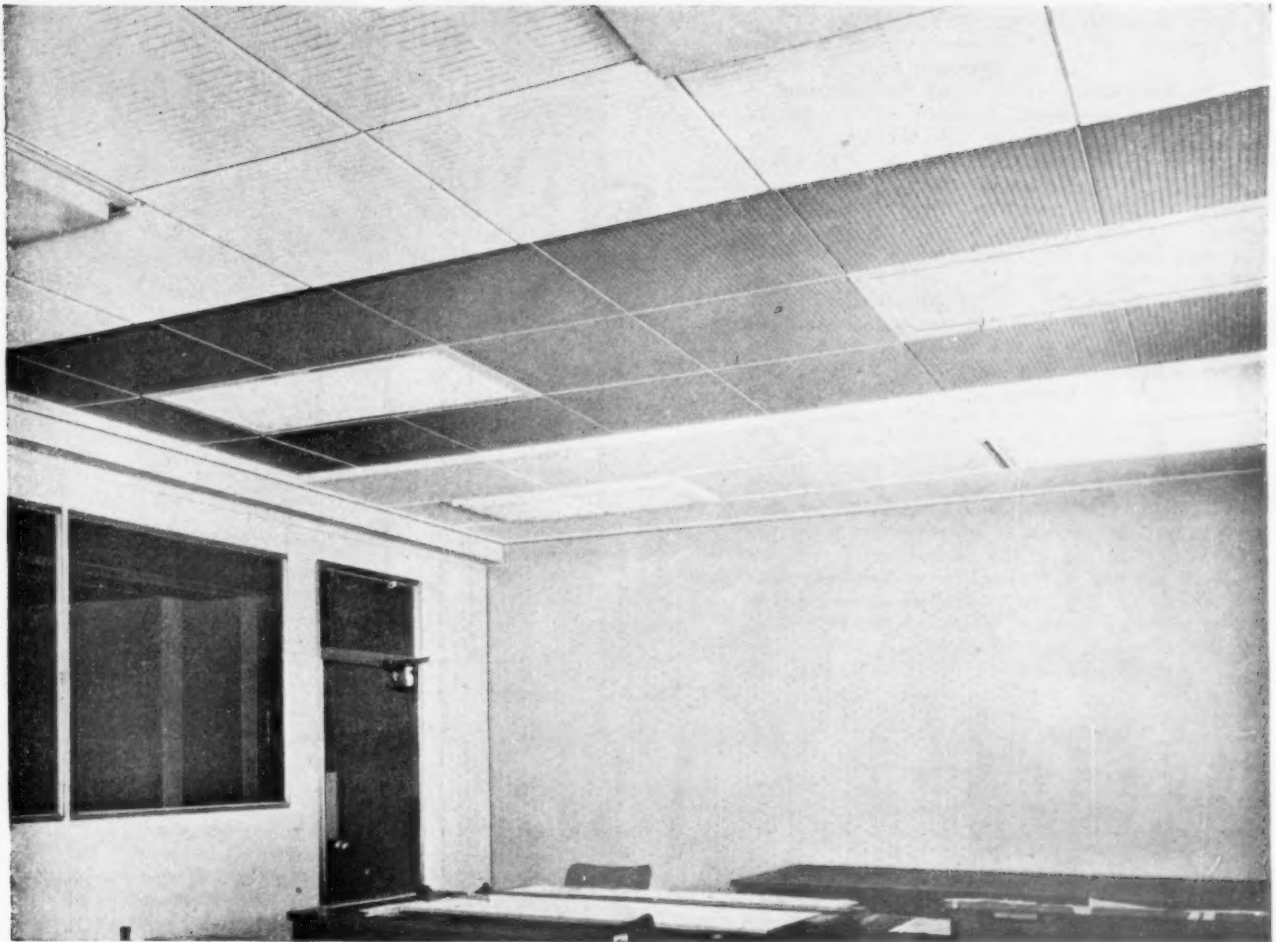
replaced a roundabout, between the monument to Wilberforce and the college. This is something of a triumph, since the normal habit these days is still to put in roundabouts rather than to remove them. Frederick Gibberd has also completely redesigned the gardens of the square. This work is under way and will be completed in the spring.

Other buildings in the area include a new police station by Priestman and Lazenby (now completed), the Winter Garden and a new Central Museum, both by Gibberd and at present on the drawing boards, and Crown offices by MOW, the design of which has recently been approved by the City Council. The officers of the council who have been concerned with this collaborative effort include Andrew Rankine, City Architect; William Morris, City Engineer and Surveyor; H. F. Alston, Town Planning Officer; and H. Roscoe, Parks Superintendent.

L Landscape Symposium

The Institute of Landscape Architects will hold a symposium in May at the RIBA which will be arranged by Bodfan Gruffydd under the title "The organisation of space in housing neighbourhoods." This follows the success of the ILA symposium last May on the subject of "Design for pleasure and hard wear in the landscape" at which Mr. Gruffydd, who is Landscape Architect to Crawley Development Corporation, said "In the broadest sense landscape architects create human environments in which we can all enjoy working, moving and relaxing. The materials which are manipulated to create these environments may be static and hard, but more often they are growing and soft. It is only by weaving these into the fabric of human behaviour that healthy growth can be assured in populous places. This requires extended briefs which must probe into the sociological field to find an acceptable balance of human and age needs."

The symposium will be divided into four parts. First, there will be an examination of the needs of children, teenagers and adults in housing areas. This will include a paper by Mr. Arioli, who is in charge of parks and open spaces in Basle, and who has carried out research into the provision for play near dwellings. Second will be a study of the present use and the aesthetic contribution being made by both public and private space, in the form of a team investigation. Third will be a study of the types of layouts including housing suggested by this investigation, including a paper by Paul Ritter. The symposium will end with the attempt to develop a brief for landscape architects and planners as to how space should be allocated and organised in housing projects.



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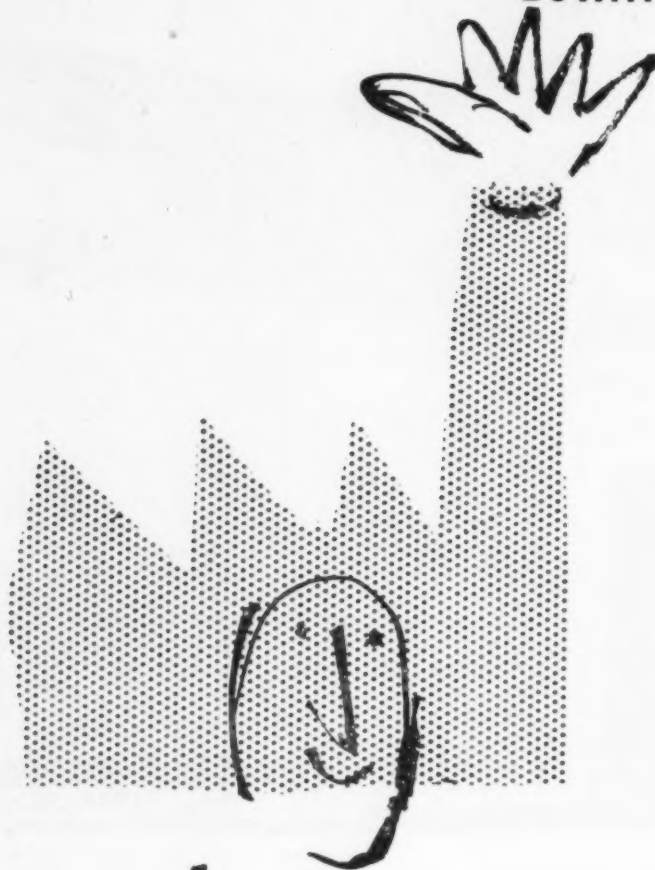
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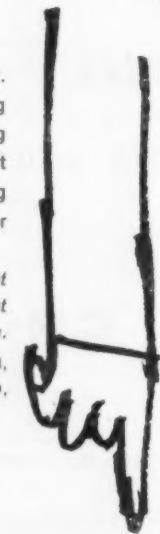
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- 5 BOWATER SERVICE TOO! Through our network of distributors and fixing contractors we run a complete technical service. Bowaters can take over the job from the first thought on Insulation to fixing the final sheet of board.



Elevations and (below) typical floor plan of flats at Leeds



Leeds

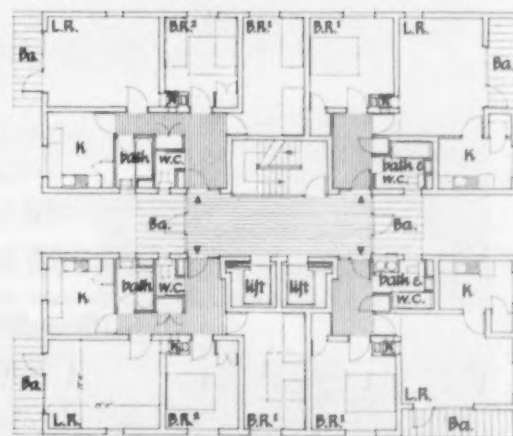
Among many other schemes currently on the drawing boards at Leeds since the recent appointment of J. R. Sheridan-Shedden as City Architect are various high-density housing schemes including a 12-storey tower block. This design is for four flats per floor, with ancillaries such as drying room and tenants' stores on the ground floor. Drying areas are provided on the roof, screened on all four sides by a high perforated wall. It is intended that the flats will have electrical under-floor heating, and domestic hot water provided by immersion heaters. Duplicate lifts serve alternate floors and refuse disposal is by chutes into special containers on the ground floor. Fire precautions include the provision of a dry rising main and two stairs as alternative means of escape. In addition to the City Architect the team concerned in this design include his Deputy P. B. Haswell, Principal Architect (Housing) A. A. Wood, and Senior Assistant Architect B. A. Mudd.

Loadbearing Brickwork

Buckinghamshire County Council (County Architect Fred Pooley) is soon to start construction of a pilot scheme in Aylesbury. It is aimed to build multi-storey flats in calculated loadbearing brickwork not exceeding 11 in. external or 9 in. internal thickness, with a view to making substantial reductions in the cost of this type of housing. The project is 11 storeys high, with four flats on each of the upper floors, the ground floor being occupied by two shops, a caretaker's flat and stores. The structure is carried on concrete strip foundations normally 4 ft. wide and 18 in. thick reinforced with steel fabric. External walls are 11 in. thick cavity with semi-engineering brick inner leaf and clay facing bricks outer leaf; internal walls are either 9 in. or 4½ in. brickwork which decreases in strength towards the top of the building. The whole of the structure has been designed in accordance with Code of Practice 111.

The 4½ in. thick floor slabs run through to the outside face of the building so that the maximum column height of the brickwork is 8 ft. This reduces the eccentricity to an acceptable figure.

At the same time, owing to the square shape of the building on plan, additional stresses due to wind pressure are negligible. The maximum stress on internal walls is 200 lb. per sq. in., and for outside walls 90 lb. per sq. in. on the outer facings and 176 lb. per sq. in. on the inner leaf. It is proposed to use Warnham or similar semi-engineering bricks which have a crushing strength of 4,000 lb. per sq. in. for the highly stressed brickwork, and to use 1:4:3 mix for the mortar throughout. At current prices the cost of the block ready for occupation, including gas heaters in each flat, will be £88,000 or 55s. a sq. ft. of gross internal area. This compares with roughly 75s. that the Council estimates would be the cost per sq. ft. of building the block with a frame structure of steel or concrete. The aim, therefore, is to achieve a 25 per cent. reduction in the cost of construction of tall blocks of flats. It is suggested that there would be some merit in such a structure being built by some central body, such as MOHLG or BRS, and tested to destruction, to explore fully the potentialities of this method, and to see whether further economies could be achieved by its adoption. In view of the growing scarcity of land, and the increase in the use of tall blocks for housing, Buckinghamshire believes that a reduction in costs of construction of this type of development is urgently needed.



Typical upper floor plan and (above) elevation of flats at Aylesbury

M Materials and Construction Research at BRS

A new project by BRS is a study of existing buildings where lightweight claddings have been used. It will cover the same ground as that of Michael Rostron's articles in the AJ and will be concerned not only with the manner in which proprietary curtain walling systems are fixed and how they have stood up to the weather, but also their effect on internal conditions.

Without doubt the most important material under review by BRS is lightweight reinforced concrete. This is also being studied by a number of big contractors, as the reduction in weight which it gives is likely to be of decisive importance as buildings go higher. Lightweight reinforced concrete, which includes aerated concrete and lightweight aggregate concrete, was the subject of a Building Centre Forum on December 14 at which some of the Station's interim findings were discussed as reported in AJ, December 29, 1960, page 923. In general the use of lightweight concrete is approved, with the proviso that it should not be used in positions where it is exposed to the weather and that, in the case of aerated concrete, the steel should have a waterproofed protective covering. At the same time allowance must, of course, be made for the lower strength/weight ratio in design. It is hoped that a Code of Practice will be issued soon.

A study, carried out jointly by BRS and Cement and Concrete Association, on the fixing and jointing of precast concrete slabs is to be published shortly.

N Nuffield Foundation

This important light in the rather empty architectural research sky is about to go out. The Division of Architectural Studies has been virtually closed. The Nuffield Provincial Hospitals Trust is to continue the excellent work on hospital user requirements, but, in so far as this work will not be informed by a consistent architectural policy, it threatens to lose its characteristic architectural quality.

From the Division of Architectural Studies we have still to expect two reports. The first, on the Design of Research Laboratories, is expected in the spring. Much of the content of this has already been published (e.g. in the RIBA's symposium on laboratories). The second report concerns Children in Hospital. This is not due until the summer and, again, much of its contents are already known. The chief finding is the need to gather the children in a region into a single children's unit where they can be properly looked after instead of,

as at present, being scattered in small units attached to different hospitals.

The Nuffield Provincial Hospital Trust will be publishing their report on the functioning of hospital diagnostic X-ray departments in the summer and will then advise on the design of an experimental department. In the meantime their work on sterilisation continues. This is advanced further (an experimental unit is being built at Addenbrook's Hospital, Cambridge), but publication of the report of a more elaborate study is not expected until 1962. Here again the gist of the findings was made known at the RIBA symposium on hospital design (and in the AJ's special issue on hospitals, July 7, 1960).

O Offices and Research Laboratories

J. Douglass, Mathews & Partners in collaboration with Skidmore, Owings & Merrill, have designed the building shown below sited in about 60 acres of parkland at Hayes, Middlesex, adjacent to the green belt. It will replace an existing Victorian mansion of no architectural merit, planning approval having been granted (after a public inquiry) subject to certain siting conditions and the preservation of the parkland and its trees.

Oil Heating

The main effort on the domestic side of the industry, will be spent on the further development of equipment suitable for use in the kitchen. There are two different approaches to this problem. The first is to up-grade the efficiency of the vaporising burner, the second is to make the pressure jet burner less noisy. The efficiency of vaporising burners has already been raised by the inclusion of a fan. Following on this, models have now been developed with a control box similar to a pressure jet control box which gives fully automatic ignition.

The trouble with pressure jets has always been noise and a tendency for the nozzle to choke. It is now hoped to overcome the second of these faults by developing equipment which can burn a light distillate oil fuel, and the first by shrouding the unit in a noise absorbent case and baffling the draught stabiliser.

A second development is the extension to oil fuel equipment of the balanced flue and a third is the manufacture of flued convector heating units which, it is hoped, will bring built-in oil-fired heating into the smaller house.



Model of offices and research laboratories at Hayes, Middlesex

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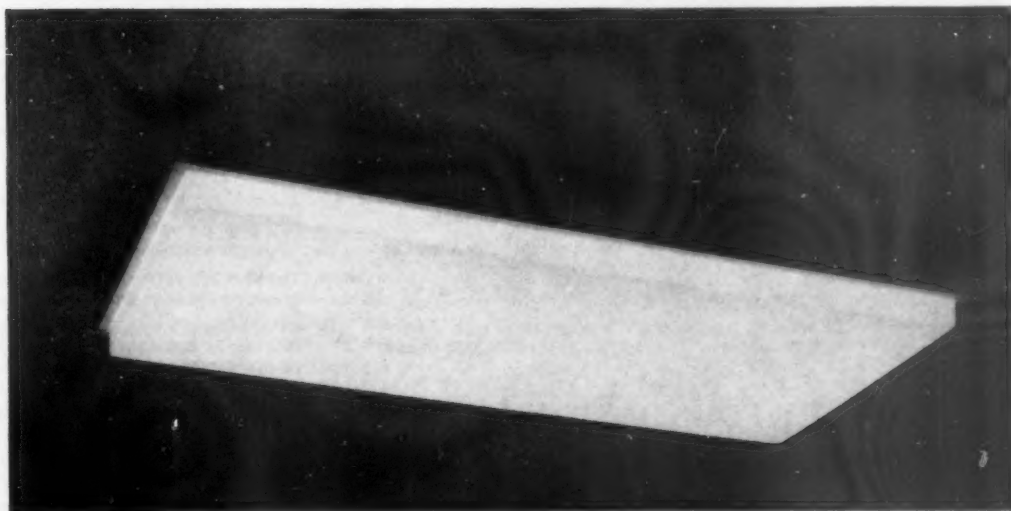


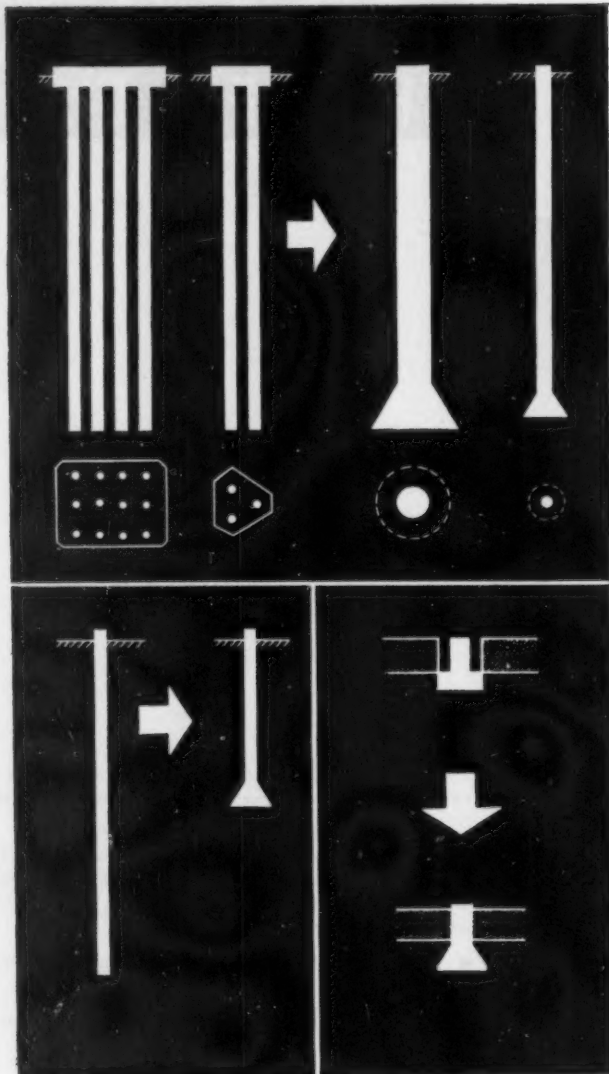
The Modular fittings illustrated made in various sizes are designed for surface mounting where space for recessing is not available.

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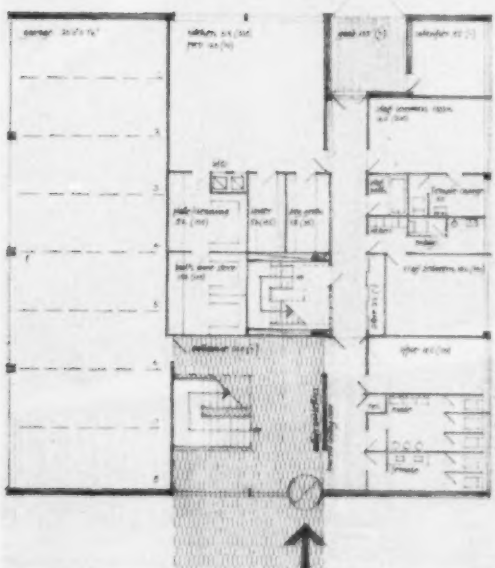
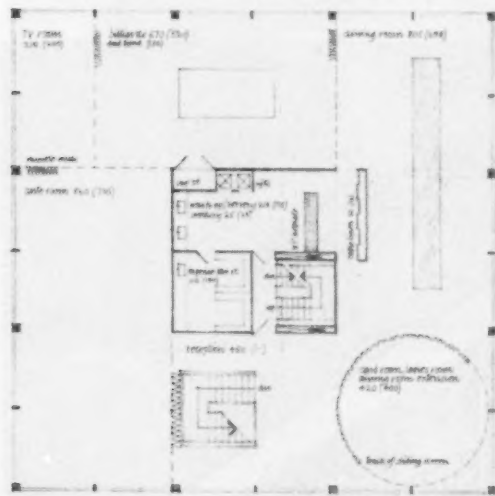
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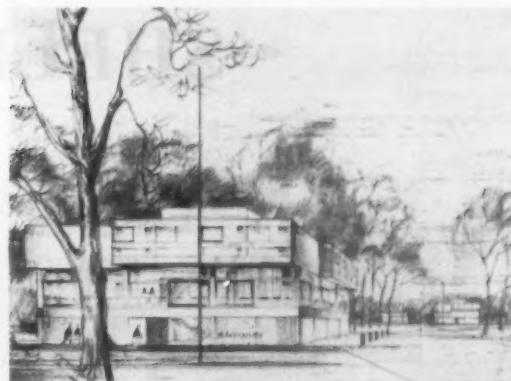
Officers' Mess

As part of the redevelopment of four barracks at Aldershot, a standard Officers' Mess has been designed by Grenfell Baines & Hargreaves, in association with D. E. E. Gibson, Director-General of Works, The War Office. The four messes will probably start construction towards the end of this year on a site with established planting of trees and lawns. The layout is designed to



Ground and first floor plans of officers' mess

retain the character of this landscape and give the maximum privacy to each building. Compactly planned, the standard design has three floors, with the main rooms on the first floor. These are placed around a central service core, making it possible to open up the entire floor for formal functions, whilst giving good aspect for all the rooms and unrestricted views of the site with its mature trees. Ancillaries such as cloakrooms, kitchens, main entrance hall and garage space are on the ground floor, and there are sixteen rooms for junior officers on the second floor. There is also a penthouse on the third floor which provides a suite for one Field Officer. The ground and first floors will have a frame structure, and the floors above will have loadbearing cross walls. Those involved in this project include David Rock, Associate Partner, and Robert Smart, Job Architect.



Perspective of standard design for officers' mess

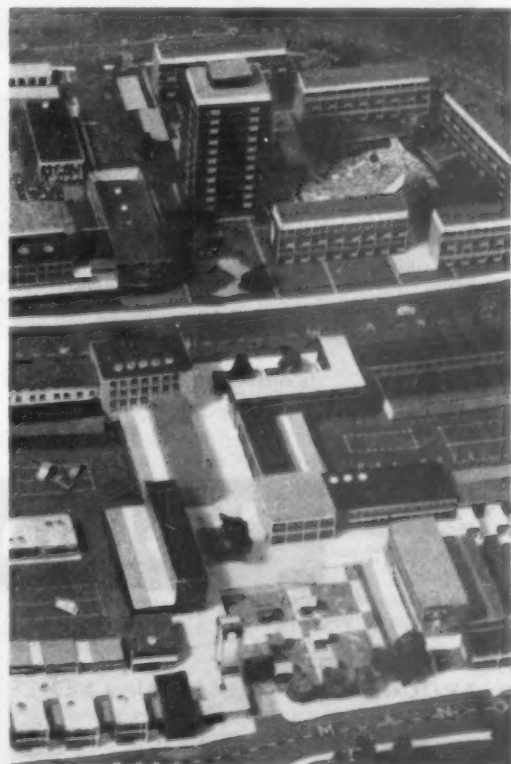
P Peterlee

The Development Corporation hope that by making a start on the Centre, and by stepping up the housing programme, 1961 will prove to be a turning point in the growth of the New Town. The chief architect, R. J. A. Gazzard, has recently formed two new groups to carry forward the housing programme along the lines already established in the South-West Area (AJ September 29, 1960).

In the meantime the Chapel Hill IV scheme is out to tender. This area is a sloping re-entrant facing the North Sea, and the scheme includes a cluster group, which is aimed at providing security and protection on a very exposed site by means of enclosed layouts round centrally-placed service areas. At the same time the site presents opportunities for the arrangement of buildings on the ground to provide an articulated landscape as a backdrop to the town centre.

During the spring work will also start on 350 further houses on the Chapel Hill II site, this scheme being the remaining one to be carried out before all the

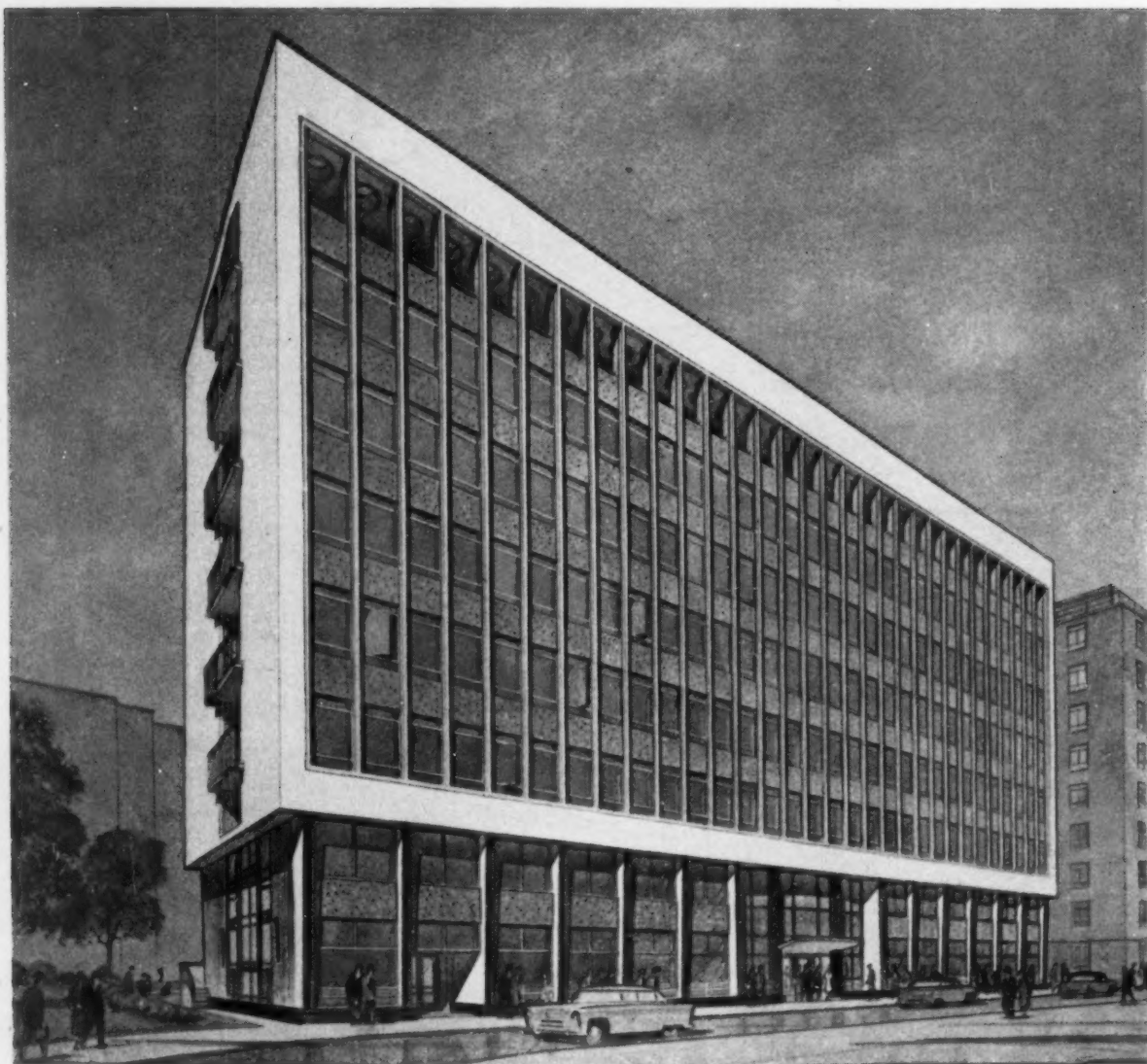
Part of model of Peterlee town centre



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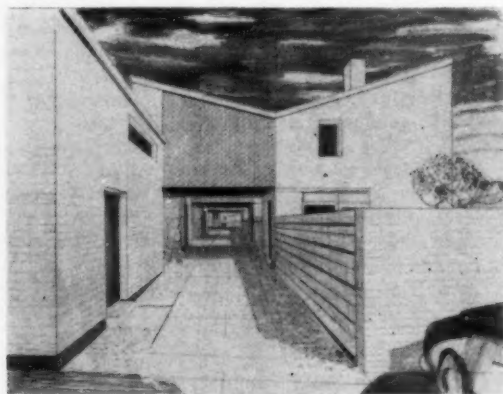
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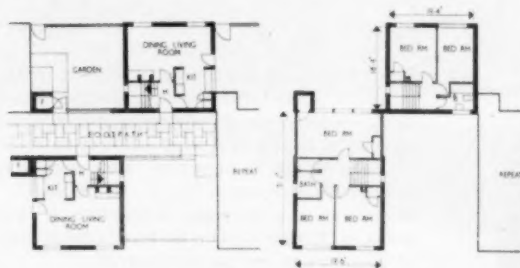
TROCOLL HOUSE, NOBLE STREET, LONDON, E.C.2. Telephone: MONarch 3000 (10 lines)



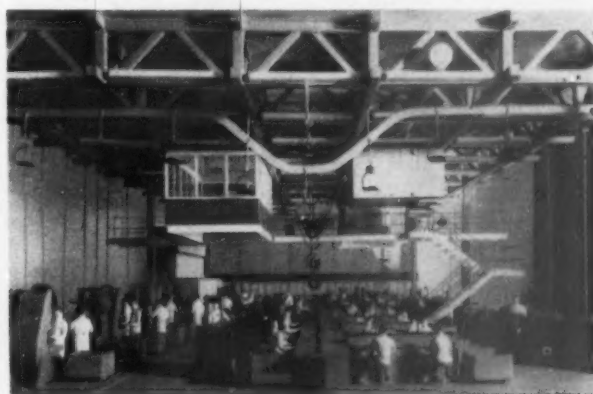
Section through Chapel Hill housing site, Peterlee, looking south



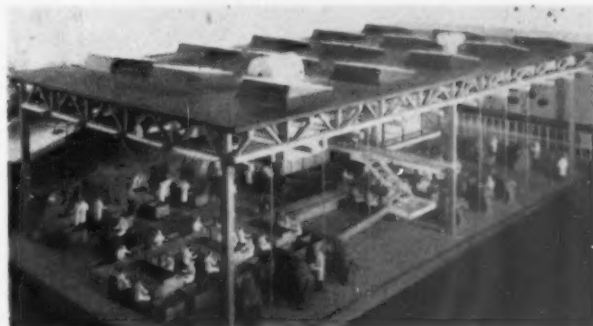
Sketch (above) and plans (below) of Peterlee housing



residential development to the east of the Town Centre is completed. A further housing development, which will start during the summer, will be sited on an area fronting the A19 road. It is hoped that this can provide for 100 per cent. car ownership; the scheme will also be of particular interest because part of the site is not liable to mining subsidence, and is thus not limited to the two- or three-storey development which applies generally throughout the rest of the town. Industrial development is now at a standstill, but the Corporation have budgeted to spend £200,000 on the Town Centre, which represents about two-thirds of the first stage of its development. Work will start during the spring on three- and four-storey blocks of offices and shops, to be followed later in the year by a supermarket, restaurant and entertainments centre.



Interior of BRS factory model



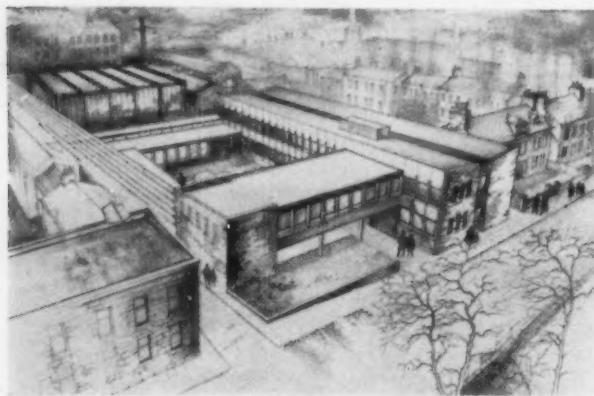
General view showing roof lighting of BRS factory model

Planning Studies

Up to now survey work by BRS on housing has been concerned mainly with the needs of the middle-age groups, but attention is now turning to the needs of the very young and the very old. A social survey of some old people's housing in Scotland has been completed (a report on it will shortly be published in the AJ) and a wider survey is now being made. A study of children's play in high density housing is also nearly complete. A social survey now going forward is devoted to the variation in housing requirements of different age groups. Two other investigations on housing relate to the different types of access in flats and to refuse disposal (see also the Gas Council's development work under "Flues").

The study of factories, initiated some years ago by BRS in collaboration with the Midland Regional Board for Industry is drawing to a close with the completion of several more Factory Building Studies, including one dealing with electricity supply and distribution and one with costs. An attempt has been made to illustrate important planning features emerging from the studies in a model of a factory structure. One feature of this (see photograph) is a proposal for a non-continuous roof light, designed to permit overhead gear, ducts, etc., to pass in both directions without obscuring the glazing.

In addition, at the request of the Ministry of Health, a study is being made of existing hospitals to discover the flow between different departments as a contribution towards our knowledge of hospital planning.



Perspective of new police building, Edinburgh

Police Building

This new divisional headquarters at Edinburgh, designed by Michael Laird in conjunction with the city architect, Alexander Steele, will start later this year. The structure will be largely precast concrete, which has influenced the aesthetic of the exterior, but which has been completely integrated with the planning requirements. The external finishes will mainly be Norwegian slate, stone re-used from existing buildings on the site, and limited areas of mosaic. The main office block is being detailed so that if an extension is required, a further storey may be added. The scheme includes a specially reinforced and air-conditioned basement for use in an emergency.

Private Offices

One or two significant trends which are likely to become more evident during the year have been noticed by various private offices. More clients are showing interest in the possibility of having full air conditioning in buildings such as office blocks and laboratories. Such projects are, at the moment, all too often killed by cost. Important factors in this respect in London is the LCC's refusal to give waivers for the use of permanently fixed glazing, and the other limitations they impose on a logical approach to problems of fire escape and ventilation. Technical advances in medium and high-velocity systems are, however, now being introduced into this country which are very likely fundamentally to alter the cost situation. Indeed it may not be very many years before the London office block will be regarded as out of date if it is not air conditioned.

Owing to the increased volume of current work, and the difficulties of recruiting staff on fixed salary scales, the public authorities are tending to turn more for help in carrying out their building programmes to private offices. In recent years it has been in the public authority sector, through programme building, that there has been the better chance to raise standards progressively, rather than in the private offices with their inevitably piecemeal commissions. But the experiences of the public authority is usually limited to one main field of technical advance. In this new situation some of the private offices now have unrivalled opportunities for comparing in practice the varying technical approaches of the different authorities, especially in the field of non-conventional construction. One private office, at least, is currently working on, or has had recent experience of, a wide variety of methods, including the BRS 3-in. preferred dimension approach, BSI 4-in. modular co-ordination, CLASP, Hertfordshire 8 ft. 3 in. and three proprietary systems of prefabrication.

Some clients are now showing a marked preference for negotiated contracts, and this trend will probably continue during the year. This is particularly the case with clients who have had recent experience of building

large projects. They realise that with a good contractor of integrity, working with an architect and quantity surveyor with whom they are familiar, the risks are probably less than for a contract won by selective competitive tendering. Although the actual negotiated price may be very slightly higher, of the order of one or two per cent, there is no doubt that it is the proper economic price for the job, and there is less tendency for the contractor to attempt to press the utmost financial advantage out of the settlement of the inevitable variations.

In any case the architect has a good chance of offsetting the slightly higher price by consultation with the contractor at working drawing stage to eliminate minor points of detail which may unwittingly be expensive. But the biggest virtue of all in a negotiated contract, which will continue to be of particular interest to clients, is the possibility of saving time, up to three or four months being a typical estimate for a contract of the order of half a million.

Q

Queen Anne's Gate

Books to be published by the Architectural Press during the spring will include *My Work* by Le Corbusier, *Photography and Architecture* by Eric de Maré, *Elementary Principles of Reinforced Concrete Design* by W. H. Elgar and *Townscape* by Gordon Cullen. Other books scheduled to be published during the year include a study of recent examples of exhibition and display work from all over the world, a reference book specifically for the practising architect on acoustic design by I. E. Moore, a survey of recent architecture in the British Commonwealth by J. M. Richards, a second volume of new German architecture, a study of the works of Paxton by Dr. G. F. Chadwick, and a survey of hotel design by Stephen Garrett.

R

RIBA

During the year we can expect the RIBA Council and the many committees serving it to continue the policy which has been a major preoccupation since the famous AGM in 1958, and which can best be described as a complete and thorough reassessment of all the Institute's functions and activities. We can expect this to be the main theme of the annual report. It is obviously impossible in this short survey to discuss all the developments which may occur in this field, but certain issues are likely to dominate.

Perhaps the most important work will be the survey of offices now being undertaken. If this survey is successful, it has the potentiality of providing, in some senses really for the first time, solid and factual information of value in at least four directions. First, its findings will prove of value in reassessing whether or not the scale of fees should be raised. Second, it will collect material from the various offices which can be used as a basis for a standard manual on job management for the assistant architect. Third, it will be likely to be able to make recommendations to the Board of Architectural Education as to what the broad objectives of the normal five-year course should be. Fourth, it should be able to provide evidence of value in settling the two-tier issue.

There is no doubt that the whole scale of fees is up for review. This has been an issue ever since the publication of the findings of the Commission inquiring into doctors' and dentists' pay. At the moment the general climate of high activity in the building industry is probably better than it has ever been since the war for a rise in fees, but the profession has to consider very carefully how far it can go without pricing itself too

FOUNTAIN: REDEVELOPMENT AT WESTGATE, GLOUCESTER

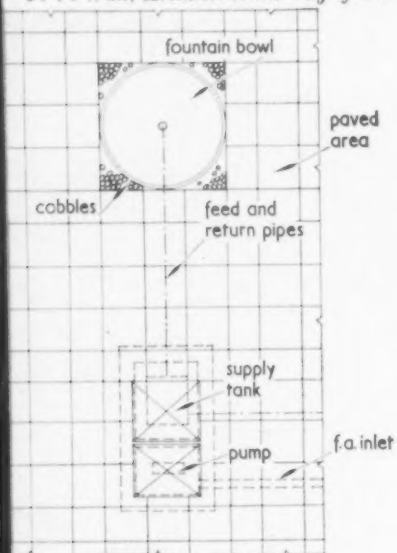
J. V. Wall, Architect to the City of Gloucester



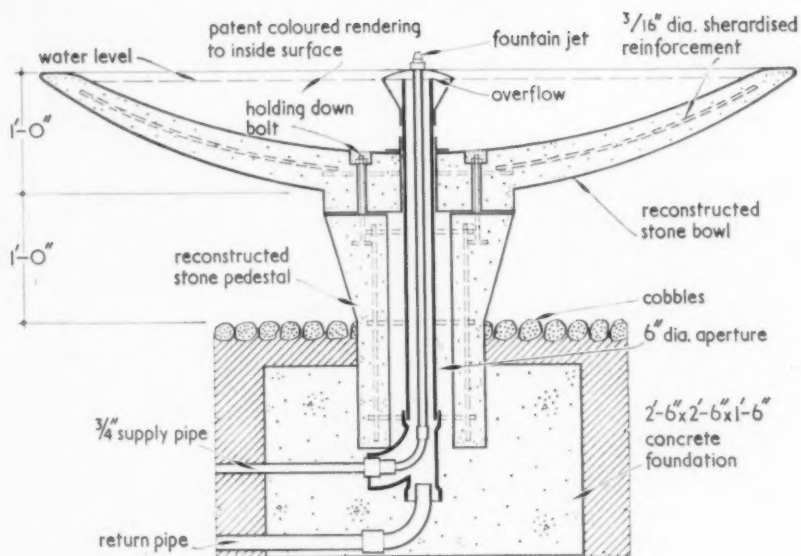
Both flow and return pipes have a fall of $1\frac{1}{2}$ in. in 10 ft. towards the tank chamber. A perforated screen in the tank prevents any floating objects, which might be drawn down the overflow and return pipe, from fouling the pump.

FOUNTAIN: REDEVELOPMENT AT WESTGATE, GLOUCESTER

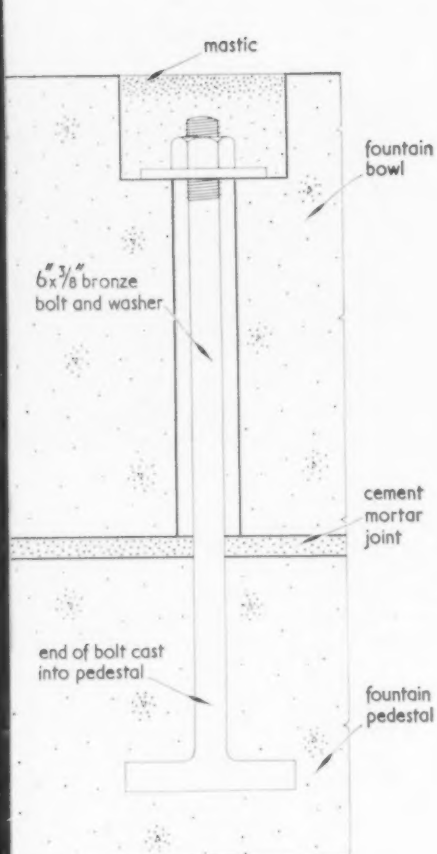
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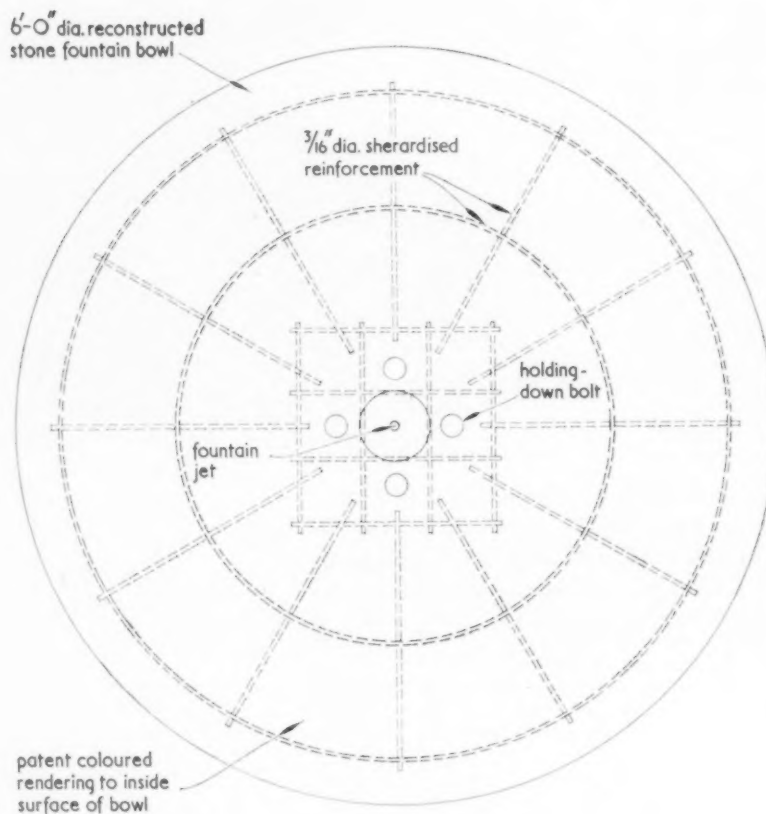
PLAN. scale $\frac{1}{8}'' = 1'-0''$



SECTION THROUGH FOUNTAIN. scale $\frac{3}{4}'' = 1'-0''$



DETAIL OF HOLDING-DOWN BOLT.
scale $\frac{1}{2}$ full size



PLAN OF FOUNTAIN BOWL. scale $\frac{3}{4}'' = 1'-0''$

WATER GARDEN: SHOWROOMS IN LONDON, W.1

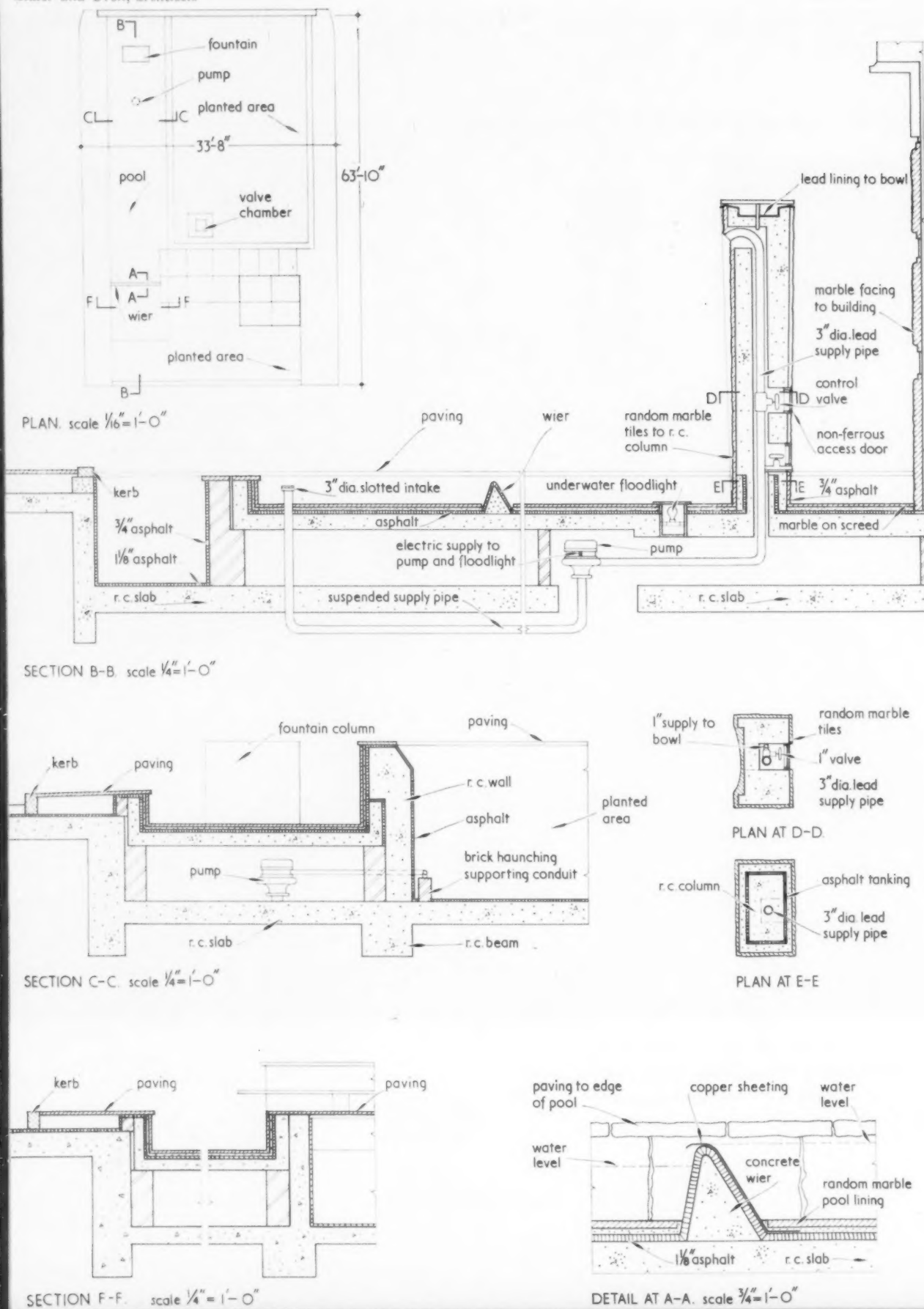
Slater and Uren, architects



This water garden in the courtyard of a London showroom is interesting for its use of finishes. Note the lining of the pool with stone slabs laid in screed on asphalt and the insertion of a weir to give permanent sparkle.

WATER GARDEN: SHOWROOMS IN LONDON, W.1

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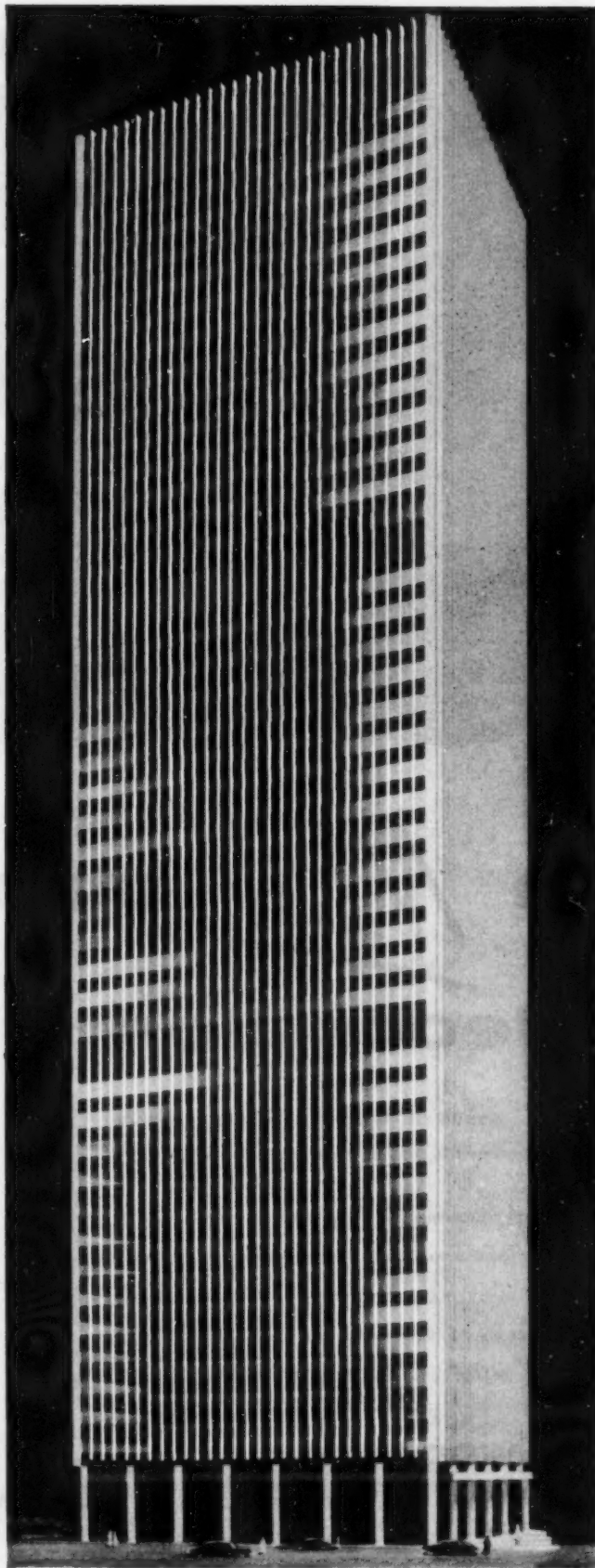
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FOUNTAIN: REDEVELOPMENT AT WESTGATE, GLOUCESTER

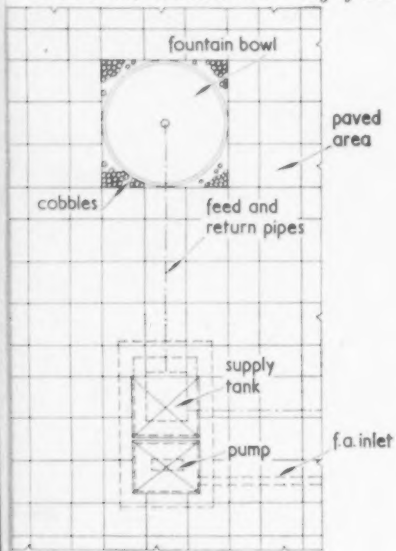
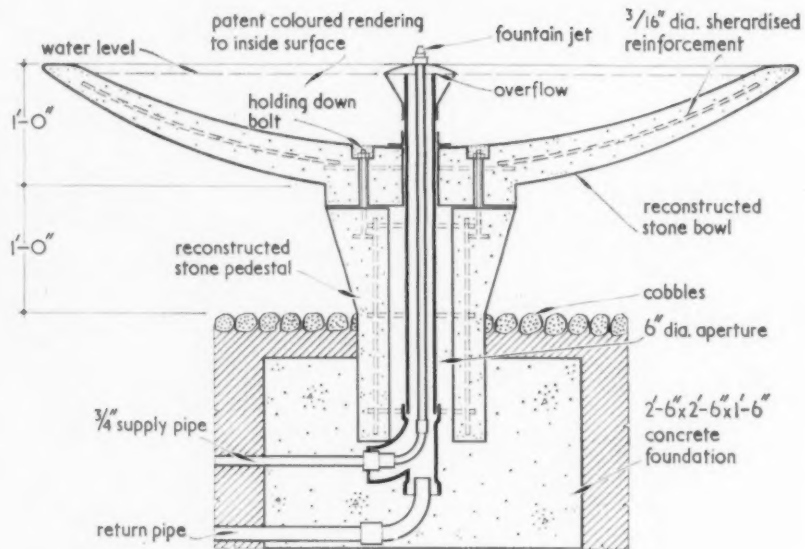
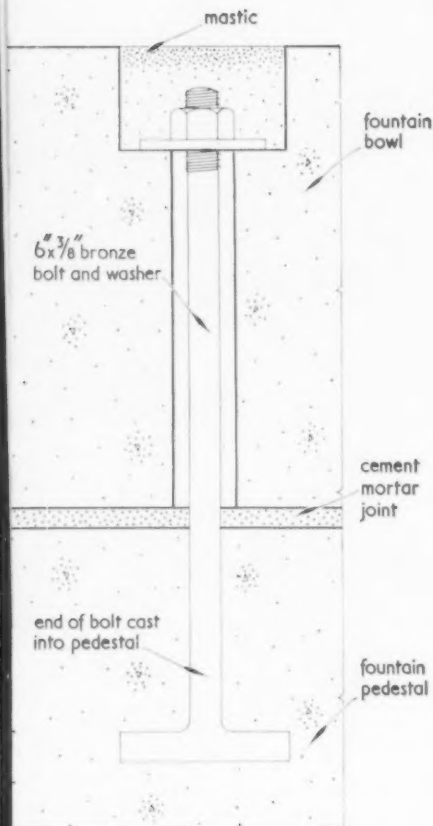
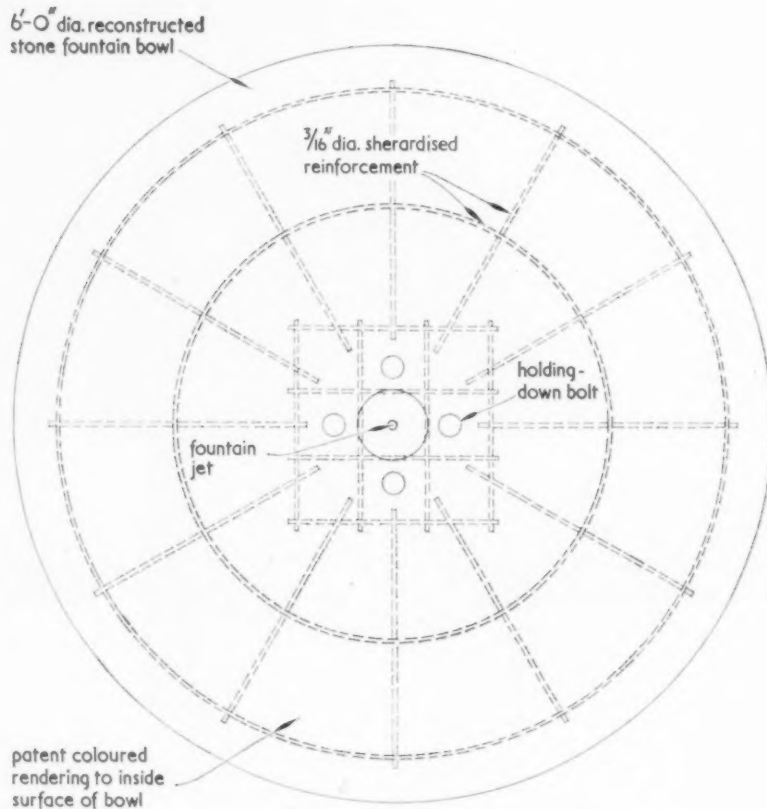
J. V. Wall, Architect to the City of Gloucester



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FOUNTAIN: REDEVELOPMENT AT WESTGATE, GLOUCESTER

J. V. Wall, Architect to the City of Gloucester

PLAN. scale $\frac{1}{8}'' = 1'-0''$ SECTION THROUGH FOUNTAIN. scale $\frac{3}{4}'' = 1'-0''$ DETAIL OF HOLDING-DOWN BOLT.
scale $\frac{1}{2}$ full sizePLAN OF FOUNTAIN BOWL. scale $\frac{3}{4}'' = 1'-0''$

WATER GARDEN: SHOWROOMS IN LONDON, W.1

Slater and Uren, architects



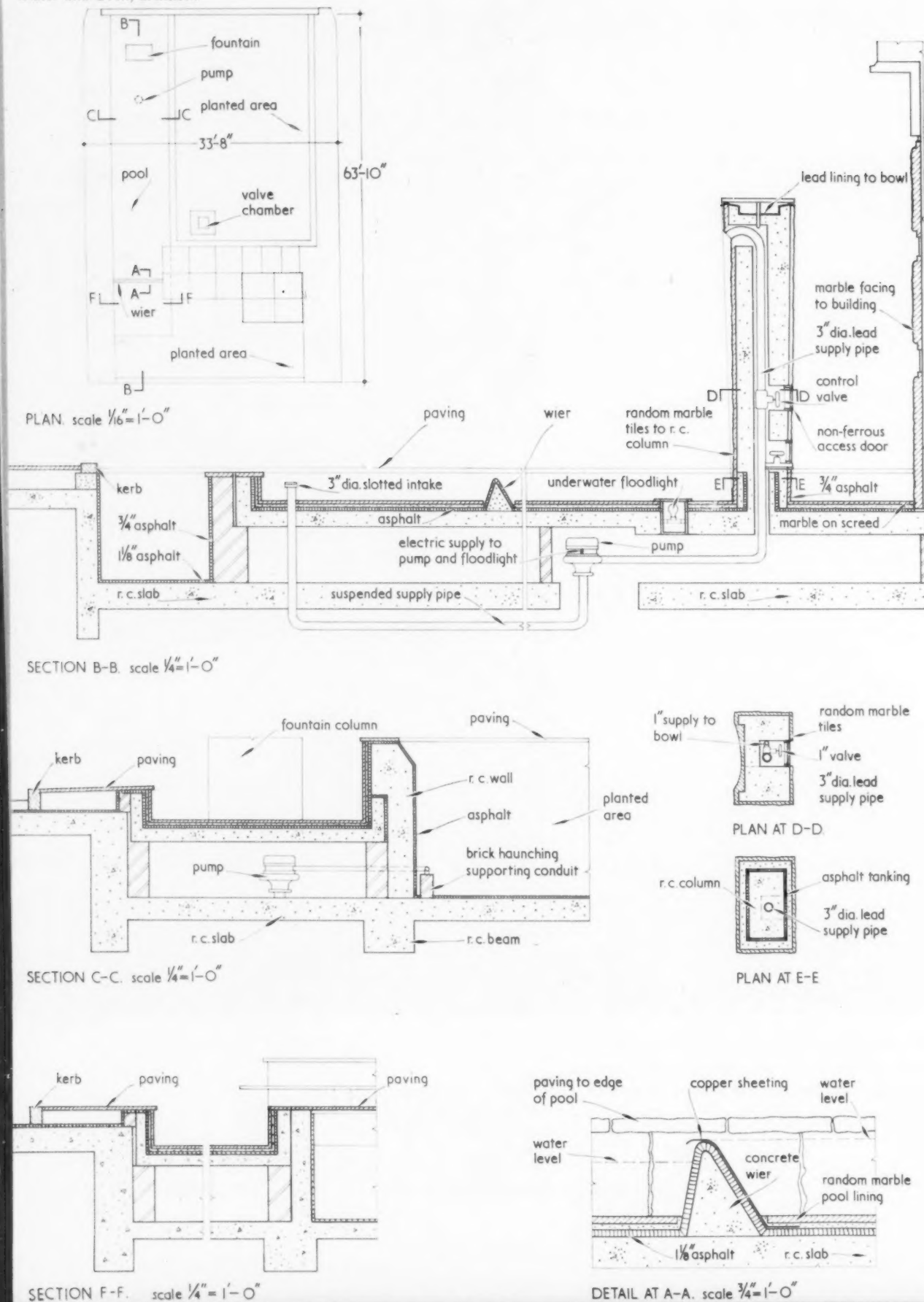
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working detail

MISCELLANEOUS: 38

WATER GARDEN: SHOWROOMS IN LONDON, W.1

Slater and Uren, architects



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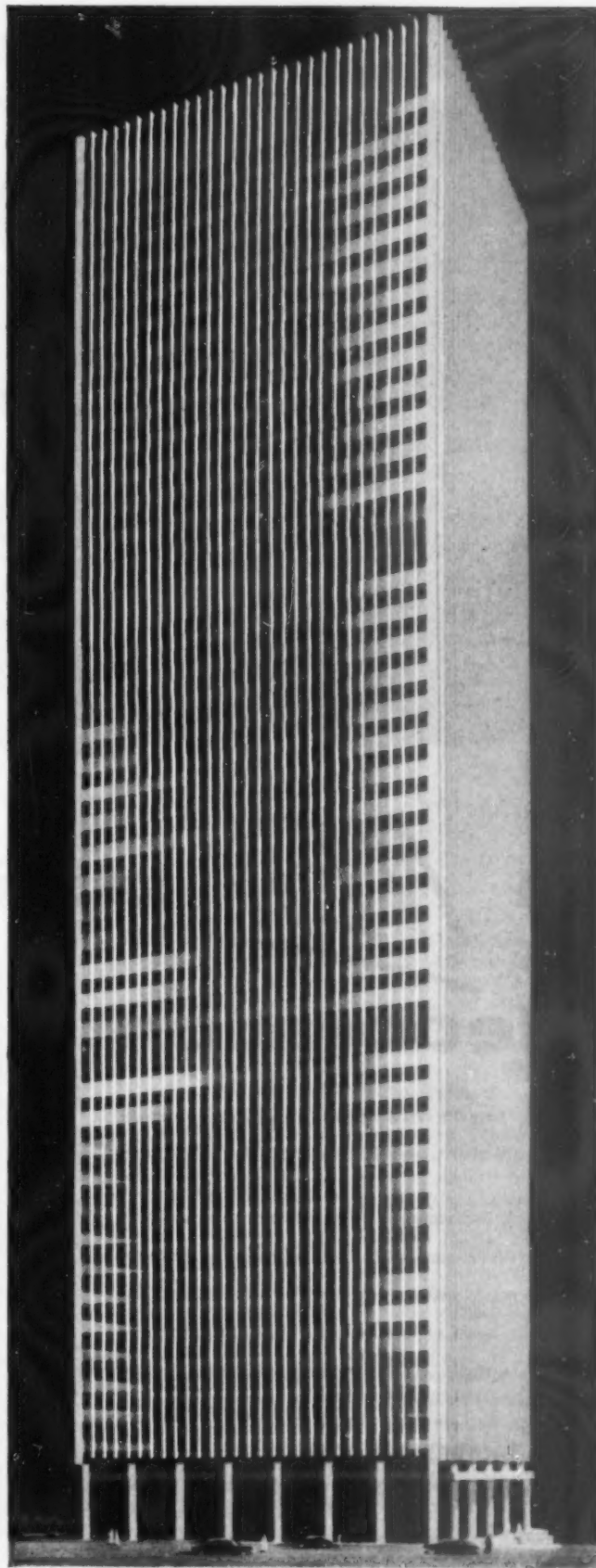
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high for many potential clients. Even if the whole scale of fees is not revised during the year, we can at least expect that the present parsimonious scale for public authority housing will be scrapped.

Before generally raising the scale, however, it might be wise for the RIBA to consider very carefully the question of cut fees. Even in the midst of a building boom the practice still apparently continues under cover. It would, of course, be very difficult for the Institute to gain any factual evidence whatever as to how widely spread this is, but there would seem to be little purpose in raising fees unless the new scale is absolute and binding on all members in fact as well as in theory.

During the year we can also expect the RIBA to push forward with the excellent job it is doing of keeping the profession well in the public eye. One key method that the Institute will continue to develop will be the technique of making immediate public comment on relevant current events as they occur. We can also expect the RIBA to publish shortly the evidence it has presented to the Pilkington Committee which is examining the future of radio and television in this country.

On the educational side we can expect the Institute to continue its activity in encouraging more post-graduate work, which in the long run has immense potential value for the profession. But the biggest issue in education, indeed in the whole of the RIBA's activities, which is almost bound to come to a head during the year, is the question of the two-tier profession. Since the Oxford Conference on education the discussion has mainly gone on behind locked doors; it has now come out into the open with the recent statement by the allied societies hotly in favour of the idea. One of the biggest difficulties in this matter is that hardly any two architects seem to have precisely the same idea as to what exactly is meant by a second tier. Is it, for instance, merely intended to give recognition to a distinctly low order of animal who only does such menial tasks as hatching in brickwork or colouring prints? Is it, on the other hand, to be a class of assistant intended under supervision to take on much more of the office work, such as the bulk of working drawings? Or is it intended that the second tier should be an entirely new type of technician who is specially knowledgeable about certain elements of buildings, such as drains or plumbing? Or, again, is it to be a type of administrator who could free the architect to increase his efficiency? The truth of the matter would appear to be that with the raising of general educational standards for entry into the profession, many principals see the source of unqualified assistants drying up, and seek some immediate alternative. Is such a step in the best interests of the profession? What the RIBA must bear very clearly in mind is that the decision on this issue will not affect just this fairly immediate problem of office staff, but will have fundamental ramifications on the whole structure of the profession for at least 50 years. Can the RIBA confidently predict that the work of offices will maintain the same character over this long period? One fact too often forgotten is that working drawings as we now know them, inevitably the main bulk of current work in terms of man-hours, are a comparatively recent phenomenon. Fifty years ago a very high proportion of building was done by architects without the benefit of such carefully worked-out detailing. The reason for this was that there was a common language between architect and craftsman, and a common system of detailing which could cope with almost every situation. You might almost say that what the architect is suffering from at the moment is the *malaise* of trying desperately to fit together masses of different bits and pieces, from different manufacturers, which lack any natural unity whatever, so that when fitted together on the site they tend to be incompatible dimensionally, functionally and aesthetically. If, over a long term period, this problem can be

solved—and there are signs of possible progress in the pioneer work of prefabrication, standard detailing and modular co-ordination—should the profession rush into this reform for reasons which may well turn out to be relatively short term?

S School Furniture

Shropshire County Council, County Architect Ralph Crowe, are in process of developing a range of school furniture designed within the Architect's department. Based upon the design information built up in recent years by such bodies as Birmingham University, MOE, BSI and various local authorities, and developed in conjunction with an advisory panel of teachers, the range of sizes attempts to achieve the best possible compromise between theoretical anthropometric data and the practical requirements of a working school. The range so far developed includes a complete set of chairs for teaching and dining areas, tables of various types and sizes, locker desks, stools and storage units. Work will continue on the development of other standard designs such as laboratory benching, domestic science tables, and other items of a more specialist nature.



Stacking table and chair in new Shropshire range

Some of the designs have now been out to competitive tender, and will be purchased in bulk for use in the County. Shropshire regard this policy as a considerable advance on the more normal method of buying from standard ranges of existing manufacturers. Not only can truly competitive prices be obtained, but the designs meet the specific needs of the user. They believe too that the design of schools must embrace all aspects of function and performance, and that this is impossible to achieve unless a building and its equipment are integrated from the first conception. With the success of this piece of development, it is possible that other local authorities may consider joining the County in the bulk purchase of this range.

Solid Fuel Research

The main research project in solid fuel is the development and testing by BCURA of a stoker suitable for large buildings and blocks of flats, which is both fully automatic and smokeless. Stokers of this pattern have been on trial in blocks of flats in London. A paper on their design was given in the Journal of the IHVE for November, 1960, and a second paper recording fuel savings will be published shortly.

Sound

Sound insulation and acoustics are about to profit by a new National Building Study on Sound Insulation between Dwellings. This will give sound insulation data on nearly 500 different types of construction and will thus be the acoustic counterpart to a work published last year on fire-resistant structures.



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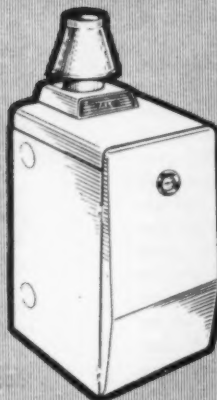
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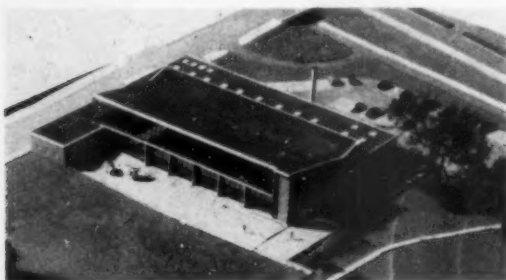
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Other important work on sound for 1961 includes a formidable survey which is being carried out by BRS in conjunction with the LCC to ascertain noise levels in London. Readings are being taken on a 500-yard grid over some 36 square miles of Central London. The findings of this survey will be of great assistance to the Ministry of Health's Wilson Committee on Noise which is now sitting.

Stevenage Town Centre

Among the buildings under way in the Town Centre at Stevenage, to broaden its facilities beyond those of a shopping precinct, are a dance hall on a site to the west of the main bus station, and a swimming pool at the north-east corner of the area. Both are designed by Leonard G. Vincent, chief architect to the Development Corporation. The ballroom is being built for Mecca Ltd. and will provide a dance floor for 2,000 people; it will probably be opened in early autumn. The swimming pool, which is being built for the



Model of Stevenage swimming pool

Stevenage UDC, will start on site in the next few weeks. It provides a main 110 ft. by 42 ft. pool, plus a 42 ft. by 15 ft. training pool, together with changing rooms and the other normal facilities, and a café and club room. There is also an outside terrace for sunbathing on the south side of the main pool, and an internal balcony for spectators. The structure is steel framed, the lower blocks being clad externally in brickwork and the main pool with steel curtain walling and aluminium.

T Timber Development Association

In 1961 timber will continue its rapid advance as an engineering material; and research is divided between Forest Products Research laboratory of DSIR and the TDA.

Since moisture content is one of the chief factors affecting the performance of timber, an important investigation will continue to find out whether equilibrium moisture content varies to any significant degree in different parts of the U.K. and whether modern methods of construction and standards of insulation have made any difference in this respect. Techniques of non-destructive testing are in use and will be further developed for the testing of timber. These techniques, which are likely to come into more common use, can be used both to detect the presence of decay and to test the continuity of glue lines.

The main development in structural calculation is undoubtedly in the use of an electronic computer to assist in formulating design methods. This has already been used on cylindrical shell roofs and it will soon be applied to hyperbolic paraboloids.

One important structural type now being developed by the Association is the long span connected truss. Last year such trusses of 85 ft span were tested at the Alexandra Dock, Liverpool, and further tests will go forward on a variety of trusses all of 80 ft. span but differing in design. Timber shell roofs will also continue to receive much attention.

TDA are building a new laboratory for testing shell roofs and this is to be roofed with timber conoid shells. Detailed investigation has shown that, by using a ring-shanked nail of special design, it is possible to use a timber with a low shear strength. TDA consider that the value of timber as a structural material can be greatly enhanced by the use of nails with better holding qualities and with greater resistance to corrosion and they are trying to encourage their manufacture.

A significant part of the relatively high cost of glued construction is accounted for by the existing time-consuming method of securing each cramp by nuts and bolts. This not only takes time but can give very uneven results. TDA are now developing a new type of laminating bed which operates the cramps hydraulically. This is much quicker and ensures an even pressure. The industry may well take this up during the coming year and if it does so this new technique may be reflected in lower prices.

Another improved manufacturing method which TDA is developing is the quick curing of end joints by low voltage heating.

Investigations are being carried out on the prestressing of timber. These include the post-tensioning of unit box beams (which could then be brought to the site in small units and strung together) and the glueing of pre-tensioned high tensile wires between the laminations of laminated beams.

TDA's work on clear finishes will continue, but it seems unlikely that a clear finish with a worth-while length of life will be found, at least during 1961. Investigations are also being made to discover whether the dipping of window sashes in frames in preservative would give a worth-while measure of protection. Tests will also be carried out on roofing materials used on timber shells. Traditional roofing felts last well, but tend to tear away from the fixing nails. Among the alternatives under test are polyisobutylene sheet, embossed aluminium on felt, p.v.c. with vinyl/asbestos/powder mix and bitumen/asbestos panelling.

Tropical Schools

Two schools for the War Office in the Far East, which are at working drawing stage, are particularly interesting since, although they provide for secondary education equivalent to that in this country, the planning and detailed design have been very much influenced by a careful assessment of the climate and the need to provide reasonable conditions of comfort in all teaching spaces throughout the school day.

Designed by Robert Matthew and Johnson-Marshall in collaboration with D. E. E. Gibson, Director General of Works, the War Office, the two sites are at Pasir Panjang, Singapore, and Fort George, Malacca. Following a visit to the sites, the architects feel it important to observe certain principles in addition to providing some form of air conditioning for all the teaching spaces. These include encouraging as much air movement as possible round the buildings and through all naturally ventilated spaces, and drawing air into the conditioned rooms as far as possible from shaded areas only. At the same time shading and insulation will be provided for external walls, and sunlight completely excluded from interiors to reduce heat gains to a minimum, although it is obviously necessary at the same time to maintain a suitable standard of daylighting. It is felt that internal courts, although useful for shade, should be at least partly open at ground level to encourage air movement and that covered circulation must be provided to connect separate blocks to give protection from both sun and heavy rain.

Present-day planning techniques for secondary schools demand considerable flexibility, and the more fully educational needs are served in detail, the more difficult

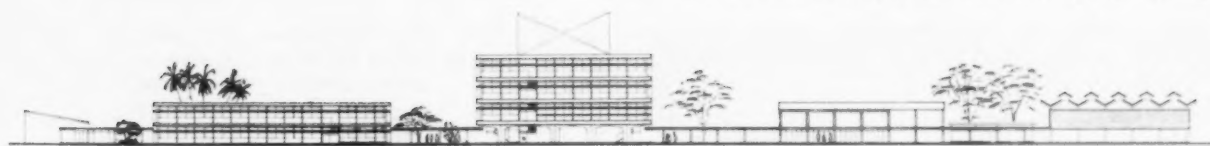


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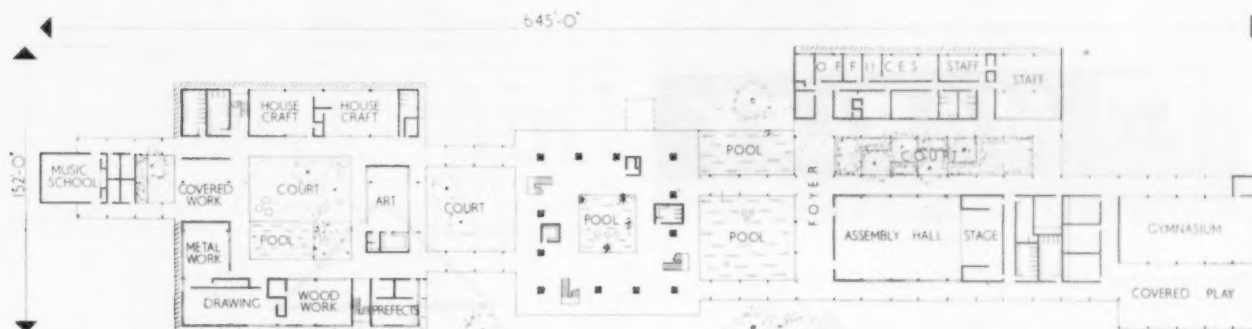


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School at Fort George, Malacca: south-east elevation (below) ground floor plan



it becomes to plan compactly; the architects consequently reached the conclusion at an early stage that conventional air conditioning with ducts from a central source would be a serious embarrassment. An alternative technique is therefore being developed for the two schools. This is based on the principle that air cooling can be tackled in a way parallel to that used for warm air heating from individual units, now widely adopted in schools in Britain. Refrigerant circulated round the building in small-bore pipes can be used to feed isolated units, each individually controlled by thermostats, and sited as required in relation to the teaching and other spaces. The planning of the schools is therefore based on pairs or small groups of rooms surrounding a core of cooler units, this air conditioned accommodation being in turn surrounded as far as possible by naturally ventilated and shaded circulation to reduce heat gain. In addition the architects believe that careful assessment of comfort conditions required in the air conditioned interiors may well show that to reduce temperature and humidity as far as conventionally adopted levels is unnecessary, and that economies may be achieved as a result. The team concerned with these projects include Maurice Lee (senior architect), David Wicks (job architect), Stephen Bartlett and Oscar Pereira.

The structure for the school at Fort George will generally be reinforced concrete. Three upper floors of the large arts block are carried on a series of cruciform mushroom columns at ground level, and the central court is covered with a hyperbolic paraboloid canopy designed to exclude sunlight but still let in considerable quantities of daylight. A concrete portal frame will be used for the assembly hall, and the gym and covered play area will be covered with a folded concrete slab carried on Y-shaped columns.

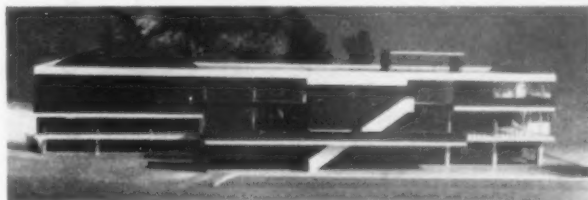
rear but service to the bar cellar is from the front—since it was thought best to have the bar above on the front of the building.

There is sufficient space in the entrance hall for exhibition screens and the display of posters. A wide, easy-going staircase leads to the concourse above. The most important accommodation for the students, and all the catering, is concentrated on this first floor. The lounges, bar and snack bars open on to raised terraces (facing SW and NW) which have external staircases.

The ballroom—the most important room in the building—is closely related to the other accommodation. Because of its size it extends through two storeys, roofed by a shallow dome which appears above the general roof line. It is anticipated that the lighting and decorations of this room will be varied by the students and it will not therefore be treated as a "set piece." To this end parts of the walls will be boarded in softwood.

The games rooms are on the top floor and will have top light in addition to side windows. For dances and parties the table tennis room may be joined to one of the three general purpose rooms; the adjoining general purpose room may then be used as a bar.

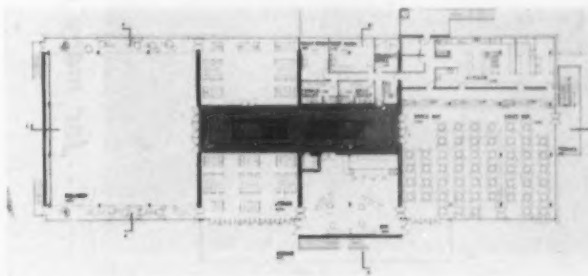
Special precautions will be taken to insulate as far as possible the noisy music and television rooms on the top floor from the quieter rooms, which include a



Students' Union: first floor plan (below) and model (above)

U University College of North Staffordshire

The Students' Union, designed by Stillman and Eastwick-Field, is planned on three storeys and allows the main accommodation to be divided quite conveniently. Advantage is taken of the slope in the ground to place the ground floor offices (which have a rather lower ceiling height) on the up-hill side, thus reducing excavation and expense. In this position they are also more secluded. The shops, also on the ground floor, are placed in the most convenient position, near the road. Service to the shops and kitchen is from a yard at the

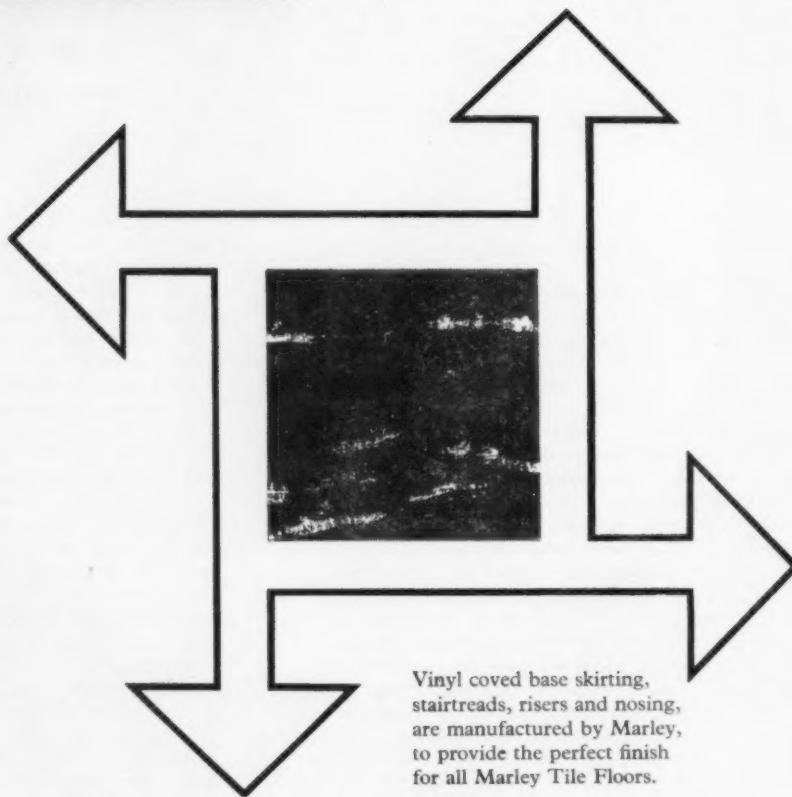




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The team involved in the project include Associate in Charge, R. Smorczewski, assisted by F. Baden-Powell; Quantity Surveyors H. Trinick & Partners; Consultant Engineers (Structure) Donovan Lee & Partners, and (Services) Hoare Lea & Partners.

University Schools of Architecture and Building

Though university research in engineering is of long standing, that on building and architecture is of very recent growth. So recent is it, and so small are the sums allotted to it, that it might have been wiser to have made no mention of it; but though its contribution during the coming year is likely to be very modest, we make as large a meal of it as possible because we think the initiation of university research in these subjects to be of immense importance for the future.

University research on cement and concrete has already been mentioned in the section describing the work of the Cement and Concrete Association. In general the engineering departments are considerably ahead of architectural departments in the quantity of research being done. The work on concrete already mentioned is paralleled by work on steel; also, to quote one example, the continuing research of Professor Baker on the plastic theory as applied to steel at the University of Cambridge.

Both Cambridge and Edinburgh have embarked on long term research on housing. The Cambridge study is framed to test whether it is possible to design three-storey housing to the high densities normally achieved with point blocks. Because daylight penetration is important in such a study, it will be conducted chiefly with models and making use of the department's new artificial sky (see AJ December 22, 1960, page 915).

The Edinburgh research is also concerned with high density development, but is designed to give a practical trial of certain planning ideas in actual estates. Two years ago a Housing Research Unit was set up and this is now working on two projects, one for Cumbernauld New Town and the other (which is the more advanced of the two) at Prestonpans for East Lothian County Council. The East Lothian scheme (now at tendering stage) employs a courtyard-type house at 20:3 to the acre. The houses are designed so that the spaces can be adapted to different uses as the children grow up and the circulation is for pedestrians only, with cars only allowed in for some very exceptional delivery.

The programmes of the School of Architecture and Department of Building at Liverpool and the Department of Building at Manchester University are similar in scope, though different in detail. In the field of background techniques and practice Manchester is working on communications in the building industry and on building inspection and supervision, while Liverpool is working on the application of work-study techniques to the design of buildings and on the use of the electronic digital computer for preparing bills of quantities.

On the building components side Manchester is doing research on the design of building materials as elements in site productivity, Liverpool on prefabrication techniques as applied to multi-storey buildings.

In addition to these Manchester has two climatological studies: regional bioclimate related to building and noise surveys in urban areas (cf. the BRS study on noise levels in London), while Liverpool has an investigation of factory roof design with special reference to the economics of daylighting.

V Vickers Building

Work will continue during the year on the Vickers building, at Millbank near the Tate Gallery, which has already reached about two-thirds of its total height. Although not so spectacularly sited as the Shell build-



Vickers building from across the Thames

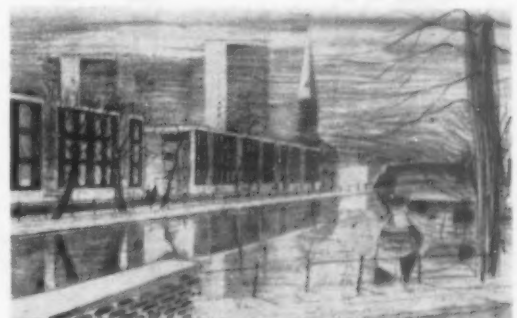
ing on South Bank, it will, when completed next year, have a total height of 387 ft., which is some 50 ft. taller than Shell, and will top the Victoria Tower of the House of Lords, which is 330 odd feet. In addition to the tower block the development of the site, financed by the Legal and General Assurance Society, includes a further eight-storey office block, an eleven-storey residential block and a cinema-conference hall. Parking is provided for 250 cars on three levels, reached by a spiral ramp. Care has been taken in the layout to leave as much as possible of the site at ground level open in the form of gardens and courtyards. The architects are Ronald Ward & Partners.

Visits Abroad

The Department of Extra-Mural Studies, Birmingham University, are organising a study tour of European churches, starting on April 27. The Essex, Cambridgeshire and Hertfordshire Society of Architects are organising a visit to Paris from April 5 to 8.

W Warwick Crescent, Paddington

Work will start later this year on three 21-storey blocks in this scheme for the combined redevelopment and rehabilitation of this 44-acre site which lies between Harrow Road and the Grand Union Canal at Paddington. Half the area will be used for housing, including besides the tall blocks (each equipped with 2 high-speed lifts and electric floor heating), eleven 4-storey blocks of flats (one with shops), three 3-storey blocks of old people's dwellings, two terraces of houses, a 5-storey and a 3-storey block of maisonettes each with shops on the ground floor, making 946 new dwellings altogether. Rehabilitation of some of the existing property by the LCC Direct Labour Organisation will increase the total number of dwellings in the scheme to 1,127. There are to be 117 garages and parking spaces for 169 cars. Plans also include the provision of 369 tenants' stores,



Warwick Crescent area, seen from the canal

an old people's home, six family homes for children in the Council's care, a fire station, a clubroom and a youth centre. Sufficient shops will be included for day-to-day needs. Of the four schools in the area, two are to be enlarged and one resited. Two churches are to be retained.

The existing properties in the area range from good early 19th century terrace houses in the east to late Victorian slums in the west. While seventy of the best of the earlier buildings will be put in sound condition and adapted to produce 181 modernised dwellings, much of the eastern half of the site will be redeveloped with 4-storey flats carefully designed to preserve the existing terraced character of the area and to provide large communal garden squares. The 21-storey blocks of flats will transform the west part of the site and create a local land mark associated with the canal. An interesting feature of the proposals is a canal-side walk running the full length of the site from "Little Venice" to the road bridge and linked with eight acres of badly needed public open space. A children's playground, a ball-games area and eleven play spaces are also included in the layout. Three-and-a-half more acres of open space will be provided in the adjoining Brindley Road area.

When complete, the scheme will provide housing for a total of 3,860 people. It has been prepared by Hubert Bennett, Architect to the LCC, Deputy Architect F. G. West, Principal Housing Architect Kenneth Campbell (in succession to H. J. Whitfield Lewis), Assistant Housing Architect J. Whittle, Architect in charge E. F. Moholi (in succession to Oliver Cox), assisted by J. Macdonald and J. N. Wall, Planning Officer L. W. Lane, Senior Structural Engineer J. H. Humphreys, Principal Quantity Surveyor M. F. Rice, together with consultant structural engineers Ove Arup & Partners, and appointed quantity surveyors Bryden & Woodford.

XYZ York

The programme at the Institute of Advanced Architectural Studies during the year will include the following courses:

Analysis of structural forms by simple models	February 3-5
Recent developments in quantity surveying	February 10-14
Architectural project management	February 17-21
Services for hospitals	February 24-28
Protection and repair of historic buildings	March 9-16
The care of churches	March 16-20
Lessons of the New Towns	April 21-25
Urban renewal: the inner ring	May 5-9
Traffic in towns	May 9-13
Tree preservation in town and country	May 26-30
Design opportunities with timber	September 15-19
Waterside buildings and waterscape	September 29—October 3
Colour in architecture	October 6-10
Factory design	October 20-24
Floor finishes	November 3-7
Colloquium on the teaching of structure	November 17-21
Site exploration and foundation design	November 24-28

In addition there will be courses for students on design procedure, landscape and town planning from July 29 to August 12, and during the same period two seminars of one week's duration each on current trends in architecture in six regions of the world and developments in town planning.



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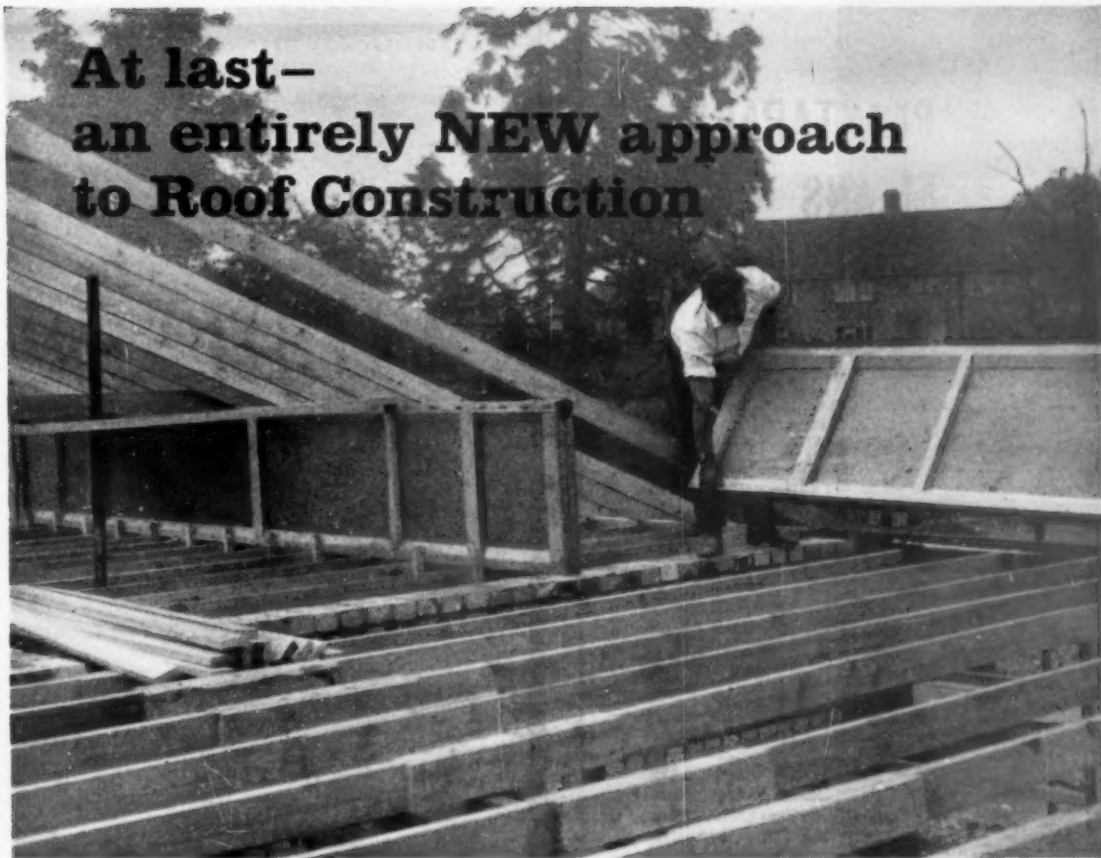
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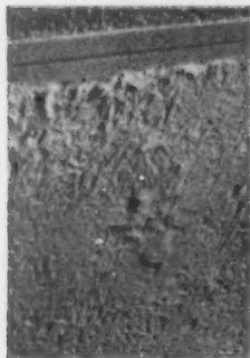
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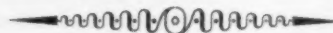
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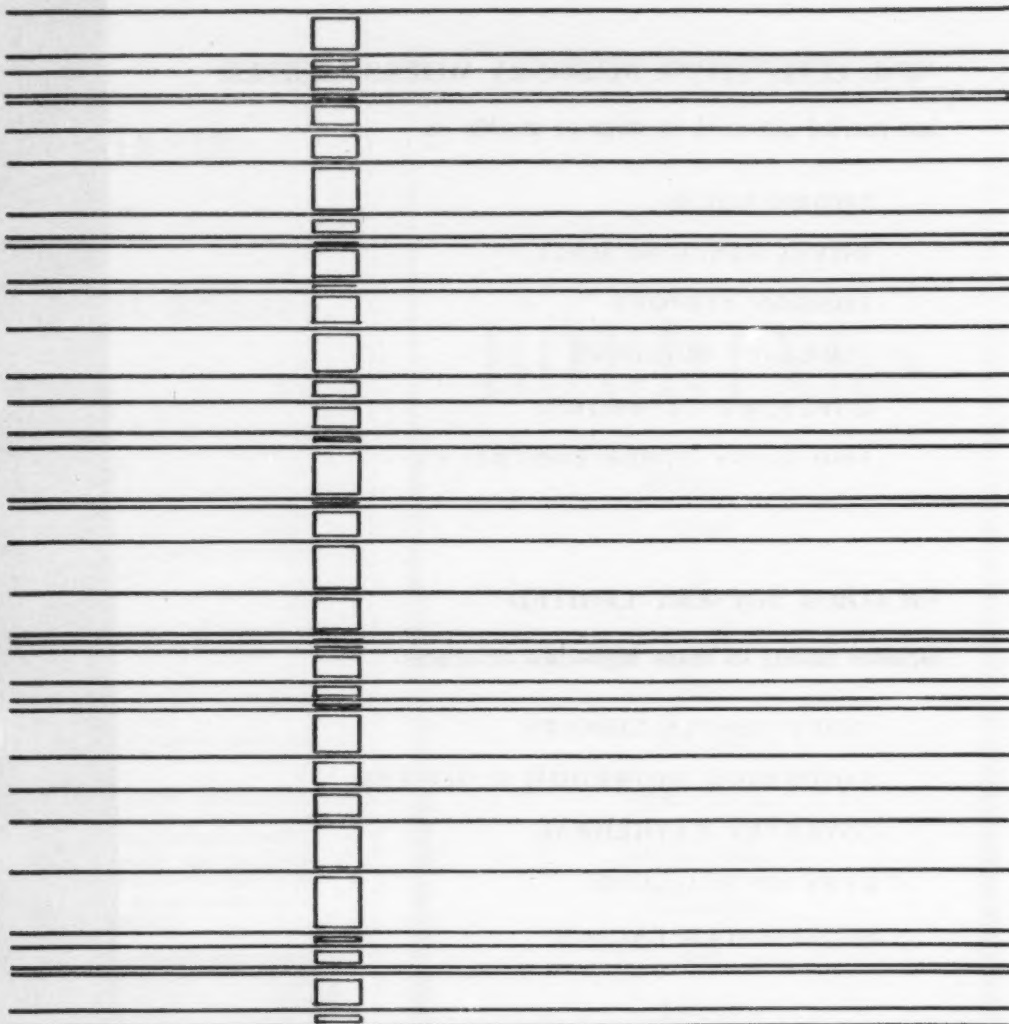
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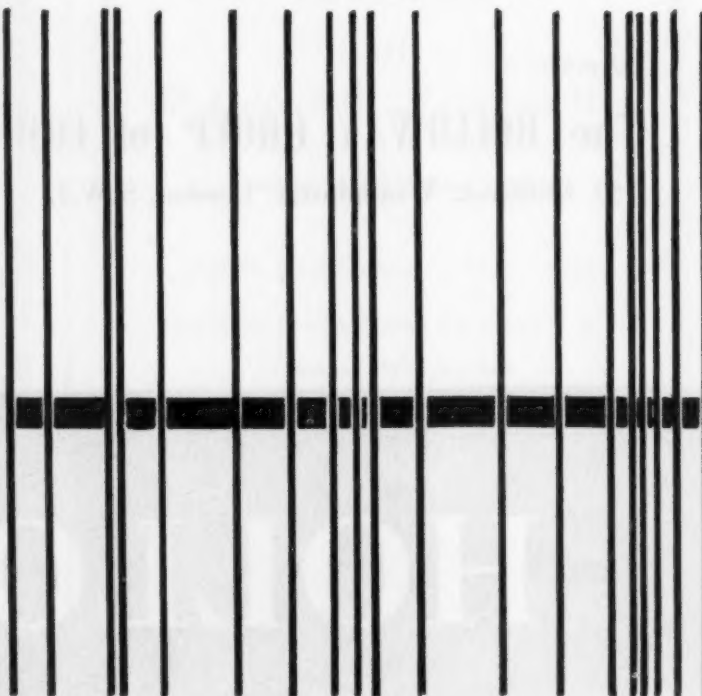
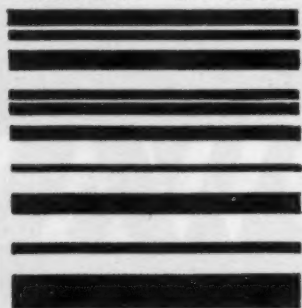
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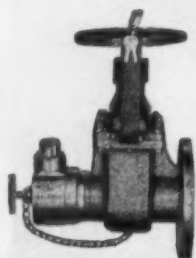


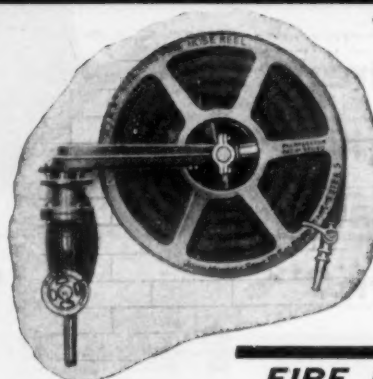
FIG. 29R



FIG. 643K



FIG. 642



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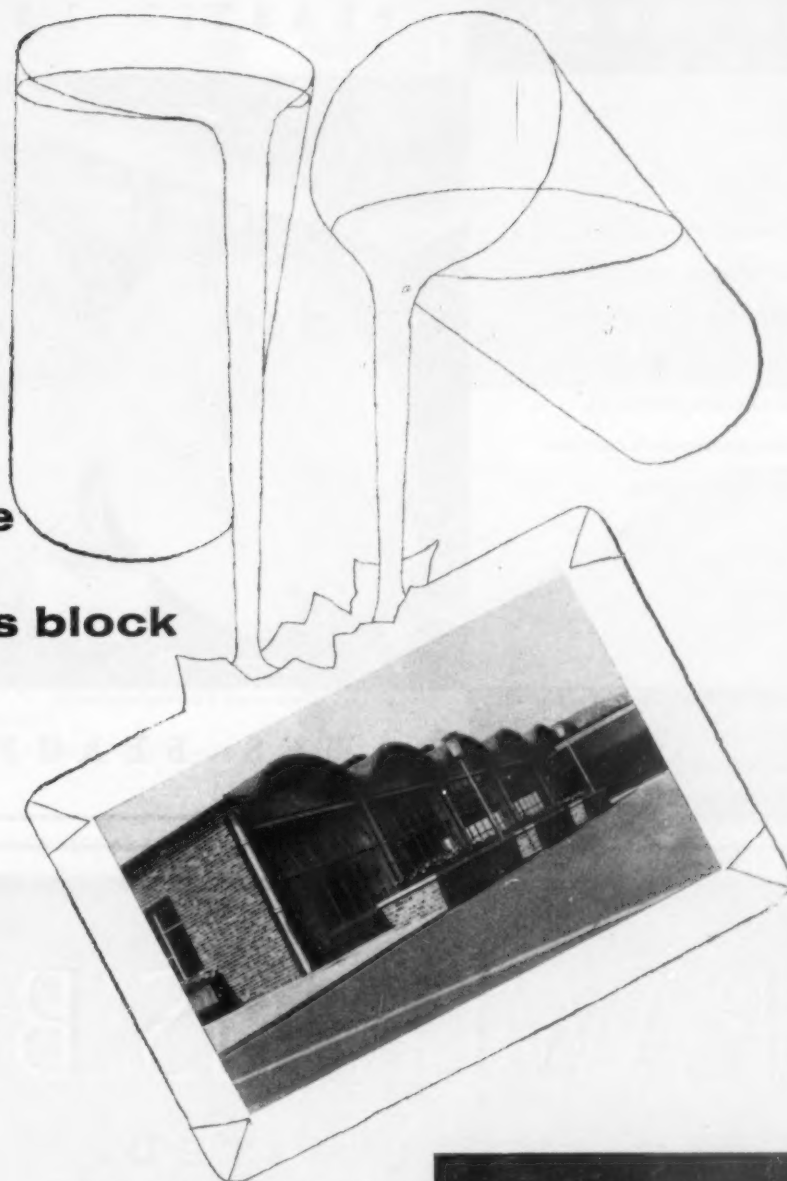
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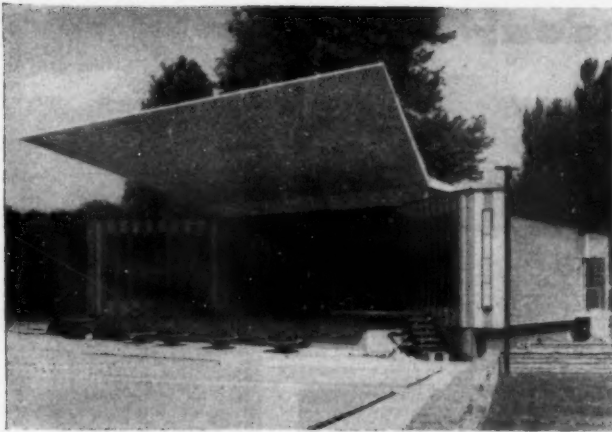
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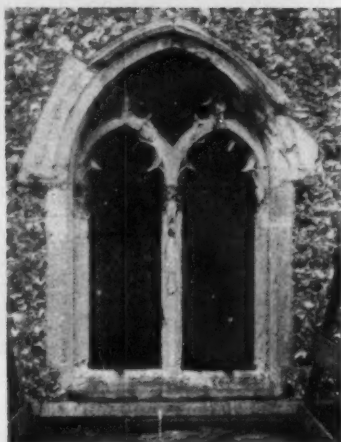


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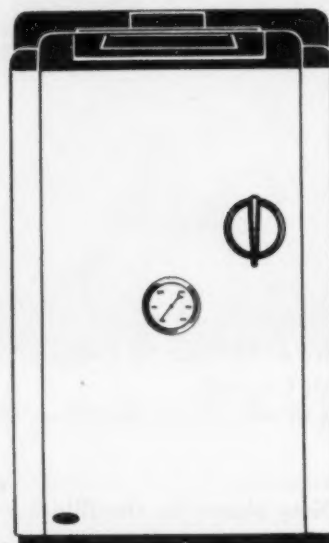


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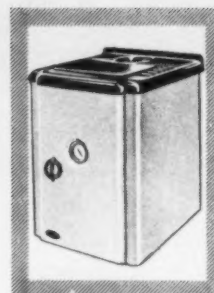


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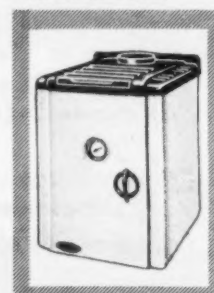
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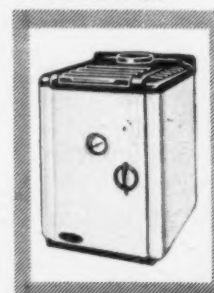
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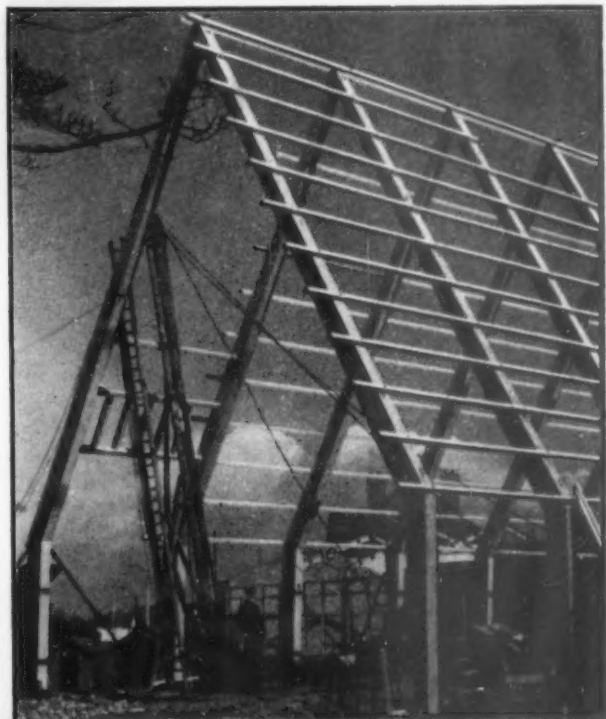
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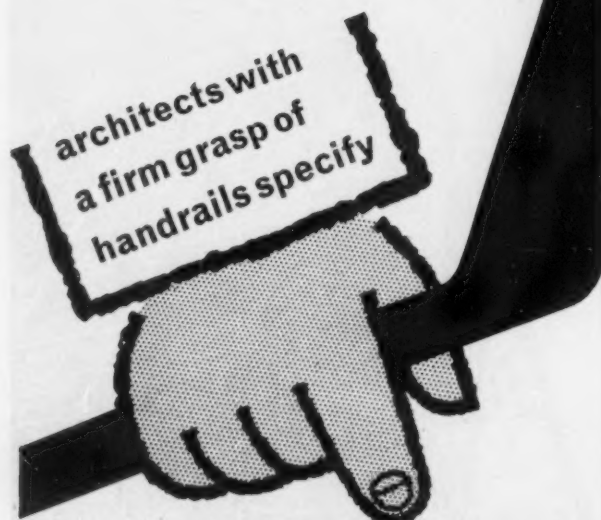


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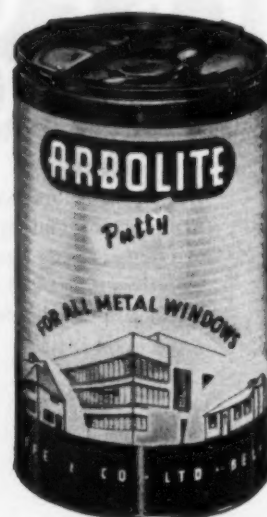


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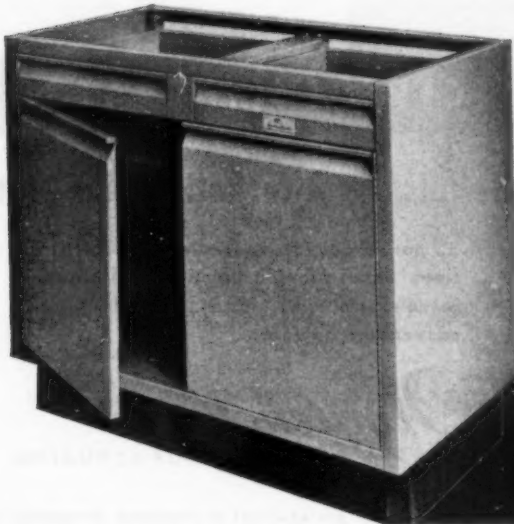
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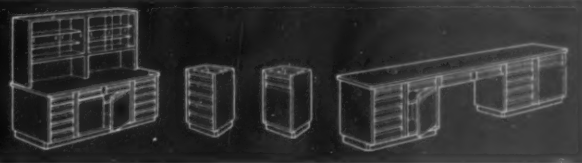
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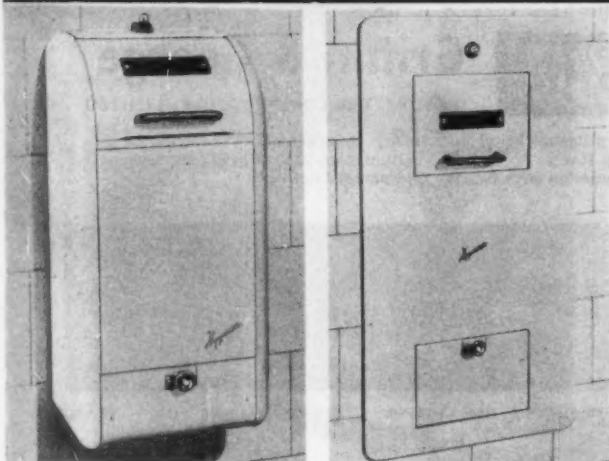
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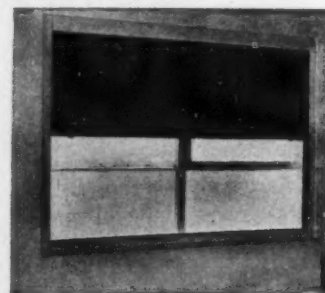
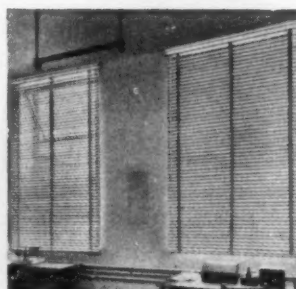
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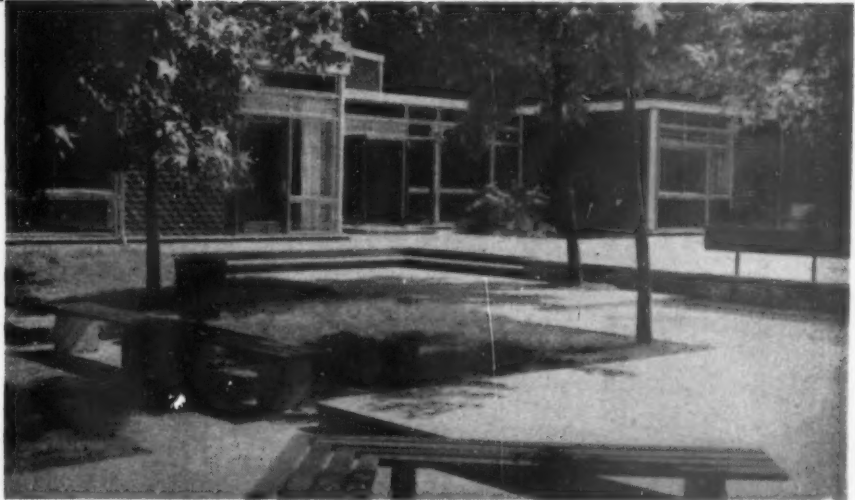
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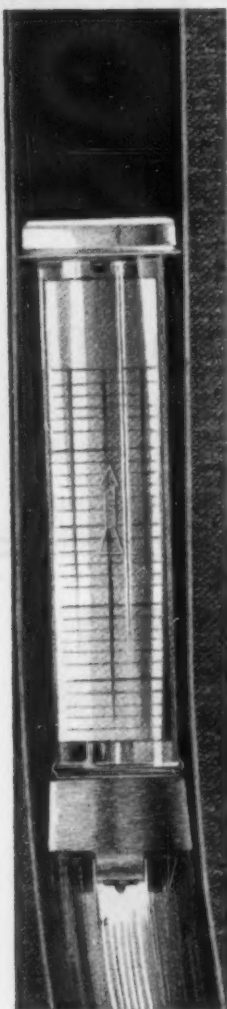
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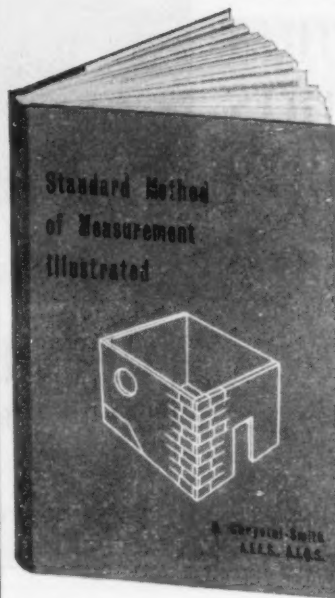
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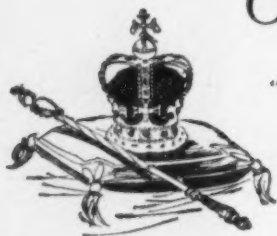
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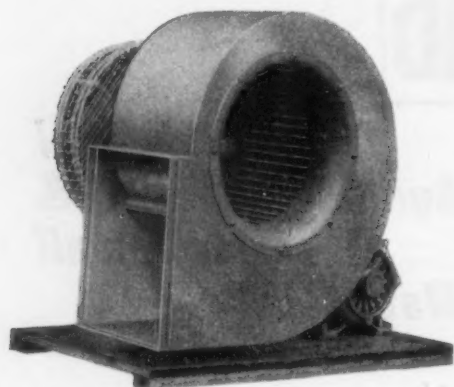


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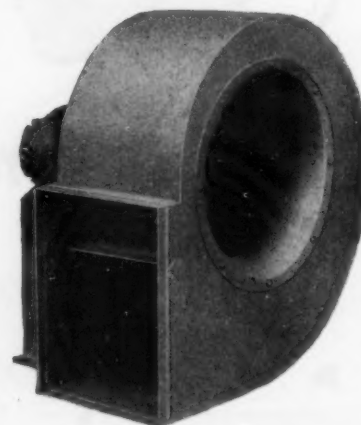
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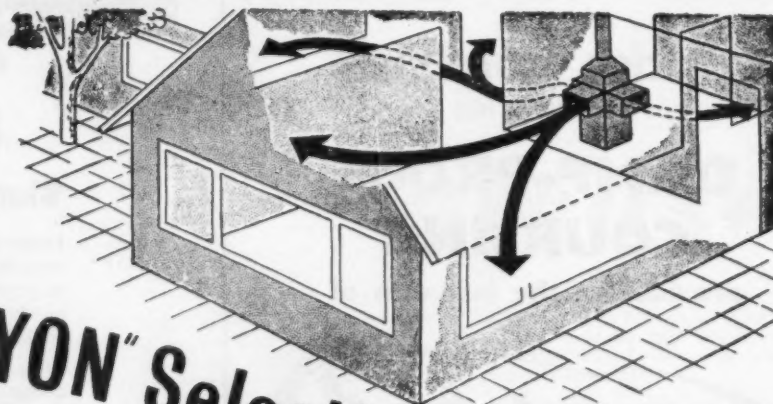


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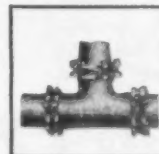
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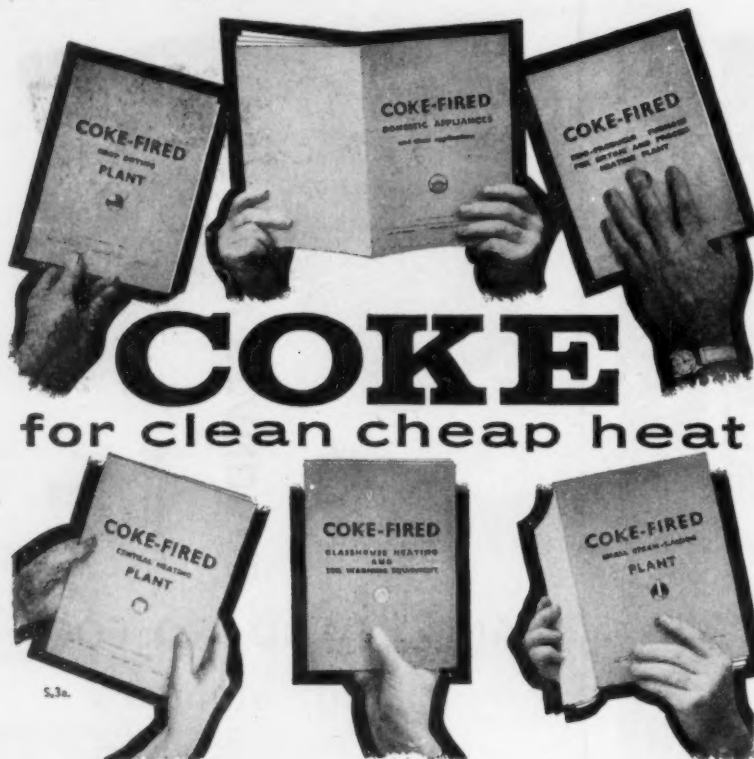
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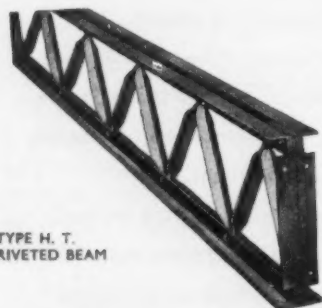
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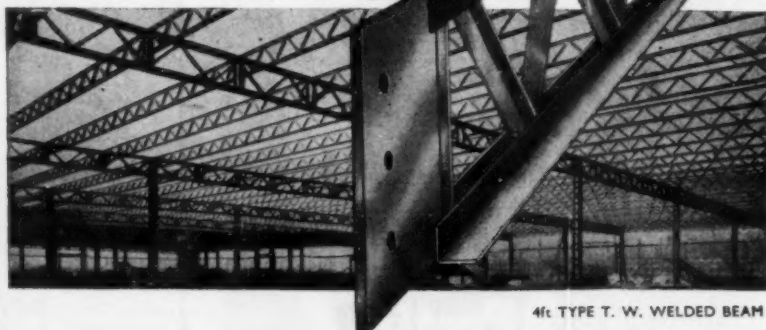


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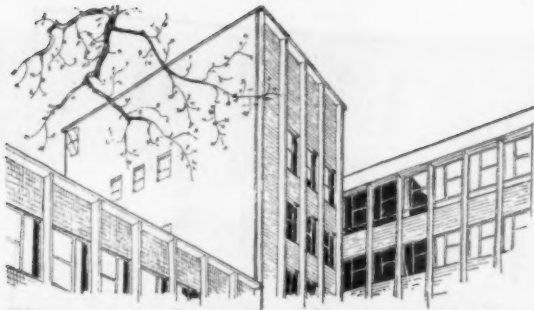
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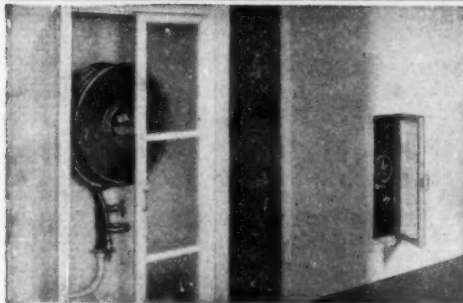
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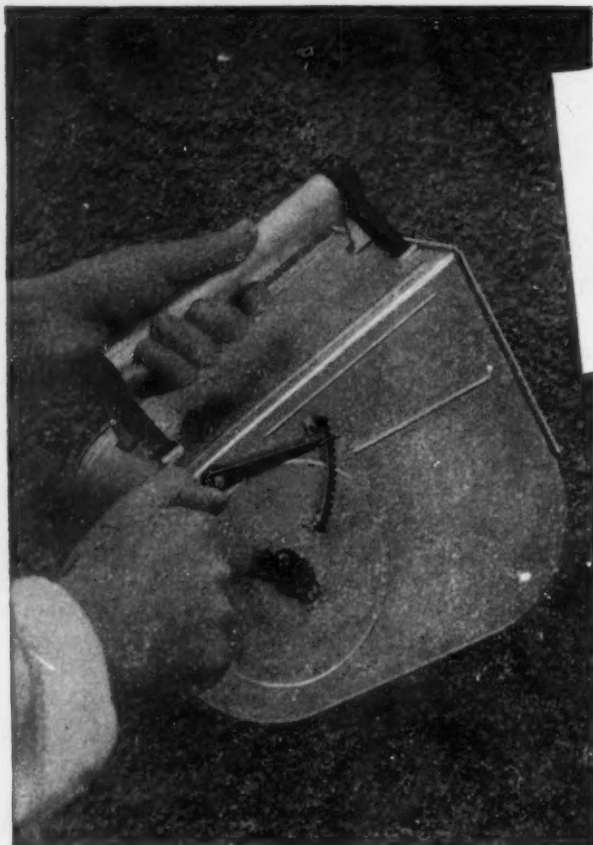
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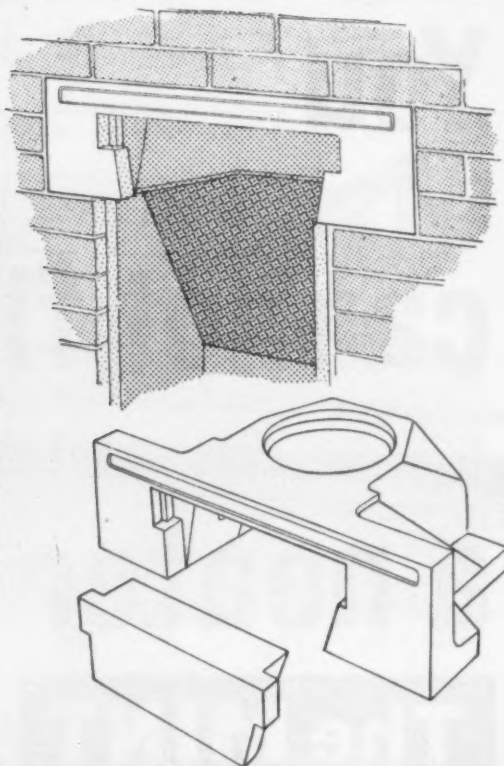
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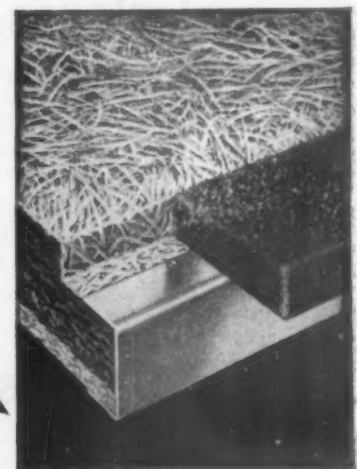
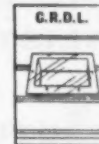
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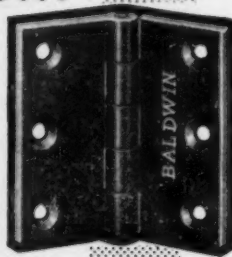


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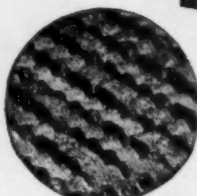
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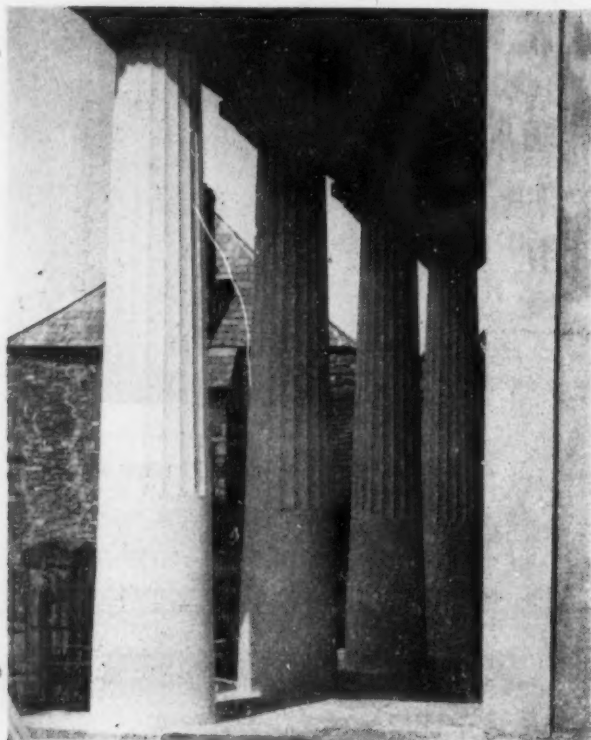
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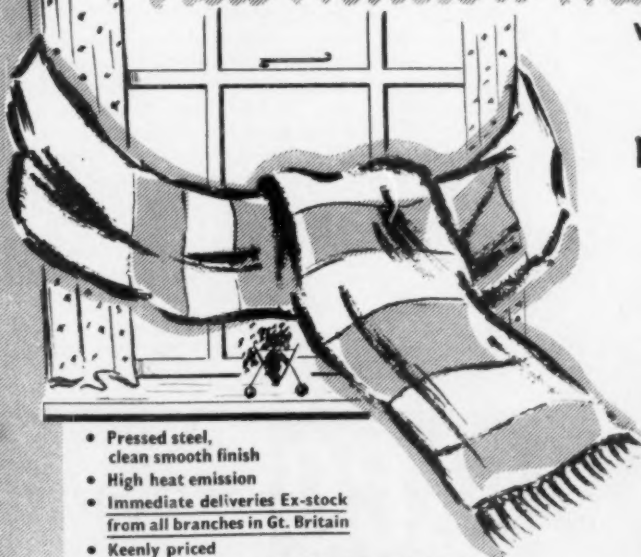
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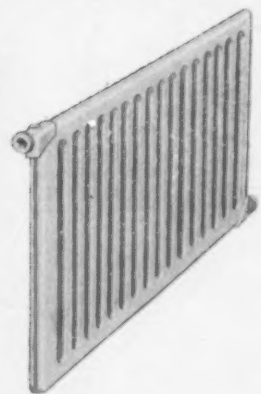
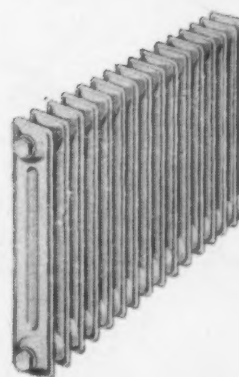
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Type 'WM' wall-mounting Thermovent heater. 1½ and 2½ kW loadings. Robust welded sheet steel construction with light 'hammered bronze' stove enamel finish.

Robustly constructed in welded sheet steel, these well designed heaters have an overall projection of only 5½ ins. and are ideal semi-permanent wall-mounted heaters—especially in situations where floor space must be kept clear. They are attractively finished in light bronze or cream enamel with gold colour grilles. A pilot light gives a pleasant glow as well as a warning that the heater is switched on. 1½ kW model £10.6.7.

- Loadings—1½ and 2½ kW.
- Automatic heat control available.
- Fixing height—6 to 9 ins. from the floor. Easily installed.
- Standard voltages—Thermostat models A.C. only. Non-thermostat models AC/DC: 200-220v, 220-240v (100-110v or 110-120v to special order).

EKCO

THERMOVENT

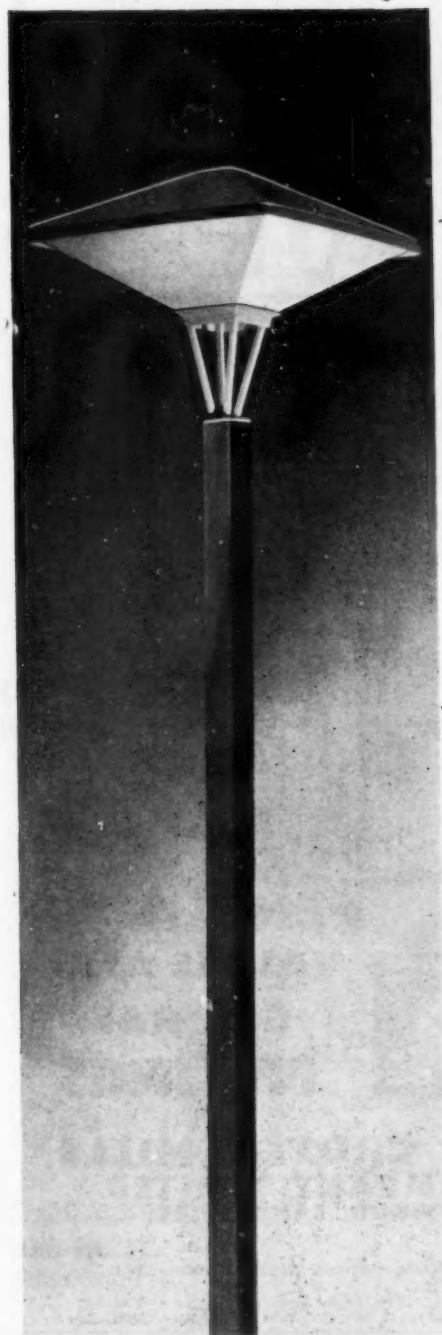
ELECTRIC SPACE HEATING

For further information and advice consult the Ekco Technical Advisory Service:

Ekco Heating, E. K. Cole Ltd., 5 Vigo St., London W.1

Area Lanterns new in shape with **tube** of slender form

**Two new designs by Peter Bell, M.S.I.A.
with square section steel tubes**

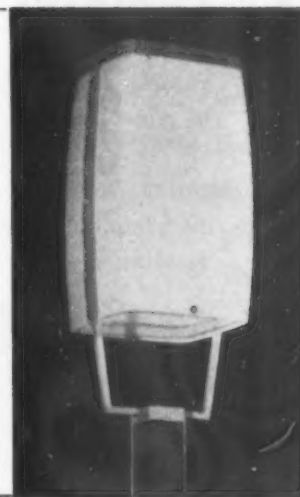


◀ **E 6820 for 200w Lamp**

with 24" square coral "PERSPEX"
canopy. Overall height 12 ft.

E 6810 for 200w Lamp ▶

with 11" square coral "PERSPEX"
canopy. Overall height 12 ft. 6 ins.



This illustrated leaflet giving
full specification and price
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VIC 2766/7

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Britains newest radiator factory

Introduces a comprehensive range of panel and column type radiators for domestic and industrial closed-circuit hotwater central heating installations: ideal for small bore systems.

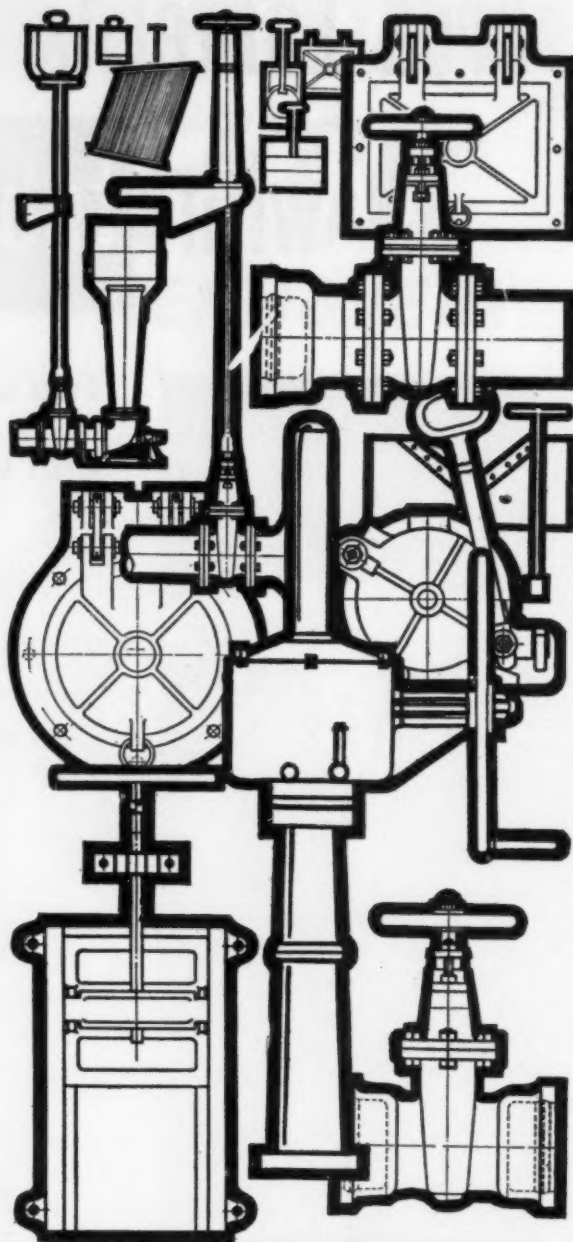
In association with one of Europe's leading radiator manufacturers, Hull Rad are producing radiators of exclusive design with smooth clean lines to exacting standards from high quality pressed steel.

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ROSS-ON-WYE 2358

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BRUNEX Fibre Board has been world-famous for many years because of its thermal and sound insulating qualities. Now it is available factory processed with "Albi-R" Fire Retardant Coating, which raises it to Class I "Surface Spread of Flame" (B.S. 476 : 1953). The board has a hard white finish, which can be over-painted if desired without detracting from its fire-retardant properties. Flameproofed BRUNEX is the answer to most industrial insulation problems!

for further information on Brunex Boards, post this coupon to Sole Agents in Great Britain:

JAMES WEBSTER & BRO. LTD.
 Head Office: Webster House, Derby Rd., Bootle, Liverpool 20
 London Office: Dashwood House, 69 Old Broad St., London, E.C.2

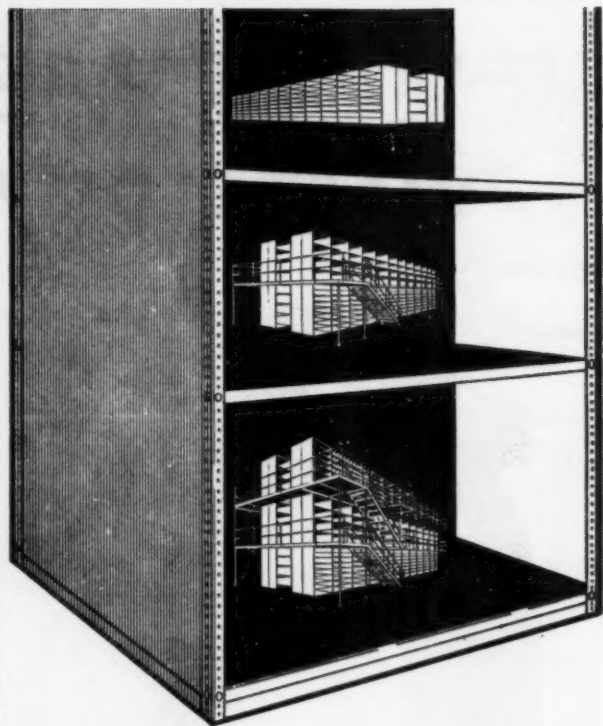
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Brunex is a product of BERGER LANGMOEN Norway



from small beginnings...

Constructors 'Adjusteel' Shelving designed to conform to B.S.S. 826/1955 can be extended to 2, 3, or 4 tier installations as your organisation progresses.

Open or closed shelving in all standard sizes available from stock.

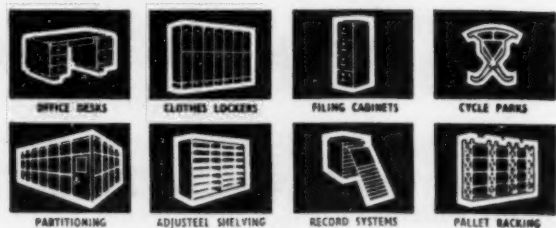
Layouts and suggestions prepared without obligation.

We can save time, space and money in your storage.

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CONSTRUCTORS LIMITED, Dept. Z, Tyburn Road, Erdington, Birmingham 24. Telephone. ERDington 1616

London Office: 98 Park Lane, W.I. Telephone: MAYfair 3074
 Leeds Office: 25 Merrion Street. Telephone: Leeds 28017

SLIDING DOORS
run more smoothly, far longer
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ELLARD SLIDING DOOR GEAR

For every type of SLIDING DOOR

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ELLARD "ESTATE" sliding door gear is designed for use with all types of internal straight sliding doors up to 100 lbs. each in weight.

"ESTATE" sliding door gear has enjoyed extensive popularity for many years and is consistently selected for use on large housing estates and New Towns throughout the country.

Please write for full details of 'ESTATE' and our many other types of Sliding Door Gear.

ELLARD SLIDING DOOR GEARS LTD.

(Desk 6) Works Road, Letchworth, Herts. Tel: 613/4

IN STEP WITH PROGRESS-



**WHITTLE
LINK-MATS**

MANUFACTURED BY
**THOMAS WHITTLE
& SONS, LIMITED**

To meet the present trend, Whittle Link Mats are available in a wide range of colours and can be made to special requirements.

HEAD OFFICE AND WORKS: WARRINGTON
PHONE: WARRINGTON 33611 GRAMS: BELT WARRINGTON

Coventry Cathedral Nave Columns

WOOLAWAY CONCRETE PRODUCTS LTD., WEST BAY WORKS, BRIDPORT 2, DORSET, have completed manufacture of the precast concrete Nave Columns for Coventry Cathedral.

The finished columns are 62ft. in length; they are made of three separate units cruciform in section, which taper from 1ft. 5in. at the base to 2ft. 10in. at the cap. To provide for $\frac{1}{8}$ in. plastic joints between sections the units had to be finished with great accuracy. All faces were ground to a smooth matt finish.

ARCHITECTS who require high grade concrete products are asked to send their enquiries to WOOLAWAY CONCRETE PRODUCTS LTD., who specialise in such work and in the production of decorative concrete panels.

WOOLAWAY CONCRETE PRODUCTS LTD. have recently been awarded a contract to make the fins for the Guild Chapel adjoining COVENTRY CATHEDRAL.

Architect: Sir Basil Spence, R.A., R.D.I., P.P.R.I.B.A.

WOOLAWAY

CONCRETE PRODUCTS LIMITED

West Bay Works, Bridport 2.
Dorset Tel. Bridport 2327

CLASSIFIED ADVERTISEMENTS

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

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

AIR-MAIL SERVICE available on request. In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of this special service to Overseas subscribers will be £2. for four weeks (1s. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

Public and Official Announcements

26s. per inch; each additional line. 3s.

BOROUGH OF HESTON AND ISLEWORTH
Applications are invited for the under-mentioned appointments in the Borough Engineer and Surveyor's Department:

(a) **SENIOR PLANNING ASSISTANT.**
Salary in accordance with A.P.T. Grades II-III (£815-£1,140 plus London weighting).

(b) **PLANNING ASSISTANT.**
Salary in accordance with A.P.T. Grades I-II (£645-£960 plus London weighting).

Applicants 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 30th January, 1961, on forms to be obtained from and returned to the Borough Engineer and Surveyor, 28 Lampton Road, Hounslow.

D. MATHIESON,
Town Clerk.

Town Hall,
Hounslow, Middlesex. 5138

NORTH RIDING COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

An increase in the Staff Establishment has created opportunities for applicants of initiative and drive, and who prefer to live in the country rather than exist in urban surroundings, for the following appointments in this Department, to work on a varied programme of work for all Committees of the Council:—

QUANTITY SURVEYORS GROUP:

(a) **CHIEF QUANTITY SURVEYOR.** J.N.C. Grade B. Salary £1,485-£1,670. The successful applicant will be in charge of the Quantity Surveying Section, and for liaison with Private Quantity Surveyors employed by the Department. Must be an A.R.I.C.S.

(b) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T. III/IV. Salary £960-£1,310. Must be an A.R.I.C.S.

(c) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T. II. Salary £815-£960. Must have A.R.I.C.S. Intermediate Examination or I.Q.S. Final Examination.

ARCHITECT'S GROUP:

(d) **ASSISTANT ARCHITECT.** Grade A.P.T. III/IV. Salary £960-£1,310. Must be an A.R.I.B.A. with at least three years' experience since passing the examination.

(e) **ASSISTANT ARCHITECT.** Grade A.P.T. II/III. Salary £815-£1,140. Must have passed the Intermediate Examination of the R.I.B.A. but could be appointed in Grade A.P.T. III if Final Examination of R.I.B.A. has been passed.

(f) **ARCHITECTURAL ASSISTANT.** Grade A.P.T. I. Salary £645-£815. Intermediate R.I.B.A. or the equivalent at one of the recognised Schools of Architecture.

Conditions of service and application form from B. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, at the same address, before the 27th January, 1961. 5099

BOROUGH OF POOLE

Applications are invited from Members of the R.I.B.A. for the following 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 (£960-£1,140).

Applicants for post A should have had several years' experience since qualifying and a high standard of design ability is required. In both cases the successful applicant will be engaged on a variety of projects which include a new Civic Centre and a programme of large scale redevelopment including multi-storey flats.

Application forms from the Borough Architect, Municipal Buildings, Poole, Dorset, to be returned to me by Wednesday, 1st February, 1961.

J. G. HILLIER,
Town Clerk.

NORTH RIDING COUNTY COUNCIL ARCHITECTS' DEPARTMENT

An Engineers Group to deal with the design of engineering installations and equipment in new and existing buildings of the County Council is about to be formed, and applications are invited from Qualified Engineers. The work will also include the supervision of Engineering Inspectors engaged on the maintenance of existing installations and equipment. Ability to write clear and concise reports for Committees is essential, and the maintenance of good liaison with Private Consultants engaged on County Council projects.

(a) **HEATING ENGINEER:** J.N.C. Grade A/B. Salary £1,380-£1,670. Candidates must be corporate members of the Institute of Heating and Ventilating Engineers, and must have a sound knowledge of all types of fuel and their comparative costs to advise the County Architect on all matters concerned with not only the design, but also the running maintenance of engineering plant. Point of entry to the Grade depending upon qualifications and experience.

(b) **ELECTRICAL ENGINEER:** J.N.C. Grade A/B. Salary £1,380-£1,670. Qualifications must be not less than corporate membership of the Institute of Electrical Engineers, and capable of designing complete electrical lighting, heating and power installations for all buildings of the County Council, new and existing, involving H.V. and M.V. distribution and network.

This is an opportunity for applicants who prefer a full life in beautiful countryside to an urban existence.

Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, at the same address, before 27th January, 1961. 5098

SURREY COUNTY COUNCIL

Applications invited for following appointments:—

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

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

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

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

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

Candidates will be appointed at the appropriate point within the scale according to age and ability. Full details, present salary and three copy testimonials to County Architect, County Hall, Kingston, as soon as possible. 5230

HUNTINGDONSHIRE

COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

(a) **ARCHITECTURAL ASSISTANTS.** Grade A.P.T. IV (£1,140-£1,310).

Applicants will require to have passed the Final examination of the Royal Institute of British Architects.

(b) **ARCHITECTURAL ASSISTANTS.** Grade A.P.T. III (£960-£1,140).

(c) **ARCHITECTURAL ASSISTANTS.** Grade A.P.T. II (£815-£960).

Application forms and further particulars may be obtained from The County Architect, County Buildings, Huntingdon, and completed forms should be returned to the undersigned by the 31st January, 1961. Applicants should state for which post they wish to apply.

A. C. AYLRARD,
Clerk of the County Council. 5219

COUNTY BOROUGH OF READING

Applications are invited for the following posts:—

(a) **ASSISTANT ARCHITECT** A.P.T. III/IV (£960-£1,310).

(b) **ARCHITECTURAL ASSISTANTS** A.P.T. I (£645-£815).

(c) **ARCHITECTURAL DRAUGHTSMAN** MISC.V (£695-£750).

(d) **ARCHITECTURAL DRAUGHTSMAN** MISC.VI (£695-£750).

Commencing salaries for all posts according to qualifications and experience.

Applicants for Post (a) to have passed parts I and II R.I.B.A. Final or Special Final Examination or equivalent and have had at least five years' experience. Eligibility for A.P.T. IV dependent on two years' service in Local Government in post requiring above qualification. Housing accommodation will be considered.

Applicants for posts (b) to have R.I.B.A. Intermediate Certificate or equivalent.

Applicants for posts (c) and (d) to have had good general experience.

All appointments are permanent and subject to Local Government Superannuation Acts on passing medical examination and to N.J.C. Conditions of Service.

Applications in writing in appropriately endorsed envelope stating age, qualifications and experience together with names and addresses of two referees to the Borough Architect, P.O. Box 17, Town Hall, Reading, not later than 11th February, 1961. 5314

COUNTY BOROUGH OF SUNDERLAND BOROUGH ARCHITECTS' DEPARTMENT

Applications are invited from persons holding appropriate professional qualifications for the following permanent posts:—

(a) **ASSISTANT ARCHITECTS** (3 vacancies)—J.N.C. Scale "B" (maximum £1,670 per annum).

(b) **ARCHITECTS-IN-CHARGE** (4 vacancies)—J.N.C. Scale "A" (maximum £1,565 per annum).

Applicants should have had considerable design and administrative experience on either housing, education, or other types of large public building work and will be required to design and work on these projects to completion. Appointees' removal expenses and lodging allowance payable and a generous Corporation mortgage advance obtainable for house purchase.

Application forms, together with details of the Corporation's extensive building programme and the duties involved, obtainable from Borough Architect, Grange House, Stockton Road, Sunderland, and returnable to me not later than 28th January, 1961. Canvassing will disqualify.

G. S. MCINTIRE,
Town Clerk. 5246

BOSTON RURAL DISTRICT COUNCIL

ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment, commencing salary Step 3 Grade A.P.T. I (£710), with essential user travelling allowance for car not exceeding £199 p.a., subject to Local Government Superannuation Acts and National Scheme of Conditions of Service.

Candidate should have experience of local authority housing schemes.

Applications, giving full details with names of two referees, should reach me not later than 31st January, 1961.

S. M. FORMAN,
Clerk of the District Council.

126, London Road,
Boston, Lincs. 5175

NORTH RIDING COUNTY COUNCIL ARCHITECTS' DEPARTMENT

Applications are invited for the post of **ASSISTANT ARCHITECT**, Salary A.P.T. Grade III/IV (£960-£1,310).

Must be A.R.I.B.A. with at least three years' experience since passing the examination.

Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Architect, County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, by 27th January, 1961. 5075

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

Appointment of Group Architect, A.P.T. V (£1,310-£1,480 p.a.).

Applications are invited for the above permanent appointment in the Schools and Public Buildings Section of the Department. The post carries a London Allowance of £45 p.a. and the appointment may be made at a point within the salary range depending on qualifications and experience.

The successful applicant will be required to take part, within the section, in a large and varied programme of Schools and Public Buildings and will be expected to have a sound knowledge of contemporary design and construction related to this class of work.

Applications giving full details and names of two referees should be sent to Thomas E. North, O.B.E., F.R.I.B.A., Dist.P., M.T.P.I., 70 West Ham Lane, Stratford, E.15, by first post on 28th January, 1961. 5182

BIRMINGHAM REGIONAL HOSPITAL BOARD

SENIOR ASSISTANT QUANTITY SURVEYORS

Salary scale £1,300 to £1,600.

Qualification: Corporate Membership R.I.C.S. (Arch. 23).

ASSISTANT QUANTITY SURVEYORS

Salary scale £905 to £1,310.

Qualification: Corporate Membership R.I.C.S. (Arch. 24).

All posts superannuable. Five-day week. Applications (quoting appropriate reference) 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 30th January, 1961. 5164

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE

OFFICE OF THE COUNTY ARCHITECT

Applications are invited for the appointment of **ARCHITECTURAL ASSISTANT or BUILDING SURVEYOR** at the Doncaster Divisional Office in Adwick-le-Street.

Salary grade—A.P.T. II—£815-£960 per annum. Applicants should possess a sound knowledge of building construction and be capable of dealing with maintenance works and adaptations to buildings of various types. Five-day week operated.

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

Applications to be submitted by the 7th February 1961 on forms to be obtained and returned to the undersigned.

A. W. GLOVER, F.R.I.B.A.,
County Architect.

Bishopton,
Westfield Road,
Wakefield. 5304

**TAYLOR WOODROW
CONSTRUCTION LIMITED**



require

ARCHITECTS

of professional or final standard who are able to handle contracts from start to completion, in an expanding department working on varied Industrial and Commercial schemes.

These posts offer opportunities for appreciable individual responsibility.

Interviews can be arranged at any time including evenings and Saturday mornings with travelling expenses paid.

Write giving details of career to:

Personnel Manager,
345, Ruislip Road,
Southall, Middlesex.

BASILDON DEVELOPMENT CORPORATION

ARCHITECTS

The Chief Architect/Planner requires Architects for the following appointments.

GROUP LEADER

Salary between £1,305 and £1,670

ARCHITECTS

Salaries between £935 and £1,310

The Town is less than half way to its ultimate development as the largest New Town, and Architects of outstanding ability are needed to effect comprehensive development of the Town Centre, the Second Industrial Area, and major housing development and redevelopment.

Please apply with full details to :—

*The General Manager,
Gifford House,
Basildon, Essex.*

ARCHITECT'S DEPARTMENT CAMBERWELL BOROUGH COUNCIL

vacancies occur in the following grades for architects to carry out an interesting building programme

A.P.T. V. £1,355-1,525 p.a.

A.P.T. IV. £1,185-1,355 p.a.

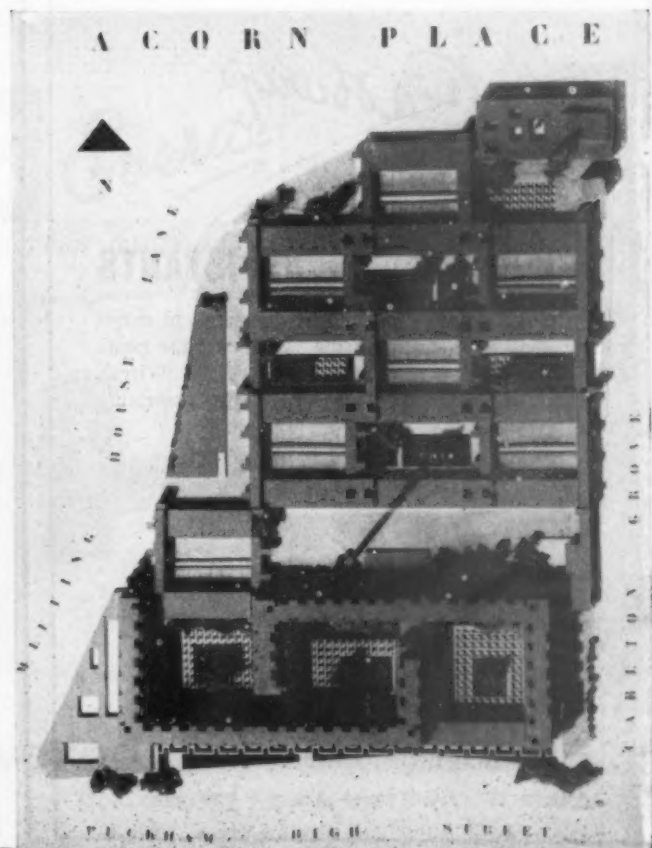
A.P.T. III. £1,005-1,185 p.a.

vacancies also occur in the following grade for assistants who have passed in all subjects, except professional practice, for the Associateship of the R.I.B.A.

A.P.T. II. £855-1,000 p.a.

Application forms from the Town Clerk, Town Hall, Camberwell, S.E.5.

Applications to be returned by the 30th January 1961



SENIOR ASSISTANT ARCHITECT

for

BASILDON U.D.C.

—salary up to £1,310 according to qualifications and experience.

Permanent appointment. Rapidly expanding and progressive district with full delegated powers. Projects include: Central Depot, Community Centre, Swimming Pool and Multi-Storey housing. Excellent working conditions, five-day week, casual user car allowance and housing available.

Further details and application form returnable by 30th January from the

Engineer & Surveyor

Council Offices,

88, Town Square, Basildon, Essex.

Major aluminium producer with wide interests in the field of building products offers appointment as

TECHNICAL ASSISTANT

in the Building Section of Development and Technical Service Department in London (S.W.1).

This appointment offers good long term prospects and is open to men of good general education, not more than 30 years of age.

The essential qualifications are a sound architectural training and background. Enthusiasm, adaptability and a taste for work are more important than high academic qualifications.

This is an opportunity for a young architect who prefers to make a career in industry, and concerns the application of aluminium in all types of building. Applications in writing, stating full particulars, to Box AJ 197 L.P.E., 60/62, St. Martin's Lane, London, W.C.2.

require

ARCHITECTURAL ASSISTANTS

of Final or Intermediate R.I.B.A. standard either for posts at their Bournville factory or for posts at their new factory at MORETON, Wirral, Cheshire, for work on a varied and interesting programme.

Experience in industrial and commercial building design desirable.

Five day week.

Attractive working conditions and amenities.

Applications stating age, qualifications and salary required should be addressed to

**Chief Architect,
Cadbury Brothers Ltd.,
Bournville, Birmingham.**

MICHELIN

TYRE CO. LTD. STOKE-ON-TRENT

requires

- 1. ARCHITECTURAL ASSISTANTS** age 26/40, commencing salary at least £1,000 per annum. Applicants should have a minimum qualification of Inter R.I.B.A. H.N.C. Building, or equivalent and several years experience in industrial building work.
- 2. JUNIOR ARCHITECTURAL ASSISTANTS** age 21/23, having a minimum of 12 months experience in a professional office. Commencing salary not less than £615 per annum at age 21.
- 3. ASSISTANT QUANTITY SURVEYORS** age 21/23, having a minimum qualification of Inter I.Q.S. or equivalent, and appropriate experience in a professional office. Commencing salary not less than £615 per annum at age 21.
- 4. ASSISTANT CLERKS OF WORKS** age 28/40. Commencing salary in range £800-£950 per annum according to age and experience. Applicants should be of C.N.C. (Building) standard and have good experience of industrial building work.

These appointments are permanent and pensionable. Housing assistance given in appropriate cases. Removal expenses paid. Five-day week. Three weeks holiday.

Please write in confidence, giving full details of qualifications and experience quoting present salary to: Mr. B. G. Tierney, Technical Personnel Officer, at the above address. Quoting Ref. B/634/AJ.

**BOROUGH OF CASTLEFORD
APPOINTMENTS IN THE BOROUGH
ARCHITECTS' DEPARTMENT**

Applications are invited for the following appointments:—

DEPUTY BOROUGH ARCHITECT. Salary Grade A.P.T. III/IV (£960—£1,310). Applicants must be Associate Members of the Royal Institute of British Architects and have had some years' practical experience.

ARCHITECTURAL ASSISTANT. Salary A.P.T. II (£815—£960). Applicants should have passed the Intermediate Examination of the R.I.B.A. or its equivalent at one of the recognised Schools of Architecture.

N.J.C. Service Conditions; superannuable; terminable on one month's notice on either side. The successful applicant will be required to pass satisfactorily a medical examination.

Housing accommodation, if required, for successful married applicants.

Applications on forms obtainable from me, to be returned by 9 a.m. on Thursday, the 26th January, 1961.

Canvassing disqualifies.

ERNEST HUTCHINSON,
Town Clerk.

Town Hall, Castleford. 5165

**COUNTY BOROUGH OF DUDLEY
BOROUGH ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECTS and QUANTITY
SURVEYORS:—**

Grade II (£815—£960).

Grade III (£960—£1,140).

Grade IV (£1,140—£1,310).

Applications are invited for Assistant Architects and Quantity Surveyors to be appointed within the above salary scales in accordance with qualifications and experience.

The Borough has an extensive and varied building programme, including large scale central redevelopments, giving opportunities for imagination and initiative.

Successful applicants are required to pass a medical examination.

Applications, giving age, details of training, present employment, and salary, qualifications and other information, together with the names of two referees, to reach me by Wednesday, 1st February, 1961.

P. D. WADSWORTH,
Town Clerk.

The Council House, Dudley. 5266
Wores.
7th January, 1961.

**BOROUGH OF WARWICK
PERCY ESTATE, CENTRAL AREA, SHOPS**

Tenders are invited for the construction of:—
Six shops, offices and stores, forming two single-storey blocks.

Six maisonettes and two flats over six garages and utility rooms, forming two three-storey blocks, landscaping and site works.

GENERAL:

The single-storey block will be in the form of a reinforced concrete frame and concrete flat roof. The three-storey blocks are load bearing with reinforced concrete intermediate floors and roof. The successful contractor will be given the opportunity of tendering for the internal finishings of the shops.

Copies of the Bill of Quantities, General Conditions and Form of Tender will be available as from the 1st February, 1961, and may be obtained from the undersigned on payment of £2 2s. deposit, which will be refunded upon a receipt of a Bona Fide Tender. Drawings may be seen at this office, during normal working hours. The date for submission of Tenders will be as indicated on a letter accompanying the Documents.

C. E. BROWN, A.M.I.Mun.E.,

Borough Engineer and Surveyor.
23, Jury Street, Warwick. 5357

**CORPORATION OF LONDON
ARCHITECTURAL ASSISTANT**

Candidates should either be studying for or have passed Inter R.I.B.A., possess a sound knowledge of Building Construction and ability to prepare detailed and 1/4-in. scale drawings. Salary scale up to £1,095.

Applications **WITHIN SEVEN DAYS** to City Surveyor, Guildhall, E.C.2. 5319

**DURHAM COUNTY COUNCIL
ARCHITECT'S DEPARTMENT**

TEMPORARY ASSISTANT CLERK OF WORKS required for New County Offices, Ayley Heads, Durham. Wanted for about two years. Salary £800 n.a. Experience of reinforced concrete and good class construction. Full particulars from County Architect, South Street, Durham, to whom completed application forms are returnable by 26th January, 1961. Personally canvassing the members of the Council is prohibited, and the Council may declare any candidate infringing this rule to be disqualified for appointment.

J. K. HOPE,

Clerk of the County Council. 5290

**BOROUGH OF RAWTENSTALL
APPOINTMENT OF ARCHITECTURAL
ASSISTANT**

Applications are invited for the above appointment on the permanent staff at a salary within A.P.T. III (£960—£1,140 per annum).

The appointment will be subject to the provisions of the Local Government Superannuation Act, the National Scheme of Conditions of Service, and the termination by one month's notice by either side. Housing accommodation will be available. Applications including names and addresses of two referees should reach the undersigned not later than Monday, January 30th, 1961. Canvassing will disqualify. Any relationship to members or senior officers of the Council must be disclosed.

(Signed) **COLIN CAMPBELL,**

Town Clerk, Rawtenstall, Rossendale, Lancs. 5321
10th January, 1961.

**COUNTY BOROUGH OF EAST HAM
SENIOR ASSISTANT PLANNING OFFICER**

Grade A.P.T. II—£815 to £960 (plus London Weighting)

Vacancy in Borough Engineer's Department. Salary above minimum payable according to qualifications and experience.

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

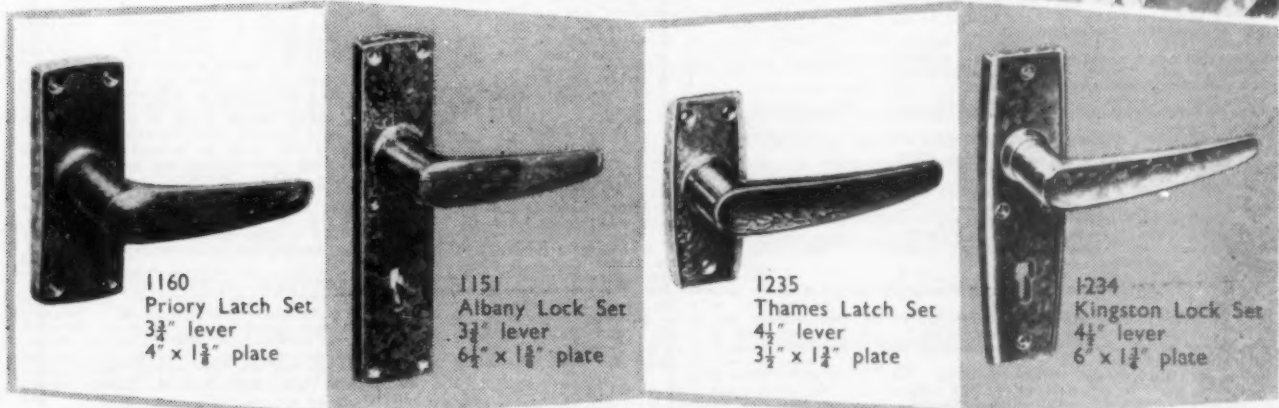
Further details and application form (returnable within 10 days) from the Town Clerk, Town Hall, East Ham, E.6. 5318

MINISTRY OF EDUCATION requires **ARCHITECTS AND ASSISTANT ARCHITECTS** in the Development Group of its Architects and Building Branch in London. Work consists of study in principle and detail of design and construction of educational buildings and of their services, fittings and furniture; and the application of results to school projects. Post unestablished at first, but possibilities of permanency later. Appointment as (a) Architect at minimum of London salary scale £1,495—£2,000 or (b) Assistant Architects starting salary according to age on scale £961—£1,470. Conditioned hours 42 in a five-day week. Annual leave varies according to grade and length of civil service from 22 days to 30 days. Forms from Ministry of Labour (C.R.), Technical and Scientific Register (K), 25, King Street, London, S.W.1, quoting J.10/OA, and (a) or (b) as appropriate. Closing date 6th February, 1961. 5328

Wise people choose



The reliable door furniture



1160
Priory Latch Set
3 3/4" lever
4" x 1 3/8" plate

1151
Albany Lock Set
3 3/4" lever
6 1/2" x 1 3/8" plate

1235
Thames Latch Set
4 1/2" lever
3 1/2" x 1 1/4" plate

1234
Kingston Lock Set
4 1/2" lever
6" x 1 1/4" plate

Good looks and efficiency are equally important in door furniture. Everite lock and latch sets are built to stand long hard wear; spring loaded levers have dust proof necks, phosphor bronze springs and non-corrosive washers. These are examples from a very wide range many of which have been accepted by the Council of Industrial Design for 'Design Index'. Available in Black, Walnut, Red, Cream, Green, White and Blue.

Evered AND COMPANY LIMITED. Established 1809
SURREY WORKS, SMETHWICK 40, STAFFS.
Tel.: Smethwick 0881

HAMMERSMITH BOROUGH COUNCIL
ARCHITECTURAL ASSISTANTS—A.P.T. III—
£960—£1,480 plus London weighting. A general
knowledge of the design of public buildings and
housing will be an advantage. Application form,
returnable by 10th February, 1961, from Town
Clerk, Town Hall, W.6. 5315

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
ARCHITECTURAL ASSISTANTS (Salary up to
£1,250) required in Voluntary Schools Section to
prepare schemes for development of primary and
secondary schools and to examine
Governors' proposals for development of aided
Grammar Schools, Polytechnics and Technical
Colleges. Experience in sketch-planning and in
preparation of working drawings, specifications
and reports essential.
Form and particulars from Hubert Bennett,
F.R.I.B.A., Architect to Council, (EK/A/67/1),
County Hall, S.E.1. 5338

CITY OF MANCHESTER
Applications invited for the following Permanent
appointment in the office of the City Architect
ASSISTANT ARCHITECT
The salary is A.P.T. Grade III/IV £960 to
£1,130 per annum, the commencing salary will
be according to qualifications and experience.
The department has an extensive programme
of municipal building work ahead comprising
new abattoirs, libraries, schools, technical col-
leges, aged persons homes, etc., interesting and
varied work with excellent opportunities for pro-
motion on merit.
Five-day week. Housing accommodation may
be provided for a limited period. Removal ex-
penses allowed.
Forms of application from the City Architect,
P.O. Box 488, Town Hall. Returnable by 30th
January. 5348

BOROUGH OF WIDNES
ARCHITECT'S DEPARTMENT
Applications are invited for the following
posts:—
(a) SENIOR ARCHITECT, Grade A.P.T. V
(£1,310—£1,480 p.a.).
(b) ASSISTANT ARCHITECT, Grade A.P.T.
IV (£1,140—£1,310 p.a.).
(c) QUANTITY SURVEYING ASSISTANT,
Grade A.P.T. II (£815—£960 p.a.).
(d) TECHNICAL ASSISTANT (BUILDINGS &
SITES), Grade A.P.T. II (£815—£960 p.a.).
(e) JUNIOR ARCHITECTURAL ASSISTANT,
Grade Misc. IV (£625—£685 p.a.).
(f) JUNIOR ASSISTANT, General Division
(£215—£630 p.a.).

Candidates for (a) and (b) must be registered
architects and Associate Members of the R.I.B.A.
and suitably experienced.
Candidates for (c) must have passed the
R.I.C.S. Intermediate Examination. The suc-
cessful candidate will work under the supervision
of the Senior Quantity Surveyor.

Candidates for (d) should possess suitable tech-
nical qualifications with practical experience in
the building trades and preferably have passed the
Intermediate Examination of the R.I.C.S.
or R.I.B.A. or the Higher National Certificate
Examination or the Associate Diploma
Examination of the Institute of Building or other
equivalent.

Candidates for (e) should be competent
draughtsmen and capable of preparing working
drawings under supervision.
Candidates for (f) should not be less than 16
years of age and have a General Certificate of
Education in five subjects including English
(English Language) and Mathematics or a "A" level
subject, at least two subjects being at "A" level
and the successful candidate will be required to
enrol as a Probationer of the Royal Institute of
British Architects and to undertake an
approved part-time course of study leading to the
Final Examination of the Institute.

Housing accommodation to rent or lodging
allowance in lieu for married applicants. Removal
expenses in full. Five-day week. Superannuation
scheme, medical examination.

Applicants, quoting two referees, by 6th
February, 1961, to Borough Architect, Brendan
House, Widnes.

FRANK HOWARTH
Town Clerk.

Town Hall,
Widnes.
5th January, 1961. 5267

URBAN DISTRICT OF FELTHAM
ENGINEER AND SURVEYOR'S DEPARTMENT
Applications are invited for the under-
mentioned appointments:—

1. ARCHITECTURAL ASSISTANT, A.P.T.
III/IV (£960—£1,310) plus London "weight-
ing."
2. ENGINEERING ASSISTANT A.P.T. III/IV
(£960—£1,310) plus London "weighting."
The commencing salary will be according to
qualifications and experience.

Forms of application, obtainable from the
undersigned, must be returned, giving the names
and addresses of two referees, not later than 26th
January, 1961.

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

M. W. COUPE
Clerk of the Council.

Council Offices,
Feltham.
Middx. 5263

BOROUGH OF TOTTENHAM
BOROUGH ENGINEER & SURVEYOR'S
DEPARTMENT

The following positions provide varied and inter-
esting work in a municipal borough of 110,000
population.

The Architectural Section deals with housing
redevelopment, including tower blocks of flats;
schools and buildings for municipal purposes.
SENIOR ASSISTANT ARCHITECT (Established)
A.P.T. Grade V—£1,310 to £1,480 per annum.

Applicants must hold a final professional qual-
ification.

SENIOR ASSISTANT ARCHITECT (Established)
A.P.T. Grade IV—£1,140 to £1,310 per annum.

Applicants must hold a final professional qual-
ification.

ASSISTANT ARCHITECT (Established)
A.P.T. Grade III or III/IV—

£960 to £1,140 or
£960 to £1,310 per annum.

Applicants must be appropriately qualified in
accordance with the Scheme of Conditions of
Service.

ARCHITECTURAL ASSISTANTS (Established)—
Two posts

A.P.T. Grade II—£815 to £960 per annum.

Applicants must have passed R.I.B.A. Inter-
mediate Examination or equivalent.

ARCHITECTURAL ASSISTANT (Established)
A.P.T. Grade I—£645 to £815 per annum.

Applicants must have passed R.I.B.A. Inter-
mediate Examination or equivalent.

London Weighting allowance of £15, £25, £40 or
£45 per annum payable in addition.

Five-day week; canteen facilities; Sports Club
with private accommodation for sports and recrea-
tional facilities; part removal expenses re-
imbursed.

Application form and Conditions of Appoint-
ment are obtainable from the Borough Engineer
(AJ), Town Hall, N.15 and must be delivered
to me not later than 3rd February, 1961. 5323

CITY OF WORCESTER
APPOINTMENT OF ARCHITECTURAL STAFF

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

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

Applicants must hold the A.R.I.B.A. qualifi-
cation.

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

The appointments are superannuable and sub-
ject to medical examination.

Housing accommodation will be offered, if
necessary, and the Corporation are prepared to
make a contribution towards removal expenses.
Casual Users' Car Allowance will be applicable.

Applications stating age, present and previous
appointments and experience, together with the
names of two referees, are to be sent to the
City Engineer & Surveyor, 22 Bridge Street,
Worcester, by 31st January, 1961.

BERTRAM WEBSTER
Town Clerk.

Guildhall,
Worcester. 5306

COUNTY COUNCIL OF THE WEST RIDING
OF YORKSHIRE
OFFICE OF THE COUNTY ARCHITECT

Applications are invited for the appointment of
ARCHITECTURAL ASSISTANT or BUILDING
SURVEYOR at the Central Office in Wakefield.
Salary Grade—A.P.T.III—£935—£1,140 per annum.

Applicants should possess a sound knowledge of
building construction and costs and in particular
of the remedial measures necessary to counteract
and make good damage caused by mining opera-
tions.

The commencing salary will be fixed at a point
within the scale commensurate with qualifications
and experience. Five day week operated.

Applications to be submitted by the 7th Feb-
ruary 1961 on forms to be obtained from and
returned to the undersigned.

A. W. GLOVER, F.R.I.B.A.
County Architect.

Bishopgarth,
Westfield Road,
Wakefield. 5303

BOROUGH OF CHATHAM

(a) ASSISTANT ARCHITECT
(b) ARCHITECTURAL DRAUGHTSMAN

Applications are invited for the above appoint-
ments from professionally qualified and suitably
experienced persons.

Salary: (a) Assistant Architect, within A.P.T.
IV (£1,140—£1,310).

(b) Architectural Draughtsman, A.P.T.
I (£645—£815).

Applications, with the names and addresses of
two referees, should be delivered to the Borough
Engineer and Surveyor, Town Hall, Chatham,
not later than Friday, 3rd February, 1961.

Housing accommodation will be available in
an appropriate case.

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

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

ROWLAND NEWNES
Town Clerk.

Town Hall,
Chatham. 5332

COUNTY COUNCIL OF THE WEST RIDING
OF YORKSHIRE
OFFICE OF THE COUNTY ARCHITECT

Applications are invited from qualified Archi-
tects for the undermentioned appointments to the
permanent staff to deal with a wide range of
major projects in a large and varied building
programme, five day week operated.

SENIOR ASSISTANT ARCHITECT—
N.J.C. Scale "B"—£1,495—£1,010 per annum.

SENIOR ASSISTANT ARCHITECT—
Grade A.P.T.IV—£1,310—£1,480 per annum.

ASSISTANT ARCHITECTS—
Grade A.P.T.IV—£1,140—£1,310 per annum.

ASSISTANT ARCHITECTS—
Grade A.P.T.III—£935—£1,140 per annum.

In each case the commencing salary will be
fixed at a point within the scale commensurate
with qualifications and experience.

Applications to be submitted by the 7th Feb-
ruary 1961 on forms to be obtained from and
returned to the undersigned.

A. W. GLOVER, F.R.I.B.A.
County Architect.

Bishopgarth,
Westfield Road,
Wakefield. 5302

REBUILDING OF ST. THOMAS' HOSPITAL
A. PRINCIPAL ASSISTANT ARCHITECT—

Salary Scale I—£1,765—£2,135+£50 London
Weighting.

Applications are invited for the above
appointment from qualified architects.

The successful applicant will be required to
take charge, under the direction of the Archi-
tect, of a department consisting of several
groups of Architects engaged on the complete
rebuilding of an 800 bed teaching hospital, and
the development of the surrounding area,
including major residential and commercial
buildings.

He will be required to assist and deputise
for the Architect at Board and Committee
level, and in negotiations with public bodies.
Previous hospital experience is not essential,
but he must have a particular aptitude for
research, for the taking and analysis of
complex user requirements, and for initiating
subsequent planning and design.

B. ASSISTANT ARCHITECTS—

Salary Scale £905 + 35(1) + 45(6) + 50(2) to
£1,310 + £40-£50 London Weighting.

Applicants should be qualified members of
the R.I.B.A. and preference will be given to
qualified architects who have recently com-
pleted a full-time course at a recognised School
of Architecture.

Applications should be returned to me within
two weeks indicating post applied for and giving
particulars of education, qualifications and experi-
ence, together with the names of two referees.

W. FOWLER HOWITT, A.R.I.B.A.
Architect to the Board of Governors.

45 Lambeth Palace Road,
LONDON, S.E.1. 5354

**AIR MINISTRY require QUANTITY SURVEY-
ING ASSISTANTS** Grade III at R.A.F. and
Ministry of Aviation stations throughout the
United Kingdom. The work includes abstracting
and billing, site measurement and preparation
of estimates. Candidates must hold ONC (Build-
ing or Builders Quantities) or equiv. and have
had good experience under Quantity Surveyor or
Building Contractor. Knowledge of W.D. Schedule
an advantage.

Commencing salary, which is dependent upon
age, quals. and exp., ranges from £745 (age 25)
to £925 max. in Grade III. There are pension
prospects and also opportunities of advancement
to numerous posts in the higher grades, vacancies
which as a rule are filled by promotion of
Grade III staff, viz.:

Technical Grade II: £925—£1055 123 posts

Technical Grade I: £1055—£1295 42 posts

Technical Grade B: £1295—£1491 6 posts

Technical Grade A: £1385—£1630 6 posts

Overseas tours for which special allowances rang-
ing at present up to £1800 p.a. are payable in
addition to a higher salary. Financial assistance
and time off allowed for recognised courses of
study leading to higher quals. 5 day week with
13 days paid leave a year initially.

Applicants who must be natural born British
subjects should write stating age, quals. and exp.
to Manager (PE 2), Ministry of Labour, Pro-
fessional & Executive Register, Atlantic House,
Farringdon St., London, E.C.4. Candidates
selected will be interviewed in Air Ministry,
London, and certain expenses reimbursed. Only
applicants selected for interview will be advised.

5349

RENFREW COUNTY COUNCIL

The Council have vacancies for young
Architectural Assistants, for young
recently qualified, with practical experience in domestic
and general architecture. £850—£1,150 p.a. Super-
annuable appointments. Applications, stating
age, qualifications, etc., and naming two referees,
to County Clerk, P.O. Box 12, Paisley, imme-
diately. 5265

(a) ASSISTANT ARCHITECTS, A.P.T. III or
A.P.T. IV (four posts) and (b) ARCHITEC-
TURAL ASSISTANT, A.P.T. I, required by
POPULAR BOROUGH COUNCIL. Salary Scales:

(a) £950/£1,140 or £1,140/£1,310; (b) £645/£815,
plus London "weighting" in each case. Commenc-
ing salary according to qualifications and
experience. Application forms from Borough
Engineer and Surveyor, Popular Town Hall, Row
Road, E.3. Closing date 30th January, 1961 (first
post). 5259

NEWCASTLE REGIONAL HOSPITAL BOARD
EXPANSION OF ARCHITECTURAL
DEPARTMENT

P. H. KNIGHTON, M.B.E., A.R.I.B.A.,
REGIONAL ARCHITECT

ARCHITECTURAL
RESEARCH FELLOWSHIP

In connection with the considerable expansion of the hospital building programme now in process, a RESEARCH FELLOWSHIP is to be created to further investigation into the DESIGN and EQUIPPING OF HOSPITALS. The investigation is being promoted by the Regional Hospital Board in association with the Board of Governors of the United Newcastle upon Tyne Hospitals and the appointment will be for a period of three years.

The commencing salary will be within the scale of £1,665 x £50(1) x £75(2) x £85(2)—£2,035 and the post will be superannuable in accordance with the National Health Service regulations. Assistance with removal-expenses if appointee at present in a lower-graded Health Service post. The architect appointed will be attached to the staff of the Regional Architect and be responsible, through him, to a Steering Committee representing the two Boards.

Initially the research will be directed towards means of achieving easily-cleaned finishes and equipment in operating suites, and to establishing a small permanent exhibition of models, samples, photographs and drawings to illustrate approved types. The investigation is intended subsequently to deal with the design and equipping of other hospital departments.

Applicants should preferably be not more than 36 years of age, be registered architects and Associate Members of the R.I.B.A., and should possess enthusiasm and a marked ability for architectural research and the presentation of its results. The man appointed will be given opportunities for travel both in the British Isles and on the Continent to see modern hospital buildings.

To a keen and able architect this post offers an exceptional opportunity for becoming well versed in the techniques of designing and equipping modern hospitals, and to prepare himself for further advancement.

Details of training, qualifications, experience, present salary, etc., with the names of three architectural referees, should reach the Secretary to the Board, Benfield Road, Newcastle upon Tyne, 6, by the 3rd February, 1961. Canvassing will disqualify.

Architects
Architectural assistants

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

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

Please write fully in confidence to:

THE PERSONNEL MANAGER,
W. S. ATKINS & PARTNERS,
158 VICTORIA STREET,
LONDON, S.W.1.



NATIONAL CAPITAL DEVELOPMENT COMMISSION
CANBERRA, AUSTRALIA

Vacancies

TOWN
PLANNING DIVISION

Applications are invited for appointments to the Town Planning Division of the Commission at salaries from £A1,730 to £A2,590 (Actual) per annum, according to experience and ability. Applicants should give evidence of aptitude and qualifications in one or more of the following fields:—Survey, Investigation and Analysis; Master Planning; Development Control; Presentation Drawing and Illustration.

General Conditions: Fares to Australia of the successful applicant, his wife and dependant children, will be paid by the Commission. Housing will be available and superannuation scheme applies.

Applications should be made on forms obtainable from, and returned to, the Public Service Board's Representative, Australia House, Strand, London, W.C.2, by 13th February, 1961.



BIRDS EYE FOODS LIMITED
ARCHITECTURAL ASSISTANTS

required to help carry out full architectural services for industrial buildings, and in particular, process areas, canteens, and office accommodation, necessary for the further development of this rapidly expanding Company. Applicants, qualified by examination and/or experience, should show themselves capable of handling building projects from sketch design to completion, and will be offered the opportunity of undertaking responsibility, reporting directly to the Company Architect.

A four-figure salary will be offered together with a full range of employee benefits, including Superannuation Scheme. Full details of age, qualifications and experience should be sent to:

Personnel Officer,
BIRDS EYE FOODS LIMITED,
HESKETH HOUSE, PORTMAN SQUARE,
LONDON, W.1.

BRISTOL COLLEGE OF SCIENCE AND TECHNOLOGY
(A College of Advanced Technology)
ASHLEY DOWN, BRISTOL, 7
APPOINTMENT OF HEAD OF DEPARTMENT OF ARCHITECTURE

The Governors invite applications from suitably qualified persons for the new post of HEAD OF THE DEPARTMENT OF ARCHITECTURE. Candidates must be professionally qualified and have good practical experience. Teaching experience will be an added advantage. Duties commence on 1st May, 1961, or later by arrangement. The present School of Architecture is organised within the Department of Building of the Bristol Technical College, but will be transferred to the College of Advanced Technology on 1st September, 1961. Present courses leading to A.R.I.B.A. include a five-year Sandwich Course now in its second year. The successful applicant will be expected to develop these undergraduate studies and to introduce post-graduate studies as soon as possible.

Salary within the scale £1,950 to £2,100, the starting point depending on previous experience. Application forms and details from the Registrar. 5353

CORPORATION OF THE CITY OF ABERDEEN CITY ARCHITECT'S DEPARTMENT

Applications are invited from qualified architects (A.R.I.B.A.) having appropriate experience for the following supernumerary appointments on the staff of the City Architect.

- (a) **PRINCIPAL ARCHITECTS**
Salary scale £1,385 to £1,620 by £60 (3) and £55
- (b) **ASSISTANT PRINCIPAL ARCHITECTS**
Salary scale £1,320 to £1,485 by £55 (3)
- (c) **SENIOR ASSISTANT ARCHITECTS**
Salary scale £1,220 to £1,375 by £55 and £50 (2)

Appointment to the posts is subject to the passing of a medical examination. The department is engaged on an extensive and interesting programme of building works including schemes of comprehensive re-development of central areas, incorporating multi-storey blocks of flats and maisonettes, shopping centres and other ancillary buildings, and also an important scheme for new Municipal Offices.

This programme will provide scope for qualified and enthusiastic architects who possess experience and have a sound knowledge of modern trends in design and construction.

Applications, stating age, qualifications, experience, and the names and addresses of three Architects to whom reference may be made, should be sent to the City Architect, 11, Broad Street, Aberdeen, on or before 31st January, 1961.

J. C. RENIE,
Town Clerk.

Town House, Aberdeen. 5366

CITY OF PERTH
Applications are invited for the following post in the Burgh Surveyor's Department.

ASSISTANT ARCHITECT. Salary scale £950 to £1,250 per annum with placing on the scale according to qualifications and experience. Applicants must be Associate Members of the Royal Institute of British Architects.

Full details of the post may be obtained from the Burgh Surveyor, 18 Tay Street, Perth, with whom applications must be lodged within 14 days of this advertisement. 5367

COUNTY COUNCIL OF ESSEX ASSISTANT ARCHITECTS

The continuing development of the County offers experience on large scale public building with opportunities to design and supervise, for:

- (a) **SENIOR ASSISTANT ARCHITECT**
A.P.T.D. Grade V. Salary not exceeding £1,480.
- (b) **ASSISTANT ARCHITECT.**
A.P.T.D. Grade IV. Salary not exceeding £1,310.

Development includes houses for the aged, colleges, libraries, schools and other public buildings. Application forms from H. Conolly, C.B.E., F.R.I.B.A., County Architect, County Hall, Chelmsford, Essex (state post for which form is required), returnable with copies of three testimonials by 3rd February, 1961. 5368

BOROUGH OF BRENTFORD AND CHISWICK ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment at a salary in accordance with Grade A.P.T. II, £815 to £960, plus London weighting allowance, commencing salary dependent upon experience. The post offers excellent opportunities for gaining architectural training and practical experience. Application forms returnable by February 2nd, 1961, may be obtained from the Borough Engineer & Surveyor.

W. F. J. CHURCH,
Town Clerk.

Town Hall, Chiswick, W.4. 5256

BOROUGH OF ALTRINCHAM

ARCHITECTURAL ASSISTANT (QUALIFIED)
GRADE A.P.T. III/IV

APPLICATIONS TO TOWN CLERK, Town Hall, Altrincham, stating qualifications and experience. Two referees. Closing date, 28th January, 1961.

Commencing salary to be in accordance with qualifications and experience. Please disclose whether related to any member or senior officer.

Canvassing will disqualify. Housing accommodation will be considered. 5299

NEWCASTLE REGIONAL HOSPITAL BOARD EXPANSION OF ARCHITECTURAL DEPARTMENT

P. H. KNIGHTON, M.B.E., A.R.I.B.A., REGIONAL ARCHITECT

As the Board is in the process of increasing its Architectural Department in Newcastle to deal with a programme at present totalling about £12m., applications are invited for the following (supernumerary) 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.

1. **SENIOR ASSISTANT ARCHITECT** (£1,300 × £50 (5)—£1,600).

Open to registered 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** (£905 × £35 (1) × £45 (6) × £50 (2)—£1,310).

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

3. **ARCHITECTURAL ASSISTANTS** (£625 × £30 (3) × £35 (1)—£900).

Intermediate R.I.B.A. and preferably some practical experience.

4. **ARCHITECTURAL DRAUGHTSMEN** (£475 × £25 (6) × £30 (2)—£685).

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

Evening study facilities available at King's College of Durham University in Newcastle. **SURVEYING ASSISTANT (Lands and Buildings)** (£625 × £30 (8) × £35 (1)—£900).

Intermediate Examination of the Royal Institution of Chartered Surveyors, or an examination recognised by the Institution as equivalent, together with experience in surveying sites and buildings. Commencing salary within grade dependent upon applicant's age and practical experience.

Details of training, qualifications, experience, present salary, etc., with the names of three architectural referees, should reach the Secretary to the Board, Benfield Road, Newcastle upon Tyne, 6, by 3rd February, 1961. Canvassing will disqualify. 5286

COUNTY BOROUGH OF NORTHAMPTON

Applications are invited for the following appointments in Northampton:

- (a) **SENIOR ASSISTANT ARCHITECT** (Housing), A.P.T. V (£1,310—£1,480).
- (b) **SENIOR ASSISTANT ARCHITECT** (Education & General), A.P.T. IV/V (£1,140—£1,480).
- (c) **ARCHITECTURAL ASSISTANT, A.P.T. II** (£815—£960).
- (d) **DRAUGHTSMAN, A.P.T. I** (£645—£815).

For post (a) a car allowance will be paid in appropriate circumstances.

Full particulars and application forms, returnable by 2nd February, from Borough Architect, Guildhall, Northampton.

C. E. VIVIAN ROWE,
Town Clerk.

5287

SHEFFIELD REGIONAL HOSPITAL BOARD

Applications are invited for the post of **DRAUGHTSMAN** on the Board's Headquarters staff for general drawing office duties, including tracing. Candidates must have had suitable training, including three years' practical experience in architectural and surveying drawing. Commencing salary according to age and experience, within the scale £475—£685 per annum. Forms of application, to be returned by 31st January, 1961, and further details obtainable from The Secretary, Sheffield Regional Hospital Board, Old Fulwood Road, Sheffield, 10. 5288

MIDLANDS ELECTRICITY BOARD

DRAUGHTSMEN (General Assistant or Fourth Assistant Engineers) required in the Architectural and Constructional Section of the Engineer's Department of the Birmingham & District Sub-Area.

Applicants should have had a thorough technical training and practical experience in the design of new buildings and alterations to existing buildings, and be capable of preparing complete working drawings for a variety of types of large and small buildings. Appropriate qualifications will be an advantage.

Salary within the ranges £990/£1,015—£1,145/£1,245 per annum (N.J.B. Grades N16/13) according to qualifications and experience. Apply by letter within 14 days, stating age, experience, qualifications, present position and salary, to Emil Braathen, Sub-Area Manager, Midlands Electricity Board, 14, Dale End, Birmingham, 4. 5271

F. W. CATER,
Secretary.

5289

MIDLOTHIAN COUNTY COUNCIL

invite applications for the post of **SENIOR QUANTITY SURVEYOR** on the Scale £1,055—£1,200. Applicants must be Associate Members of the R.I.C.S. and be prepared to take charge of a small section of Surveyors. Applications, giving details of previous experience and naming two referees, to The County Clerk, County Buildings, George IV Bridge, Edinburgh, 1, as soon as possible, quoting reference RC/4/1961. 5271

SURREY COUNTY COUNCIL COUNTY PLANNING DEPARTMENT REDEVELOPMENT AND DEVELOPMENT CONTROL SECTIONS

Applications are invited for the following vacancies at Headquarters—

- A.P.T. GRADE V (£1,310—£1,480 + London Allowance). Applicants should be suitably qualified to organise various types of traffic survey and have a knowledge of and interest in highway design in central areas.

- A.P.T. GRADE IV (£1,140—£1,310 + London Allowance). The candidate appointed will be one of a team dealing with town centres and other large scale development and should have an interest in design.

- A.P.T. GRADE IV (£1,140—£1,310 + London Allowance). The candidate appointed will work in the Development Control Section.

Applications endorsed "Confidential—vacancies," stating age, qualifications and experience, with details of present post and salary, and the names of two referees, should be sent to the County Planning Officer, "Elmhurst," Penrhyn Road, Kingston-upon-Thames, by 30th January, 1961. 5291

BOROUGH OF ACTON BOROUGH ENGINEER'S DEPARTMENT

Applications are invited for the following appointments:—

- SENIOR ENGINEERING ASSISTANT, A.P.T. Grade V.**
- ARCHITECTURAL ASSISTANT, A.P.T. Grade IV.**
- ARCHITECTURAL ASSISTANTS, A.P.T. Grade II/III/IV.**

Successful candidates will be engaged on general municipal works, redevelopment, structural design and multi-storey housing development. Appointments on A.P.T. Grades IV and V are subject to possession of the appropriate qualifications.

Starting salaries according to age, qualifications and experience. London allowance (maximum £45 per annum) is payable in addition. The Council operates a five-day week.

Conditions of appointment and forms of application may be obtained from and should be returned to the Borough Engineer, Town Hall, Acton, W.3, by 31st January, 1961. 5257

UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE

Applications are invited for the post of **ASSISTANT ARCHITECT** on staff of Architect and Buildings Officer. Applicants should have passed Intermediate Examination of R.I.B.A. and be studying for Final. Salary in scale £815 × £30 (4) × £25—£960 p.a. Further particulars may be obtained from Architect and Buildings Officer, The College, Keele, Staffs., to whom three copies of application giving full details of age, education, qualifications, experience, etc., and names of three referees should be sent not later than 30th January, 1961. 5250

UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE

Applications are invited from suitably qualified persons for the post of **CLERK OF WORKS**. Considerable experience in supervision of building work essential. Salary in scale £645 × £30 × £35 (4)—£815 p.a. Further particulars may be obtained from Architect and Buildings Officer, The College, Keele, Staffs., to whom three copies of application, giving names of two referees, should be sent not later than 30th January, 1961. 5261

HERTFORDSHIRE COUNTY PLANNING DEPARTMENT

ARCHITECTURAL DRAUGHTSMAN, A.P.T. I (£645—£815) required for Design Section.

Should have had at least five years' experience as a Planning or Architectural Draughtsman or experience in similar work. Skilled in colouring and freehand lettering. Will work under Senior Architectural Draughtsman. Permanent post.

Forms of application from: The County Planning Officer, County Hall, Hertford, which should be returned not later than 30th January, 1961. 5254

CITY OF LEEDS CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

1. **CHIEF ASSISTANT HEATING ENGINEER, Grade A.P.T. IV-V, Salary Scale £1,140—£1,480.** Candidates should be suitably qualified and capable of preparing schemes for all types of heating and ventilation systems in large buildings.
2. **ASSISTANT HEATING ENGINEER, Grade A.P.T. II, Salary Scale £815—£960.** Candidates will assist in the preparation of schemes for heating and ventilation systems in large buildings.
3. **SENIOR LAND SURVEYOR, Grade A.P.T. IV, Salary Scale £1,140—£1,310.** Candidates should be suitably qualified competent Land Surveyors and be experienced in the control and supervision of staff.

The appointments are supernumerary—medical examination. Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned by 12 noon on Friday 27th January, 1961. Canvassing disqualifies.

Priestley House, Quarry Hill, Leeds, 9. 4th January, 1961. 5278

QUANTITY SURVEYING ASSISTANTS required by

ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS

Posts in London, Provinces and overseas. Salaries for candidates with suitable experience range from £90 p.a. at age 21 to £1,310 p.a. and in exceptional cases to £1,730 p.a. Write for particulars of vacancies in each Department, and forms, to Ministry of Labour, Technical and Scientific Register, 26, King Street, London, S.W.1. (Room 403.) 5326

QUANTITY SURVEYORS AND ASSISTANT QUANTITY SURVEYORS required by

MINISTRY OF EDUCATION
ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS

Posts in London, Provinces and overseas. London salaries for suitably qualified and experienced men of up to £1,760 p.a. for Quantity Surveyors and £1,300 p.a. for Assistant Quantity Surveyors. Prospects of promotion and pensionable status. Write for particulars of vacancies in each Department and forms, quoting J.Q.S., to Ministry of Labour, Technical and Scientific Register (Room 403), 26, King Street, London, S.W.1. 5325

KUMASI COLLEGE OF TECHNOLOGY, GHANA

Applications are invited for **TWO VACANCIES** for **ARCHITECTS IN THE ARCHITECTS' OFFICE**.

This office is responsible for the general and detailed development of the College and successful applicants will be engaged on design and supervision of such projects as Halls of Residence, Assembly Hall, Chapels, Staff Housing, Social Centres, etc., under the direction of the Senior Architect, Mr. A. L. H. Pratt, B.Arch., A.R.I.B.A. Applicants should be suitably qualified, sympathetic to contemporary design and should have had at least three years' office experience. Experience of Tropical Architecture not essential.

Appointments will be for two tours of 12 to 18 months in the first instance.

The salary scale attached to the post is £1,080 x £50—£1,580, £1,560 x £50—£2,080 per annum plus a gratuity payable at the end of the appointment at the rate of £12 10s. for each month of satisfactory service. The entry point will be fixed according to qualifications and experience.

In addition, children's allowances are paid up to a maximum of three.

Paid leave at the rate of seven days for every month of satisfactory service is granted at the end of each tour, together with free overseas passages.

The College is fully residential and members of staff are housed in pleasant modern bungalows on the spacious campus.

Application forms and an information brochure may be obtained from the Assistant Registrar, Kumasi College of Technology, 29, Tavistock Square, London, W.C.1, who will also be glad to answer any questions about this appointment. The closing date for applications is 31st January, 1961. 5329

EAST SUSSEX COUNTY COUNCIL

Applications are invited for the appointment of a **SENIOR ASSISTANT ARCHITECT**, Grade "A," on the permanent staff of the Architect's Department. The person appointed will be in charge of a section of the Drawing Office staff dealing with a wide range of architectural projects.

Car allowance at casual user's rate will be allowed.

Applications, giving the names of two persons to whom reference may be made, to be sent to the County Architect, County Hall, Lewes, Sussex, by 30th January, 1961. 5331

ARCHITECTS AND MAINTENANCE SURVEYORS. pensionable posts for men and women at least 20 and under 35 on L.S.O. (except 300 for regular forces service. Overseas Civil Service, established civil service and temporary Government service as Architect or Maintenance Surveyor). Candidates must be registered Architects or, alternatively, for Maintenance Surveyor posts, have achieved Corporate Membership of R.I.B.A. (Building Section), or have passed examinations necessary for attaining Corporate Membership. London salary £200—£1,120 according to age, rising to £1,300. Promotion prospects. Write Civil Service Commission, 17, North Audley Street, London, W.1, for application form quoting S/60-01. 5327

CUMBERLAND COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the appointment of **ASSISTANT ARCHITECTS** within A.P.T. Grade IV (£1,140 x £55 (2) x £60—£1,310). Commencing salary according to ability and experience. Housing accommodation may be available. Posts pensionable. N.J.U. Service Conditions.

Applicants must be A.R.I.B.A. preferably with Schools experience, and handling of large contracts.

Application forms and further particulars obtainable from D. W. Dickenson, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, to whom completed applications should be returned not later than Monday, 13th February, 1961. 5327

G. N. C. SWIFT,
Clerk of the County Council. 5330

MIDLOTHIAN COUNTY COUNCIL invite applications for the post of **ASSISTANT ARCHITECT (QUALIFIED)** on the Scale £850—£1,150. Applicants should hold A.R.I.B.A. Applications, giving details of previous experience and naming two referees, to The County Clerk, County Buildings, George IV Bridge, Edinburgh, 1, as soon as possible, quoting reference RC/3/1961. 5273

MIDDLESBROUGH C.B.C. MAJOR EXTENSIONS OF CONSTANTINE TECHNICAL COLLEGE

APPOINTMENT OF PRIVATE ARCHITECTS. Architects in private practice with experience in the design and planning of technical colleges or similar institutions are invited to submit their names for consideration in connection with the appointment of Architects for the erection of major extensions to the Constantine Technical College, and the adaptation of the existing premises. The net area of accommodation to be provided in new work will amount to about 150,000 sq. ft.

Further particulars may be obtained from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom names should be submitted by Friday, 3rd February, 1961. 5373

MIDDLESBROUGH C.B.C. Applications are invited for the following appointments in the office of the Education Architect (K. J. Caton, A.R.I.B.A.).

Middlesbrough has a large and continuing educational building programme offering scope in interesting projects.

Appointments will be made within the grades indicated, subject to qualifications and experience.

(a) **CHIEF ASSISTANT ARCHITECT**, J.N.C. Grade B, £1,425—£1,570.

Will deputise for the Education Architect, must have had some years of experience in handling educational work and staff, and hold the A.R.I.B.A.

(b) **PRINCIPAL ASSISTANT ARCHITECT**, J.N.C. Grade A, £1,310—£1,565.

Preferably well experienced in handling educational work and controlling jobs. Must hold the A.R.I.B.A.

Housing accommodation will be considered for married applicants for both posts.

Application forms and particulars from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom completed forms should be returned as soon as possible. 5374

CITY AND ROYAL BURGH OF DUNFERMLINE

A **SENIOR ASSISTANT ARCHITECT** (A.R.I.B.A.) is required for programme of Traditional Housing, re-development, and Public Buildings in the office of the Burgh Architect, Dunfermline. Salary within the range £900 to £1,200 with placing according to experience.

Unqualified Assistants may be considered on a special scale of £815 to £1,055, provided they have the necessary experience.

The post is supernumerary, and assistance may be given with housing.

Detailed applications, giving names of referees, should be submitted to the Burgh Architect, 6, Abbot Street, Dunfermline, within seven days from this date.

J. DOUGLAS,
Town Clerk. 5372

City Chambers, Dunfermline.

COUNTY BOROUGH OF EASTBOURNE ASSISTANT ARCHITECT

Grade APT 3/4, £960/£1,310 p.a.

Applications are invited for the above appointment from persons who have passed the R.I.B.A. Final Examination.

Housing accommodation will be provided if required.

Full particulars of age, present position and salary, qualifications and experience, together with the names of two referees, to be sent to the undersigned not later than the 31st January, 1961.

R. WILLIAMS, B.Sc., A.M.C.E.,
Borough Engineer and Surveyor. 5371

2/4 Saffrons Road, Eastbourne, Sussex. 12th January, 1961.

MIDLOTHIAN COUNTY COUNCIL invite applications for the posts of **ARCHITECTURAL ASSISTANTS (UNQUALIFIED)** on the Scale £915—£1,055. Applications, giving details of previous experience and naming two referees, to The County Clerk, County Buildings, George IV Bridge, Edinburgh, 1, as soon as possible—quoting reference RC/2/1961. 5272

Architectural Appointments Vacant

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

HOWARD V. LOBB & PARTNERS require **ASSISTANT ARCHITECTS**. Salaries would be between £750 and £1,250 per year. Please write to 20, Gower Street, London, W.C.1. 3649

RONALD WARD AND PARTNERS invite applications from **ARCHITECTS**, Senior and Junior. Long-term prospects. Scope for initiative and responsibility in interesting commercial, industrial and civic projects in British Isles, West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension and Life Insurance schemes. Five-day week. Pleasant offices. Apply 29, Chesham Place, Belgrave Square, London, S.W.1. Tel.: BELGRAVIA 3361. 2969

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

ARCHITECTURAL ASSISTANTS, to Intermediate standard or above, required in Wimbledon office for interesting work U.K. and overseas. Five-day week; no travelling to town. Apply J. E. K. Harrison, F.R.I.B.A., Eagle House, Wimbledon, S.W.19, or phone WIM. 4244. 5209

ARCHITECTURAL ASSISTANT wanted for appointment in Exeter. Experience of conversion and modernisation of property an advantage. Starting salary within range £900 to £1,100. Apply Box 5337.

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BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 1, Fitzroy Square, W.1. stating experience and salary required. 954

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

£1,000 /£2,500 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.

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

SIR JOHN BURNET, TAIT & PARTNERS have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries ranging from £1,000 to £1,500 per annum. Luncheon vouchers. Pension and Medical schemes (non-contributory). Telephone LANGHAM 3826 for appointment. 2113

SENIOR ASSISTANTS required immediately. Salary by arrangement. Theo. H. Birks, 38, Portland Place, London, W.1. LAN 7236. 1486

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

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

EXPERIENCED ARCHITECTURAL ASSISTANT required for busy West End office. General practice but mainly office and commercial projects. Bernard Gold & Partners, 4/5, Savile Row, W.1. REGENT 7551. 3742

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

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

BOISSEVAIN & OSMOND require the following staff for their head office in Epsom to work on interesting major projects. Intermediate ASSISTANTS and qualified ARCHITECTS (all grades required). This is a growing practice with excellent working conditions providing an opportunity for men with initiative. Salary scales are generous and in accordance with ability and experience. Please write to Kingshade Walk, Epsom, Surrey. 4123

ARCHITECT required by Development Company to take charge of a number of large scale housing developments in North Wales. Preference will be given to applicants who have had experience of this type of work. The Company operate a non-contributory pension scheme and a car will be provided. Assistance will be given to providing accommodation, if required. Please write stating age, salary required, to Chief Architect, Banting Estates Ltd., 73 Acre Lane, London, S.W.2. 5369

COLCHESTER, ESSEX. ARCHITECTURAL ASSISTANT with some office experience and about Intermediate standard required for a small practice doing more than a fair share of interesting work. Please write giving details of experience and attitudes to Bryan K. Thomas, 97 Lexden Road, Colchester. 5336

A VACANCY occurs in the West End Branch of large provincial Architectural Practice, for an ASSISTANT at Intermediate standard. The post offers considerable scope on varied projects. Five-day week. Luncheon Vouchers. Write giving particulars of age, experience and salary required to Box 4125.

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

INTERMEDIATE to **FINAL STANDARD.**

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

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

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

STOP THAT COMMUTING! TO ARCHITECTS in West Sussex we offer work on a wide variety of West African projects, prospects of service abroad, and £1,000 per annum. Apply in writing to Technic, Architects and Town Planners, 38 Sudley Road, Bognor Regis. 4698

SENIOR ASSISTANT required by Architects in West End to deal with the administration of building contracts. Salary £20-£25 per week. Reply Box 4785.

ARCHITECTURAL ASSISTANTS required for busy London practice with interesting and varied work such as Power Stations, Schools, Offices, Churches, etc. Salary from £700-£1,100, depending on qualifications and experience, plus luncheon vouchers. Please write, giving full details, to Box 4864.

LOUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON AND FLASER require competent ASSISTANTS; good salaries will be offered to suitable applicants. Applications giving details of age, training and experience should be sent to 12 Baring Crescent, Exeter. 5065

SCHERRER AND HICKS, 19 Cavendish Square, W.1. require ARCHITECTURAL ASSISTANTS of Intermediate standard with some office experience. Interesting work on school projects. 5-day week. L.V.s. 5105

SCHERRER AND HICKS, 19 Cavendish Square, W.1. require recently qualified ARCHITECT with some office experience. Interesting work on school projects. 5-day week. L.V.s. 5106

EDWARD D. MILLS & PARTNERS require additional staff at varying levels for a variety of new work including housing, schools, industrial and churches. Enthusiasm and initiative important. Five day week. Write giving full details to 9-11 Richmond Buildings, Dean Street, London, W.1. 5107

ASSISTANT required Intermediate to Final Standard. Five day week. Write with full particulars to Reginald H. Gallanough & Partners, 54 Queen Anne Street, London, W.1. 5086

SCHERRER AND HICKS, 60, Spring Gardens, Manchester 2. require recently qualified ARCHITECT with some office experience. Interesting work on school projects. Five-day week. L.V.s. 4994

SCHERRER AND HICKS, 60, Spring Gardens, Manchester 2. require ARCHITECTURAL ASSISTANTS of Intermediate standard with some office experience. Interesting work on school projects. Five-day week. L.V.s. 4995

CROYDON. Varied and interesting experience offered in non-competitive and growing practice to experienced ASSISTANT and JUNIOR. Five-day week. Please write or telephone. T. A. Macintosh & Haines A/R.I.B.A., 35-35 High Street, Croydon. CRO 5780/9992. 4824

NORTH & PARTNERS, Chartered Architects, Maidenhead, require experienced ARCHITECTURAL ASSISTANTS—salary range £500-£1,150—pension scheme operating. 5011

PATRICK GYNNNE requires SENIOR ASSISTANT to work on important private houses and interiors. The Homewood, Esher, Surrey. Esher 3310. 4539

PLAYNE & LAKEY require experienced and enthusiastic ARCHITECTURAL ASSISTANTS. Salary range £900-£1,050. Write 19 Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2552 for interview. 4569

ASSISTANT required to carry out medium size projects under supervision but with scope for initiative. Preferably used to commercial or school work. Excellent prospects. Box 4314. 4569

£850-£1,400. ARCHITECTURAL ASSISTANTS with imagination and design ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingway, W.C.2. HOLBORN 4071. 4534

£1,250 P.A. MIN. to suitable ARCHITECTURAL ASSISTANT with not less than five years' experience, to assist in general practice administration and to run jobs on own initiative. Required immediately. Raymond Spratley & Partners, 9, Hertford Street, Park Lane, W.1. GRO. 1532. 4536

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. 4543

£800-£1,500 MALE OR FEMALE ASSISTANTS required by Architect's Department of rapidly expanding Development Company with new offices at Walton-on-Thames with all the advantages of freedom in design and detailing of economical buildings of all types. Please phone G. W. Mills, A.R.I.B.A., Walton-on-Thames 25311. 4541

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.13. PAL 1186/7. 4548

ARCHITECTURAL ASSISTANT required in busy West End office. Good salary and prospects for keen and energetic young man. Apply in writing to Maurice Sanders Associates, 24, Harley Street, W.1. 4550

SOUTHAMPTON—ASSISTANT of Intermediate standard required for interesting contracts in the Southern Counties. Apply with details of any previous office experience and required salary to E. M. Galloway & Partners, F.A.R.I.B.A., 18, Portland Street, Southampton. 4866

YOUNG partners with expanding varied practice require qualified ASSISTANT ARCHITECT, aged 30-35. Must be experienced in private practice, competent and confident, able to control staff and contracts. Salary £1,000 to £1,200 for the right man. Private office provided. Reply stating age, qualifications, experience and present salary to Silverton & Walton, A/R.I.B.A., Dip. Arch., 16 Weston Road, Southend-on-Sea, Essex. Mark envelope "Staff—Private & Confidential." 5094

ERNO GOLDFINGER requires several qualified ASSISTANTS with at least 2 years' experience to take part in a growing programme of interesting work which includes large office buildings, central developments. Local Authority housing, schools and private houses. Good salaries and scope for men with sound knowledge of construction. Phone HYDE Park 5657. 5094

EXPERIENCED ASSISTANTS required for work on major schemes, able to take initiative and responsibility. Bonus, pension and life assurance schemes. Salary according to experience and ability. Full particulars to Hatfield Cawkwell & Davidson, 17, Broomgrove Road, Sheffield, 10. 5048

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon Office. Would have full charge of branch office. Box 5019. 5048

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fireplaces

surrounds

skirtings

stairtreads

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**TODAY'S
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AND
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WINCLATE**

GOLLINS, MELVIN, WARD & PARTNERS HAVE VACANCIES FOR STAFF INTERESTED IN THE DESIGN OF HOSPITALS AND EDUCATIONAL BUILDINGS. FIVE-DAY WEEK. PENSION SCHEME. QUARTERLY BONUSES. TELEPHONE WELBECK 9991. 5026

SENIOR ARCHITECTURAL ASSISTANTS required in London Office of expanding group of companies, for work on interesting industrial projects and shop modernisation. Permanent appointments, attractive pension scheme, excellent facilities. Salaries commensurate with experience. Apply in confidence, Box 5026.

COLWYN BAY.—Lingard & Associates require ARCHITECTS. Commencing salaries around £1,000. School trained with a few years of office experience. Completely contemporary work. 90, Conway Road, Colwyn Bay 2838. 5175

BRISTOL Architects with small, informal but hectic office require JUNIOR ASSISTANT with some experience, prepared to work hard and use initiative in return for good salary and a minimum of messing about by the partners. Beckingsale & Partners, 36, Whiteladies Road, Bristol, 8. 5211

WE have just a few places left to fill in our new office for Senior and Intermediate ASSISTANTS. We are looking for one or two more really good people—at really good salaries. Our staff share the responsibility and profits of an enormous range of interesting work. Write ref. KAM or 'phone HUN. 1711 for an appointment to see the office and meet people and for details of current work and our Associateship and Pension Schemes. Beard, Bennett, Wilkins & Partners, 101, Baker Street, London, W.1. 5212

ARCHITECTURAL ASSISTANTS of all grades required by the Architects Department of a Major Building Company based upon Liverpool. The successful applicants will join the groups responsible for the design and development of multi-storey offices and flats, housing, shops and industrial buildings. Applications with full particulars and salary desired to Box No. F917, Lee & Nightingale, Liverpool. 5229

ARCHITECTS with extensive general practice (Churches, Hospitals, Schools, Flats, Commercial and Industrial) require experienced ASSISTANTS, post-Intermediate level or recently qualified. Ivor Day & O'Brien, 9, Clare Street, Bristol, 1. 5231

TRAVEL against THE RAT RACE. ASSIN-TANT required in North London Office to work on Airline Sales Offices, Exhibitions and Schools Woman, with experience of interior work, preferred. Should be qualified or about to qualify R.I.B.A. 'Phone BAR. 7394/5 or write S. S. and de S. Hollybush, Hadley Green, Barnet. 5243

FARMER AND DARK require ASSISTANT ARCHITECTS

with some office experience, initiative and ability. Varied work. Apply Romney House, Tuffon Street, S.W.1. Tel: ARREY 6311. 5204

RICHARD SHEPPARD, ROBSON & PARTNERS require ASSISTANTS of Intermediate and Final standard. Initial salary range £750-£1,000 according to ability. 5, Southampton Place, W.C.1. CHANCERY 4261. 5181

SENIOR ASSISTANT required by City Architects. Varied and interesting work. Generous salary and bonus. Five-day week. Vigers & Co., 4, Frederick's Place, Old Jewry, E.C.2. 5188

ASSISTANT required in City Office. Intermediate standard. Good salary and bonus. Five-day week. Vigers & Co., 4, Frederick's Place, Old Jewry, E.C.2. 5189

OLDHAM firm of Chartered Surveyors require ARCHITECTURAL ASSISTANT (Intermediate standard). Salary commensurate with capabilities. Apply to Box 5195.

ARCHITECTURAL ASSISTANT, experienced and preferably qualified for interesting and varied work. Speed, clarity and ability to take responsibility will earn good salary. Five-day week. Staff pension scheme. Hallberg and Harris, P.F.R.I.B.A., 13, Queen Victoria Road, Coventry. 5196

ARCHITECTURAL ASSISTANTS required for interesting work including schools and hospitals, in Croydon office. Commencing salaries offered: £900-£1,150 for Associates. £600-£750 for students, according to age and experience. Five-day week and annual bonus. Write to George Lowe & Partner, 79, George Street, Croydon. 5197

REQUIRED immediately, experienced ARCHITECTURAL ASSISTANT for progressive office in Exeter. Five-day week, minimum restrictions and good salary for applicant with initiative and sense of responsibility. Apply Box 5199.

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

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EXPERIENCED ARCHITECTS for DESIGN work on varying projects of considerable size and interest covering Domestic, Industrial and Commercial Buildings. Permanent and progressive appointments with commencing salaries up to £1,650 per annum for five-day week in West London. Please write in confidence to Box 5226.

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REQUIRED: A.R.I.B.A., not less than five years' office experience, and GENERAL ASSISTANTS—Intermediate standard. Good opportunity in expanding office, interesting variety of work. Evening interviews if required. Write or 'phone: George E. Clay & Partners, A/R.I.B.A., 198, Parrock Street, Gravesend, Kent (Gravesend 1401/2.) 5207

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

£850-£1,600 Experienced ARCHITECTS and ASSISTANTS able to keep on top of Church and School projects up to £200,000 at all stages required for NEW OFFICE opening shortly in HARROGATE/YORK area. 5 day week, pension and bonus schemes. Box 5214.

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Applications are invited from fully qualified architects of good training and experience, capable of handling all aspects of the design and development of new building projects.

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Applications in confidence stating age, qualifications, experience and salary required, to be addressed for the personal attention of:

D. W. Shepherd, F.I.O.B.,
Technical Director,
F. SHEPHERD & SON LTD.,
Building and Civil Engineering Contractors,
Blue Bridge Lane, York. 5210

ASSISTANTS required in Brewery Architects & Surveyors Department for work in connexion with Industrial and Administrative buildings.

(a) SENIOR ASSISTANT ARCHITECT
Salary Range £1,050/£1,320.
(b) ARCHITECTURAL ASSISTANT
Salary Range £900/£1,155
Five day week, pension scheme, luncheon allowance and annual bonus at present in operation. Applicant's age not to exceed 45—to apply in writing stating past and present appointments and experience to S. Hutchings, A.R.I.B.A., Brewery Architect & Surveyor, Watney Combe Reid & Co. Ltd., The Brewery, Mortlake, S.W.14. 5241

WIMPEY

AN expanding programme of work in the Architect's Department offers ARCHITECTS and ASSISTANTS with experience and ability good opportunities to work as Project Architects and Leaders of design and construction groups on work covering various types of Industrial, Commercial and Domestic Projects of considerable size and interest.

Permanent appointments with good progressive salaries for the right men are immediately available at Head Office.

Five day week. Pension Scheme available. Similar appointments are also available in our Regional Offices for applicants preferring to work in the Midlands or North of England areas.

Applicants should write to:—GEORGE WIMPEY & CO. LIMITED (E. V. Collins, Chief Architect), 27, Hammersmith Grove, London, W.6. 5226

SENIOR ASSISTANT ARCHITECT required for Cardiff Office. Applicants to give full particulars including qualifications, past experience and salary required, to: F. G. Bruton & Mace, 31, Cathedral Road, Cardiff. 5206

EXPERIENCED ARCHITECTURAL ASSISTANTS required for our offices in Manchester, Sheffield and Warrington. Wide range of interesting projects, including University buildings, large Departmental Stores, Factories, Hospitals, Hotels, etc. The positions are permanent and progressive, with 5 weeks annual holiday and 5 day week. Pension and Life Assurance Scheme, and annual bonus. Commencing salary £1,000 p.a. Write or telephone for an appointment to: J. W. Beaumont & Sons, 51, Mosley Street, Manchester, 2. Telephone No. Manchester Central 0992/4. 5244

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

SENIOR ARCHITECTURAL ASSISTANT. Vacancy occurs in leading Bristol Office engaged in highly interesting projects. Applicant must possess initiative and be thoroughly conversant with supervision in addition to being first-class in design and details. The position offered covers the use of a car and inclusion in a Non-Contributory Pensions Scheme. Apply with full details of experience, etc., and indication of salary required to: Alec F. French, Esq., F.R.I.B.A., Pearl Assurance House, Queen Square, Bristol, 1. 5169

SENIOR ARCHITECTURAL ASSISTANT, age 25-30, required in the Design and Development Section of the manufacturers of "Middlesex" Prefabricated Timber Buildings. Applicants must be of Finals standard, preferably with experience in joinery. Bright prospects for the future, friendly atmosphere, good salary, pension scheme, etc. Applications in writing to: K. R. Powell, A.R.I.B.A., J. E. Lesser & Sons Ltd., Green Lane, Hounslow, Middlesex. 5160

ASSISTANT ARCHITECTS required by Kenneth Lindy & Partners. Good salaries, varied practice. Every opportunity for initiative and responsibility. 24, St. Mary Axe, E.C.3, or telephone Avenue 6153. 5144

INTERMEDIATE ASSISTANTS required by Leslie Goodday for architecture and exhibition work. Apply REL. 5221/2. 5146

SENIOR and JUNIOR ASSISTANTS required in busy progressive office in West Surrey. Good prospects for the right men. Salary according to ability. Please reply to Box 5131.

INTERMEDIATE STANDARD ASSISTANTS required to work with qualified seniors on a number of interesting jobs in and out of London. Good draughtsmanship, sensitive 'fe'alling and some experience are sought and will be paid for. Write, stating age and experience, to David Stern & Partners, 24, Gloucester Place, London, W.1. 5151

£1,150-£1,400 SALARIES in this range paid to capable and experienced SENIOR ASSISTANTS.

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ARCHITECTURAL ASSISTANT required, with good general experience for varied work mainly industrial and commercial. Write, giving experience and salary required, to Howell, Freeman & Batten, Chartered Architects, Reading. 5134

ST. ALBANS, HERTS.—Established firm of Architects with varied and growing practice require ASSISTANT, Intermediate standard or higher. Details of age, experience, salary required. 'Phone or write: Herbert Cox & Gear, 2, Harpenden Road, St. Albans. Tel.: 54367. 5125

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

ARCHITECTURAL ASSISTANT required by established firm of Surveyors in Romford. Should have passed Intermediate R.I.B.A. and had good experience of multi-storey flat development, shops and offices. Superannuation scheme. Write Box 5119, stating details and salary required.

MANCHESTER Firm of Contractors and Developers requires ARCHITECTURAL ASSISTANT with Intermediate R.I.B.A. to work under Chief Architect. Very interesting work comprising high density flat developments, commercial projects, link-housing etc. Wide scope and good salary for Assistant who can take responsibility, use his initiative and put lots of ingenious ideas into practice. Apply to: Needox Developments Ltd., Atlantic Chambers, Brackenstone Street, Manchester, 2. 5308

MC MANUS, ARCHITECTURAL ASSISTANTS or about Intermediate standard are invited to apply for positions in the Architect's Department of a Property and Housing Estate Development Company operating on an ever increasing national scale. Work in hand includes offices, shops and housing. Some experience of estate layout work would be advantageous. Pleasant accommodation in new head office building. Please apply with brief details of experience to: **McManus & Co. Ltd.**, Orchard House, Orchard Parade, Potters Bar, Middx., or telephone Potters Bar 2315, Ext. 22, for appointment. 5300

GOTCH, SAUNDERS AND SURBRIDGE of Kettering and Corby require **ARCHITECTURAL ASSISTANTS** of Intermediate standard for interesting projects, requiring initiative. Write to: Bank Chambers, Kettering. 5309

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

BRISTOL Intermediate standard **ASSISTANT** with some experience needed urgently by small busy office with varied practice. Salary up to £550 for right person. Alexander Beckingsale & Partners, 36 Whiteladies Road, Bristol, 2. 5305

ARCHITECT required by **THM**, industrial designers, to co-ordinate interior design projects. He must have had good commercial experience, be competent in running a drawing office and of liaison with clients. Age not under 30, good salary according to experience. Write to **THM**, 48 Dover Street, W.1, giving details. 5301

ARCHITECTS of Associatehip or Final standard with a minimum of five years' office experience required to form nucleus of expanding Group working on industrial, commercial and development projects throughout the British Isles. Successful applicants will be in charge of sections and will be responsible for the preparation of sketch schemes, working drawings, etc., and the supervision of contracts. 5302

ASSISTANTS of Intermediate R.I.B.A. standard with office experience to work on the preparation of working drawings and details from sketch design stage, and generally assist in the smooth running and administration of the various projects. 5303

Posts are permanent and carry a contributory superannuation benefit. Five-day week and canteen facilities. Applications in writing to **P. A. Smith, Technical Manager**, Lowton Construction Company, Limited, Lowton-St. Mary's, Warrington, Lancs. Tel. Leigh 73121. 5277

ARCHITECTURAL ASSISTANTS required by **Morrison, Rose & Partners**. Varied and interesting work. Architects with initiative who require responsibility apply to 4 Wimpole Street, W.1. Tel. Langham 8061/5. 5270

THREE Intermediate standard **ARCHITECTS** growing practice. Interesting, varied and responsible work on schools and churches. Good salary paid to right men. Apply giving details of training and experience to **F. G. Broadbent & Partners**, 13, Manchester Square, London, W.1. 5274

COVELL & MATTHEWS have immediate vacancies for **SENIOR ARCHITECTS** and **ASSISTANTS**. Please phone REGent 3651/2 for appointment. 5275

ARCHITECTURAL ASSISTANTS of all grades urgently required. Salaries by arrangement. Bonus, Pension Schemes in operation. Schools, industrial, commercial, hospital and domestic work. Write to **Firth, Son & Blackburn, A.A.R.I.B.A.**, Broadway House, Crickendish Lane, Dewsbury. 5279

BIRMINGHAM. We need a young **ARCHITECT**, either qualified or in training, with a good sense for clean and straightforward design. There is plenty of scope for the right man. Top salary according to experience. Apply: **J. Alfred Harper & Son**, 63 Temple Row, Birmingham. 5280

BRYAN & NORMAN WESTWOOD & PARTNERS require **ARCHITECTS** and **ASSISTANTS**. Salaries up to £1,200. Apply to 21 Suffolk Street, S.W.1, Trafalgar 1106, or 5 Balfour Road, Westbridge, Surrey. 6088. 5281

A FURTHER ASSOCIATE PARTNER is required by a well-known firm of architects, West End. Six months trial as senior assistant. Apply with full particulars of education, qualifications and experience, and state salary required. Box 5282. 5282

LIVERPOOL CATHEDRAL. Frederick Gibberd requires experienced **ASSISTANT** to work on Liverpool Cathedral. Salary up to £1,250. Apply in writing to 8 Percy Street, London, W.1. 5283

£800-£2,000 COMPETENT ARCHITECT or **SENIOR ASSISTANT** able to take charge of large variety of contracts in young progressive office. Present-day design outlook is essential coupled with sound constructional experience. Limitless opportunity for right man. Box 5352. 5352

CROYDON Architects need Intermediate and qualified **ASSISTANTS**. Please write for appointment giving details of experience. **Graham Crump & Denis Crump, F.A.R.I.B.A.**, 43, George Street, Croydon. 5365

SENIOR OR JUNIOR ARCHITECTURAL ASSISTANT, male or female, required by national group of Building and Civil Engineering Contractors at Head Office situated in Westminster. Interesting and varied work. Staff position with Pension and Life Insurance benefits. Write giving particulars of age, qualifications, experience, etc., to box 5363. 5363

CHIEF ARCHITECT of Expanding Architects Department of established Building and Development Company requires **SENIOR ARCHITECTURAL ASSISTANTS** at new headquarters building in Balg, for work on industrial and commercial projects. Keenness and experience essential. Good salaries paid. Five-day week. London vouchers. Pension scheme available. Please state age, experience and salary required to Box 5361. 5361

WILLIAM HOLFORD & PARTNERS (City Office) require **ARCHITECTURAL ASSISTANT** of Intermediate/Final standard, office experience an advantage. Varied programme of work including university buildings. Five-day week, luncheon vouchers and pension scheme in operation. Salary £750 to £1,000 according to experience and ability. Write giving full details to **Adelaide House**, London Bridge, E.C.4. (Tel.: MINcing 7387). 5359

ARCHITECTURAL ASSISTANT required for Country Practice engaged on new and restoration work to houses, churches, schools, offices and industrial buildings, etc. Salary range £600 to £1,000. **G. Forsyth Lawson & Partners**, 30, Horse Fair, Banbury, Oxon. 5358

EXPERIENCED ASSISTANT ARCHITECT required for newly opened Bournemouth Office. Must be competent designer and administrator. Interesting varied work, five-day week, luncheon vouchers, £900-£1,200 p.a. according to experience and ability. Write: **Gotch & Partners**, 29, Richmond Hill, Bournemouth. Phone: Bournemouth 20337/8. 5355

SENIOR ARCHITECTURAL ASSISTANT required for responsible and varied work on large scale development schemes and high buildings in London. Write or telephone **Collett & Hamp**, 86, Prince Albert Road, Regents Park, N.W.8. PRImrose 5157. 5356

£850-£1,200. ASSISTANTS and **ASSISTANT ARCHITECTS** required within this salary range for work on schools and universities. Qualification in landscape architecture an advantage which would affect salary. Large progressive office offering outstanding opportunities for people of ability, both at home and overseas. Excellent working conditions, five-day week, three weeks' annual leave, lunch vouchers, bonus scheme and generous sick pay provision. Write or telephone **Norman & Dawbarn, Architects & Consulting Engineers**, 7, Portland Place, London, W.1. LANGham 8011. 5345

POWELL AND MOYA need several enthusiastic **ASSISTANTS** to work on new major general hospitals. These large schemes offer many interesting opportunities. For assistants of Intermediate standard, good general experience can be gained of buildings requiring a high standard of detailing and finish. For qualified assistants and those of Final standard, there is the challenge of resolving complex and developing requirements into a humane architectural solution. If you are interested please write to 35 Great Smith Street, London, S.W.1, or telephone Abbey 3156. 5342

JUNIOR ARCHITECTURAL ASSISTANTS required to work in team on University work, contemporary houses, small blocks of flats, Golf Club House, etc. Applicants should be either at Intermediate standard or beginners. Salary according to age and experience. Mondays to Fridays only. Staff Dining Room. Apply Box No. G 1036, c/o Whites, 72, Fleet Street, London, E.C.4. 5339

EXPERIENCED ASSISTANT ARCHITECTS required. City Office. Salaries to £1,450 per annum. Varied interesting practice. Every opportunity for responsibility and initiative. Box 5340. 5340

SENIOR ASSISTANT ARCHITECT with office experience required for contemporary architect in private practice, now engaged on Hospital scheme, Newspaper Office, Flats and Houses. Hours 9.30 to 5.30 (Monday to Friday). Salary: £1,000-£1,250. Ring: CUNningham 3384/5. 5343

JUNIOR ARCHITECTURAL ASSISTANT up to Intermediate standard required for contemporary architect in private practice, now engaged on Hospital scheme, Newspaper Office, Flats and Houses. Hours 9.30 to 5.30 (Monday to Friday). Salary: £650-£700. Ring: CUNningham 3384/5. 5344

COMPETENT ASSISTANT or DESIGNER required for specialist work in shopfitting and interior design contracts including fittings and furniture in addition to general architectural practice. **Victor Bloom & Partners**, 12 Gloucester Place, London, W.1. HUNTER 2069. 5350

ASSISTANT, male, for Premises Department, must be willing to travel in the provinces and be able to prepare schemes, specifications, carry out surveys and be a good draughtsman. Knowledge of shopfront design an advantage. Good commencing salary with pension plan. Please write giving fullest particulars of age, experience, etc., to Personnel Manager, The National Cash Register Co. Ltd., 206-216, Marlybone Road, London, N.W.1. 5364

OPPORTUNITY for young **ARCHITECTS** (Intermediate or qualified) to participate in designing and building large projects of great variety, in Central or East London offices of large practice. Sound knowledge of modern design and real ability in draughtsmanship essential. Generous salaries for suitable men. Box 5301. 5301

ARCHITECTURAL ASSISTANTS urgently required for a small but growing London practice. Church, Office and domestic work. Please write or phone to **Ernest W. Danfield & Son, F.R.I.B.A.**, 28 Mortimer Street, W.1. MUn 0175. 5284

WILLIAM HOLFORD & PARTNERS require a **SENIOR ASSISTANT ARCHITECT** in their 14, Harley Street office. Salary according to experience, bonus and non-contributory pension scheme. Telephone Museum 6363. 5294

ARCHITECTS in London have vacancies for a **SENIOR** and **JUNIOR ASSISTANTS** to work on the design of a wide variety of interesting projects and co-operating, when necessary, with the firm's engineering department, modern offices. Five-day week. Non-contributory pension and life assurance schemes. Salaries according to qualifications, experience and age. Apply with full particulars to Box 5299. 5299

ARCHITECTS, male and female, interested in a change of work and environment would find it worth the few minutes required to make an enquiry and fix an appointment about vacancies in a large London City Office. Excellent salaries, L.V.s and pension. Box 5296. 5296

LEY COLBECK & PARTNERS, F.R.I.B.A., require **ARCHITECTS** for interesting new projects. Good salaries, L.V.s and Pension. 51, Bishopsgate, London, E.C.2, or telephone LON. 3830. 5297

QUALIFIED ASSISTANT required by London firm to work in their Nigerian office. Varied and interesting projects, good salary, pleasant location and conditions. Apply: **J. E. K. Harrison, F.R.I.B.A.**, Eagle House, High Street, Wimbledon, S.W.19. Tel. WIM 4244. 5298

ARCHITECTS with offices in Enfield, Middlesex, require **SENIOR ASSISTANT** and **INTERMEDIATE ASSISTANT**. Wide and interesting range of work available without the tedium and expense of travelling to town. Practice established over 25 years. Projects in hand include hospital, industrial, domestic and commercial schemes. Five-day week. Three weeks' annual leave. Write giving full details of training experience and salary required to: **L. William Palmer & Partners, Chartered Architects**, 8 The Town, Enfield, Middlesex. 5333

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Superannuation scheme. Five-day week. Luncheon Vouchers. Good salaries and excellent working conditions. Apply to Chippindale & Edmondson, Chartered Architects, Empire House, Piccadilly, Bradford giving full particulars and endorsing the envelope "Private-Staff." 5320

ARCHITECTURAL ASSISTANT required for Architect Department of large retail department store group. Starting pay in the range £1,000, £1,250 according to qualifications and experience. All workers are Partners and share all profits, with good holidays, sick pay, shopping discount, subsidised meals and non-contributory pension scheme. Interesting and varied work embracing design of modern Supermarkets, Department Stores, Factories and Private Houses. Apply giving full details to Director of Personnel, **John Lewis & Co. Ltd.**, Oxford Street, London, W.1. 5324

EXETER. **ASSISTANT**, Intermediate standard or above required for growing and progressive practice. **John Radford, A.R.I.B.A.**, 14, Southernhay West, Exeter. Telephone: 59237/8. 5311

BAILEY & PIPER, Architects, West Street, Fareham, invite written applications for the following vacancies: (i) **ASSISTANT ARCHITECT**, A.R.I.B.A., £1,000-£1,300 p.a. (ii) **ARCHITECTURAL ASSISTANTS**, Intermediate or Finals standard, £520-£900 p.a. 5313

WOLVERHAMPTON Architects require immediately:—
Qualified and experienced ARCHITECT to fill position of responsibility. Salary £1,000-£1,250, and
ASSISTANTS of Intermediate to Final standard. Salary according to experience.
John Weller & Silvester, 15 King Street, Wolverhampton. 5335

£1,000 P.A. ASSISTANT, qualified or near, required for post; responsibility; country office, 45 miles London. Wide variety of work. Once car available. Super-vision. Box 5317.

LEWELLYN SMITH & WATERS require ASSISTANTS in the following categories: DESIGNERS to prepare and develop sketch designs for every type of work. Imaginative outlook and good sense of detail essential. £1,000-£1,250.

JOB ORGANISERS to take charge of jobs; able to control drawing office and site work and deal with Consultants and Specialists. £1,000-£1,250.

ASSISTANTS interested in working on a wide range of projects. Good opportunities for young men of ability. £700-£1,000. Salaries listed are commencing salaries and there is scope for advancement.

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Write: 103 Old Brompton Road, S.W.7. (KEN 4477). Box 5268

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£900 PLUS. Good opportunity is offered for a **QUANTITY SURVEYOR ASSISTANT** with sound practical knowledge by West End architects. No plan factory but small busy office (convenient to Underground and Railway) where wide experience can be gained with varied work. Five-day week. Please reply with full details to Box 5235.

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ESTABLISHED Architectural practice offers outstanding opportunity for young associates' immediate partnership. Excellent profit-sharing basis, guaranteed income. Applicants only who have ability and drive and are not frightened of hard work. Amalgamation with another existing practice considered. Box 5262.

ARCHITECTURAL ASSISTANT urgently required for interesting and varied projects throughout Somerset. Salary £750-£800 for suitable applicant. Five-day week. Write G. C. Bech & Partners, 6, King Street, Bristol, or phone 23778. Box 5264

ARCHITECTURAL ASSISTANT required by London Property Company, sound knowledge of construction and capable of preparing working drawings. Experience in site surveys an asset. Apply Central & Provincial Properties Limited, 13, New Bridge Street, London, E.C.4. Box 5269

F. W. WOOLWORTH & CO. LIMITED ARCHITECTS' DEPT. KING STREET, DUDLEY WORCS.

WE have a few vacancies for capable ASSISTANTS in our Architects' Dept. for interesting development programme in multiple stores.

Experience in preparation of working drawings and details essential. Good salary and prospects to suitable applicants. The positions are permanent and pensionable. Five-day week, career facilities. Box 5269

ARCHITECTS - youngish, enthusiastic, who do not object to concentrating on working drawings for hospitals and other projects in West Africa - tedious work perhaps, but not, we think, entirely unattractive - are urgently required by William F. Vetter & Kenneth Scott Associates in their London and Lausanne (Switzerland) offices. Ability is the principal qualification but previous office experience will not be counted against anyone. Application should be made by letter to 21, Wimpole Street, London, W.1. Salaries will be subject to agreement but in any case not less than £1,000 p.a. Box 5033

J. DOUGLASS MATHEWS & PARTNERS have several vacancies for ARCHITECTURAL ASSISTANTS. Salary range £700 to £1,000. Group system operated, giving opportunity for taking part in all aspects of work. Graded salary system. Annual bonuses. Pension Scheme. Luncheon vouchers. 3 Ebury Street, London, S.W.1. Box 4175

ARCHITECTS with busy practice in Brighton require ASSISTANTS with practical experience for varied work. Salary up to £750 per annum. Five-day week, pension scheme, etc. Box 5248.

Architectural Appointments Wanted

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

ASSOCIATE 24 years' varied experience, seeks responsible position with prospects or possible partnership. South Coast area preferred. Box 5208.

A. R.I.B.A., age 33, school trained, more than 10 years' experience, at present chief assistant medium-sized office. Published designs. Extensive experience covering design supervision and site works of large industry. Office experience, industrial, university, schools, hotel, housing and development. Requires position with prospective future experience and hard work can be attained. Box 5075.

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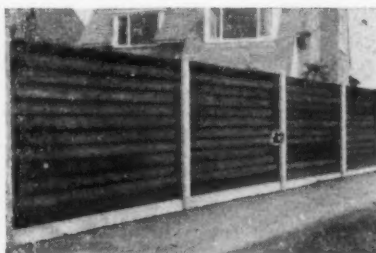
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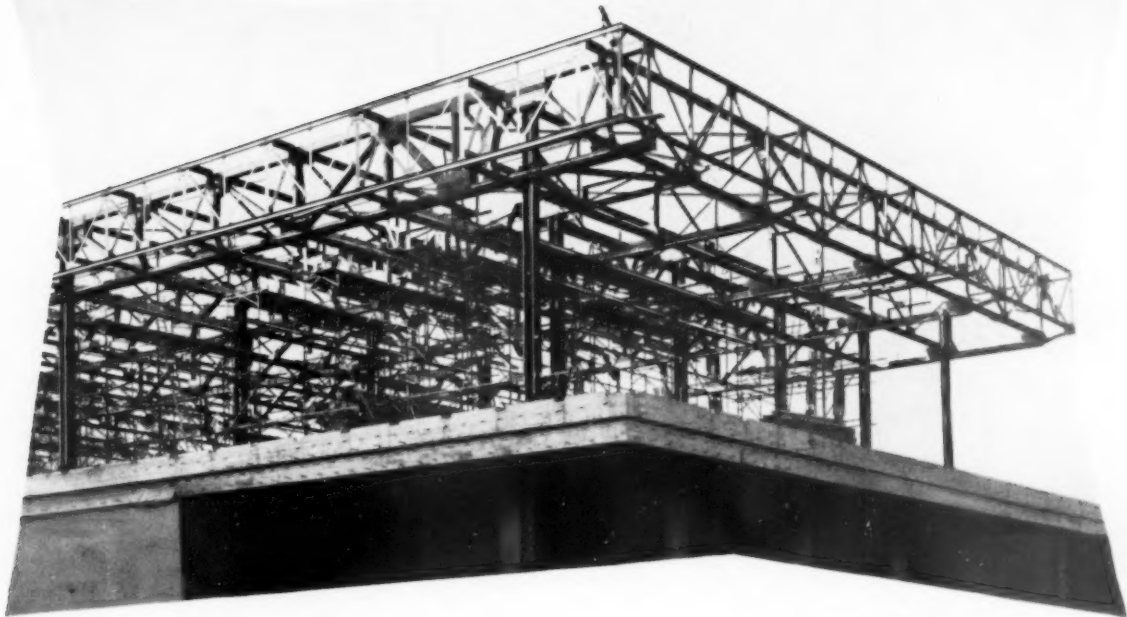
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